(No Model.)

3 Sheets—Sheet 1.

A. F. PRESTON.

JACK FOR BOOTS OR SHOES.

No. 502,756. Patented Aug. 8, 1893.

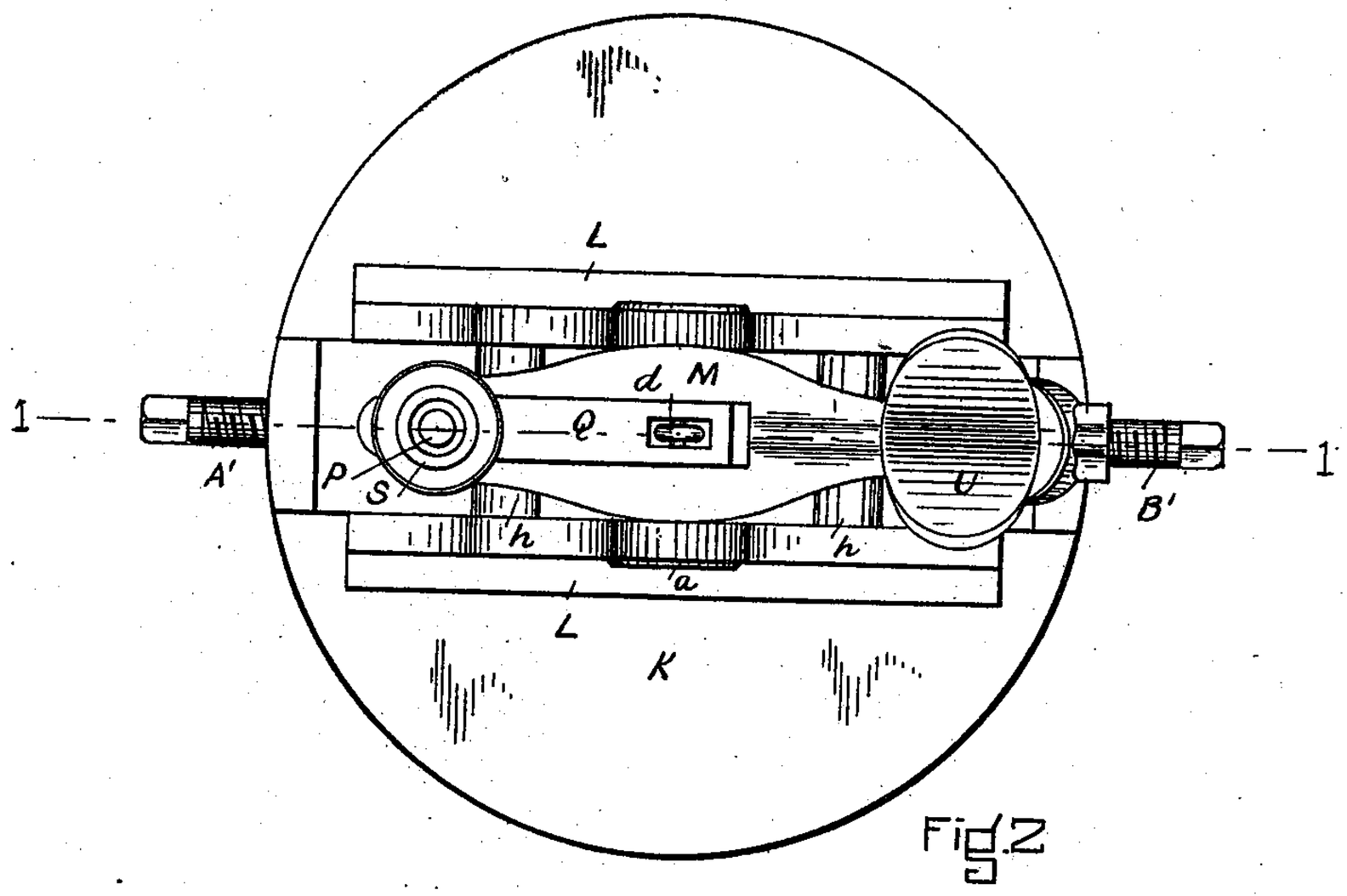

Fig. 2

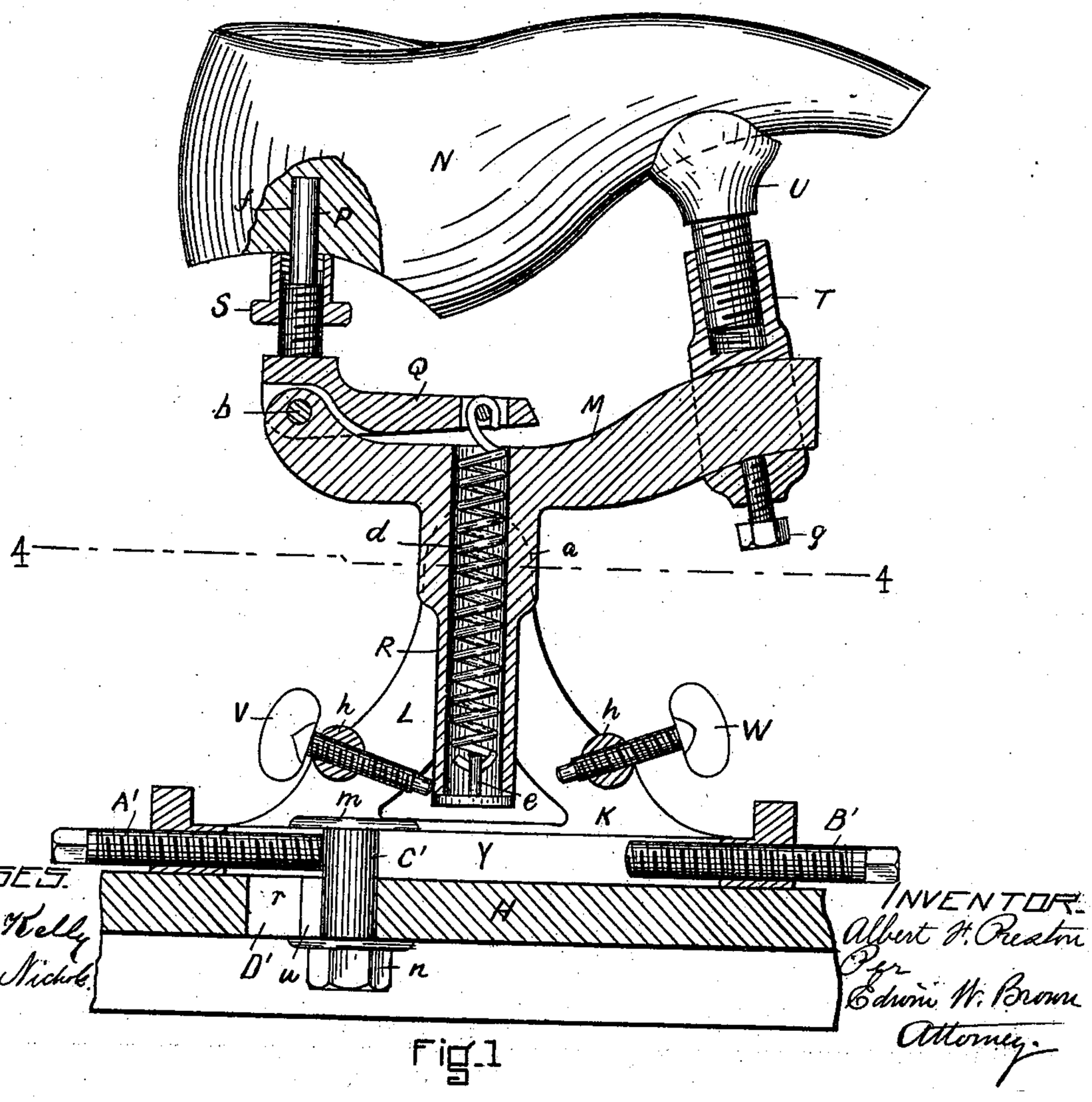

Fig. 1

WITNESSES.
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(No Model.) 3 Sheets—Sheet 2.

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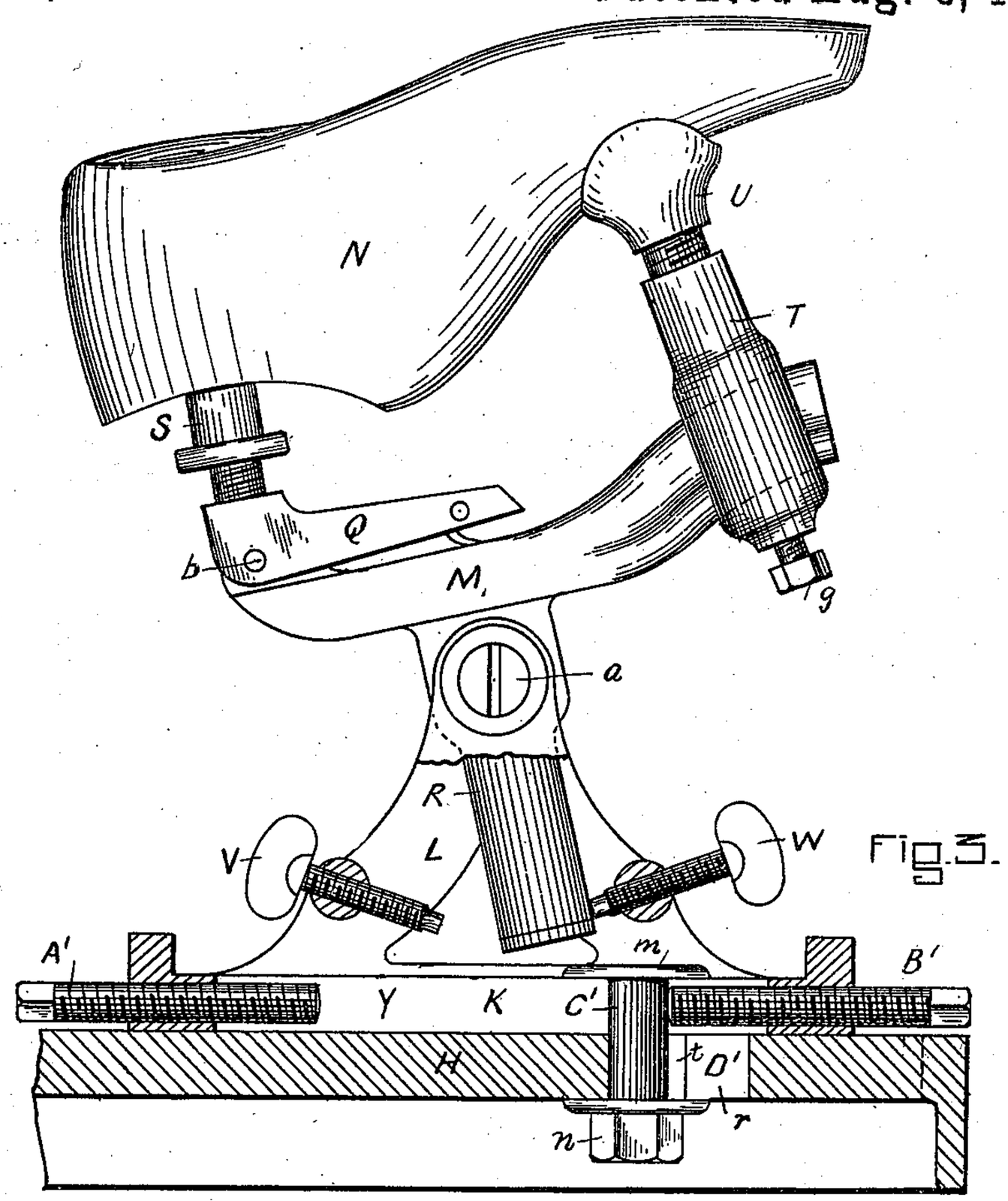

Fig. 5.

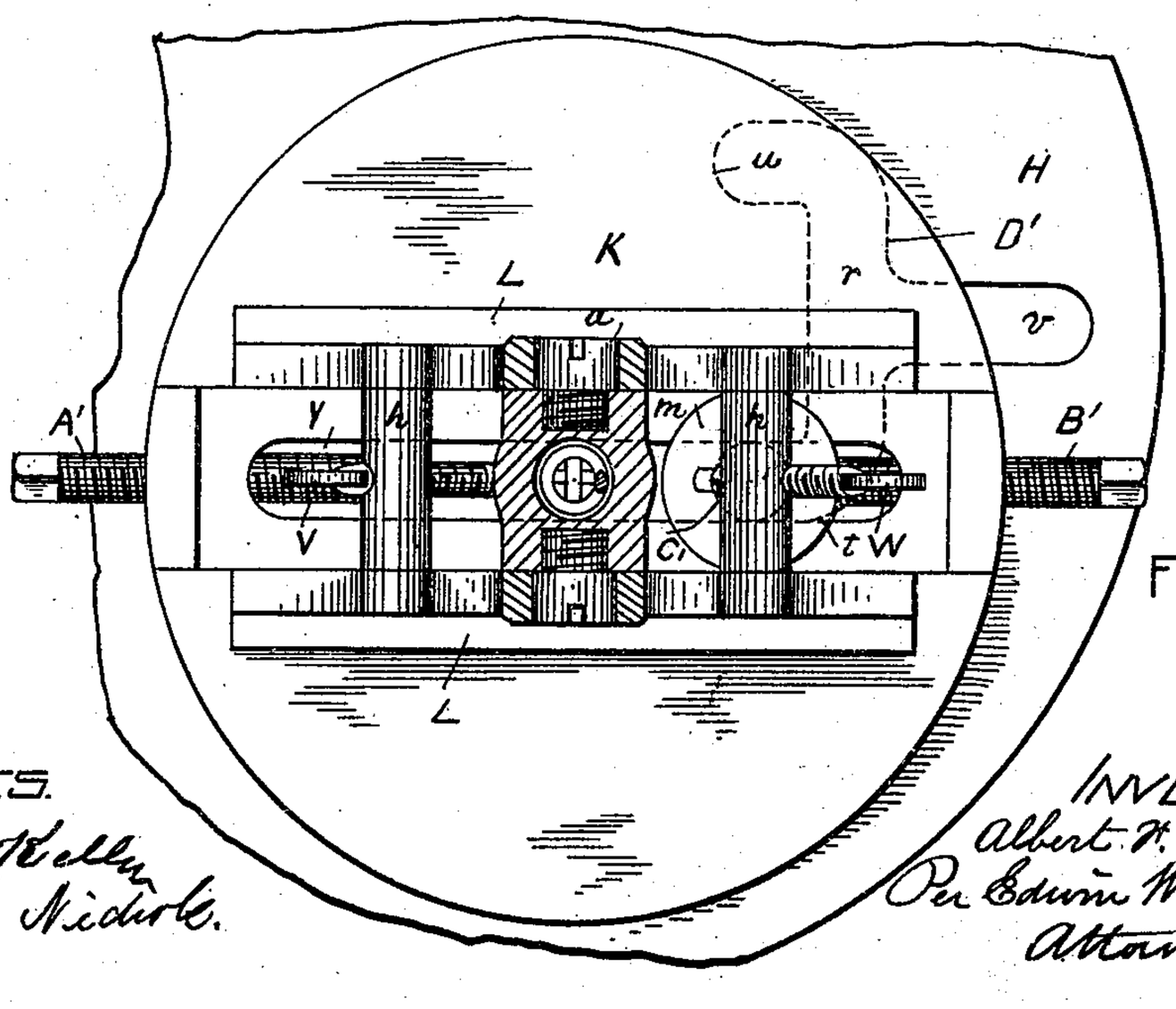

Fig. 4.

WITNESSES.
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(No Model.) 3 Sheets—Sheet 3.

A. F. PRESTON.

JACK FOR BOOTS OR SHOES.

No. 502,756. Patented Aug. 8, 1893.

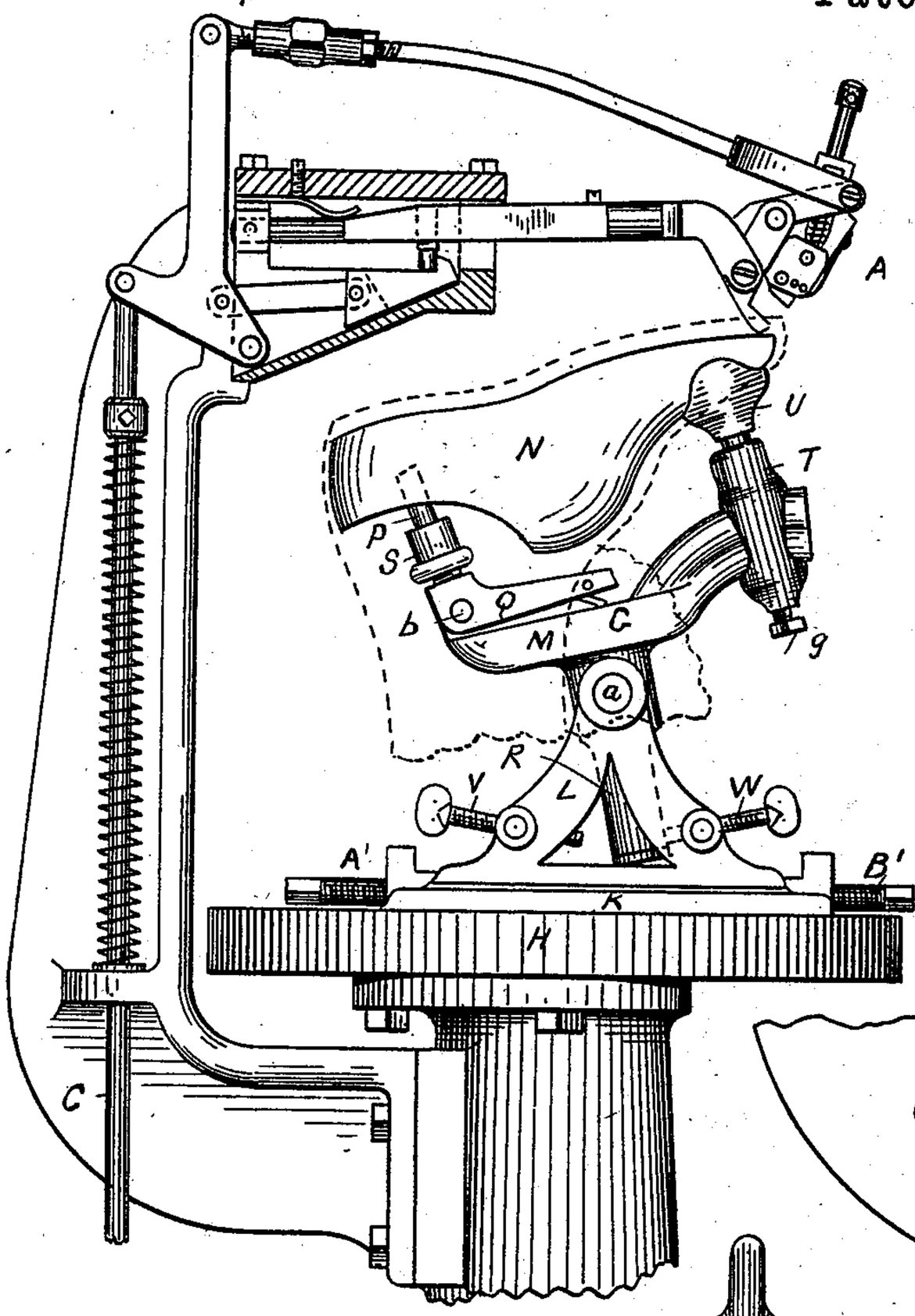

Fig. 5

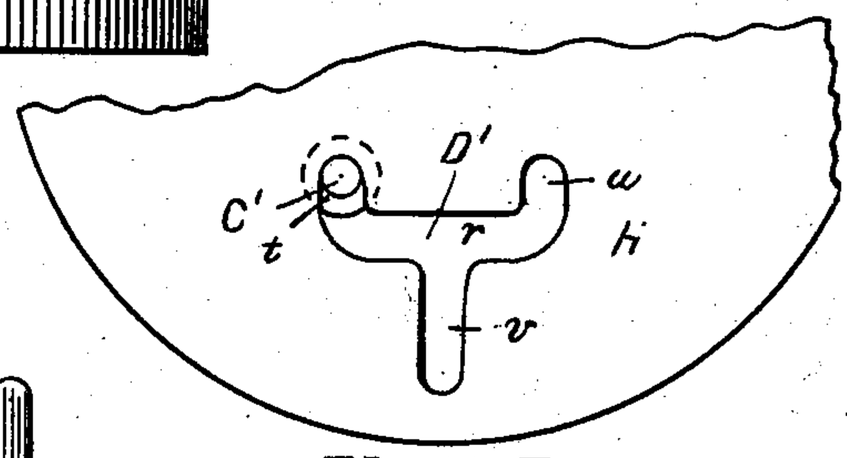

Fig. 7.

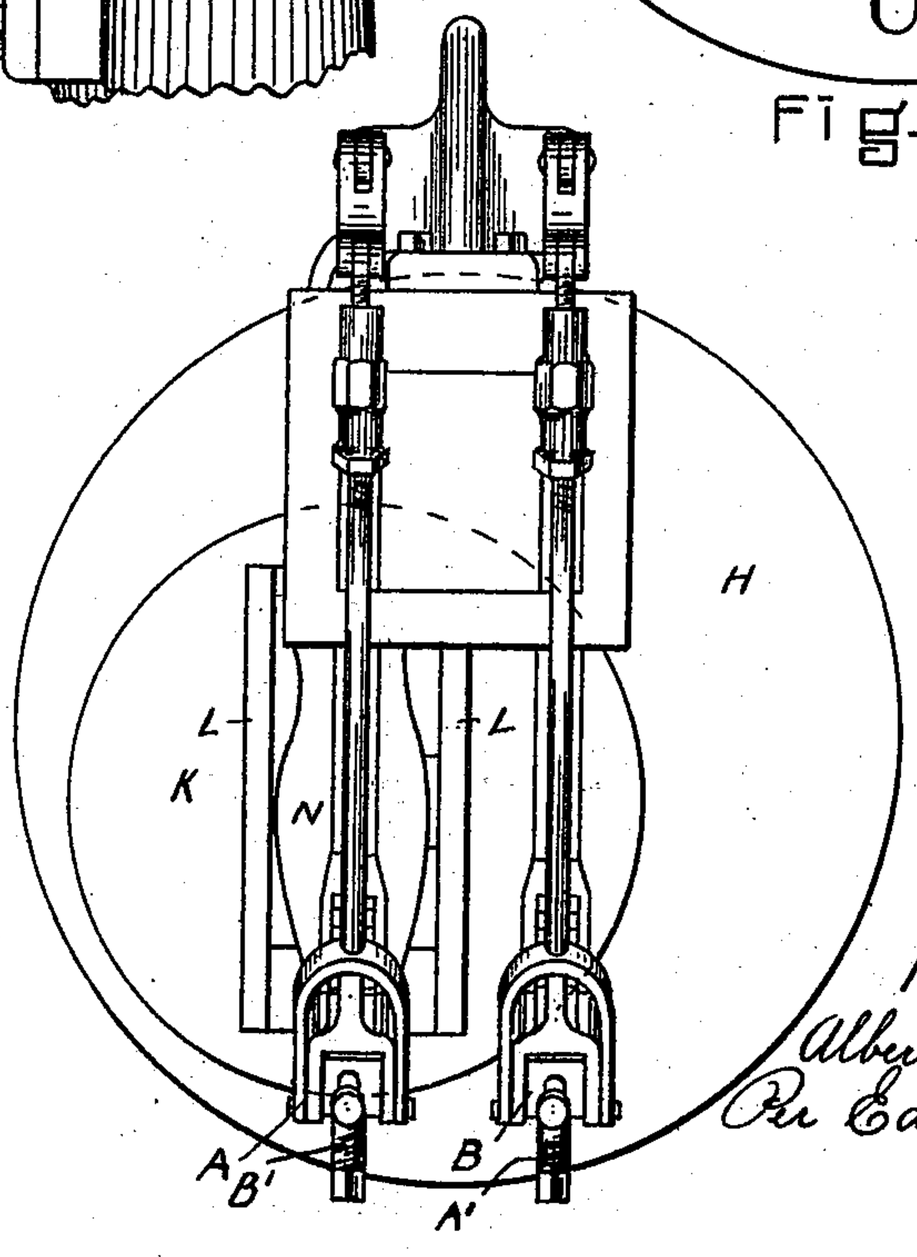

Fig. 6.

WITNESSES
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INVENTOR
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UNITED STATES PATENT OFFICE.

ALBERT F. PRESTON, OF LYNN, MASSACHUSETTS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE COLUMBIAN LASTING MACHINE COMPANY, OF PORTLAND, MAINE.

JACK FOR BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 502,756, dated August 8, 1893.

Application filed November 20, 1888. Serial No. 291,321. (No model.)

To all whom it may concern:

Be it known that I, ALBERT F. PRESTON, of Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Jacks for Boots or Shoes, of which the following is a full, clear, and exact description.

This invention relates to improvements in jacks, for holding boots or shoes while being lasted, and more particularly to its arrangement on its support so it can be moved about thereon and be adjusted to present the toe or heel, or any part of the boot or shoe to the lasting tool or implement, and more particularly intended to be used in connection with a machine for lasting the heel and toe of a boot or shoe, for which I have this day made application for Letters Patent of the United States, and the invention consists of a jack for holding boots or shoes while being lasted, constructed and arranged for operation, all substantially as hereinafter fully described.

In the accompanying sheets of drawings is illustrated the present invention.

Figure 1, is a vertical central cross section of the jack with a last in position thereon. Fig. 2, is a plan view with the last removed. Fig. 3, is a partial side view and partial central vertical sectional view of the jack, and support for the same. Fig. 4, is a cross section on line 4—4, Fig. 1, and plan view below that line. Fig. 5, is a side elevation of a lasting machine constructed and arranged according to the machine described and shown in said application, with this improved jack arranged in connection therewith. Fig. 6, is a plan view of Fig. 5, and Fig. 7, a detail plan view, Figs. 1 to 4, inclusive being enlarged.

The lasting machine for boots or shoes described and shown in said application, which is shown in Figs. 5 and 6, of the present application is constructed and arranged for operation briefly as follows.

In the drawings A, B, Figs. 5 and 6, represent two jaws for grasping and holding between them, the upper of the boot or shoe to be lasted, and they are operated by the several parts, connected by the pitman rod C, to a treadle, not shown in the drawings, the jaws being operated in such manner that they will grasp the upper of the boot or shoe at its edge, and then pull the same up and over the edge of the inner sole, gathering the same in folds, and holding it down close to the inner sole, when tacks are placed in tubes connected to the upper jaw, and driven and clinched by suitable drivers: and in such machine there are two sets of jaws with their separate operating parts arranged side by side independent of each other, shown in plan in Fig. 6, one set A, of which is for operation on the toe and the other set B, for operation on the heel of the boot or shoe, and the jack G, of the present invention is constructed and arranged on the table or support H, of the standard J, as shown in the figures so that it can be easily moved about thereon from one pair of jaws A, to the other B, and vice versa, for first one set of jaws to operate upon the upper and then the other set of jaws as desired, the jack being constructed and arranged so that it can be adjusted to the proper position for the action of the sets of jaws on the upper, to last the toe or heel as desired.

The jack G, has a base K, and two uprights L, between which is pivoted at *a*, an arm support M, for the last N, to swing vertically thereon, the base K, resting on the horizontal bed or plate H, on which bed the jack can freely move back and forth.

The arm M, has a pin P, pivoted thereto at *b*, which has an arm Q, to which is attached by one end a spiral spring *d*, located within the downward extension R, of the arm M, and secured by its other end to a pin *e*, in the bottom thereof. The pin P, is of a size to fit the usual socket *f*, in the heel of the last and has an external screw thread over which screws the nut S, on which the last rests when placed on the pin, and the turning of which screw nut raises or lowers it on the pin, and thus the height of the heel of the last is adjusted on the jack. The other end of the arm M, has a block T, having an opening surrounding and fitting over such end, and arranged to move back and forth thereon, and having a set screw *g*, arranged to bear against the arm, by which the block can be secured in place when adjusted on the arm. This block has a hollow

rest U, for the toe portion of the last, arranged to screw into a socket, in the block as shown in Fig. 1, to adjust and regulate its height.

Placing the heel of the last by its socket *f*, on the pin P, and the toe in the hollow of the toe piece U, as shown in Figs. 1, 3, and 5, more particularly, the tension of the spring *d*, serves by its pull upon the arm Q, to hold the last firmly in place thereon, all as usual and as is well known.

In each cross piece *h*, on each side of the jack, between the two uprights L, is a thumb screw V, W, each arranged to screw through its respective cross piece, on a line, or substantially on a line with a vertical circle, concentric with the pivot *a*, the inner end of these screws projecting inward and in position for the extension R, of the jack as it is swung on its pivot, to bear or rest against, either one or the other of them, as the case may be, the turning in or out of the screw against which the extension is bearing regulating and adjusting the elevation of either the toe or heel end of the jack, according as the jack is swung to the right or left on its pivot for the presentation of the heel or toe of the boot on the last, in a horizontal position, for the better operation of the lasting or working jaws or tools on the upper of the boot or shoe.

The jack has an elongated slot Y, in its base plate K, which slot is in the same vertical plane with the central vertical longitudinal line of the last, when on the jack, and in the same plane and screwing horizontally into each side of the base plate so as to project, one into each end of the slot Y, and longitudinally toward each other, are screws A′ and B′.

C′, is a pin passing loosely through this slot Y, having a head *m*, which is disposed across the slot and upon the upper side of the base plate, it also extending through a peculiarly arranged slot D′, in the bed plate H, and having a screw nut *n*, on its lower end, on the under side of the bed plate, and screwing against a shoulder on the pin, by which the pin is secured in place and kept from accidental escape, but is left free for the jack base to freely slide back and forth on the bed plate and the pin along the slot in the bed plate. The construction and line of this slot D′, is shown in plan view in Figs. 4 and 7, it having a portion *r*, extending transversely of the plate in relation to the front of the machine, and two right angular backward projecting portions *t*, *u*, one at each end of the portion *r*, and a central right angular portion *v*, extending toward the front.

To operate the jack move it forward upon its bed plate so that the pin C′, will move into and up to the front end of the portion *v*, of the slot or groove D′, which will bring the jack sufficiently forward and out from under and free and clear of the jaws on the lasting machine, so that the last with the boot or shoe thereon can be easily and conveniently placed in position on the jack, and when so placed with the boot or shoe properly placed thereon, to last the toe of the boot or shoe by the lasting machine, swing the jack on its pivot *a*, to bring the last with the boot into the position shown in Figs. 3 and 5, screwing out or in the screw W, until the portion of the inner sole at the toe of the boot is in a horizontal or substantially horizontal plane, as shown in Figs. 3 and 5, then move the jack on the table H, the pin C′, sliding along the portions *r*, *v*, of the slot or groove D′, into the portion *t*, and press it closely against its farther end: the jack also moving by its slot Y, along over the pin C′, until its screw B′, abuts against said pin C′, which screw, is turned in or out (the jack pin still abutting against the end of the slot *t*), until the center of the circular outline or edge, of the toe in under the jaws A,—or lasting tool or other implement, or vertically or substantially vertically over the center of the jack pin C′, when in position, and bearing against the farther end of the slot portion *t*, all of which movement brings the boot or shoe at the toe in position for the proper action of the lasting jaws at A, or the left in Fig. 6, on the upper of the boot or shoe to last one side or corner of the toe, as shown in Fig. 5. To last the other side of the toe, the jack is swung upon the pin C′, into position for the lasting tool to act upon it and after it is lasted, to bring the jack into position to last the heel, pull the jack forward on the bed plate, its pin C′, moving through the portions *t* and *v*, into the portion *u*, of the slot until it bears and rests in its farther end, the jack being also turned half round so as to bring the heel in position under the jaws for operation thereon, and the jack is then swung on its pivot *a*, until its extension R, abuts against the other screw V, as shown in Fig. 1, the screw being turned in or out until (with the extension of the jack bearing against it) the surface of the heel is in a horizontal, or substantially a horizontal plane, and the screw pin A′, being pressed closely against the pin C′, and the pin firmly against the farther end of the slot *u*, which screw V, then being turned in or out, until with the screw pressing against the pin, the center of the outline or edge of the heel of the boot or shoe is under the lasting jaws, at B, or the right in Fig. 6, or vertically over or substantially vertically over the center of the pin C′, which brings the heel in position for the lasting jaws at B, to operate on the heel as before for the toe, and after one side of the heel is lasted and the upper secured, the jack is turned sufficiently on its pin C′, for the other side of the heel to be lasted, the jack being otherwise held in its other relative positions.

The jack when moved forward on the bed plate and the pin C′, along the slot or groove Y, in to the front portion *v*, of the slot, brings the jack out from under and clear of the lasting jaws or tools, so that, then, the last can be easily and conveniently removed from the jack, and the last with another boot or

shoe placed thereon, when the jack can be moved again along the plate into position, for the presentation of the boot or shoe to the lasting jaws or tool to last its toe or heel as desired and as has herein been described.

Although the construction and arrangement of the adjusting parts of this jack, are more particularly intended for use in connection with the lasting machine described and shown in said application, it is obvious it is applicable for use in connection with other lasting machines and especially where two sets of lasting tools or implements are operated in one machine, and it is not intended to limit the use of the invention to the use of any particularly lasting machine.

If desired the pin C′, can be made to swivel in the bed plate without moving otherwise, dispensing with the slot D′, as with only one lasting tool or implement the jack would not need to be moved about on the bed plate except through the slot portion *v*, the portions *t*, *u*, of the slot being for the purpose of allowing the jack to be moved from one lasting tool to another.

The portion *v*, of the slot may be dispensed with and only use the portions *t*, and *u*, for the changing of the jack from one lasting tool to the other, as in the use of some lasting tools it might not be needed, but with the lasting tools described and shown it is preferable to have it, although in lieu of making a narrow or special slot *v* the bed plate might be cut away each side more than shown, sufficient to allow the jack to be moved forward at any point, front of the rear bearing places, but it is preferable to make it in the form shown, as it leaves the bed plate more solid and the better rest for the jack.

In lieu of using adjustable pins or stops A′, B′, the pin C′, can abut against the ends of the slot Y, the slot being of a proper length. It is preferable however to use the screw pins as being thus adjustable the jack is adapted to all sizes of lasts.

Having thus described my invention, what I claim is—

1. In a jack for boots and shoes, the combination with a base plate, provided with a pin C′, of a slot D′, in the table or support, having a central or middle portion *r*, and two backward extending portions or bearings *t*, *u*, for the jack by its pin to move and rest therein for the purpose specified.

2. In a jack, for boots and shoos, the combination with its base plate provided with a pin C′, of a slot D′, in the table or support, consisting of a central or middle portion *r*, two backward extending portions or bearings *t*, *u*, and a central forward extended portion *v*, for the jack by its pin to move and rest therein, for the purpose specified.

3. In a jack for boots and shoes, the combination with its base provided with adjustable stops V, W, and having an elongated slot Y, and provided with an adjustable stop projecting into said slot in the same vertical plane, and an arm or support M, for the last, provided with a downward extension R, and arranged to swing on a pivot for said extension to abut against said stops V, W, of a pin C′, secured to a suitable support and engaging with said slot for the purpose specified.

4. In a jack for boots and shoes, the combination with its base provided with adjustable stops V, W, and having an elongated slot Y, and provided with an adjustable stop projecting into said slot in the same vertical plane and arm or support M, for the last provided with a downward extension R, and arranged to swing on a pivot for said extension to abut against said stops V, W, of a pin C′, engaging with said slot, arranged in a slot D′, in the table or support having a central or middle portion *r*, and two backward extending portions or bearings *t*, *u*, for the jack by its pin to move and rest therein, for the purpose specified.

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

ALBERT F. PRESTON.

Witnesses:
EDWIN W. BROWN,
CARRIE E. NICHOLS.