Jan. 2, 1940. R. A. SIMPSON 2,185,358

SHOEMAKER'S CLAMP

Filed May 22, 1939

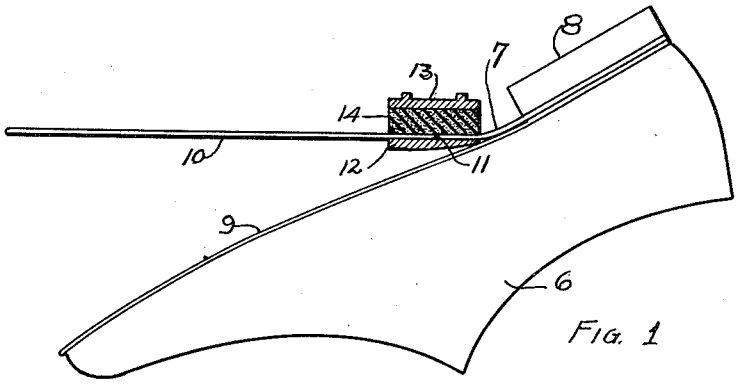



FIG. 1

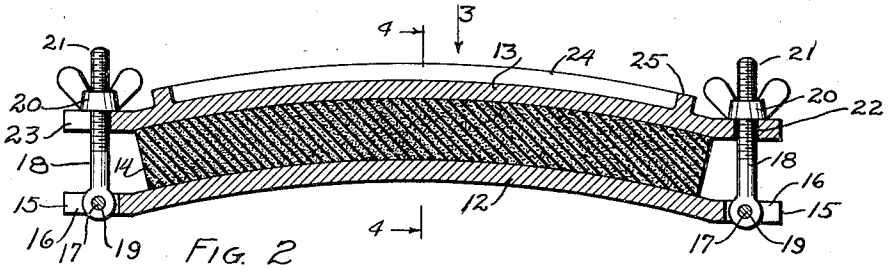



FIG. 2

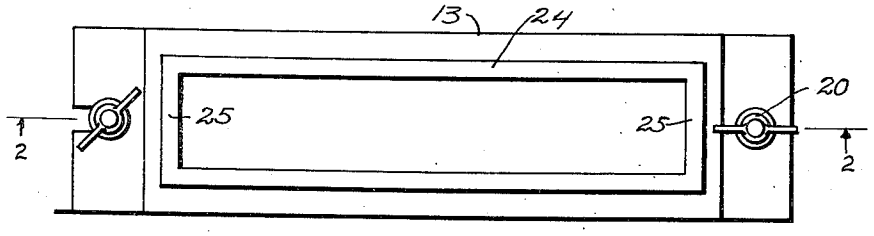



FIG. 3

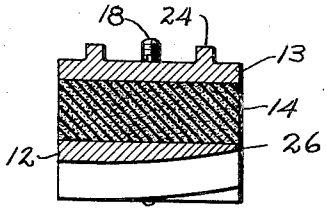



FIG. 4

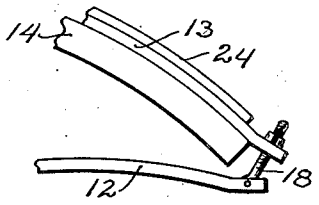



FIG. 5

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## SHOEMAKER'S CLAMP

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2 Claims. (Cl. 12—103)

This invention relates to improvements in clamps for cementing halfsole shanks.

In resoling shoes it is now customary to cement the new halfsole to the shank of the shoe and for this purpose the end of the shank is shaved down to form a tapered surface and the corresponding end of the sole is shaved to form an oppositely inclined surface and these two surfaces are then coated with cement and held in a clamp until the cement dries. Such a halfsole, when properly made and applied, has the appearance of a new sole and is referred to as "invisible halfsole."

For the purpose of holding the shank and the sole in position during the drying period, various clamps have been made and are on the market. All clamps for this purpose of which I have any knowledge, are large clamps or presses that require the shoe to be attached and held during the drying operation in such a way that the shoemaker cannot work on the shoe during this time.

It is the object of this invention to produce a simple and substantial shoemaker's press or clamp designed to hold the shank and the sole in position while drying and which is of such size and so constructed that the shoemaker can work on the shoe during the drying period, which greatly facilitates the repair job and makes it possible to complete the job in less time than when stationary presses are employed.

The clamp or press which forms the subject of this invention can best be described when reference is had to the accompanying drawing in which it has been illustrated, and in which:

Figure 1 is a side elevation of a shoe showing the press in place and holding the sole and the shank during the drying period of the cement, the press being shown in cross section;

Figure 2 is a longitudinal section taken on line 2—2, Figure 3;

Figure 3 is a top plan view of the clamp, looking in the direction of arrow 3, in Figure 2;

Figure 4 is a transverse section taken on line 4—4, Figure 2; and

Figure 5 is a fragmentary side elevation showing the adjustable hinged connection at one end of the clamp.

In the drawing reference numeral 6 represents a shoe having a shank 7 and a heel 8, while reference numeral 9 designates the welt. In Figure 1 the shoe has been shown as in the process of repair and the new halfsole has been designated by reference numeral 10. The inclined surfaces to which the cement is applied has been designated by reference numeral 11, while reference numeral 12 designates the lower clamp member and 13 the upper clamp member. A sponge rubber cushion 14 is attached to the under surface of the clamp 13.

Referring now more particularly to Figures 2 to 5 in which the clamp has been illustrated to a larger scale than in Figure 1, it will be seen that clamp member 12 is longitudinally concavo convex and that clamp member 13 is correspondingly curved. The ends of member 12, which have been designated by reference numerals 15, extend outwardly so as to lie in a flat plane. The ends 15 are provided with openings 16 through which the pivot pins 17 extend. Bolts 18 having eyes 19 are permanently connected with the clamp member 12 in such a way that they can be turned about the pivot pins 17. Each bolt is provided with a wing nut 20 that is movable along the threaded section 21. Clamp member 13 is provided at the right hand end when viewed as in Figures 2 and 3, with a hole 22 through which the bolt 18 extends. The other end of clamp member 13 has a notch or opening 23 that permits the bolt to be disconnected by an outward movement. The sponge rubber cushion 14 is attached to the concave surface of clamp 13 by cement, or it may be vulcanized in place thereon. Clamp member 13 is provided on its upper surface with strengthening ribs 24 that extend from one end to the other and these are connected by transverse ribs 25. When the clamp is to be opened, the bolt at the lefthand end in Figure 2 is swung outwardly, whereupon member 13 can be moved upwardly relative to member 12 into the position shown in Figure 5. When the parts are in this position, the end of the sole and the shank are positioned between the convex surface of member 12 and the sponge rubber cushion 14, after which member 13 is moved downwardly and the bolt 18 swung into the notch 23, whereupon the nuts 20 can be tightened so as to exert the required pressure on the shank and the sole for holding them in proper position during the drying period.

It is evident that when the shank is loosened for the purpose of cementing the sole thereto, it is merely bent outwardly from the bottom of the shoe and it forms with the latter an acute angle. In order to make the clamp fit snugly, it is transversely tapered so as to present a sharp edge 26 which projects into the angle between the shank and the shoe. This transverse wedge shape makes it possible to apply the clamp while the shank is held in a position forming a com-

paratively small angle with the bottom of the shoe, whereas if the clamp member 12 had a thick edge, the shank would either have to be bent up at a greater angle, or the joint between it and the sole made at a point farther removed from the heel.

Since the clamp can be made from aluminum or other light metal and of comparatively small size, it is evident the shoemaker may continue working on the shoe during the drying period and this makes it possible for him to finish a job in a shorter time than if the shoe had to be put in a big press where it could not be worked on during the drying period.

Particular attention is directed to the adjustable hinge and to the fact that member 12 has a slot 23 at the end opposite from the hinged connection, whereupon the clamp can be easily attached and removed from the shank. The reinforcing ribs 24 and 25 make it possible to get the necessary strength with less material than if the member were made solid.

From the above it will be apparent that the clamp which has been described and which has been illustrated on the drawing is of a simple and substantial construction and that it can be easily applied and removed and can be manufactured and sold at a comparatively small cost.

Having described the invention what is claimed as new is:

1. A clamp for use in cementing halfsoles to shanks of shoes comprising a longitudinally concavo convex jaw member having its ends provided with inwardly extending notches, eye bolts positioned with their eyes in the notches, pivot pins passing through the ends of the jaw member and through the eyes to attach the eye bolts thereto, a second jaw member having a concave surface of substantially the same curvature as the convex surface of the first jaw member, one end of the second jaw member having a hole for the reception of one of the eye bolts, the other end of the second jaw member having a notch for the reception of the other eye bolt, the latter being movable into and out of said notch by a swinging movement about its pivot, the first mentioned jaw member having a wedge shape cross section, a resilient pad attached to the concave surface of the second jaw member, and nuts on the bolts for adjusting the position of the jaws relative to each other.

2. A clamp for use in cementing halfsoles to shanks of shoes comprising a longitudinally concavo convex jaw member having its ends provided with inwardly extending notches, eye bolts positioned with their eyes in the notches, pivot pins passing through the ends of the jaw member and through the eyes to attach the eye bolts thereto, a second jaw member having a concave surface of substantially the same curvature as the convex surface of the first jaw member, one end of the second jaw member having a hole for the reception of one of the eye bolts, the other end of the second jaw member having a notch for the reception of the other eye bolt, the latter being movable into and out of said notch by a swinging movement about its pivot, the first mentioned jaw member having a wedge shape cross section, a resilient pad attached to the concave surface of the second jaw member, the second mentioned jaw member having longitudinally extending spaced ribs, and nuts on the bolts for independently adjusting the position of the jaw members relative to each other.

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