

(No Model.)

E. E. WOLF.
SHOE HORN.

No. 466,643.

Patented Jan. 5, 1892.

Fig. 1.

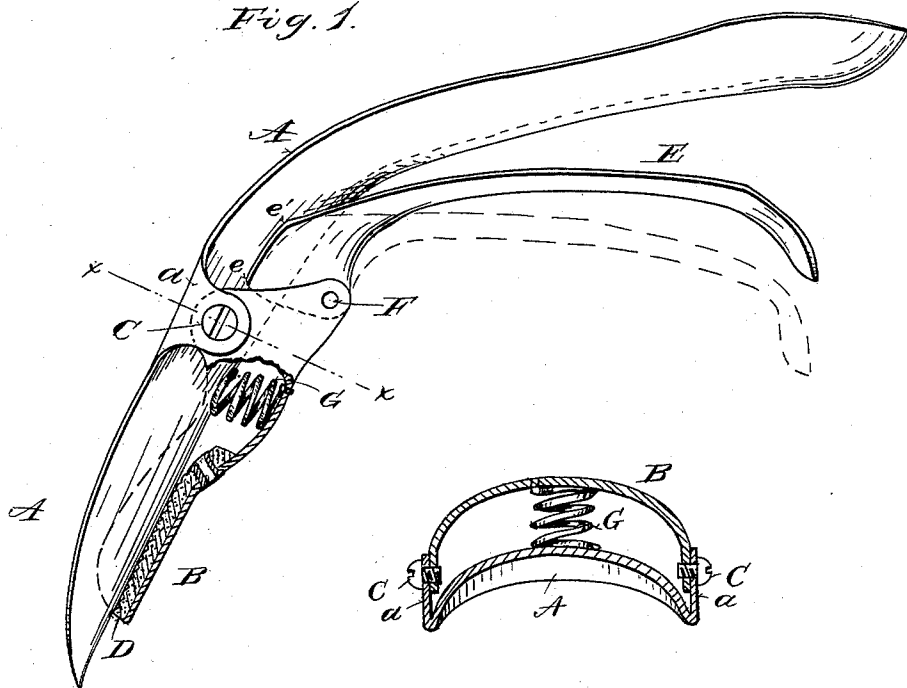
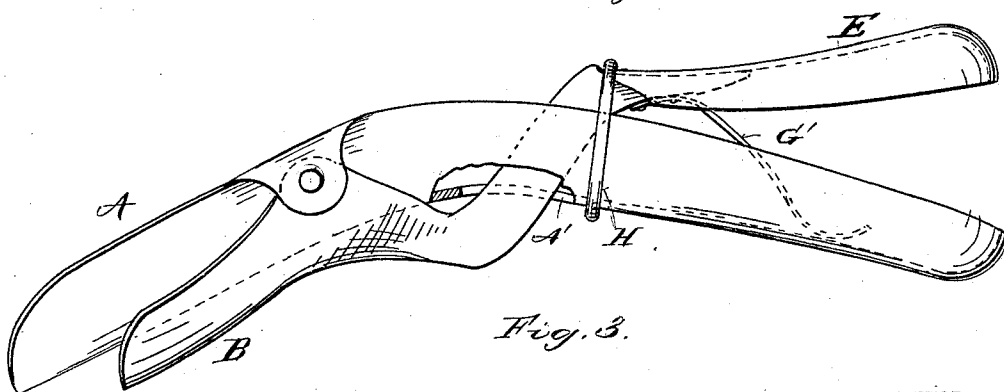


Fig. 2.



WITNESSES:

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ELMER E. WOLF, OF SPRINGFIELD, OHIO.

SHOE-HORN.

SPECIFICATION forming part of Letters Patent No. 466,643, dated January 5, 1892.

Application filed January 17, 1891. Serial No. 378,133. (No model.)

To all whom it may concern:

Be it known that I, ELMER E. WOLF, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Shoe-Horns, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain new and useful improvements in shoe-horns; and the object of my improvements is to provide a device adapted to take hold of or grip a shoe and maintain its temporary position thereon by a setting action and allow of yet further gripping action on the said shoe in putting it on the foot.

In the accompanying drawings, forming a part of this specification, and on which like reference-letters indicate corresponding parts, Figure 1 represents a side view of my device, with parts broken away, and the device in its set position; Fig. 2, a transverse section on the line *xx* of Fig. 1, and Fig. 3 a side view of another form of my device in an open position.

The letter A designates a shoe-horn proper, of horn, metal, or other suitable material, and preferably thin and curved, as usual, to adapt it to ease the heel when inserting the foot within the shoe. As ordinarily formed the shoe-horn has no gripping action on the shoe itself to assist in its adjustment on the foot, and my device is especially adapted for low-cut shoes, or those not provided with a back strap. I therefore provide the horn proper with a gripping device consisting, essentially, of a clamping-piece B, preferably pivoted to the back of said horn by pivots C through the lugs *a* on the horn proper. The lower part of this clamping-piece is preferably provided with a rubber lining-surface D, corrugated or otherwise adapted to promote the contact of the clamping device with the leather without marring the same. This lining may be of rubber or other suitable material and riveted or otherwise secured, as shown in Fig. 1. The upper part of the clamping-piece is provided with a handle E, preferably pivoted thereto at F and extending adjacent to the upper end of the horn proper to be simultaneously grasped therewith. The handle E is preferably provided with a cam engagement with the horn

proper by means of cam-surfaces *ee'*, adapted to bear on the undersurface of the horn proper or other adjacent part. This cam is substantially straight between the points *ee'*, so that when both of said points are in contact with the horn proper the handle is set in its adjusted position and the clamping-piece B exerts a pressure upon the horn proper and the interposed shoe. In other words, the cam-surface *ee'* forms the base of a triangle of which the pivot F is the apex and lies within the said base. It is preferred that the handle E should embrace or straddle the horn proper, so as to form two of said cam-surfaces to promote the stability and stiffness of the device. Any further pull on the handle E will cause the point *e* to bear still harder on the horn proper and increase the gripping engagement of the clamping-piece with the shoe as the foot is inserted therein. The handle is dotted in its initial position in Fig. 1, from which it is moved to its set position. (Shown in full lines.) Thus it will be seen that the salesman may adjust the horn on the heel of the shoe, setting it in the position to prevent it from disengagement while he hands it to the purchaser, who will cause the said further gripping action of the clamping-piece as he inserts his foot within the shoe. This gripping engagement may be made entirely by the salesman instead of partially by him, and then additionally by the purchaser when putting the shoe on his foot. This setting action of the handle and clamping-piece occurs as soon as the point *e* arrives in the line with or passes the pivot F of the handle and clamping-piece. The farther this bearing-point *e* passes said pivot the greater the setting action, since any pressure on the clamping-piece tending to force it outward or open the jaws will only tend to force this point *e* still farther past the pivot. A spring G, coiled or otherwise shaped, is preferably interposed between the clamping device and the horn proper, as shown in Fig. 1, to cause the normal separation of the clamp from the horn proper.

While I have shown the preferred form of my device in Figs. 1 and 2, I do not wish to limit myself to the exact form and construction, and it will be observed in Fig. 3 that the handle E forms a part of the clamping-piece

B and extends through a slot A' in the horn proper and is operated from above instead of below the extension of the horn itself. In this form the setting action is caused by a ring H, which is adapted to be slid along the diverging handle E and extension of the horn proper, and thus maintain the gripping action of the clamping-piece B with the lower portion of the horn proper. A spring G' secures the normally-open position of the device.

While I have described the shoe-horn as specially adapted to be used in placing a shoe upon the foot, I do not limit myself to this particular use, since it is also of special advantage in the making of shoes. In this instance it is used to turn the heel back over the last after the false sole has been secured to the upper. As ordinarily done this is a slow and tedious operation; but with my device the upper may be readily reversed and placed upon the last.

As before mentioned, it is preferred to form the horn proper and other portions of my device of sheet metal, since it will thus combine strength and lightness, as well as the minimum amount of material. If preferred, however, the parts may be cast or otherwise formed of suitable size and shape; but I wish to be understood as laying claim, broadly, to the setting action of the handle, whether caused by the cam action above described or otherwise.

The horn proper, it will be seen, serves as one member or jaw, which is opposed by the other member or clamping-piece forming the other jaw. It is preferred that the cam engagement should be between the handle and the horn proper; but the device may be other-

wise constructed as long as the above-described action is secured.

I am aware that a shoe-horn clamp for assisting the insertion of the foot into the shoe is old. Therefore I do not claim it, broadly, by itself without the means for effecting the setting action hereinbefore described.

I am aware that pinchers having a cam bearing-surface operating to close the jaws is old. I do not therefore claim the same, broadly, without the cam-setting action of the jaws, as hereinbefore described.

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

The combination, with a shoe-horn proper conformed to the shape of the foot and constituting one member of a clamping device, of a clamping-jaw pivoted to the shoe-horn proper, a spring having a normal tendency to open said jaws, a handle pivoted to one member and having a cam-surface consisting of a portion adapted to effect a primary gripping action of said jaws to set them, substantially as described, and of another portion adapted to effect a further gripping action thereof, the two portions forming the base of a triangle of which their pivot is the apex, whereby a set condition of said jaws is effected when said base is in bearing contact, and a secondary pressure may be exerted through one end of said base by a further operation of said handle.

In testimony whereof I affix my signature in presence of two witnesses.

ELMER E. WOLF.

Witnesses:

WARREN HULL,
GEO. A. BEARD.