

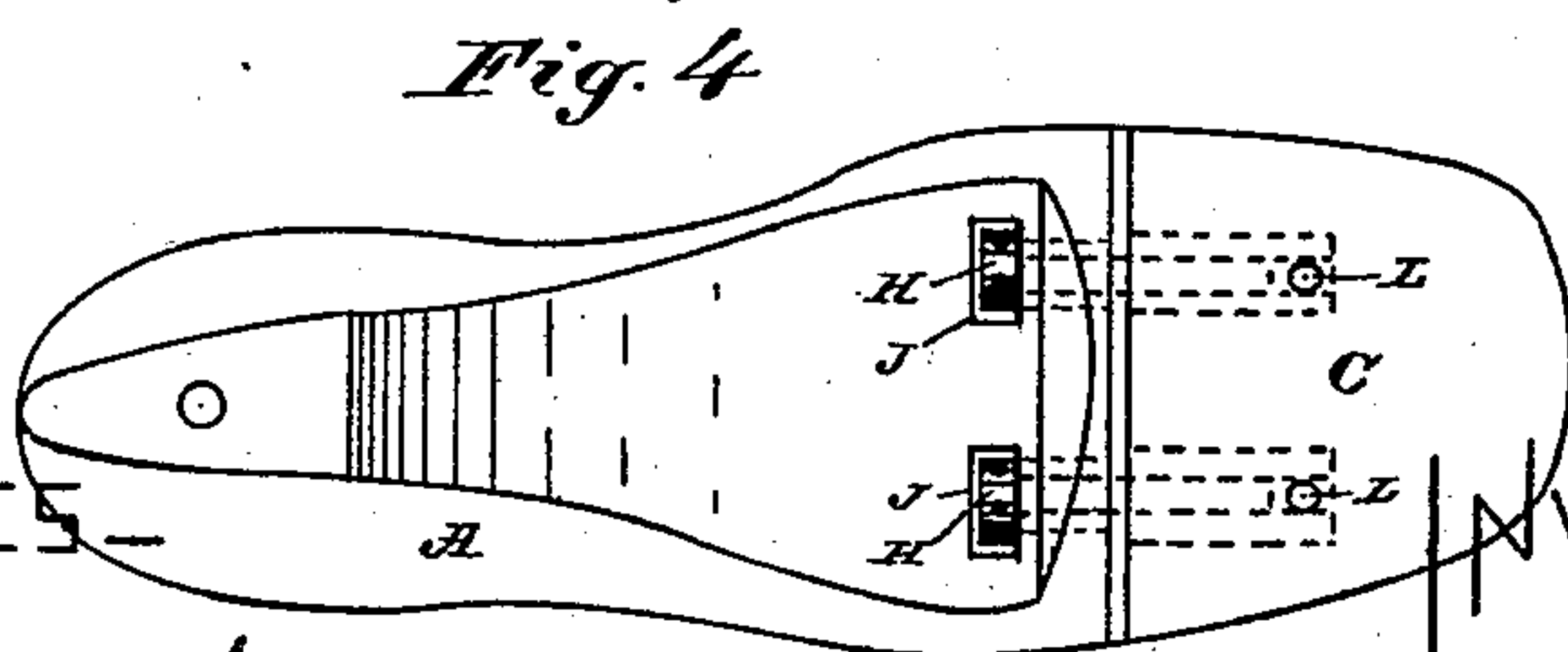
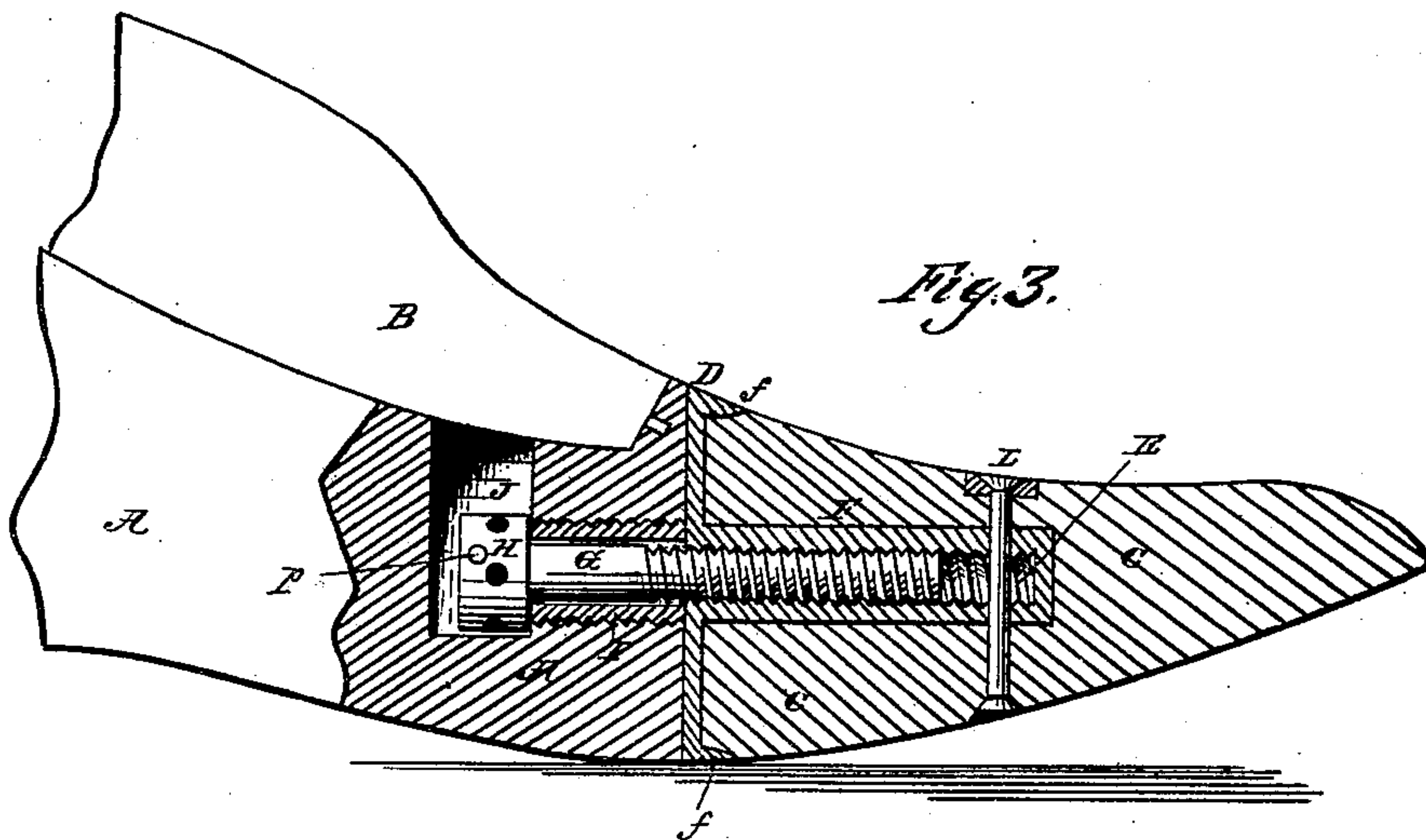
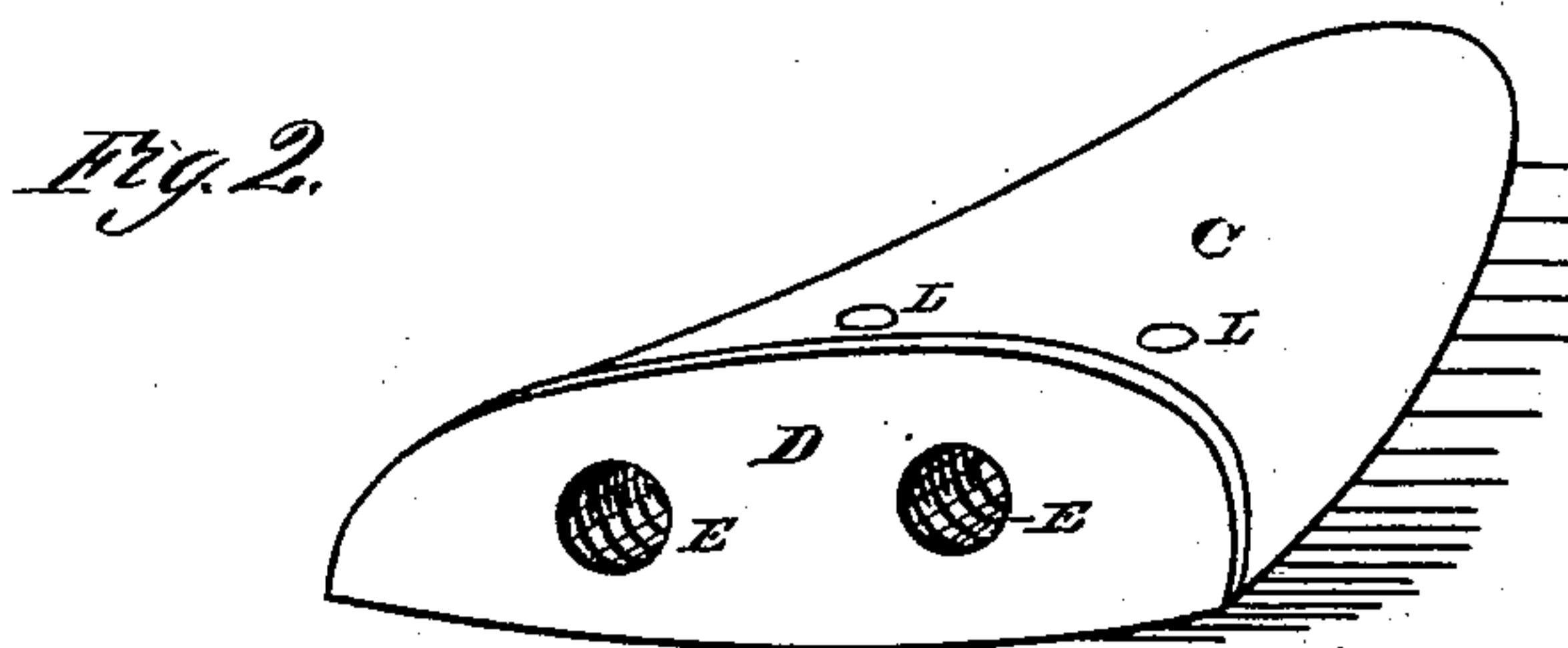
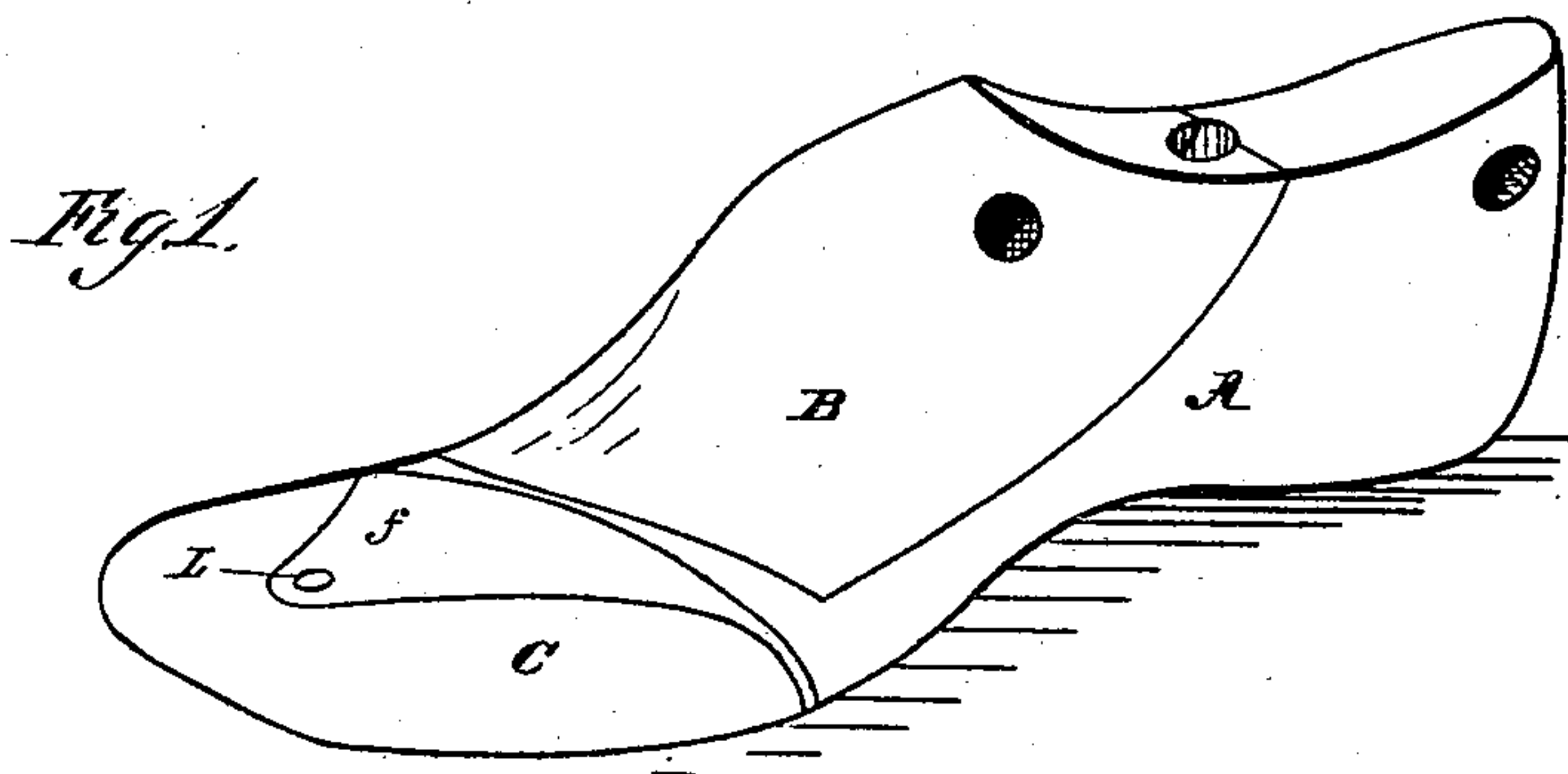
(No Model.)

F. H. HOLDEN.

Last.

No. 241,136.

Patented May 10, 1881.



WITNESSES—
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UNITED STATES PATENT OFFICE.

FRANK H. HOLDEN, OF CHICAGO, ILLINOIS.

LAST.

SPECIFICATION forming part of Letters Patent No. 241,136, dated May 10, 1881.

Application filed August 23, 1880. (No model.)

To all whom it may concern:

Be it known that I, FRANK H. HOLDEN, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Lasts; and I do hereby declare that the following is a full, clear, and exact description of the invention, reference being had to the accompanying drawings and to letters of reference marked thereon, which form a part of this specification.

This invention relates to lasts adapted to the manufacture of boots and shoes having removable and changeable toe parts, whereby the principal part or body of the last may be used with any one of several forms or styles of toe that may be required by a prevailing fashion. It consists in the features of construction hereinafter described, and pointed out in the claim.

In the drawings, Figure 1 is a perspective view of a last provided with my improvement. Fig. 2 is a perspective view of a toe-piece detached from the last-body. Fig. 3 is a vertical longitudinal section of the last-body and toe-piece through one of the fastenings, and Fig. 4 is a top view of the last with the block removed.

A represents the rear portion or main body of the last, B the block, and C the toe-piece, each separable from the others. The line of division between the parts A and C is transverse and vertical, and is located at or a little forward of the ball of the last, in front of which the changes in form or style invariably appear.

The toe-piece C is of wood, and D is a metal plate, having two tubular projections, F, which set horizontally into the toe-piece, and are interiorly threaded to receive the connecting-bolts G. Said bolts G are attached to the last-body A. In this instance they are permanently attached by having the heads or nuts H secured thereto by the pins *p*, which heads lie in recesses J of the last-body, and are accessible when the block B is removed.

The holes in the last-body through which the bolts G pass may be bushed, as shown at I, Fig. 3, and, if desired, metal plates may be interposed between the heads H and the wood upon which they bear in drawing the parts together. The heads H are preferably provided with holes in their periphery by which to turn them, instead of being squared, that the recess J may not be unnecessarily large and thus weaken the wood.

By turning the bolts G the part C may obviously be attached or removed at pleasure.

Several toe-pieces being provided to fit the same last-body, a corresponding number of styles of shoes may be made from the same last-body. It is believed that in the manufacture of shoes on a large scale this will effect an important saving in the cost of the lasts used.

The metal part D is firmly secured to the toe-piece, so as not to be loosened or detached by the hammering to which it is subjected, by means of the rivets L, inserted vertically through the projections F and the wood surrounding them. Marginal flanges *f*, overlying the wood, will serve to keep the toe-piece from splitting. If preferred, said flanges may be extended on top and bottom toward the toe, and secured by the rivet L, as seen in Fig. 1, instead of riveting through F.

In the drawings two connecting-bolts, G, are shown. Obviously a single bolt may be sufficient for strength, and will be more quickly manipulated. Dowels or their equivalent would in the use of a single bolt be necessary to hold the parts in proper relation, and will be desirable when two bolts are used.

The bottom plate now commonly applied to lasts used in manufacturing boots and shoes may be extended from one part centrally upon the other, and be screwed thereto, so as to materially re-enforce the connection herein shown and described.

I am aware that lasts have been made with changeable toe-pieces, wherefore I do not broadly claim this feature of construction; but I claim—

In combination with the body A and a connecting-bolt, G, the wooden detachable toe-piece C, provided with a metal part, D, projecting forward into or upon the toe-piece and secured by the rivet L, said metal part being recessed to receive and engage the connecting-bolt, substantially as described, and for the purposes set forth.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

FRANK H. HOLDEN.

Witnesses:

M. E. DAYTON,
JESSE COX, Jr.