

(No Model.)

M. L. WRIGHT.
LAST.

No. 438,671.

Patented Oct. 21, 1890.

Fig. 1.

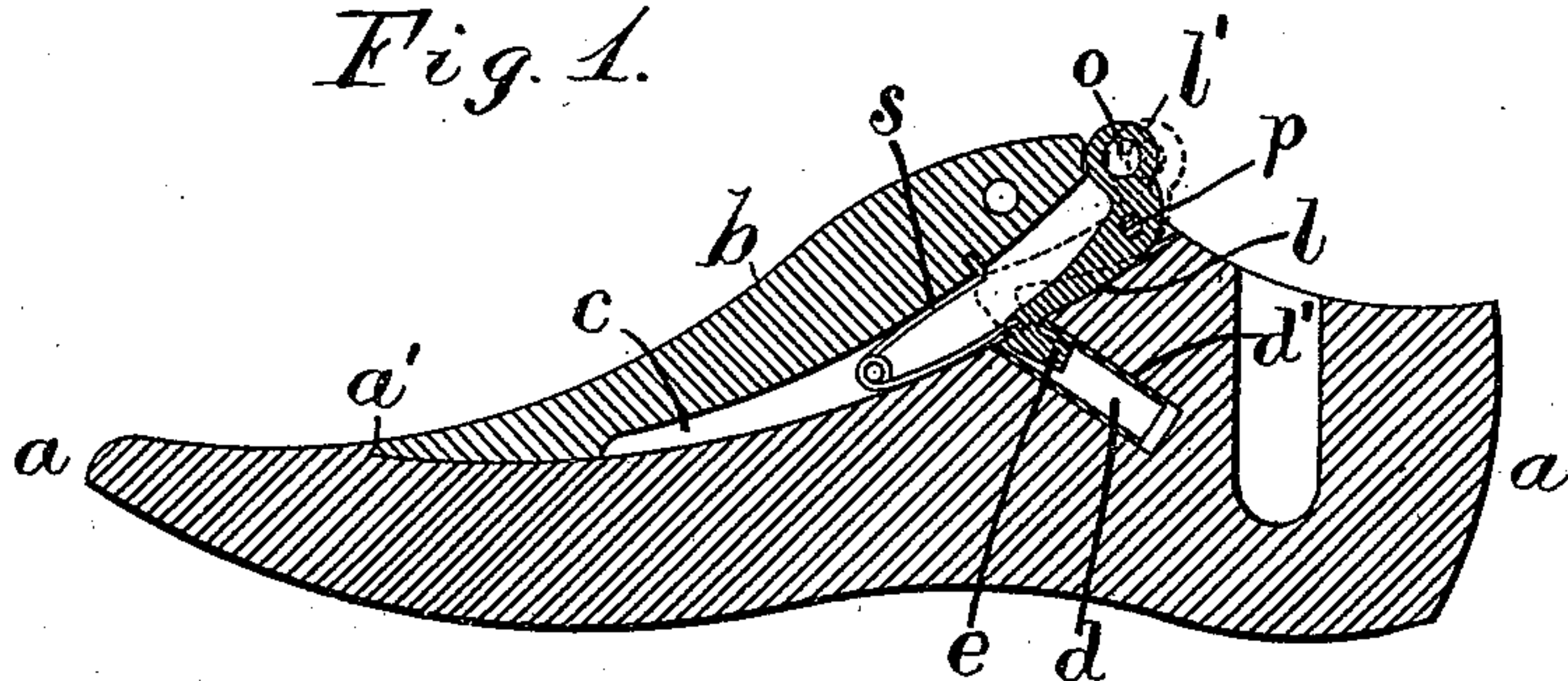


Fig. 2.

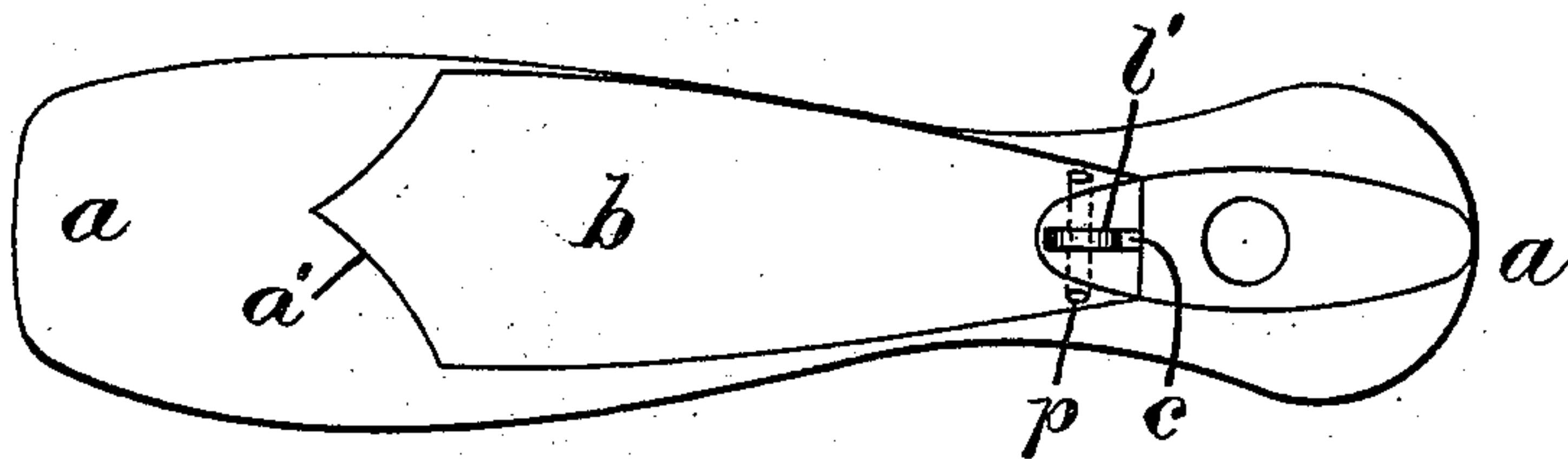
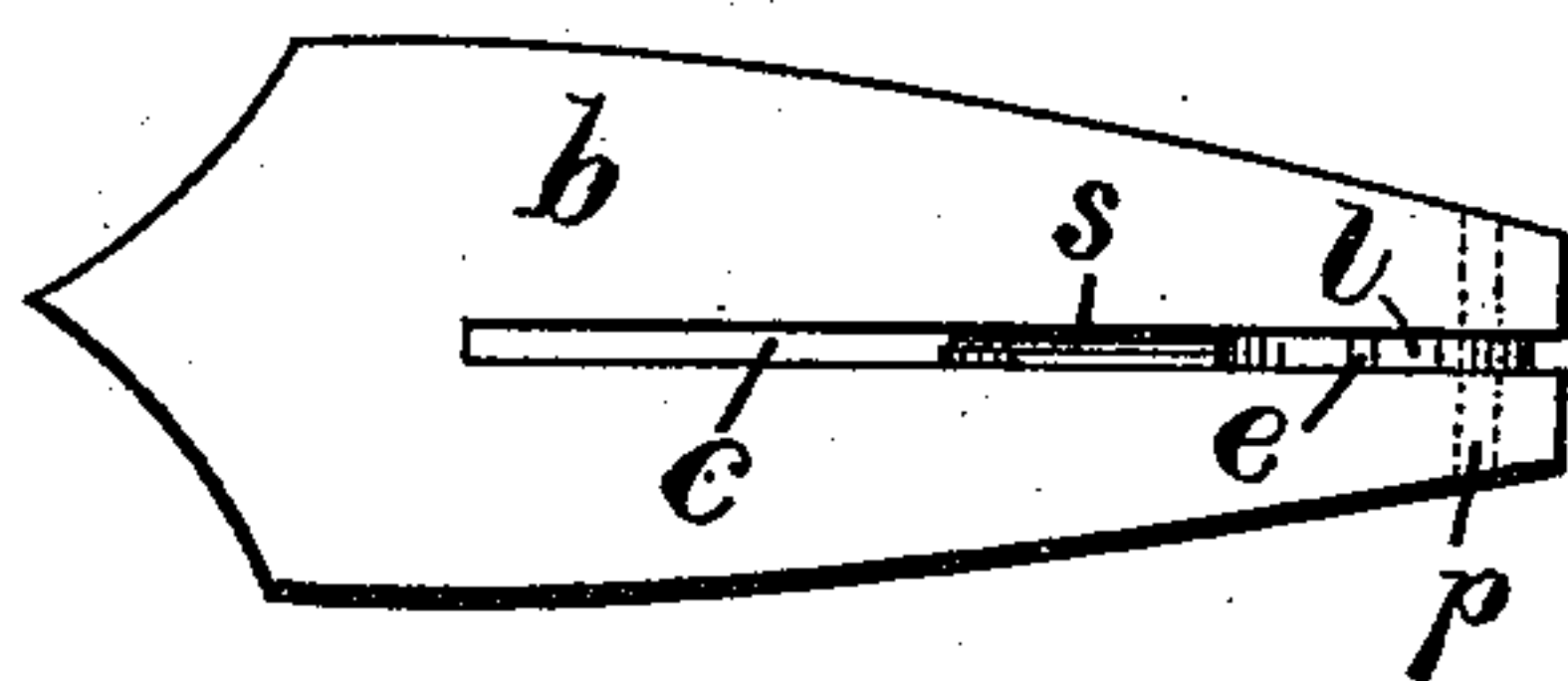


Fig. 3.



Attest:
L. Lee.
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UNITED STATES PATENT OFFICE.

MARCUS L. WRIGHT, OF NEWTON, ASSIGNOR OF ONE-HALF TO LYSANDER WRIGHT, JR., OF NEWARK, NEW JERSEY.

LAST.

SPECIFICATION forming part of Letters Patent No. 438,671, dated October 21, 1890.

Application filed February 20, 1890. Serial No. 341,193. (No model.)

To all whom it may concern:

Be it known that I, MARCUS L. WRIGHT, a citizen of the United States, residing at Newton, Sussex county, New Jersey, have invented certain new and useful Improvements in Last-Block Fasteners, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

10 This invention relates to an improvement in the lasts employed in forming gaiters and similar articles of foot-wear which are not sufficiently elastic or adapted to be opened over the instep to withdraw the last-block in
15 order to detach the body of the last after its function is performed.

The invention consists in the specific construction herein shown and described.

20 In the annexed drawings, Figure 1 is a longitudinal section of a last with its block and having my improvement applied thereto. Fig. 2 is a plan of the same, and Fig. 3 is a view of the under side of the last-block.

25 *a* is the body of the last, and *b* the instep or last block.

c is a slit formed in the under side of the block *b*, and *d* is an aperture in the body of the last directly opposite the slit *c*.

30 The bent lever is composed of two arms *l* and *l'* at an angle with each other and pivoted at their junction in the slit *c* by means of the pin *p*. The arm *l* lies wholly within the slit, and is provided at its free end with a hook or latch *e*, projected outwardly there-
35 from to engage the side of the aperture *d* when the block is applied to the body of the last. The arm *l'* projects from the upper end of the slit, and is provided with an eye *o*, by which it may be conveniently actuated by the
40 application thereto of a hook or cord.

45 A spring *s* is applied between the bottom of the slit *c* and the arm *l* to press the latter with its latch *e* outward. The aperture *d* is preferably lined with a piece of metal tubing *d'*, as shown in Fig. 1, to protect the sides of the aperture from wear.

As shown in the drawings, the aperture *d* and the hook *e* (when in its normal position) are inclined backwardly to the under surface
50 of the block *b* in order to draw the upper end

of the block firmly upon the body of the last and to force the same forward that its forward end may engage the undercut edge *a'* of the latter. In applying the block to the last-body its forward end is abutted against
55 the shoulder *a'* upon the body *a* fitted thereto, and its opposite end is then pressed toward the last-body. The latch enters the aperture *d* and engages the upper side of the same.

To detach the block a hook or cord inserted
60 in the eye *o* of the lever is drawn backward, thus operating to swing the lever around, as shown in dotted lines in Fig. 1, and to disengage the latch from the side of the aperture *d*, after which, by the continued withdrawal
65 of the hook or cord attached to the eye *D*, the block itself is drawn backward and detached wholly from the last-body, thus permitting the easy withdrawal of the latter from the shoe.

70 The arrangement of the arms of the bent lever at an angle with one another forms a bell-crank, with the outer arm *l'* projecting from the upper end of the slit at an angle with the joint between the body *a* and the
75 last-block *b*. The position of the projecting arm thus enables it to perform another function—namely, to disengage the latch and also to draw the block backward and remove it from the shoe by the same movement. The
80 operator is thus enabled to unlatch the last-block and remove it from the shoe by a single pulling movement upon the arm *l'*. The tension applied to such arm by a hook or cord inserted in the eye *o* operates first by reason
85 of the angular relation of the arm *l'* and the joint to pull the arm out of the slit and disengage the latch, while the same continuous pull upon the arm draws the block backward out of the shoe.

90 I am aware that a last-block has been secured by the engagement of a spring-bolt with a hole in a plate upon the last-block, and that such last-block could be withdrawn by pressing a suitable hook into the hole to force out
95 the spring-bolt and then pulling upon the hook to withdraw the last-block from the shoe; but in my invention a bent lever with arms *l* and *l'* is used instead of a sliding bolt, and a single tension or pull upon the arm *l'* suffices
100

to disengage the latch and retract the block from the shoe.

I am aware that hooks analogous to mine have been pivoted in recesses in the under side of a last-block, and I do not therefore claim such hooks, broadly, but disclaim the construction I have described and limit my invention to a construction in which the hook and its actuating-spring are both secured in the last-block, as described, and the hook is provided with an arm at such an angle to the joint of the body *a* and block *b* that a single pull upon the arm serves to disengage the hook and retract the last-block from the shoe.

Having thus set forth the nature of my invention, what I claim herein, and desire to secure by Letters Patent, is—

The combination, with the last *a*, provided with the aperture *d*, of the last-block *b*, pro-

vided with the slit *c*, the bent lever pivoted to the last-block in the slit, with arm *l*, having the hook *e*, and the arm *l'*, projected outside of the slit at an angle with the joint between the last and the block *b*, and provided with the eye *o*, and the double-armed spring *s*, inserted in the slit between the block and the arm *l*, and the spring, the bent lever, and the last-block being disengaged and detached from the last by a direct pull upon the arm *l'*, substantially as herein set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

MARCUS L. WRIGHT.

Witnesses:

FRANCIS J. SWAYZE,
HENRY C. HUNT.