

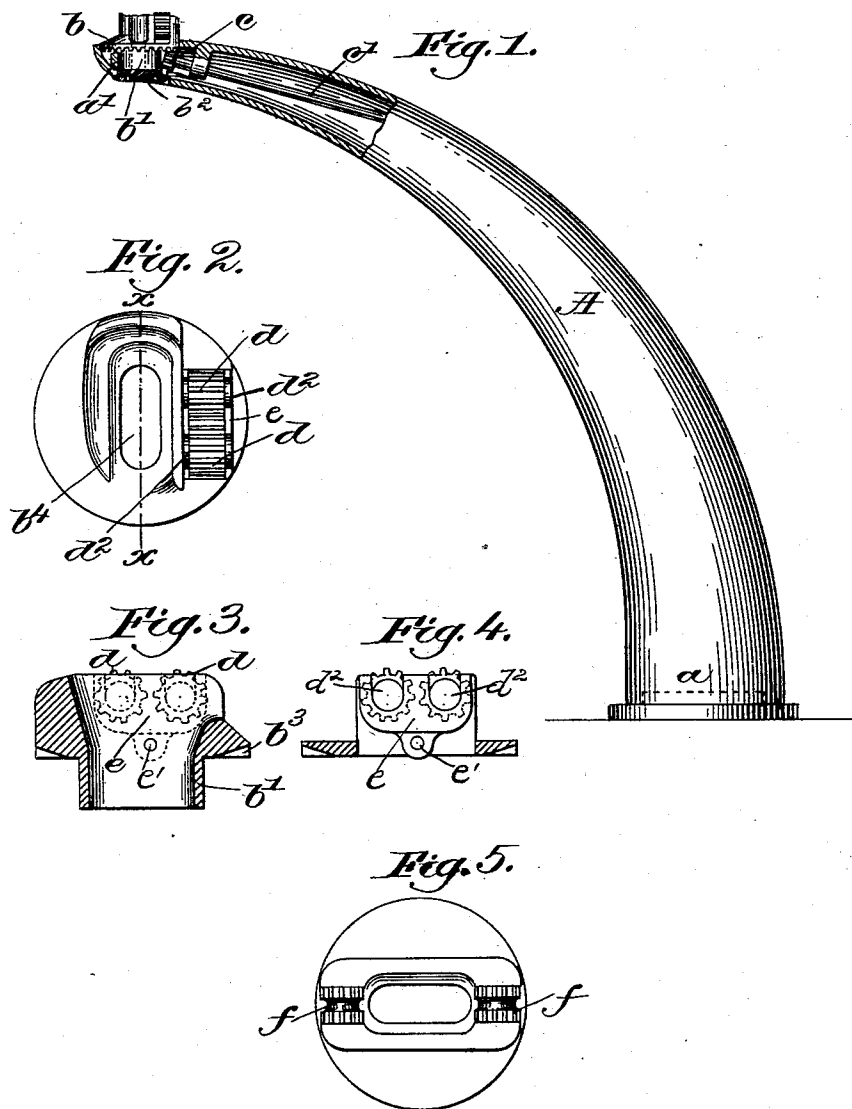
(No Model.)

J. E. PROCTOR.

MACHINE FOR ATTACHING UPPERS TO SOLES OF BOOTS OR SHOES.

No. 570,768.

Patented Nov. 3, 1896.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOSEPH E. PROCTOR, OF MARLBOROUGH, MASSACHUSETTS, ASSIGNOR OF FIVE-EIGHTHS TO SIMON HERBERT HOWE, OF SAME PLACE.

MACHINE FOR ATTACHING UPPERS TO SOLES OF BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 570,768, dated November 3, 1896.

Application filed April 17, 1896. Serial No. 587,956. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH E. PROCTOR, of Marlborough, county of Middlesex, State of Massachusetts, have invented an Improvement in Machines for Attaching Uppers to Soles of Boots or Shoes, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to supporting-horns, such, for instance, as are used in connection with boot and shoe machinery for supporting the boot or shoe in proper position with relation to the pegging, nailing, or other form of working devices which are to operate upon or in connection with the boot or shoe.

My invention has especial reference to a supporting-horn provided with an independent tip member, which may be denominated a "button," rotatably mounted thereon and usually provided with means for maintaining it always in a certain predetermined position regardless of the swinging or rotative movements of the supporting-horn.

One part of my invention consists in providing a rotatable button, such as described, with a movable shoe-support capable of adjusting or adapting itself to the irregularities or undulations in the shoe-sole to insure always a firm support for said sole.

My invention further comprehends providing said horn or its rotatable button with one or more rolling devices to facilitate the movement of the shoe past the button and also to prevent crinkling or bunching up of said sole, such as is now frequently caused by the rubbing of a soft sole over and upon the surface of the button.

The rolling device or devices may or may not be mounted as to constitute the adjustable shoe-support or any part thereof.

In the drawings, Figure 1, in elevation, partial section, shows a supporting-horn provided with a rotatable button embodying my invention; Fig. 2, an enlarged top or plan view of one form of button detached; Fig. 3, a vertical cross-section on the dotted line *xx*, Fig. 2; Fig. 4, an enlarged detail showing in side view the form of adjustable or swinging

support shown in Figs. 1 and 3, and Fig. 5 a view illustrating a modification of my invention.

Referring to the drawings illustrating my invention, A is a usual or suitable supporting-horn, shown as adapted to rotate or swing about a vertical axis at *a*. At its tip said horn is recessed for the reception of a button member *b*, rotatable in and with relation to said horn and shown as seated upon the thimble-like bearing *a'* of the horn, with its shank *b'* extended downwardly through said bearing to receive at the under side of the horn-tip a suitable retaining-cap *b²*, which prevents the button rising from its bearing. At its under side and outside the bearing *a'* the overhanging or lip portion of the button *b* is herein shown provided with teeth *b³* to mesh with a suitable pinion *c* on the small shaft *c'*, journaled within the horn and driven in suitable or well-known manner to retain said button always in a certain predetermined position regardless of the swinging or rotative movements of the horn.

The button *b* is shown as provided with a suitable aperture or slot *b⁴*, through which the pegging, nailing, or other working devices may operate, or the said button may be otherwise shaped or formed to adapt it for the desired class of work.

In accordance with one part of this invention I have provided the horn, and herein by providing the button *b* in the horn, with one or more (preferably a plurality of) rolling devices *d d*, shown as rollers having longitudinal corrugations or grooves *d'*. These rolling devices in the embodiment of my invention herein shown are arranged at one side of and adjacent to the working aperture *b⁴* and travel along in contact with the inner face of the inner sole of a boot or shoe mounted upon the horn as said boot or shoe is moved or fed beneath the working devices above it, said rolling devices enabling a soft or flexible sole to pass easily over the horn-tip without danger of wrinkling or doubling, as would frequently be the case with some stock if passed in frictional contact with the surface of the horn or button.

The corrugations or roughened surfaces of the rolling devices insure rotation of the same and prevent dragging of the stock thereover.

As herein shown, the rolling devices themselves constitute the work-support of the horn, and, in accordance with another part of my invention, they are therefore shown as journaled at d^2 d^2 in a suitable freely-adjustable holder, shown as a swinging frame or yoke e , pivoted at e' in the button and capable of freely moving to enable the rolling devices to adjust or adapt themselves to any irregularity or undulation in or of the inner sole of the boot or shoe, thereby insuring proper support of the boot or shoe and preventing possible distortion of the boot or shoe under the action of the working devices or otherwise when improperly supported.

In Fig. 5 I have shown the rolling devices f f differently arranged from the construction Figs. 1 to 4, inclusive, and which, even to a greater extent than in Figs. 1 to 4, will themselves act by their action upon the inner sole to maintain the button in proper position with relation to the side of boot or shoe regardless of the swinging movements of the horn.

My invention is not limited to the particular construction herein shown, for the same may be varied without departing from the spirit and scope of my invention.

I claim—

1. The combination with a supporting-horn, of a button rotatably mounted therein and provided with a freely-adjustable support capable of adapting itself to inequalities or angularities in the stock placed in contact with it, substantially as described.

2. The combination with a supporting-horn, of a button rotatably mounted therein and provided with a swingingly-mounted work-support, substantially as described.

3. The combination with a supporting-horn, of a button rotatably mounted therein and

provided with a freely-adjustable work-support and means to rotate said button and its work-support in and with relation to said horn, substantially as described.

4. The combination with a supporting-horn, of a button rotatably mounted therein and provided with one or more rolling devices, substantially as described.

5. The combination with a supporting-horn, of a button rotatably mounted therein and provided with one or more rolling devices freely adjustable in said button, substantially as described.

6. The combination with a supporting-horn, of a button rotatably mounted therein and provided with one or more rolling devices and a swinging support for the latter on said button, substantially as described.

7. The combination with a supporting-horn, of a button rotatably mounted therein and provided with one or more rolling devices having roughened surfaces to insure rolling of the same by the stock passed in contact therewith and thereby prevent crinkling of the said stock, substantially as described.

8. The combination with a supporting-horn, of a button rotatably mounted therein and provided with one or more rolling devices having longitudinal corrugations in their respective surfaces, substantially as described.

9. The combination with a supporting-horn, of a button rotatably mounted therein, having a working aperture, means to rotate said button in said horn, and one or more rolling devices journaled in said button adjacent said aperture, substantially as described.

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

JOSEPH E. PROCTOR.

Witnesses:

FREDERICK L. EMERY,
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