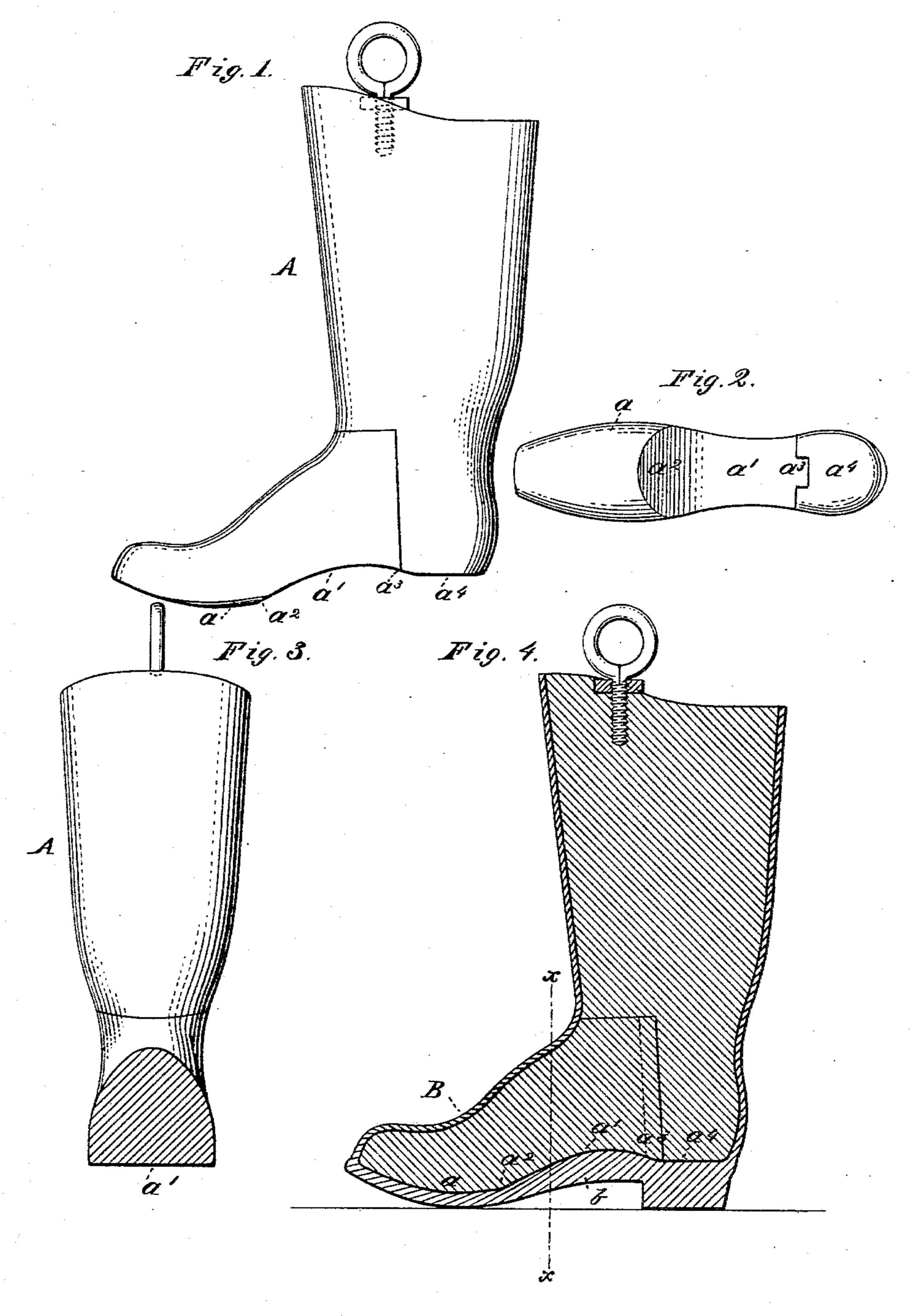
(No Model.)

## D. McNAMEE.

LAST OR FORMER FOR RUBBER BOOTS.

No. 303,940.

Patented Aug. 19, 1884.



WITNESSES

Villetto Inderson. Alilibelbellasi. INVENTOR

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## United States Patent Office.

DENNIS MCNAMEE, OF WOONSOCKET, RHODE ISLAND, ASSIGNOR OF ONE-HALF TO FRANCIS L. O'REILLY, OF SAME PLACE.

## LAST OR FORMER FOR RUBBER BOOTS.

SPECIFICATION forming part of Letters Patent No. 303,940, dated August 19, 1884.

Application filed June 24, 1884. (No model.)

To all whom it may concern:

Be it known that I, Dennis McNamee, a citizen of the United States, residing at Woonsocket, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Lasts or Formers for Rubber Boots; 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 letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a side view of the boot-tree. Fig. 2 is a plan view of the lower portion thereof. Fig. 3 is a cross-section through xx, Fig. 4; and Fig. 4 is a verti-

cal sectional view.

The invention relates to that class of lasts on

which rubber boots are made.

Rubber boots are usually made with the shank rounding from side to side on the inner surface, and said surface on a level with the heel and toe portion of the boot; and as such boots are usually worn without an inner shoe, or with a light slipper only, the above construction, besides making the boot weak in the shank, supports the foot of the wearer by the heel and toe portions of the same only.

The object of the invention therefore is to so form a last that a rubber boot may be made upon it, the shank of which will have its inner surface flat from side to side, and which 35 may have the layers of rubber increased in number several times on the shank, so as to increase the thickness of the same and make it more rigid. By making the inner surface of the shank flat from side to side, the foot, 40 when wearing a slipper, has sufficient room at the edges of the shank to allow the middle into contact with the longitudinally roundedup shank. By rounding up the shank length-45 wise, the foot is supported at all points of its length. If the shank were rounded from side to side in the usual manner, the same would tend to keep the middle of the foot out of contact, even with the improved lengthwise 50 construction by the pressure of the said upturned edges against the foot.

In the accompanying drawings, A desig-

nates a last having its leg formed in the usual or other proper manner, for easy removal from the boot when the latter is made.

a is the sole of the last, from which a portion has been cut away. The cut a' begins at a point,  $a^2$ , below the instep, or where the shank of a boot or shoe rises from the toe of the same, thence curves backward and slightly 60. upward to its highest point, and then slightly downward to the front of the heel a<sup>3</sup>, through which it is continued, taking away just a sufficient part of the same to make its lower surface,  $a^4$ , flat. The cut a', while curving 65 longitudinally, is made flat from side to side. At the point  $a^2$  the cut a' does not leave the toe part of the last in a curve, but makes a very obtuse but distinct angle with the same. The front or toe part of the last is, as in the 70 usual construction, rounded from side to side.

B is a boot, made on the last, and shows the thicker shank b constructed in the cut a'.

It is evident that the shank made in the cut-away portion a' as formed, with the angle 75 a<sup>2</sup> and flat heel surface a<sup>4</sup>, will much better accommodate the foot of a person wearing a slipper, and will much better support the whole of the sole of the slipper than the usual construction. The angle a<sup>2</sup>, when the cut 80 meets the toe portion of the last, permits the first upper layer of the improved shank to make a much closer and neater joint at its point edge with the general sole than if it were gradually curved from the said portion 85 of the last.

I am aware that lasts for rubber boots have been made with longitudinally-curved soles, and I do not claim such, generally; but,

Having fully described my invention, what I 90 do claim, and desire to secure by Letters Patent, is—

at the edges of the shank to allow the middle line of the hollow of the same to come well into contact with the longitudinally rounded-up shank. By rounding up the shank lengthwise, the foot is supported at all points of its length. If the shank were rounded from side A last upon which rubber boots are formed, having its shank portion a' flat and plain transversely its entire width, curved longitudinally from the point  $a^2$  to or near the point  $a^3$ , and the heel portion formed with its lower surface flat, substantially as specified.

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

DENNIS MCNAMEE.

Witnesses:
ERWIN J. FRANCE,
JOHN J. HEFFERNAN.