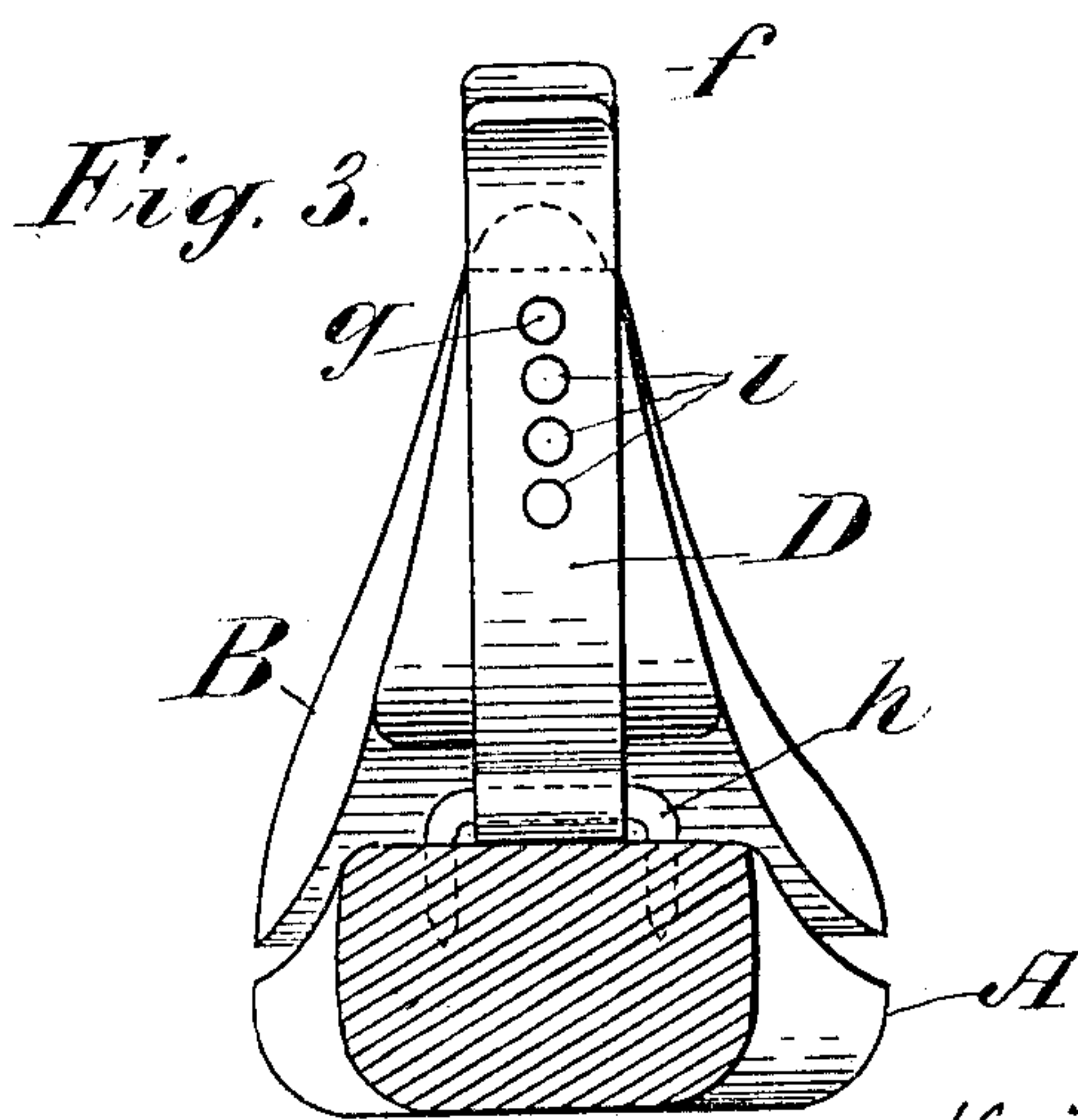
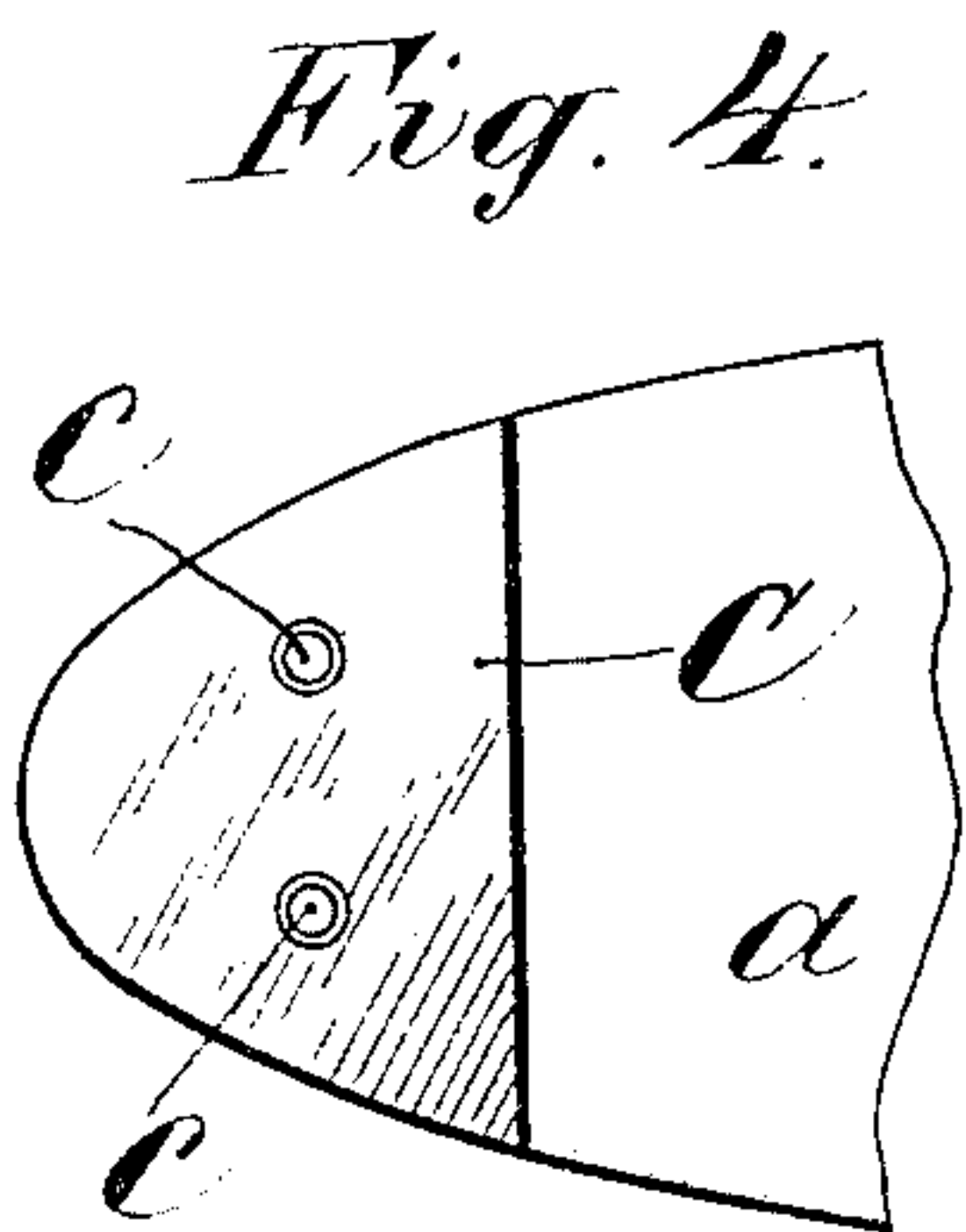
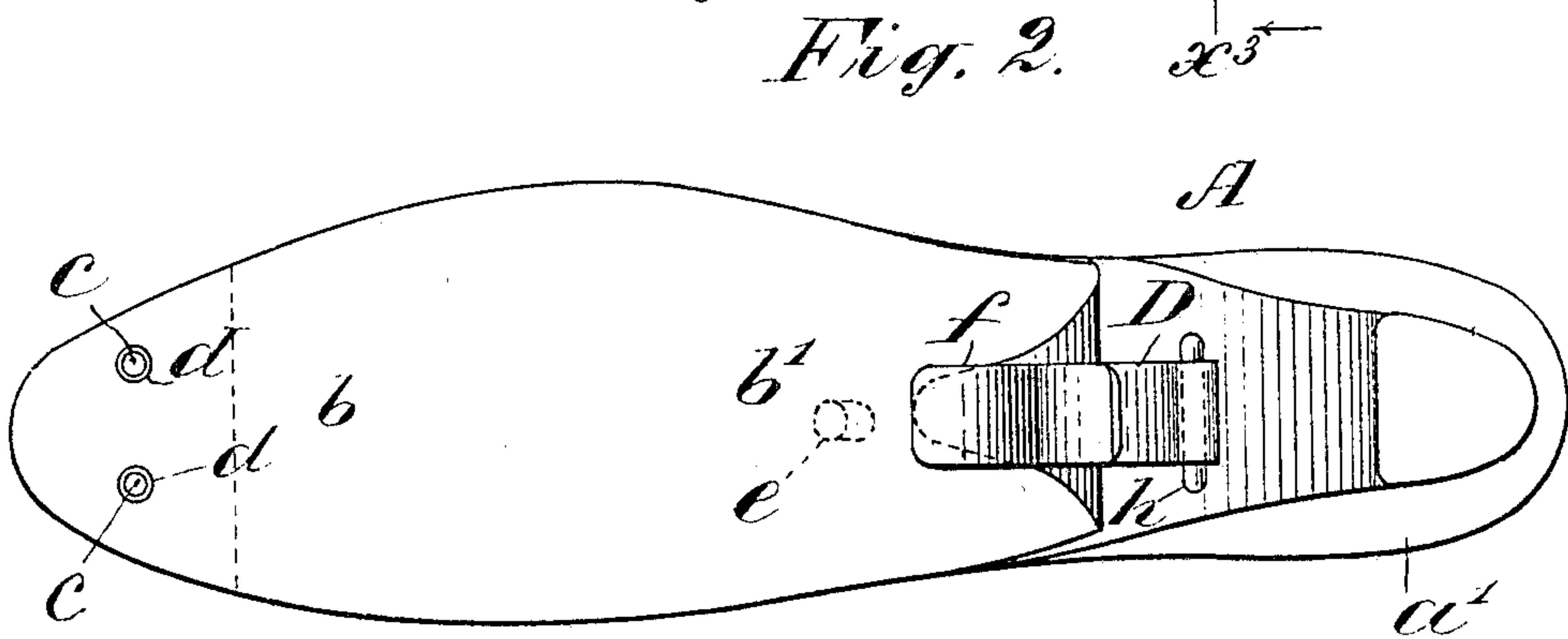
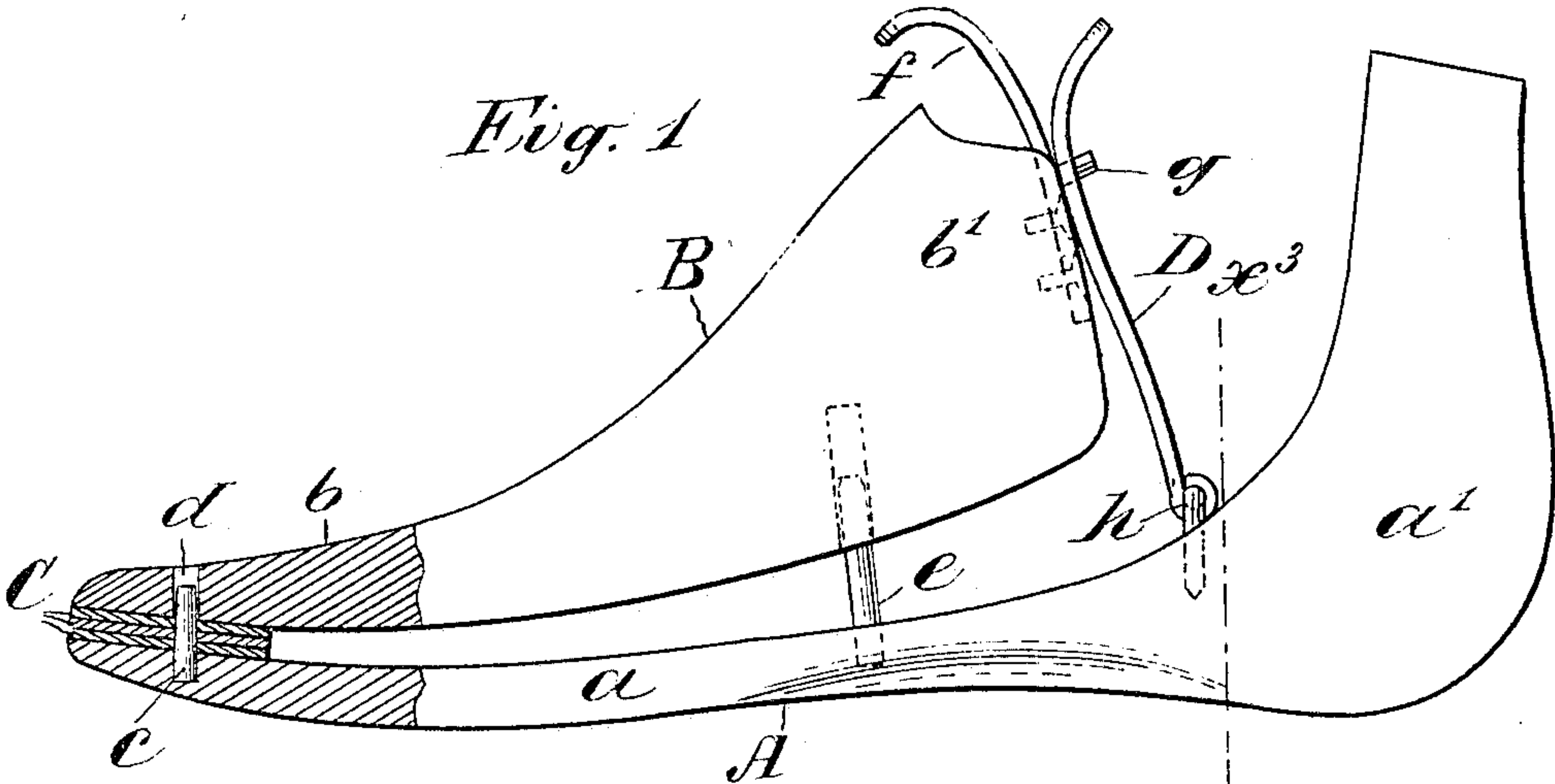


No. 818,704.

PATENTED APR. 24, 1906.

F. H. NIES.  
SHOE FORM.

APPLICATION FILED MAR. 6, 1905.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## SHOE-FORM.

No. 818,704.

Specification of Letters Patent.

Patented April 24, 1906.

Application filed March 6, 1905. Serial No. 248,714.

*To all whom it may concern:*

Be it known that I, FREDERICK H. NIES, a citizen of the United States, residing in the borough of Brooklyn, in the county of Kings, in the city and State of New York, have invented certain new and useful Improvements in Shoe-Forms, of which the following is a specification.

This invention relates to that class of shoe-forms which are designed to fill the boots or shoes when they are not in use, and thus prevent the formation of cracks and creases in them, or, in other words, the form is intended to distend the upper of the shoe uniformly in a moderate degree, and thus prevent distortion, wrinkles, and the like.

A shoe-form for this purpose has been made from metal in two parts or sections, the upper section, which includes the instep, being hinged at the toe to the sole-piece on the other section. The distention is produced by lifting the rear end of the upper section and sustaining it by means of a hinged ratchet-bar. This construction provides for expansion almost wholly at the instep part, as the sections are hinged together fixedly at the toe and no expansion is produced at this point. By making the form of metal the cost is very materially enhanced also.

The object of the present invention is to provide a cheap shoe-form which may be made from wood in the manner of a shoe-last and one wherein in addition to the usual expansion by elevating the rear end of the upper section there is capability of a special distention of the toe.

Other details of the invention will be hereinafter described with reference to the accompanying drawings, and the novel features will be carefully defined in the claims.

In the said drawings, Figure 1 is a side elevation of the form, partly in section, at the toe. Fig. 2 is a plan of the same. Fig. 3 is a cross-section at line  $x^3$  in Fig. 1. Fig. 4 is a plan of the toe portion of the lower section of the form.

The form will be, by preference, turned in a lathe in the manner of a last and the two sections be then separated by a saw.

A is the lower section of the form, called herein the "sole-section," and B is the upper section, called herein the "instep-section." The sole-section comprises the sole portion  $a$  and the heel portion  $a'$ . The instep-section comprises the toe portion  $b$  and the instep portion  $b'$ . Both of the sections extend out

to an equal extent at the toe, and in the sole are set one or more pins  $c$ , (preferably two,) which loosely engage holes  $d$  in the toe portion  $b$  of the instep-section. There is also a guide-pin  $e$  set in the sole portion  $a$  and engaging rather loosely a hole in the instep-section. Between the two sections A and B at the toe of the form are separable expansion-plates C, which are cut to the contour of the form and have in them holes through which are passed the pins  $c$ . These plates may be of any suitable material and of any desired thickness, and there may be one or more of them dependent on conditions and on the thickness of the plate or plates. Preferably these plates will be cut from sheet material of uniform thickness, and the expansion desired will be obtained by using a plurality of plates. These plates thicken the toe of the form vertically.

On the rear end of the instep-section B is secured a plate provided with a thumb-piece  $f$  and a detent-stud  $g$ , and hinged at  $h$  to the sole-section A is a strut D, of flat metal, having in it a series of holes  $i$ , which may be so disposed as to receive the detent-stud  $g$  by moving the rear end of the section B up or down.

The manner of operating the form is simple. The expansion at the toe is effected, primarily, by inserting as many of the expansion-plates C as may be necessary or desirable, depending on the particular shoe or form of shoe that is to be distended by the form. The form is now inserted into the shoe and the instep-section B lifted at its rear end by the thumb-piece  $f$ , the section turning about the studs  $c$  as a fulcrum. The loose engagement of these studs with their holes or sockets  $d$  permits this. When lifted high enough to effect the proper or desired expansion, the elevation attained is maintained by making the stud  $h$  engage the nearest hole  $i$  in the hinged strut D, as indicated in Fig. 1.

It will be noted that the plate or plates C provide for expansion at the toe of the shoe independently of the main instep expansion and one that cannot be obtained by merely hinging the sections together at the toe, as has been done.

Obviously it is not very material whether the pins  $c$  are set in the sole-piece or the toe portion  $b$ ; but the construction shown is most convenient.

Having thus described my invention, I claim—

1. A shoe-form, comprising an instep-sec-



- tion and a sole-section, one of which is provided with a pin-socket and the two coupled together at the toe by a pin in one section loosely engaging said socket in the other section, the said pin, a detachable expansion-plate between the sections at the toe, through which plate said pin extends, and means for elevating and supporting the rear end of the said instep-section.
- 10 2. A shoe-form, comprising an instep-section and a sole-section, one of which is provided with a pin-socket, and said sections extending out to an equal extent at the toe, a pin in one of said sections at the toe thereof, which pin engages loosely said socket in the other section to form a coupling and fulcrum, a plurality of separable expansion-plates C between the toe portions of the two form-sections, and means for elevating and supporting the instep-section at its rear end.
- 20 3. A shoe-form, comprising an instep-section and a sole-section, said sections being

superposed, extending out to an equal extent at the toe and coupled loosely together thereat, a detachable plate between the sections at the toe, and means for expanding the form at the instep portion.

4. A shoe-form, comprising an instep-section and a sole-section, coupled together loosely at the toe, means for expanding the form at the toe, and means for effecting the main expansion of the form, the last-named means consisting of a stud *g* on the rear end of the instep-section and a flat plate *D*, hinged at *h* to the sole-section, and provided with a series of holes *i* to engage the stud *g*.

In witness whereof I have hereunto signed my name, this 2d day of March, 1905, in the presence of two subscribing witnesses.

FREDERICK H. NIES.

Witnesses:

HENRY CONNETT,  
HENRY G. HOSE.