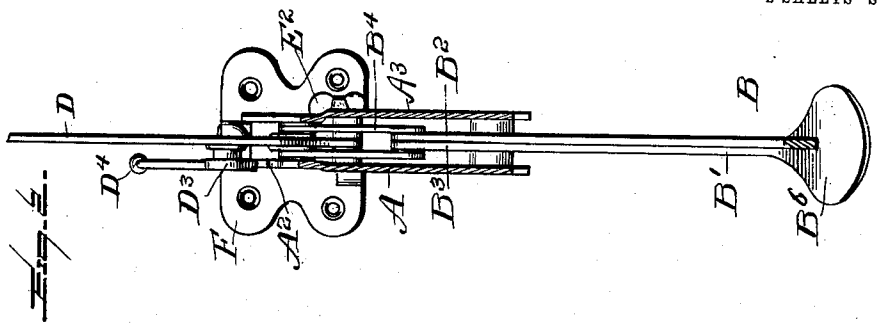
No. 746,151. PATENTED DEC. 8, 1903.

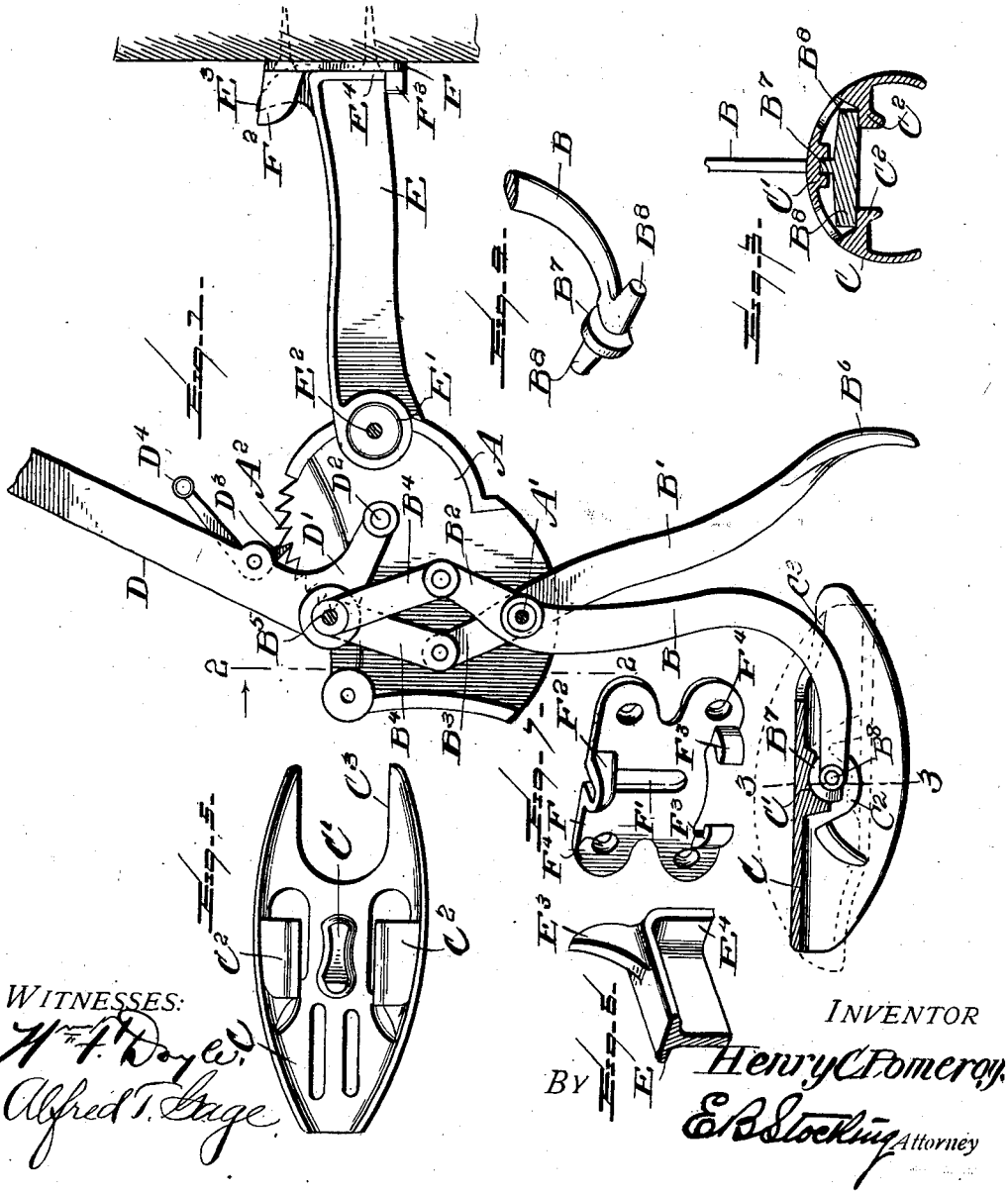
H. C. POMEROY.

SHOE HOLDER AND STRETCHER.

APPLICATION FILED JUNE 2, 1902.

NO MODEL. 2 SHEETS—SHEET 1.





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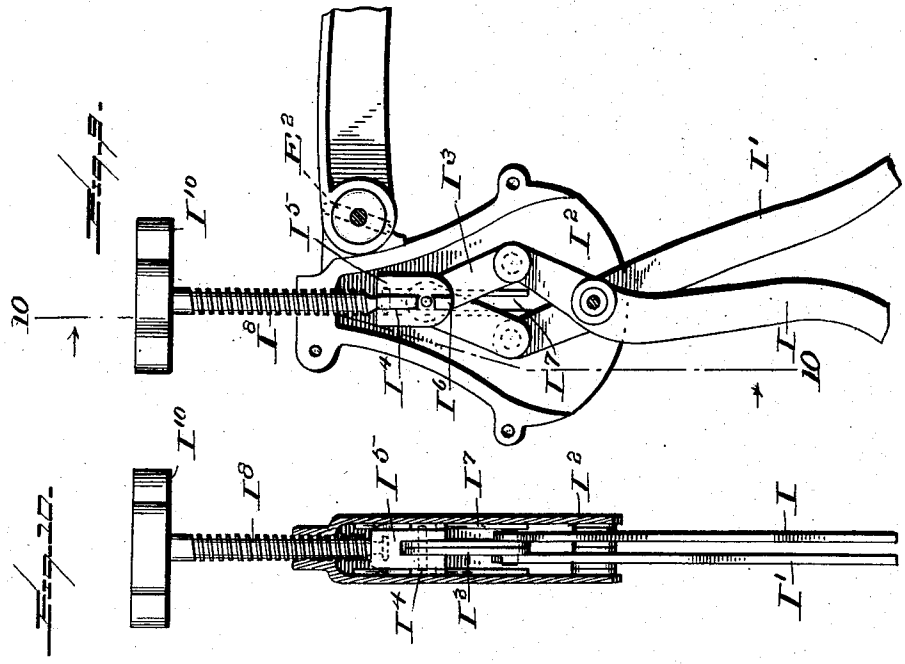

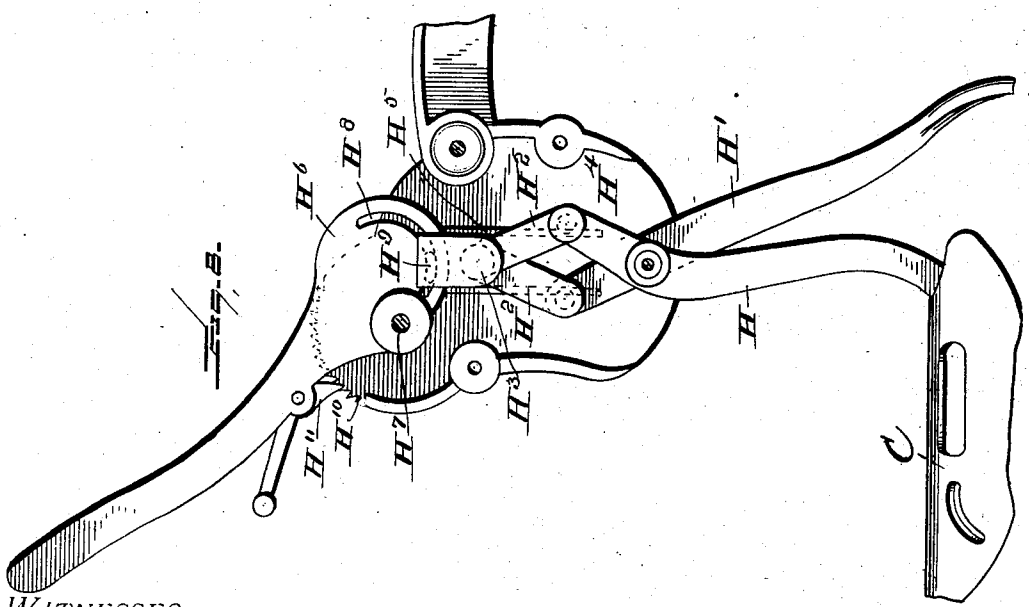

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UNITED STATES PATENT OFFICE.

HENRY C. POMEROY, OF CHICAGO, ILLINOIS.

SHOE HOLDER AND STRETCHER.

SPECIFICATION forming part of Letters Patent No. 746,151, dated December 8, 1903.

Application filed June 2, 1902. Serial No. 109,984. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. POMEROY, a citizen of the United States, residing at Chicago, in the county of Cook, State of Illinois, have invented certain new and useful Improvements in Shoe Holders and Stretchers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a shoe holder and stretcher, and particularly to a structure whereby the shoe may be supported for cleaning and polishing and also stretched and held in shape when desired.

The invention has for its object to provide a construction of levers adapted to receive a shoe and to stretch and hold the same in proper shape to remove wrinkles and creases therefrom and also to support the shoe in a convenient position for polishing in the usual method.

A further object of the invention is to provide a toggle connection at the upper end of the shoe-holding levers and means for pressing said connection downward and holding it at its adjusted position.

Another object of the invention is to provide an improved construction of last removably applied to one of the shoe-holding levers, while a further object is to present a construction of bracket having an arm removably secured therein, so that the device can be readily removed from the bracket and replaced therein as found desirable.

In the drawings, Figure 1 is an elevation of one form of the invention with the cover to the casing removed and the last shown in section. Fig. 2 is a vertical section on the line 2 2 of Fig. 1; Fig. 3, a similar view of the last on the line 3 3 of Fig. 1; Fig. 4, a detail perspective of the supporting-pins for the last carried by the end of the shoe-holding lever; Fig. 5, a bottom plan of the last; Fig. 6, a detail perspective of the free end of the supporting-arm; Fig. 7, a similar view of the bracket in which said arm is removably supported. Fig. 8 is a side elevation with the side of the casing removed, showing the modified means for operating the shoe-holding levers. Fig. 9 is a similar view of a further modification of this operating means, and Fig. 10 is a vertical section on the line 10 10 of Fig. 9.

Like letters of reference refer to like parts in the several figures of the drawings.

The letter A designates a casing, which may be of any desired configuration and has pivotally supported therein at the point A′ the shoe-holding levers B and B′, which are provided with extended ends B^2 and B^3, respectively, beyond their pivots, to which ends toggle-levers B^4 are pivotally secured at one end and connected together at their opposite end B^5, so that a downward movement of the end B^5 separates the shoe-holding levers B and B′, thus providing for the holding and stretching of a shoe upon these levers. The lever B′ is provided at its lower end with an enlarged curved face B^6, forming a heel-plate to bear at the heel of the shoe, while the lever B is provided at its upper face with a flange or track B^7, having at opposite sides thereof studs or projections B^8, adapted to receive the last C used in connection with the invention. This last C is preferably provided with a curved face and upon its inner surface with a groove or way C′, adapted to receive the projecting flange B^7 when the last is in position shown by full lines in Fig. 1. At opposite sides of this groove C′ are inwardly-extending flanges C^2, which form, in connection with the top of the last, an open-ended socket for the lugs or spindle B^8 and permit a rocking motion of the last upon said lugs. This last is also provided with a recessed portion C^3 next the holding-lever B and is applied to this lever by completely reversing the last into the position shown by dotted lines in Fig. 1, which permits the lugs B^8 to be slipped under the flanges C^2 when the last is reversed into the position shown in the full lines, thus bringing the flange B^7 into the groove C′ and securing the last upon the holding-lever. As showing one desirable form of device for depressing the toggle-joint at the point B^5, I have illustrated in Fig. 1 a lever D, having at its lower end an angle-arm D′ pivoted to the casing at D^2 and pivotally connected to the ends B^5 of the toggles at the angle between the lever and the arm, whereby the lever D swings upon an arc having the point D^2

as its center. For the purpose of holding this lever in its adjusted position a series of ratchet-teeth A^2 may be provided upon the upper face of the casing upon an arc corresponding to the path of travel of the lever and coöperating with the pivoted pawl D^3, having a releasing-handle D^4. By means of this pawl the levers B and B′ may be held in their adjusted position and released therefrom when desired. For the purpose of inclosing all of the parts within the casing A a cover-plate A^3 is provided, as shown in Fig. 2, and for the purpose of supporting the casing from a relatively fixed vertical support a bracket-arm E is provided, which is pivotally connected at its end E′ with the casing, at which point any desired form of clamping bolt and nut E^2 may be provided for adjusting and holding the casing at different angles relative to the arm E. The opposite free end of this arm is provided with means for removable connection to a bracket F, which comprises a spur E^3 upon the upper face of the arm and flanges E^4 upon the lower face thereof. This support or arm is adapted to pass within a recess F′, formed in the bracket F and engaged behind a projecting loop F^2 at the upper end of said recess, so that the support may be shifted upward until the flanges upon the arm lie above the keepers F^3 at the lower portion of the bracket, and the arm is then lowered to engage the flanges behind the keepers and firmly secure the parts in position. It will be seen that the arm may be removed from the bracket by simply shifting the same upward to disengage the flange and then removing the support from behind the loop F^2. The bracket is secured to a support by any desired means which may pass through the apertures F^4, formed therein for that purpose.

In Fig. 8 a modified form of operating means for the toggle-levers is shown, in which the levers H and H′ are similar in construction to the levers A and A′ in Fig. 1 and are connected at their upper ends to the toggles H^2, which are secured together at the point H^3, all of said parts being inclosed within the casing H^4, which is also provided with guides H^5 for causing the end H^3 of the toggles to travel in a vertical plane. Above the point H^3 a cam-lever H^6 is pivotally mounted at the point H^7 and provided with a slot H^8, into which a connector H^9 from the toggle-levers extends, so that a rotation of the cam in one direction causes the levers H and H′ to separate and draws them together when moved in the opposite direction. The casing H^4 is provided also with a series of ratchet-teeth H^{10} upon its upper face adapted to coöperate with the pawl H^{11} to hold the parts in their adjusted position as described in connection with Fig. 1.

Under some conditions it is desirable to stretch the shoe to a very slight degree, particularly when it is desired to obtain a more comfortable fit to the foot or to hold the shoe in shape after being wet, and for this object a further modified construction of operating means for the toggles is shown in Figs. 9 and 10, in which the levers I and I′ are pivoted at the lower portion of the casing I^2 and provided at their upper ends with toggle-levers I^3 and connected together at their opposite ends I^4 and provided with a sliding frame I^5, having a flange I^6, adapted to travel in the way I^7, formed upon the inner face of the casing I^2. At the upper portion of the casing an operating-screw I^8 is mounted in a threaded socket and at its lower end engages the sliding frame I^5. The upper end of the screw is provided with a suitable hand-wheel I^{10} for rotating the same. It will thus be seen that a very slight degree of adjustment may be obtained by this screw and the parts at once retained in their adjusted position, while, as in the other constructions, all the operating parts are inclosed within the casing.

In the operation of the invention when it is desired to place a shoe upon the holder the shoe-holding levers are brought together and the last inserted within the shoe. The levers are then separated by means of the toggle connection, which is depressed, thus forcing the last toward the toe of the shoe and removing therefrom the wrinkles which usually occur adjacent to the upper and holding the leather in a smooth condition adapted to best receive the polishing. It will also be observed that the last may be changed for a different size by simply reversing the same and removing it from the holding-lugs, while the entire holder and supporting-arm may be removed from the wall when not in use by a simple lifting operation. Furthermore, the use of the toggle-levers performs the stretching and holding operations by a minimum extent of the movement of the operating-lever and economize in the construction of parts, so that all are adapted to be retained in a very small casing. When it is desired to stretch a shoe for any purpose, this toggle-lever readily provides the necessary power and leverage to perform the stretching operation and is adapted to be held in any of its adjusted positions by the means herein disclosed.

It will be obvious that changes may be made in the details of construction and configuration without departing from the spirit of the invention as defined by the appended claims.

Having described my invention and set forth its merits, what I claim, and desire to secure by Letters Patent, is—

1. In a device of the class described, a casing, shoe-holding levers pivoted therein and having extended free ends, toggle-levers connecting the ends of said levers, and means for depressing the opposite ends of said toggle-levers; substantially as specified.

2. In a device of the class described, a cas-

ing, shoe-holding levers pivoted therein and having extended free ends, toggle-levers connecting the ends of said levers, means for depressing the opposite ends of said toggle-levers, and means carried by said depressing means for retaining the toggle in its adjusted position; substantially as specified.

3. In a device of the class described, a casing, shoe-holding levers pivoted therein and having extended free ends, toggle-levers connecting the ends of said levers, means for depressing the opposite ends of said toggle-levers, means carried by said depressing means for retaining the toggle in its adjusted position, a last provided at the free end of one of said shoe-holding levers, and a heel-plate at the free end of the other lever; substantially as specified.

4. In a device of the class described, a casing, shoe-holding levers mounted therein, a spindle and a locking projection provided at the free end of one of said shoe-holding levers, and a last having a recess upon its under face adapted to receive said projection for removably pivoting said last to said lever; substantially as specified.

5. In a device of the class described, a casing, shoe-holding levers pivoted therein and having extended free ends, toggle-levers connecting the ends of said levers, means for depressing the opposite ends of said toggle-levers, means carried by said depressing means for retaining the toggle in its adjusted position, a last provided at the free end of one of said shoe-holding levers, an operating-lever pivoted to said casing and to the ends of said toggle-levers, and means carried by said operating-lever and engaging the casing to retain the same in its adjusted position; substantially as specified.

6. In a device of the class described, the combination with a casing, of shoe-holding levers pivoted therein, means for operating said levers, a heel-plate carried by one of said levers, projecting lugs at the free end of the opposite lever, a flange extending upon one face of the lever between said lugs, a last provided with a groove upon its inner face to engage said flange, and flanges upon the inner face of said last beneath said groove to engage said lugs; substantially as specified.

7. In a shoe-holder, the combination of a supporting-arm and toe-piece one of said parts having a spindle or trunnion and the coöperating part provided with a depending lug spaced therefrom to partially surround the spindle and provide a bearing therefor extending in a straight line upon the inner face of said lug, and means for retaining the toe-piece upon its arm.

8. In a device of the class described, the combination with a casing, of shoe-holding levers pivoted therein, toggle-levers connected to the upper ends thereof and connected together at their opposite ends by a pivot, an operating-lever having an angle-arm pivoted to said casing and pivotally connected to said toggle-levers at the outer portion of said arm, ratchet-teeth provided upon said casing, and a pivoted pawl carried by said operating-lever to engage said teeth; substantially as specified.

9. In a shoe-holder, a support, two shoe-holding levers pivoted thereon between their ends by a common pivot, and means connecting the upper free ends of said levers for moving the same toward and from each other.

10. A shoe-holder comprising an arm, two levers pivoted thereto one of which has a portion adapted to engage with the inner face of the counter of a shoe and the other of which has a toe-piece adapted to enter the fore part of a shoe, mechanism connecting said two levers which by the turning of one lever will cause the other lever to turn in the opposite direction, means for retaining the said levers in their adjusted positions, and means for attaching the holder to a support; substantially as described.

11. A shoe-holder comprising an arm, two levers pivoted thereto one of which has a portion which engages with the inner face of the counter of the shoe, and the other of which has a vertically-rocking toe-piece which enters the fore part of the shoe, mechanism connecting said levers which by turning one causes both to turn in opposite directions, and means for retaining the said levers in their adjusted positions; substantially as described.

12. In a shoe-holder, the combination of a supporting-arm and toe-piece, one of said parts having a spindle or trunnion and the coöperating part having a depending lug spaced therefrom to provide a bearing upon its inner face for said trunnion and adapted to slide thereon in a horizontal plane as the parts are assembled, and means for normally holding the toe-piece upon its arm.

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

HENRY C. POMEROY.

Witnesses:
GEO. H. PAINE,
JNO. B. VAN KEUREN.