F. E. DROWN.

SOLE HOLDING DEVICE.

APPLICATION FILED DEC. 18, 1911.

1,020,135. **Patented Mar. 12, 1912.**

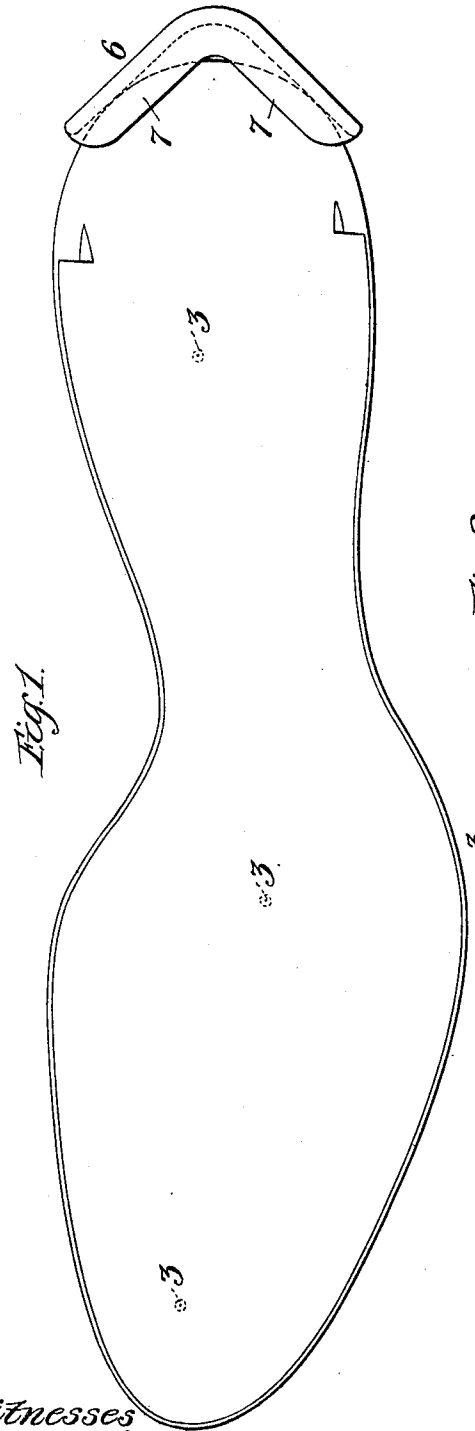

Fig. 1.

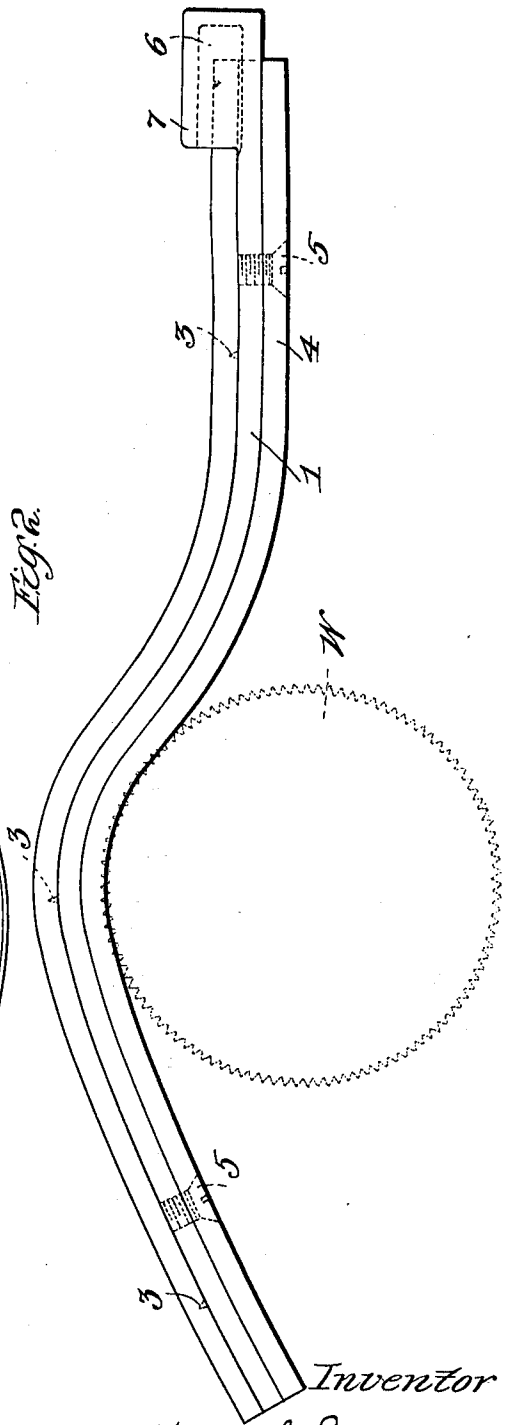

Fig. 2.

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UNITED STATES PATENT OFFICE.

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SOLE-HOLDING DEVICE.

1,020,135. Specification of Letters Patent. Patented Mar. 12, 1912.

Application filed December 18, 1911. Serial No. 666,427.

To all whom it may concern:

Be it known that I, FRANK E. DROWN, a citizen of the United States, residing at Beverly, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Sole-Holding Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to sole holding devices and more particularly to sole holding forms which are employed for preserving the contour of a molded sole blank.

After a flat sole blank has been molded to impart the proper shape to the sole both longitudinally and laterally certain other operations are performed upon the blank before it is incorporated in the boot or shoe and it will be obvious to those skilled in the art that it is desirable when performing these subsequent operations on the sole blank to preserve its molded shape accurately as otherwise the results of the molding operation are nullified to some extent or possibly wholly destroyed.

The object of the present invention is to enable the molded shape of a sole blank to be accurately preserved during the further operations which take place upon the blank prior to its incorporation in a boot or shoe.

With this object in view the several features of the invention consist of certain novel features of construction hereinafter described and claimed, the advantages of which will be apparent to those skilled in the art from the following description.

In the accompanying drawings illustrating the preferred form of the invention, Figure 1 represents a plan view of the form with a sole secured thereto; and Fig. 2 is a side elevation of the form shown in Fig. 1 and illustrating the feed roll of a channel opening machine in dotted outline.

For purposes of illustration the invention has been shown as employed in connection with channel opening machines of the type shown and described in Letters Patent of the United States to C. P. Stanbon, No. 607,139, July 12, 1898, but it is to be understood that the invention is not limited to use with a machine of that type but may be employed equally well in connection with machines for performing various other operations upon a sole blank.

In making certain types of shoes, and more particularly those commonly known as McKay shoes, the outsoles are first molded and are then passed through a channel opening machine to turn up the channel flap prior to the sewing operation. When the molded sole is passed through the channel opening machine it is found that the feed roll tends to flatten or straighten out the sole and destroy the curvature which has been imparted by the molding operation. In the present invention this is avoided by providing a rigid form or holder corresponding in shape to the molded shape of the sole and upon which the sole may be readily secured. After the sole has been molded it is secured to this form and the form and sole are together passed through the channel opening machine, the rigid form preserving the longitudinal and lateral contour of the sole and preventing the flattening or straightening of the sole by the feed roll of the machine. In the simplest and most efficient form of the invention which has yet been devised a rigid metallic plate is shaped to correspond to the molded shape of the sole and is provided upon its upper surface with projecting spurs which engage and retain the sole upon the form, and upon its lower surface with a layer of frictional material to enable the feed roll to properly grip and feed the form.

The form, as indicated in Figs. 1 and 2, consists of a shaped metallic plate 1 of a substantially uniform thickness throughout and provided upon its upper surface with a series of upstanding spurs 3 arranged to engage with and secure the sole upon the form after the sole has been positioned relative thereto. By constructing the form of a comparatively thin metallic plate it may be readily fed through the machine with the sole blank secured thereto. A backing 4 of leather or other suitable frictional material, secured to the under surface of the plate 1 by a plurality of screws 5, insures the proper gripping of the form by the feed wheel of the machine which is indicated at W. In order to accurately position the sole longitudinally of the form and to more effectually secure the sole to the form, a gage-member indicated at 6 is formed upon the heel end of the plate 1. This gage-member is V-shaped

and is provided with upstanding walls which guide and position the heel end of the sole and with overhanging ribs 7 which serve to prevent accidental displacement of the sole at the heel.

While it is preferred to employ the specific construction and arrangement of parts shown and described, it is to be understood that this construction and arrangement is not essential except so far as is specified in the claims and may be changed or modified without departing from the broader features of the invention.

What is claimed as new is:

1. As an article of manufacture, a rigid form for sole blanks having a substantially uniform thickness throughout and shaped to correspond to the molded shape of a sole blank whereby the form with a molded sole blank supported thereon may be readily fed through a machine while preserving the molded shape of the sole blank, substantially as described.

2. As an article of manufacture, a rigid form for sole blanks having a substantially uniform thickness throughout and provided upon its under side with a layer of frictional material whereby the form may be readily fed through a machine, substantially as described.

3. As an article of manufacture, a rigid form for sole blanks having a substantially uniform thickness throughout and provided at its heel end with a gage having overhanging ribs to position and retain a sole blank upon the form, substantially as described.

4. A sole holder consisting of a rigid metallic plate provided with upstanding spurs upon its upper surface and with a layer of frictional material upon its under surface, substantially as described.

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Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."