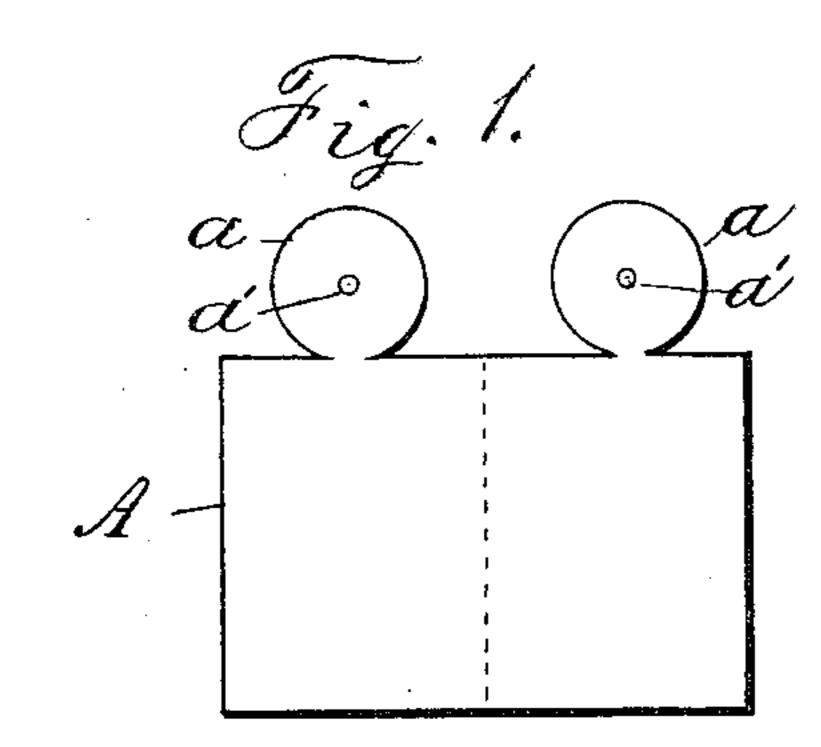
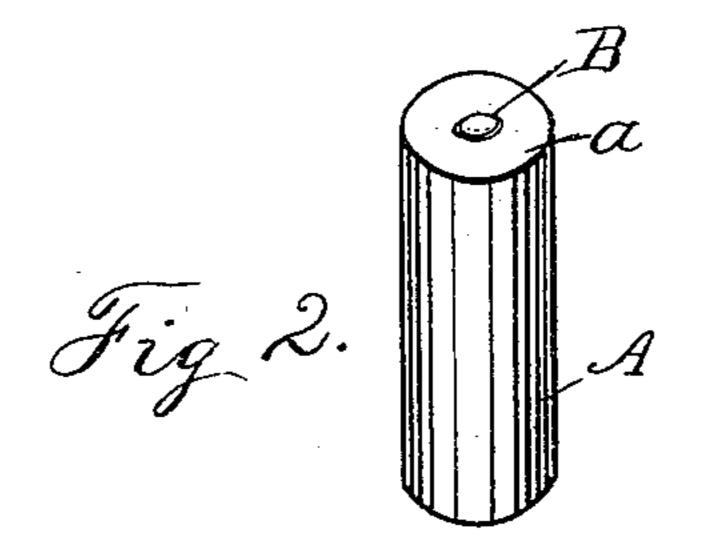
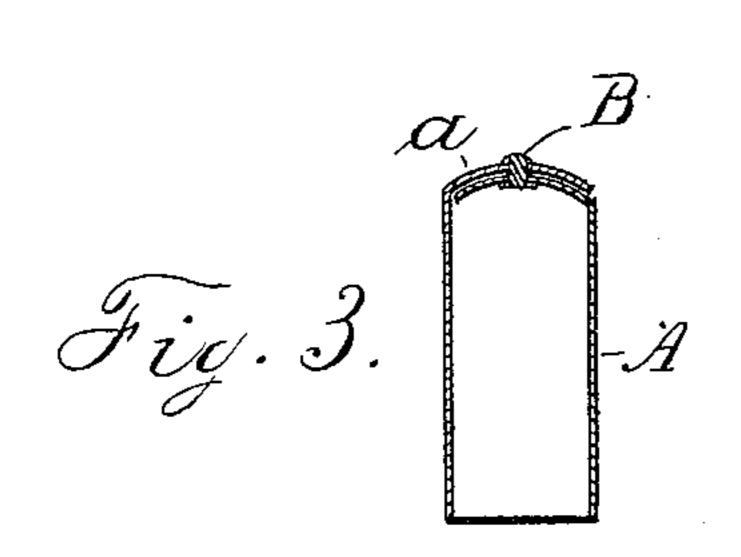
## F. E. BENTON. LAST THIMBLE.

(No Model.)

(Application filed July 7, 1900.)







WITNESSES:

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## UNITED STATES PATENT OFFICE.

FRANCIS E. BENTON, OF STOUGHTON, MASSACHUSETTS.

## LAST-THIMBLE.

SPECIFICATION forming part of Letters Patent No. 659,637, dated October 16, 1900.

Application filed July 7, 1900. Serial No. 22,841. (No model.)

To all whom it may concern:

Be it known that I, Francis E. Benton, a citizen of the United States, residing at Stoughton, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Last-Thimbles; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The invention relates generally to the thimbles which are driven into the holes in the heels of lasts to form a bushing or lining to receive the pin or spindle in common use by shoemakers. These thimbles have been here-tofore made of cast metal, which makes them expensive, while their rigidity renders them liable to split the last if fitted to make a tight joint and if not to drop out. It is found also by shoemakers that it is quite important that the thimble should have a solid metallic bottom, so that the driven pin or spindle may not impinge directly on the wood.

The special object of my invention is to lessen the cost of these thimbles, to make them hug the wall of the hole, and to provide them with a solid bottom.

Figure 1 of the drawings is a plan view showing the blank or pattern after it has been cut out from a plate of steel or other metal and

in one or two equal similar pieces; Fig. 2, 35 a perspective view of the finished thimble placed bottom upward, so as to exhibit the position of the rivet which fastens together the two bottoms; Fig. 3, a detail sectional viewshowing a preferably-curved form of bottom to the thimble.

In the drawings, A represents the blank or pattern after it has been cut from the plate, the same being provided with the two ars aa, centrally punched to contain the holes a' a', 45 which are made to register with each other and receive the fastening-rivet B, the side edges being closed toward each other as they are forced into the last-hole. The ears a a are thus made to form a double solid bottom, 30 which will resist the impact of the pin or spindle which is driven into the thimble by the shoemaker. The thimble is made by rolling the blank into tubular form and bringing the centrally-perforated ears one over the other 55 until their holes a'a' register, when the rivet B is applied and made ready for use.

What I claim as new is-

A last-hole thimble made with the two corresponding ears a a having central apertures a a' a' and forming a double bottom to the thimble substantially as shown and described.

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

FRANCIS E. BENTON.

Witnesses:

CHAS. E. TODD, HAROLD WESTON.