

O. ASHTON.
 LAST SUPPORT.
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1,000,660.

Patented Aug. 15, 1911.

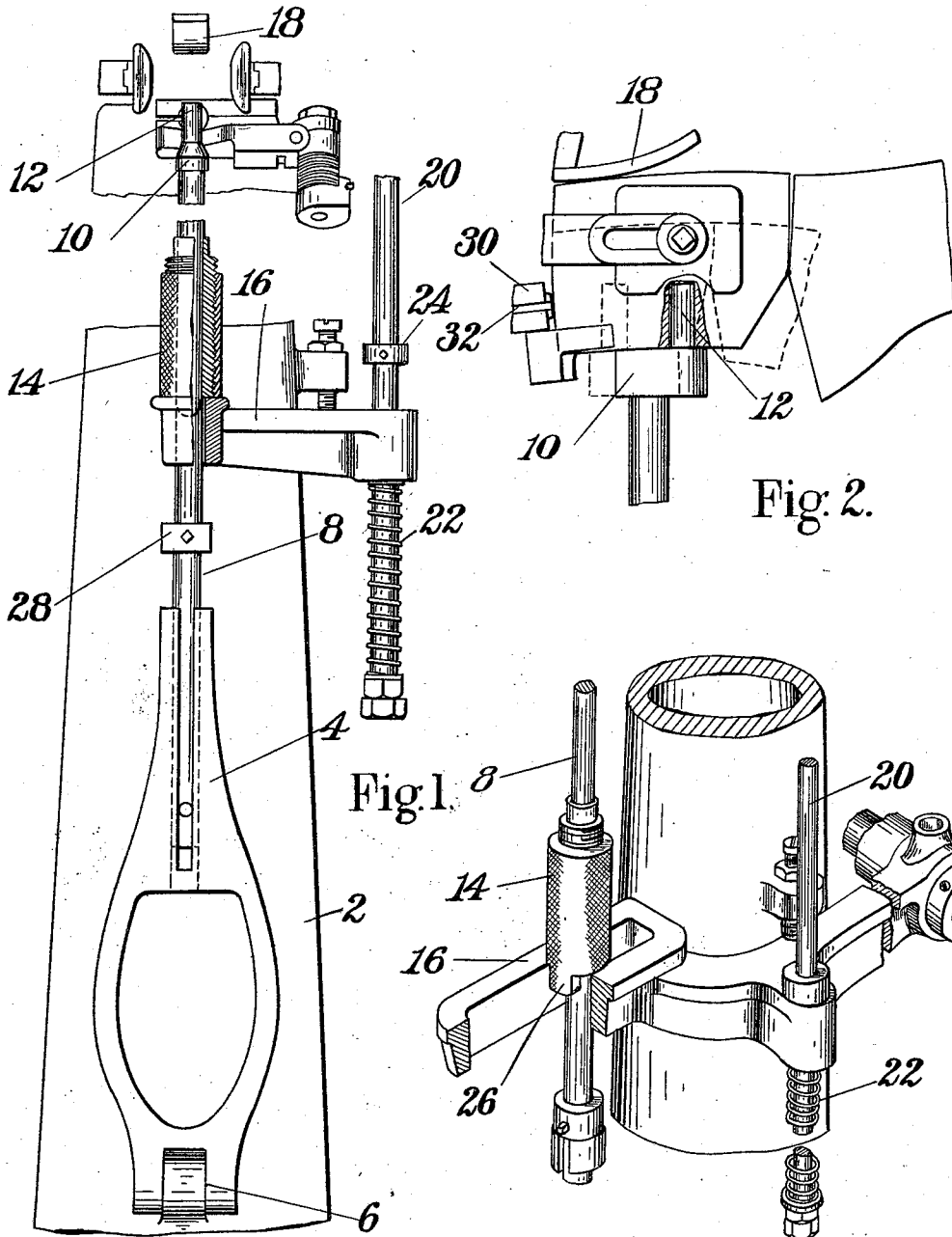


Fig. 1.

Fig. 2.

Fig. 3.

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UNITED STATES PATENT OFFICE.

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LAST-SUPPORT.

1,000,660.

Specification of Letters Patent. Patented Aug. 15, 1911.

Original application filed December 26, 1907, Serial No. 407,993. Divided and this application filed February 5, 1909. Serial No. 476,240.

To all whom it may concern:

Be it known that I, ORRELL ASHTON, a citizen of the United States, residing at Lawrence, in the county of Essex and Commonwealth of Massachusetts, have invented certain Improvements in Last-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 last supports and more particularly to a last support of a form adapted to be used in a machine of the type disclosed in a prior application for Letters Patent, Ser. No. 407,993, filed December 26, 1907, the present application being a divisional part of the above-mentioned application. It will, however, be understood that the present invention is not limited for use with a machine of the above type.

In machines in the operation of which a downward pressure is exerted upon the heel part of a last, as in the machine above mentioned, it is desirable particularly with large-sized lasts to support the cone of the last at a point in proximity to its rear end so as to prevent said pressure from causing a vertical tilting movement of the last about the heel pin which enters the usual opening in the heel part of the last. Heretofore it has been proposed to provide a last support including a spindle carrying the usual heel pin and having a shoulder arranged to provide a bearing surface for the rear portion of the cone of the last, so as to support the last firmly against any downward pressure exerted upon its heel part. Where the shoulder has been of a size to properly support the larger sizes of lasts it has necessarily been of such a length as to be objectionable with the smaller sizes of lasts. For example with lasts of small size the shoulder has projected rearwardly beyond the rear end of the last so as to interfere with the placing of a last carrying a shoe upon the last support, and where a mechanism has been employed to operate upon the rear end of a boot or shoe carried by the last the shoulder has prevented the last from being moved into the range of this mechanism.

The object of the present invention is to provide a last support which has parts constructed and arranged to support firmly the

larger sizes of lasts and is adapted for use with the smaller sizes of lasts without having the objections above mentioned.

To this end the present invention contemplates the provision of a last support having a last supporting member for engaging the cone of the last and provision whereby the area of the bearing surface of said member that engages the rear portion of the cone of the last may be varied to suit lasts of different lengths. In the present embodiment of the invention the last support is provided with a supporting member having a flat surface to engage the cone of the last, a heel pin offset from the center of the member in the direction of the length of the last and a spindle for sustaining said member which is mounted for adjustment about a longitudinal axis. Since the heel pin is offset from the center of the supporting member it will be seen that upon turning said member through 180° the area of the bearing surface of said member that engages the rear portion of the cone of the last may be varied.

It should be understood that in its broad aspects the present invention is not limited to the particular embodiment herein described, as the area of the bearing surface that engages the rear portion of the cone of the last may be varied by means other than that shown and still fall within the scope of the invention.

Other features of the invention will be hereinafter described and claimed.

In the drawings,—Figure 1 is a front elevation showing a last support embodying the present invention; Fig. 2 is a view in side elevation showing two different sized lasts in position upon the last support; Fig. 3 is a view in perspective showing the means for guiding the last support in its movement into and out of operative position.

In the drawings, the present invention is shown applied to a machine of the type disclosed in said prior application. Upon the frame 2 of the machine a tubular post or base 4 is pivotally secured at 6 for swinging movement longitudinally of the machine and receives a last supporting spindle 8, said spindle being arranged for longitudinal movement in the post, but normally restrained from turning movement therein by a pin and slot connection, as shown in Fig. 1. The spindle 8 is provided with a sup-

porting member 10 having a flat surface to engage the cone of the last and a heel pin 12 which is offset from the center of said member in the direction of the length of the last.

An adjustable knurled sleeve 14 is threaded upon the spindle 8 at a point intermediate between its ends. The lower end of the sleeve is supported by a member 16 which is pivotally supported at its rear end upon the frame of the machine for swinging movement in a vertical plane, and is provided at its forward end with a slot through which the spindle 8 passes.

The machine shown in the drawings has a wiper 18 which serves as a stop to limit upward movement of the last, and in order to raise the last toward the wiper the member 16 is provided with an opening through which passes a rod 20 which may be raised and lowered automatically by a moving element of the machine, as described in said prior application. A spring 22 is interposed between the member 16 and a nut on the lower end of the rod 20 and a collar 24 is secured upon the rod in position to bear upon the upper face of the member 16. The lower end of the sleeve 14 is provided with projections 26 adapted to be received within the slot in the member 16 so as to guide the sleeve in its movement toward and from the machine. The projections 26 also serve to prevent accidental turning of the sleeve. A collar 28 adjustably secured upon the spindle is adapted to engage the member 16 and limit upward movement of the spindle. As the spindle is supported by the sleeve 14 resting upon the member 16, it will be seen that by adjusting the sleeve the spindle may be adjusted to accommodate lasts of different heights.

The machine to which the present invention is shown applied is provided with a rest 30 against which the rear face of the work is brought, said rest being provided with a conduit 32 through which a fastening may be inserted in the rear of the last by the mechanism described in said prior application.

In the use of the last support shown, the parts of a boot or shoe having been placed upon the last, said last is then placed upon the heel pin 12 and moved rearwardly into working position beneath the wiper 18. In this movement the spindle is guided by the walls of the slot in the member 16. The machine may then be started so that the rod 20 is raised to press the last toward the wiper as described in said prior application. The position of the heel pin shown in full lines in Fig. 2 is adapted for full-sized lasts. It will be observed in the construction shown that the supporting member 10 provides an extended bearing for the rear portion of the cone of the last, and thus firmly

supports the heel part of the last against any downward pressure exerted upon it. Where small lasts are employed the spindle may be turned through an angle of 180° to bring the heel pin into the position shown in dotted lines in Fig. 2 so as to prevent the supporting member 10 from projecting beyond the rear end of the last, or from interfering with other parts of the machine. This adjustment of the spindle may be effected by loosening the collar 28 so as to allow the pin on the end of the spindle to be removed from the slot in the tubular post or base when the spindle may be lifted out of the post or base, turned through 180° and then replaced.

Having described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. A last support having a supporting member for engaging the cone of a last and means for positioning the last in the direction of its length upon the supporting member, said means being adjustable into two different positions whereby the area of the bearing surface of said member that engages the last at the rear of the positioning means may be varied to suit lasts of different lengths, and means for locking said positioning means in either position of adjustment.

2. A last support, having in combination, a supporting member provided with a surface for engaging the cone of a last and a heel pin offset from the center of said member in the direction of the length of the last, said member being sustained for adjustment about an axis substantially parallel to said heel pin.

3. A last support, having in combination, a post arranged for swinging movement about a transverse axis, a spindle arranged for longitudinal adjustment in the post, a member having a slot arranged to receive the spindle to guide its swinging movement, a sleeve threaded upon the spindle arranged to rest upon said member provided with projections adapted to enter the slot normally to prevent turning of the sleeve and a heel pin carried by said spindle.

4. A last support, having in combination, a post arranged for swinging movement about a transverse axis, a spindle sustained for longitudinal adjustment in the post, means for preventing rotary movement of the spindle constructed to be rendered ineffective by a longitudinal movement of the spindle, a supporting member carried by the spindle for engaging the cone of a last and a heel pin carried by said member offset from the center thereon in the direction of the length of the last.

5. A last support, having in combination, a spindle for sustaining a last arranged for swinging movement about a transverse axis and for vertical adjustment, a pivoted mem-

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ber having a slot arranged to receive the spindle to guide its swinging movement, a shoulder carried by the spindle arranged to rest upon the pivoted member, and means for imparting an upward swinging movement to said member.

6. A jack having a reversible spindle removably mounted therein and held fixed against rotation when applied to accommodate lasts of different sizes.

7. A jack having a standard with a socket in its upper extremity, and a spindle having a socket member removably and reversibly fitted in the socket and held in fixed position against rotation when applied.

8. A jack having a standard with a socket in its upper extremity, and a spindle having a socket member removably and reversibly mounted in the socket, the spindle being in eccentric relation to the socket member and held in fixed position against rotation when applied.

9. A last support having in combination a supporting member provided with a surface for engaging the cone of a last, a heel

pin offset from the center of said member in the direction of the length of the last, said member being sustained for adjustment about an axis substantially parallel to the heel pin, and means for retaining said member in adjusted position.

10. A last support having, in combination, a supporting member for engaging the cone of a last, a heel pin offset from the center of said member in the direction of the length of the last, said supporting member being rotatable about an axis substantially parallel to the heel pin to vary the area of the bearing surface of said member that engages the last at the rear of the heel pin, and a base in which said member is freely movable vertically but is normally held against rotation.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ORRELL ASHTON.

Witnesses:

ALLAN H. BARROWS,
BERNARD BARROWS.