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WORK SUPPORT.

1,319,232.

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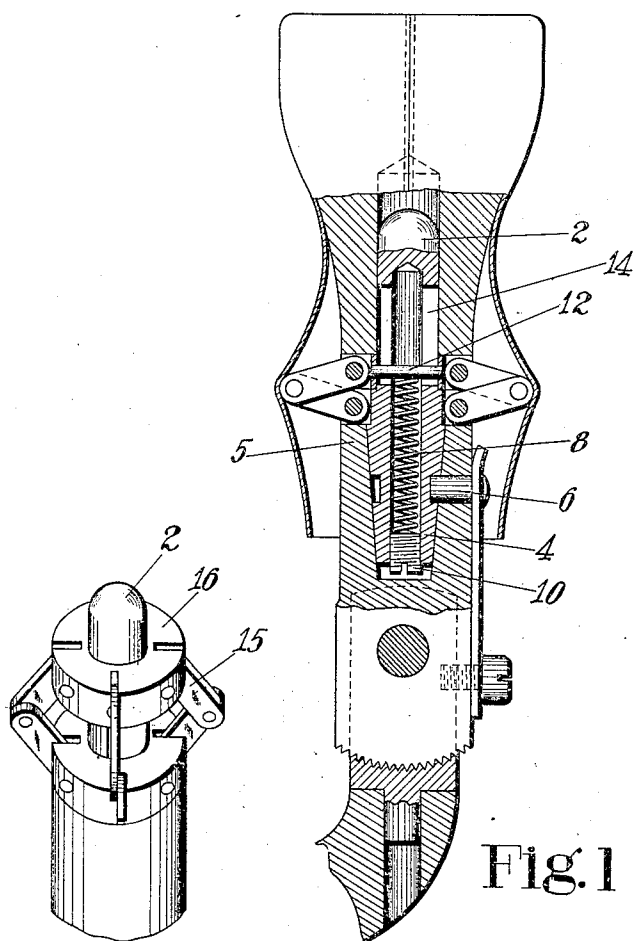


Fig. 1

Fig. 2

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ALBERT A. MACLEOD, OF SWAMPSCOTT, AND LOUIS M. BROWN, DECEASED, LATE OF BEVERLY, MASSACHUSETTS, BY MAY E. BROWN, ADMINISTRATRIX, OF BEVERLY, MASSACHUSETTS, ASSIGNORS TO UNITED SHOE MACHINERY CORPORATION, OF PATERSON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

WORK-SUPPORT.

1,319,232.

Specification of Letters Patent.

Patented Oct. 21, 1919.

Original application filed December 12, 1914, Serial No. 876,949. Divided and this application filed April 29, 1918. Serial No. 231,514.

To all whom it may concern:

Be it known that ALBERT A. MACLEOD, a citizen of the United States, residing at Swampscott, in the county of Essex and State of Massachusetts, and LOUIS M. BROWN, late of Beverly, in the county of Essex and State of Massachusetts, deceased, invented certain Improvements in Work-Supports, of which the following description, in connection with the accompanying drawings, is a specification, like reference characters on the drawings indicating like parts in the several figures.

This invention relates to means for supporting the heel portions of lasts and particularly to means for preventing injury to the uppers of shoes when placed upon such supports.

In the operation of many shoe machines, the shoe to be treated is mounted upon a last which is located by the last pin of a shoe jack. At the base of the last pin is a shoulder or last block which is engaged by the crown of the last to support it. When shoes having high tops or uppers are being positioned upon such a support, the upper or lining or both are frequently caught between the crown of the last and the last block or the shoulder of the last pin and pinched therebetween when pressure is applied to the last in the operation of the machine with the result that the upper is injured.

An object of this invention is to provide a novel shoe support which will prevent such accidental pinching and consequent injury to the upper.

A feature of the invention consists in improved means for spreading the upper outwardly as the shoe last is pressed down upon the shoe support, which means may comprise a jointed member or toggle arranged to be bent by pressure of the last and to force the upper outwardly to prevent its being caught and pinched between the last support and the last.

The construction may comprise, as herein shown, a plurality of jointed members or toggles connected at their upper ends to a member arranged to slide upon the last pin, the said toggles being pivoted at their lower ends to the upper portion or last block of the last support or jack. Means is provided

to maintain the toggles initially in a nearly straight position so that when pressure is applied to the sliding member by the crown of the last, the toggles will flex outwardly and push the upper away from the last pin to prevent its being caught between the crown of the last and the portion of the shoe support which upholds the last.

These and other features of the invention will appear more fully from the following description when read in connection with the accompanying drawings and will be pointed out in the appended claims.

In the drawings,—

Figure 1 is a view of the mechanism in vertical section including also the shoe and last partly in section; and

Fig. 2 is a perspective view of the mechanism with the shoe removed.

Referring to Fig. 1 of the drawings, the numeral 2 indicates a last pin which has a conical portion 4 seated in the upper end or last block 5 of a shoe support or jack. The pin is held in position by a latch 6 which engages a circumferential groove in the portion 4. The portions 2 and 4 are bored longitudinally and in the bore is a spring 8 which rests at its lower end on a screw plug 10 threaded into the bore of the portion 4 at its lower end. At its upper end, the spring 8 rests against a rod 12 which lies in a transverse slot 14 formed in the pin 2. The rod 12 is seated at its ends in a member shown as a collar 16 which is arranged to slide longitudinally of the pin 2 and is normally held by the spring 8 in raised position with the rod 12 against the upper end of the slot 14. Between the collar 16 and the upper end 5 of the shoe support is arranged a series of jointed members or toggles 15, each one of which has its lower end pivoted to the portion 5 and its upper end pivoted to the collar 16. These toggles are of such length as to be close to the last pin but in partly broken position when the collar 16 is raised and the rod 12 is at the upper end of the slot 14.

In the use of the illustrated mechanism, a shoe upper is thrown over the pin 2, the collar 16 and the inclined upper portions of the toggles 15 tending to spread the upper as the shoe is brought down over the pin and

the top of the pin located in the pin hole of the last. The last is then pressed downwardly against the collar 16 which is depressed against the spring 8. This causes the toggles 15 to bend outwardly, effecting a further and positive spreading of the shoe upper and preventing any possibility of the shoe upper being caught between the crown of the last and the collar 16.

10 This application is a division of our application Serial No. 876,949, filed December 12, 1914, which eventuated in United States Letters Patent No. 1,271,741, on July 9, 1918.

15 Having fully described our invention, what we claim as new and desire to secure by Letters Patent of the United States is:

1. A device of the class described including a last support, a last pin, and an upper spreading member comprising a member having a joint between its ends, arranged to be bent by pressure of the last and to force the upper outwardly to prevent catching of the upper between the last support and the last.

2. A device of the class described including a last support, a last pin, a member arranged to slide on the last pin, and jointed members connected at their upper ends to the sliding member and pivoted at their lower ends to the last support.

3. A mechanism of the class described comprising a shoe support having a last pin, a toggle having its lower end pivoted to the support and having its upper end movably mounted relatively to the last pin, and means for yieldingly holding the toggle in a slightly bent position, the toggle being adapted to be bent outwardly by pressure of a last applied to its upper end when placed upon the last pin.

4. In a mechanism of the class described, the combination with a last pin and a last support, of a collar slidably mounted upon the last pin, and a series of toggles connected between the collar and the last support.

5. In a mechanism of the class described, the combination with a shoe support having a last pin, of a member movable vertically relatively to the last pin, a plurality of toggles having their ends pivoted respectively

to the member and to the last support, and means for holding the toggles in a slightly outwardly bent position and permitting the toggles to be bent outwardly when the member is depressed by pressure of a last placed upon the last pin.

6. A heel support for a last having, in combination, a last block, a last pin mounted upon the block, and upper spreading toggle members normally supported in close proximity to the last pin and arranged to bend outwardly away from the last pin positively to spread the upper as the shoe last is forced down on the last pin.

7. A heel support for a last having, in combination, a last block, a slotted last pin mounted upon the block, upper spreading toggle members constructed and arranged to be bent outwardly by pressure of the last, means engaging the slot in the last pin for limiting straightening movement of the toggles, and a spring tending to straighten the toggles.

8. A heel support for a last having, in combination, a last block, a spindle fixed in the last block, spreading members jointed between the ends and pivotally mounted at their ends at each side of the block, and an actuating device for effecting outward bending of the members at their joints.

9. A heel support for a last having, in combination, a last block, a spindle fixed in the last block, a member arranged to slide on the spindle, a plurality of jointed members pivoted at one end to the last block and at the other end to said sliding member, and means for normally holding the jointed members close to the spindle and arranged yieldingly to allow the jointed members to bend outwardly when pressure is applied to the sliding member.

In testimony whereof I, the said ALBERT A. MACLEOD, have signed my name to this specification.

ALBERT A. MACLEOD.

In testimony whereof I, the said MAY E. BROWN, have signed my name to this specification.

MAY E. BROWN,

Administratrix of the estate of Louis M. Brown, deceased.