

(No Model.)

J. W. DODGE.  
BOOT AND SHOE JACK.

No. 244,987.

Patented Aug. 2, 1881.

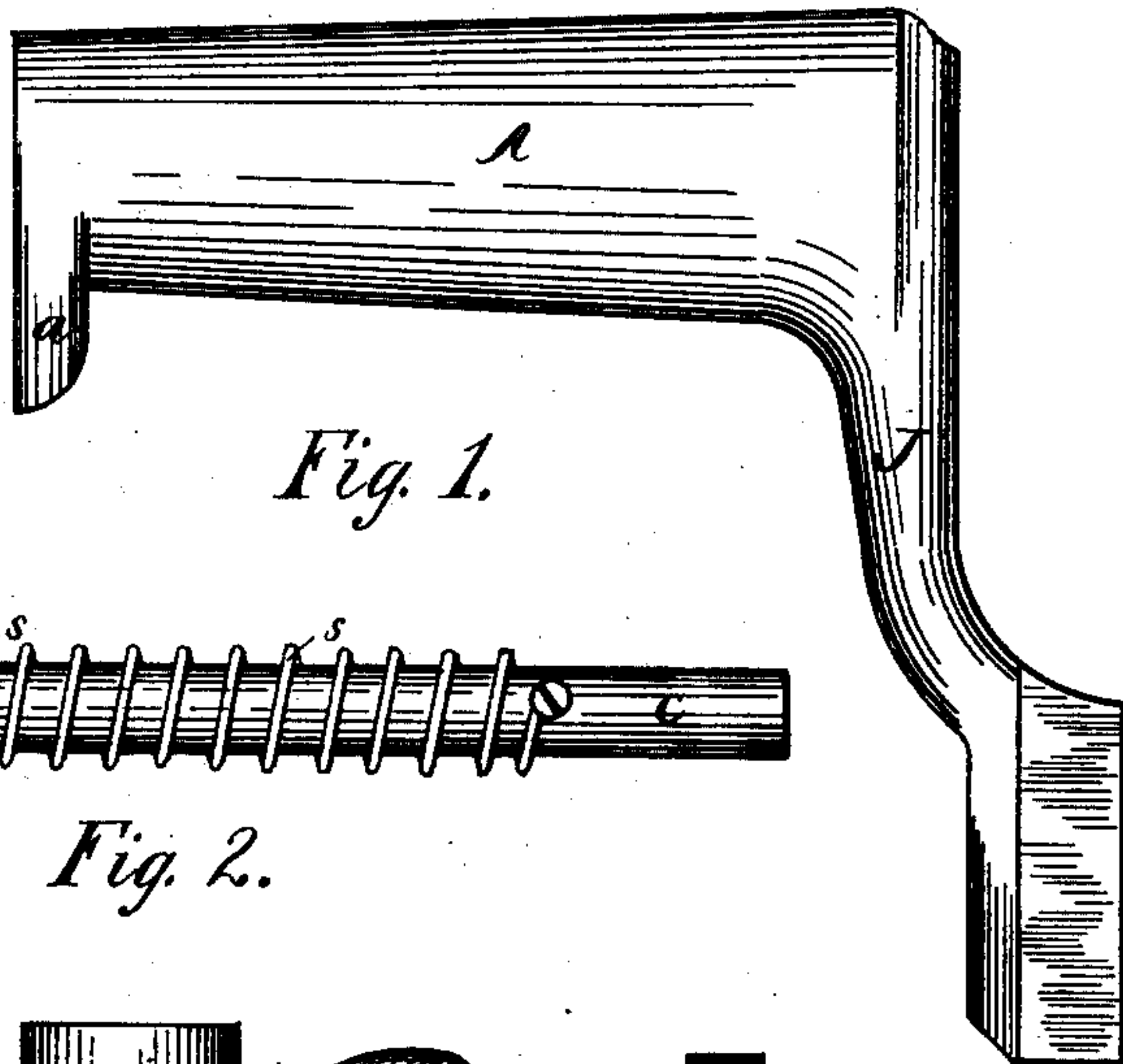


Fig. 1.



Fig. 2.



Fig. 3.

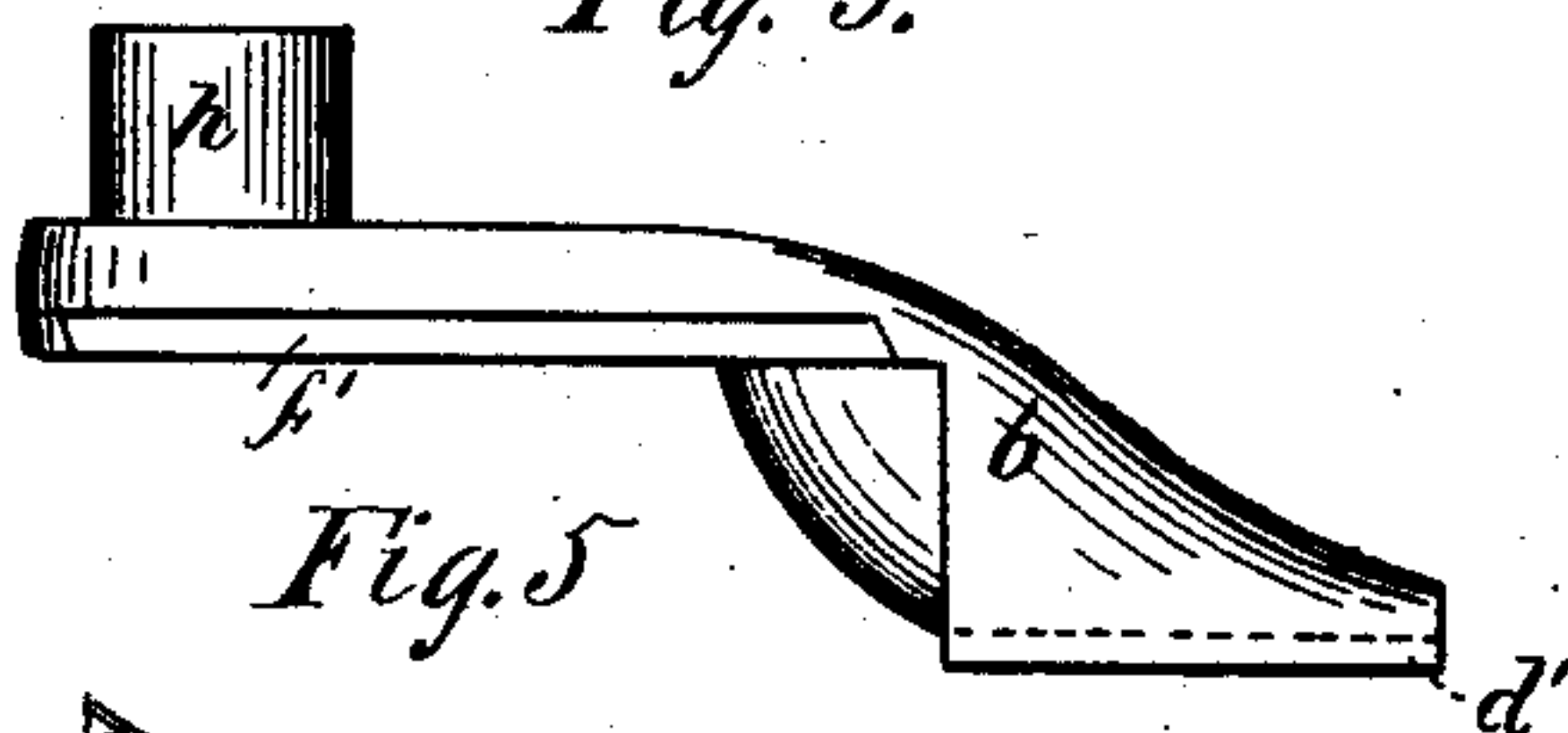


Fig. 5.

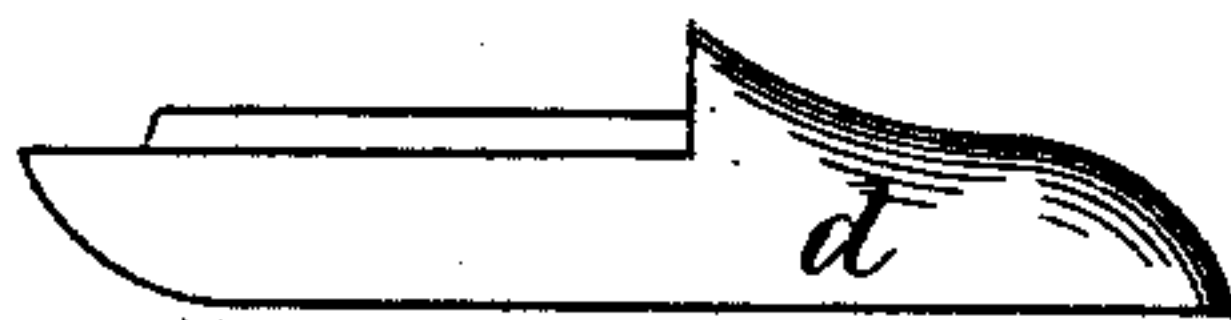


Fig. 6.

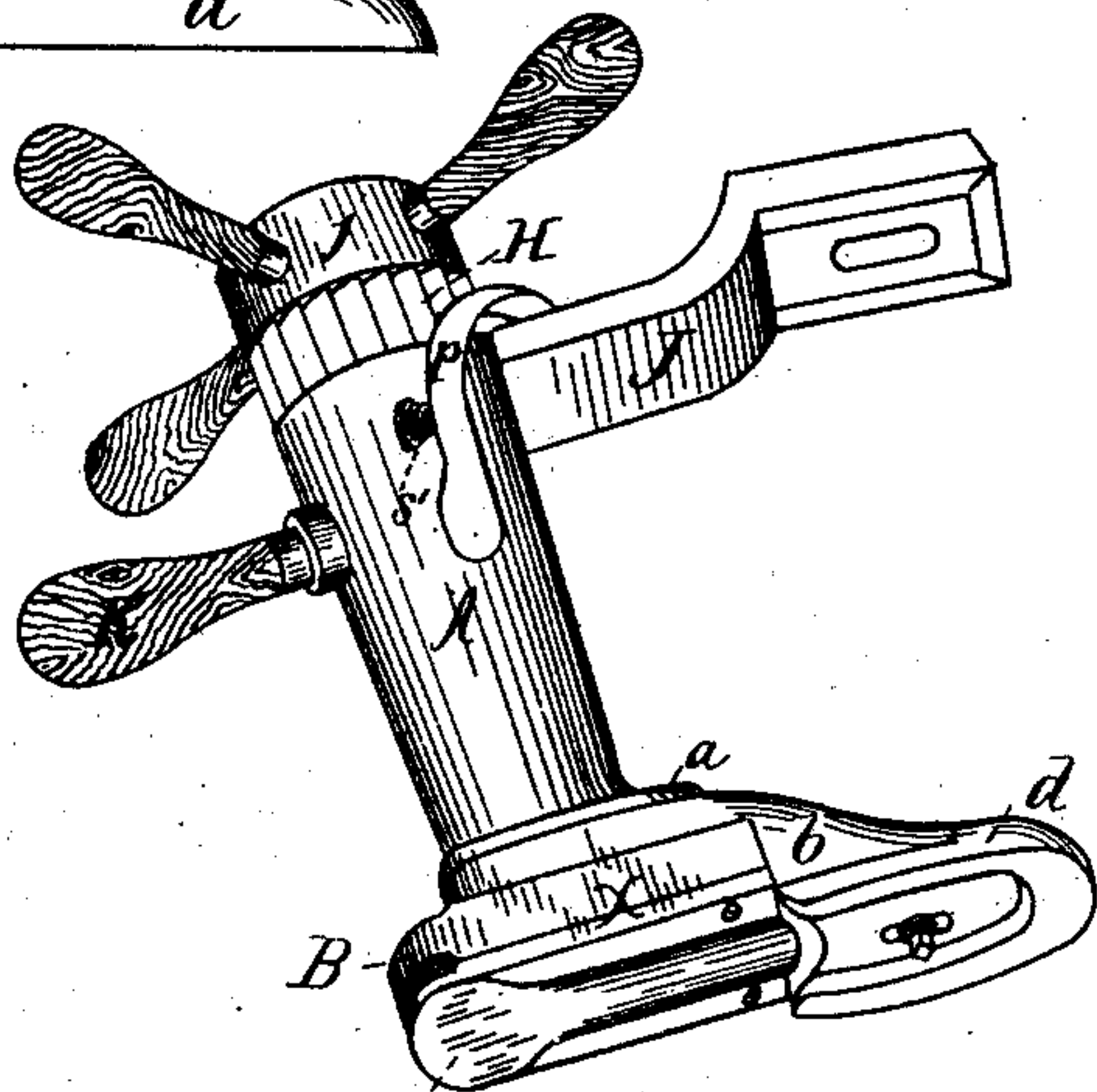


Fig. 8.

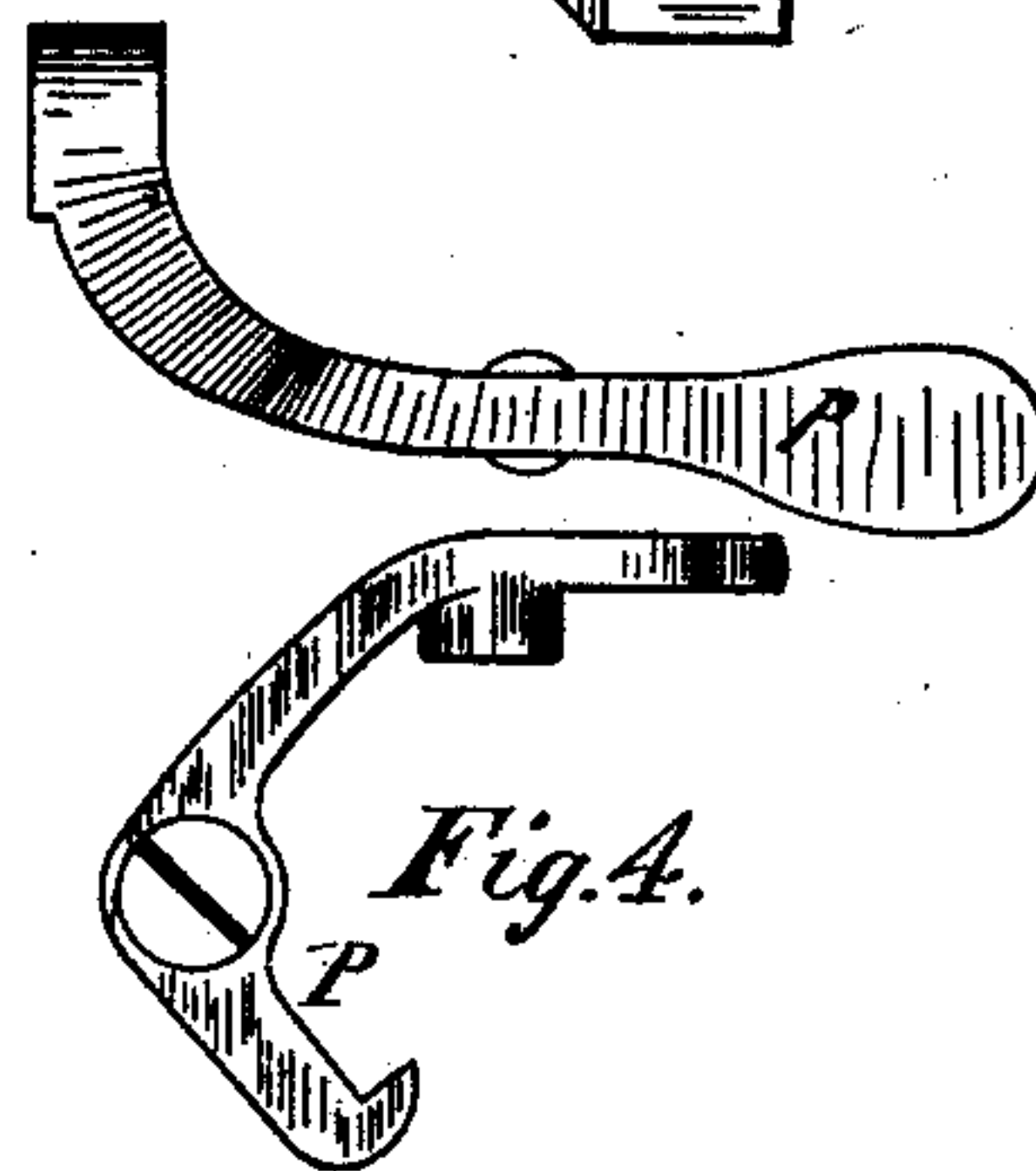


Fig. 4.



X

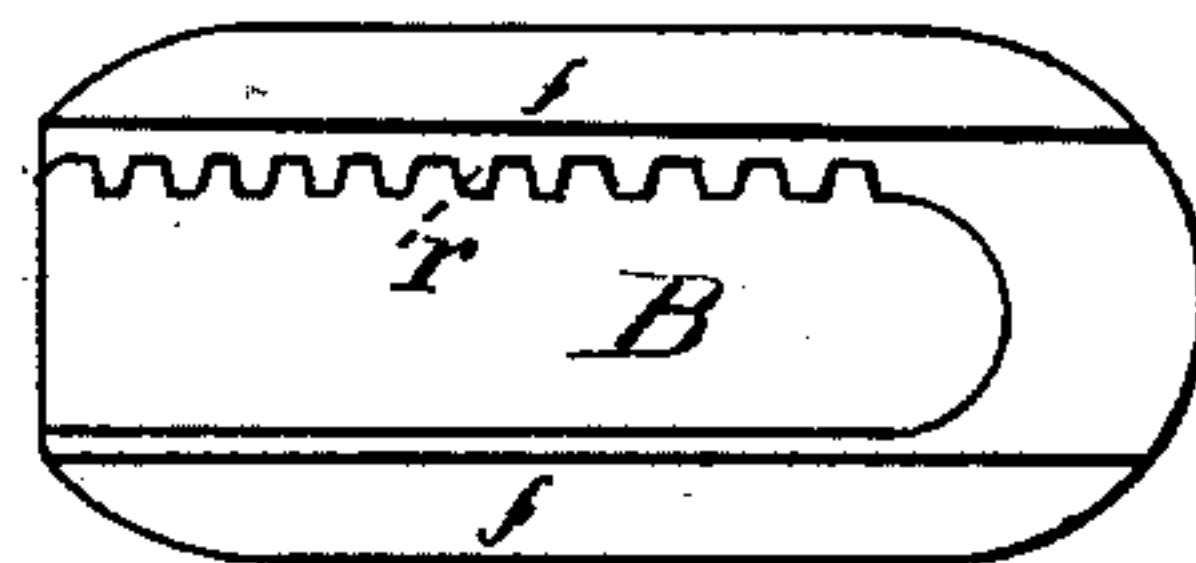


Fig. 7.

Witnesses:

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# UNITED STATES PATENT OFFICE.

J. WESLEY DODGE, OF MALDEN, MASSACHUSETTS.

## BOOT AND SHOE JACK.

SPECIFICATION forming part of Letters Patent No. 244,987, dated August 2, 1881.

Application filed May 19, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, J. WESLEY DODGE, of Malden, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Boot and Shoe Jacks or Holders, of which the following is a full, clear, concise, and exact description, such as will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawings, which form part of this specification.

The object of my invention is to make an adjustable jack for the purpose of holding the boot or shoe firmly while the edges of the sole are being trimmed by the improved trimming-machine for which Letters Patent were issued to me March 8, 1881, or while the boot or shoe is being operated upon by hand, or by any machine or apparatus to which the jack may be attached.

Figure 1 shows the body of the jack when the other parts are disconnected from it. Fig. 2 shows a shaft, *c*, which passes through the body of the jack, and a spiral spring which encircles the shaft, and also a pinion attached to one end of it. Fig. 3 shows a ratchet-wheel having a hub cast solid to it, and handles projecting from the hub *j* in different directions, for the purpose of revolving the ratchet and the shaft which passes through the body of the jack, and to which the ratchet is attached. Fig. 4 shows a pawl which may be attached to the body of the jack, and which catches in the teeth of the ratchet *H*, (shown in Fig. 3.) Fig. 5 represents the instep-piece *b*, having a short hub or bearing, to which one end of the spiral spring *s*, shown in Fig. 2, may be attached. Fig. 6 shows the toe-piece *d*, which may be attached to the instep-piece *b* by means of a screw. Fig. 7 shows the two parts of the heel-piece. Fig. 8 is a perspective view of the whole jack when the several parts are connected together, as hereinafter described.

My improved jack has a metallic body, *A*, having at its outer end a short lug, *a*, cast solid to the body. An instep-piece, *b*, is secured in front by means of the bolt or screw passing through the lug *a*, and behind by means of the shaft *c*, which passes through the body and also through this instep-piece. This in-

step *b* has, toward the toe, a square-cut groove running in the direction of the toe and heel. The toe-piece *d* has a slide which fits into the groove *d'* in the instep-piece, and which is slotted in the direction of its length, so that the toe *d* may be secured to the instep *b* by means of a screw, and set at any desired distance in advance of the instep.

The heel-piece *X* is composed of a solid back, *B*, to which is attached, by means of screws, a piece, *D*, which is cut in a channel to a point near the round of the heel. At the edges of the sides of this channel are two dovetailed slides, *f*, which slip into corresponding dovetailed grooves *f'* in the instep-piece *b*, and on the inner sides of the channel there is a rack, into which the pinion *E* works, for the purpose of running the heel-piece *X* backward and forward to lengthen the foot, so as to make it fit any sized boot or shoe.

A shaft, *c*, to which the pinion *E* is attached at one end, passes through the body of the jack, and encircling this shaft there is a spiral spring, *s*, which has one end attached to the hub *h* on the instep-piece *b*, and the other end is fastened to a rivet or screw passing through or into the shaft *c*. A ratchet-wheel, *H*, having a hub, *j*, extending outward about an inch, is secured to the other end of the shaft *c*, after it has been inserted into the body of the jack. From the hub *j* four handles extend out in different directions, by means of which the hub may be rotated.

A pawl, *p*, is secured by a screw to the projecting arm *J* of the body, which pawl *p* catches on the teeth of the ratchet *H*, and is held firmly in position by a small spiral spring, *s'*, one end of which fits into a small cap cast on the pawl, and the other into a cup in the body of the jack. This pawl keeps the ratchet-wheel from flying around when the heel-piece has been run back to extend the foot.

The projecting arm of the body of the jack has a groove and a slot, so that it may be attached to a machine or bench by means of a screw or bolt which will permit the jack to be turned by the handle *K*, so that the boot or shoe may be in the most favorable position to be operated upon.

The jack being attached to a machine or bench the boot or shoe is placed over the foot,



which is then extended by turning the ratchet-wheel H, which will also turn the shaft *c* inside of the body of the jack, and with it the pinion E, which, working in the rack *r*, runs  
 5 the heel-piece X back, and at the same time winds up the spiral spring *s* which encircles the shaft *c*. When the foot of the jack has been extended enough to stretch and hold firmly the boot or shoe the pawl *p* will catch in  
 10 the teeth of the ratchet and thus hold it firmly until it has been trimmed or otherwise operated upon. The trimming or other work being finished, the boot or shoe may be loosened by pressing upon the free end of the pawl *p*,  
 15 thus raising the engaging end from the teeth of the ratchet-wheel H, which, together with the shaft *c* and pinion E, will be forced by the uncoiling of the spiral spring to turn rapidly in the opposite direction and thus run the heel-  
 20 piece X forward and instantly release the boot or shoe.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

25 1. A boot or shoe holder, having the shaft *c*

passing through the body and encircled by the spring *s*, in combination with the pinion E and the rack *r* of the heel-piece, substantially as described.

2. In combination with a boot or shoe holder, 30 the shaft *c*, having a reel and ratchet, H, attached to its outer end, and the pinion E, attached to the inner end, and the heel-piece X, having a rack, so that the foot of the holder may be made to accommodate the length of 35 the boot or shoe, substantially as described.

3. In combination, the shaft *c*, in a holder for boots or shoes, and the spiral spring *s*, by means of which the shaft may be revolved, so as to loosen the foot of the holder from the 40 boot or shoe, substantially as described.

4. The shaft *c*, encircled by the spring *s* in the body of the jack or holder, in combination with the pinion E and ratchet H, substantially as described, and for the purposes set forth.

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Witnesses:

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