

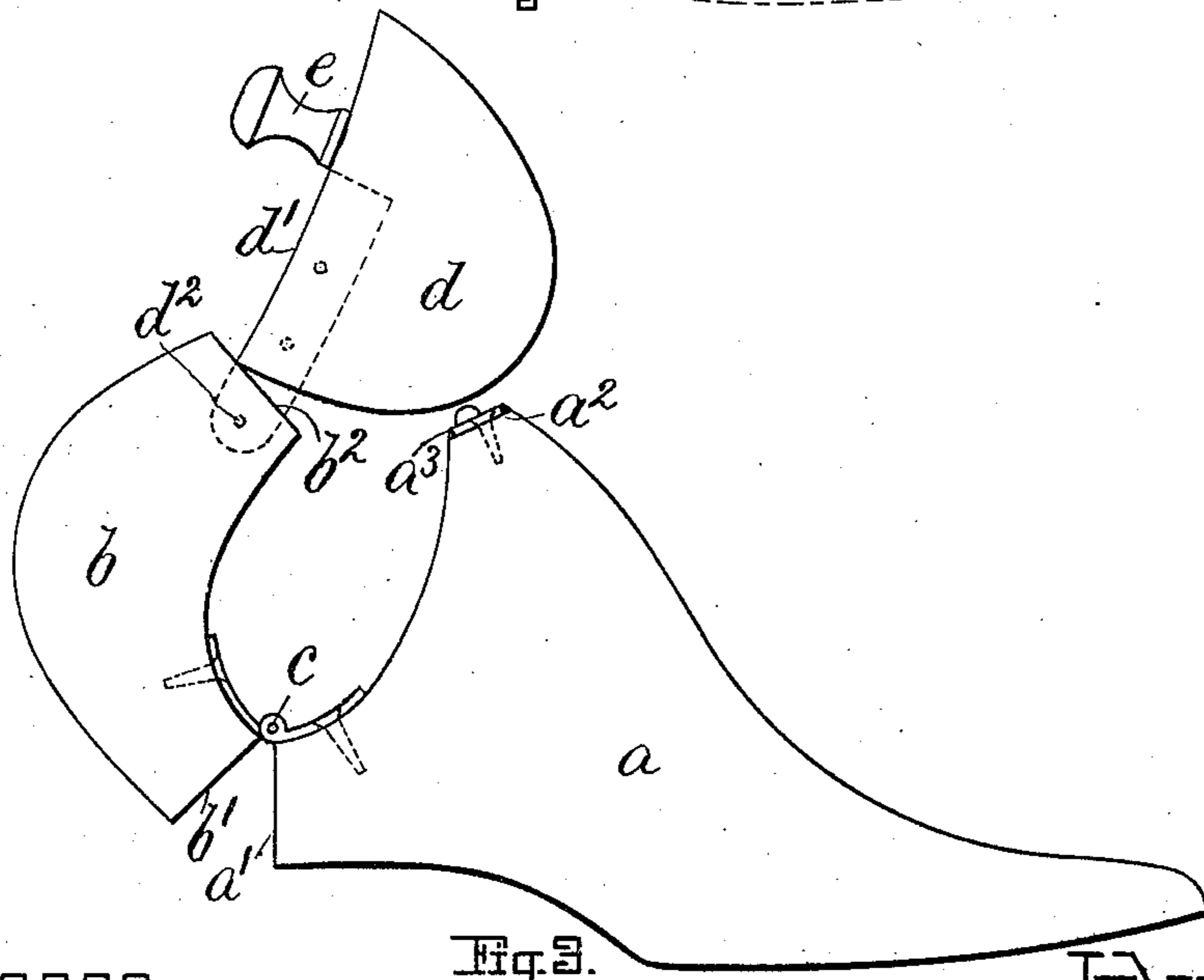
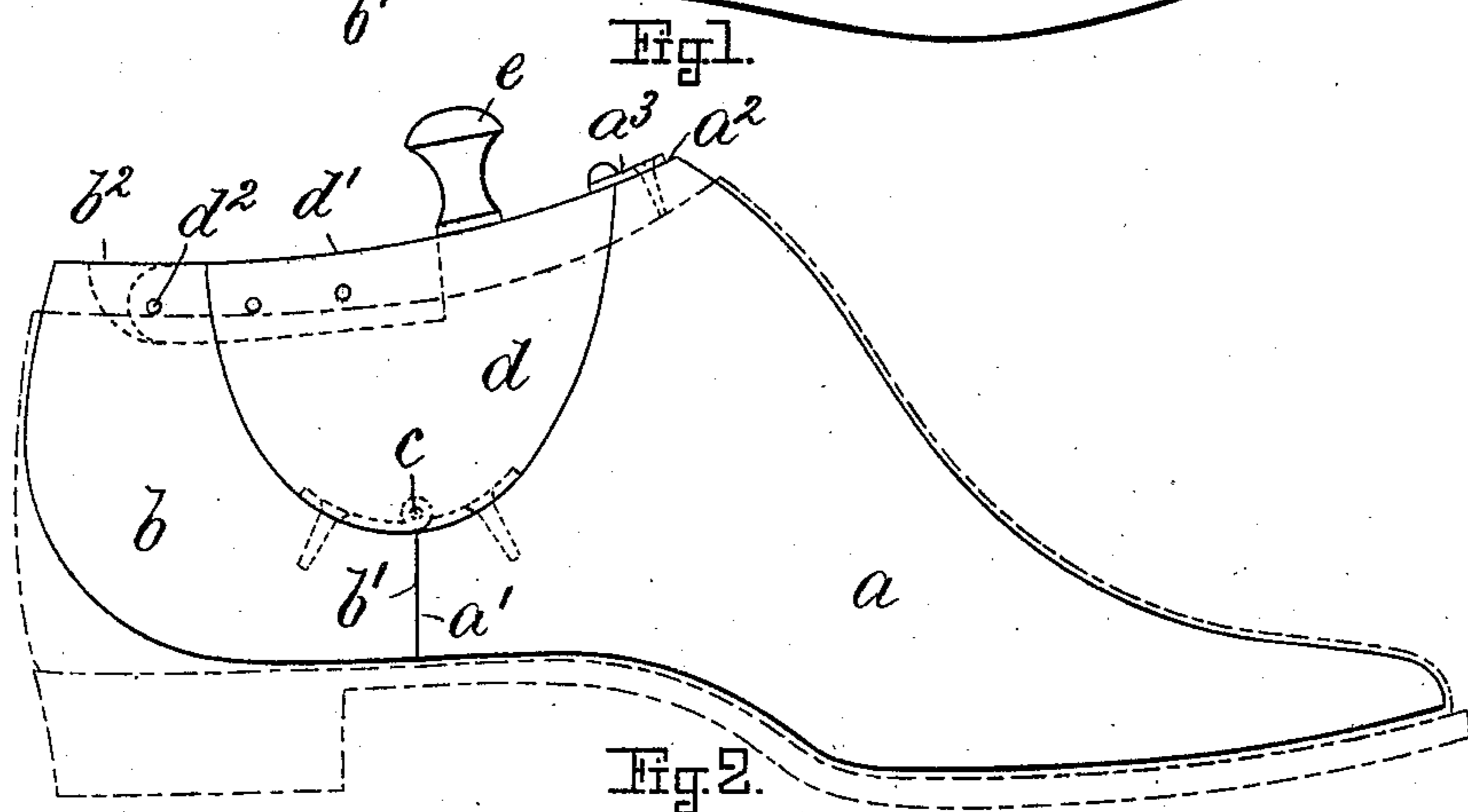
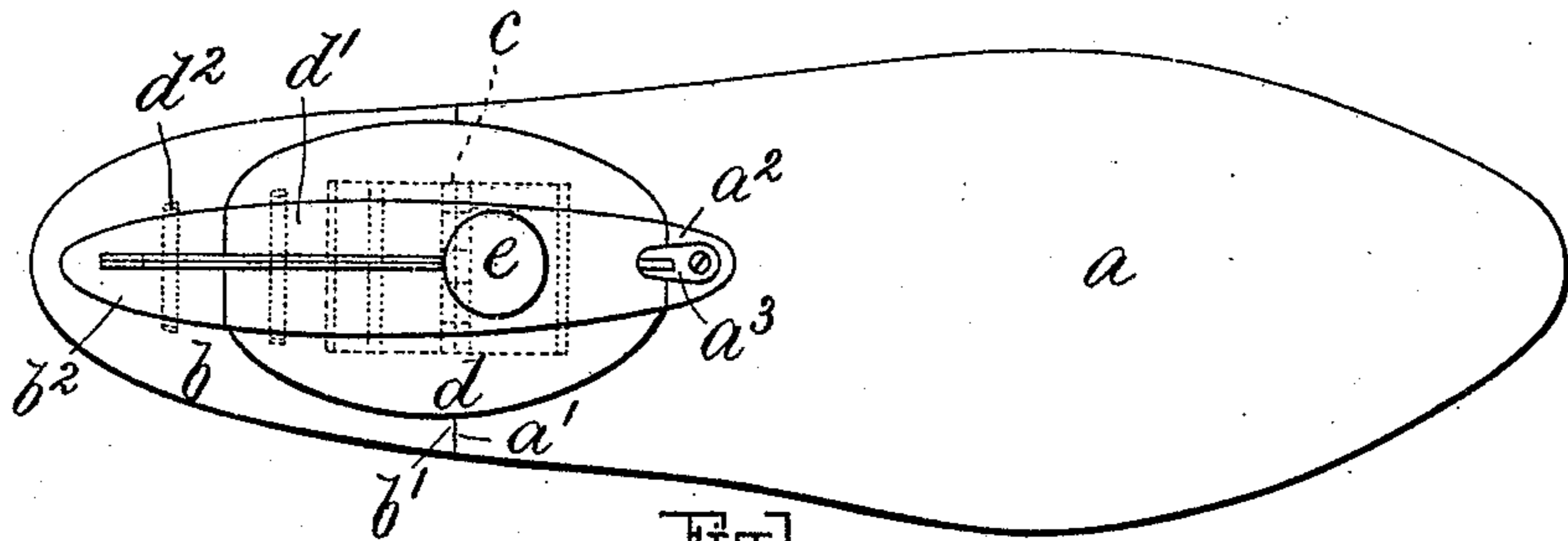
No. 806,731.

PATENTED DEC. 5, 1905.

C. A. BATCHELDER.

FORM OR LAST.

APPLICATION FILED MAY 15, 1902.



Witnesses

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Fig. 3.

Inventor

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UNITED STATES PATENT OFFICE.

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FORM OR LAST.

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Specification of Letters Patent.

Patented Dec. 5, 1905.

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To all whom it may concern:

Be it known that I, CHARLES A. BATCHELDER, of Brockton, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Forms or Lasts, of which the following is a specification.

This invention relates to forms or lasts for boots or shoes, and more particularly to that class in which a hinge connection between the fore part and heel part is provided to facilitate the insertion or withdrawal of the form or last. In devices of this class some provision is essential for holding the fore part and heel part in fixed relative position while within a boot or shoe.

An important feature of my invention consists of an improved means for this purpose. In hinged forms or lasts a recess is commonly provided between the fore part and heel part above the pivotal connection between these parts to permit their relative movement required for removal of the form or last. I provide a locking part which is approximately the shape of this recess when the parts are extended, and which is constructed to be removably inserted in said recess. The recess is preferably so shaped that when the locking part is in place pressure upon the fore part or heel part will not displace it. To this end in the embodiment of the invention herein shown the side walls of the recess are concave and the locking part is provided with curved side faces to conform to said walls.

The invention is herein shown embodied in a form of the class employed for insertion in boots or shoes subsequent to their manufacture—for example, as a support while they are being polished or to preserve their shape while they are not in use. Such devices are also commonly employed where boots or shoes are displayed for purpose of sale or exhibition.

In forms which are used to display boots or shoes and particularly where used in low-cut shoes, such as Oxfords or slippers, it is desirable that the exposed part of the form should be free from cut-away portions or cavities. Also when the form is used as a support for boots or shoes while they are being polished it is desirable that the surface of the form with which the boot or shoe comes in contact

should be as free as possible from recesses or cavities in order to support evenly the parts being operated upon.

In the form herein disclosed the locking part between the fore part and the heel part is shaped to fit accurately in the recess between said parts, so that when the fore part, heel part, and locking part are in operative relation within a boot or shoe the form has the appearance of solidity, its exposed portions are smooth and uninterrupted, and the boot or shoe is evenly supported from within.

Other features of the invention will be hereinafter described, and defined in the claims.

In the drawings, Figure 1 shows in plan view a form constituting one embodiment of the invention. Fig. 2 is a view in side elevation of this form arranged within a low-cut shoe. Fig. 3 is a view in side elevation, showing the parts in the relative position which may be given them in the insertion or withdrawal of the form.

In the drawings, which show a shoe-form constituting one embodiment of the invention, a fore part *a* and heel part *b* are pivotally connected by a hinge *c* at a point above the bottom of the form. The contacting faces *a'* and *b'* of fore part and heel part, respectively, are herein shown as flat faces extending from the hinge *c* to the bottom of the form. The fore part and heel part are so shaped as to form a space or recess between their upper portions above the hinge *c*, said space being arranged to permit the heel part to be moved upwardly and forwardly from the position shown in Fig. 2 into a position such as that shown in Fig. 3. A wedge or locking part *d* is provided to be placed within the recess and is shaped to fit accurately in said recess in the extended position of the parts. The walls of the recess are concave viewed laterally of the form, so that pressure upon heel part or fore part will not force said locking part *d* out of its recess. It will be understood that the concavity of the walls may be increased, if desired, where the nature of the operation upon the boot or shoe is such as to cause an increased tendency to force the locking part from its seat.

In the form herein disclosed the locking part *d* is hinged to the heel part at *d'*, so that

it may be moved into or out of operative position by pivotal movement about the point d^2 . It will be seen that the locking part d is thus held from movement laterally of the form and its insertion in the recess facilitated. Moreover, a pivotal connection of the locking part d with the heel part is of advantage in manipulating the form—for example, in forcing the heel part into place in a shoe or in raising it preliminary to withdrawing the form. The locking part d may be provided with a handle e for convenience in manipulation. I have shown a catch a^3 arranged on the fore part to hold the locking part d in its recess. The catch a^3 is not essential, however, to lock the parts in extended position within a shoe, as the shape of the locking part d and of its recess is such that the parts are rigidly held from relative movement when they are in place in a shoe. The catch a^3 may be of advantage in holding the parts in extended position while without the boot or shoe.

In the extended position of the form shown in Fig. 2 the sides of the locking part d are flush with the sides of the fore part and heel part. The top face d' of said locking part forms with the faces a^2 and b^2 upon fore part and heel part a smooth uninterrupted surface. It will be seen that the locking part d completes the outer surface of the form and provides a surface free from cavities to support the upper of a boot or shoe, and that where employed with a low-cut shoe the surface exposed to view will be smooth and uninterrupted and produce the appearance of a solid form.

It will be understood that while the invention is herein shown as embodied in a shoe-form this embodiment is illustrative merely, as the invention is capable of application to other devices, and the expression "form or last" wherever occurring in the claims should, when the context permits, be construed to include followers, trees, and analogous devices for insertion in a boot or shoe. When embodied in a last, the form of locking means above described is particularly useful, as it imparts to the last great rigidity and at the same time is simple and economical in construction and easy of manipulation.

Having thus fully described the nature, construction, and operation of this my improved form or last, I wish to secure by Letters Patent and claim—

1. In a form or last, the combination with a fore part and a heel part pivotally connected and formed with a recess between the upper portions of their adjacent faces, said recess having concave side walls and being open at the top, of a locking-block having curved side faces shaped to conform to said side walls, said block being adapted to fit into said recess and

by its engagement with said concave side walls to lock the form or last against collapse.

2. In a form or last, the combination with a fore part and a heel part pivotally connected and formed with a recess between the upper portions of their adjacent faces, said recess having curved side and bottom walls and being open at the top, of a locking-block hinged to one of said parts and having curved side and bottom faces for holding the form or last against collapse, and a fastening device for retaining the locking-block in position.

3. In a form or last, a fore part and a heel part hinged together and formed with a recess between their adjacent faces, and a locking-block pivotally connected to the heel part and adapted to fill said recess and together with the fore part and heel part to form uninterrupted top and side faces of the form or last, said locking-block being removable from said recess to permit collapse of the form or tree and in its locking position being arranged to hold the fore part and heel part in extended position for the purpose set forth.

4. In a form or last, a fore part and a heel part hinged together and so shaped as to leave a recess having curved walls in the top of the form or tree between said parts when they are in extended position, and a locking-block hinged to one of said parts and fitting said recess for locking the parts of the form or last firmly in their proper position to fill a boot or shoe, for the purpose set forth.

5. In a form or last, a fore part and a heel part hinged together and formed with a recess between their adjacent faces, and a locking-block shaped to fill said recess and together with the fore part and heel part to form uninterrupted top and side faces of the form or last, said locking-block having a hinged connection to said heel part, and said connection being constructed to hold the locking-block from lateral movement and guide said locking-block into locking position in said recess.

6. In a form or last, a fore part and a heel part hinged together and having diverging concave walls above the hinge and a wedge having convex sides shaped to engage the concave walls of the fore part and heel part.

7. In a form or last, a fore part and a heel part hinged together and having diverging concave walls above the hinge, a wedge having convex sides shaped to engage the concave walls of the fore part and heel part and a locking device for securing the wedge in position between the parts against unintentional removal.

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

CHARLES A. BATCHELDER.

Witnesses:

HENRY CHADBURN,
CORR. J. CHADBURN.