

(No Model.)

E. BAILEY.

HEEL JACK.

No. 311,098.

Patented Jan. 20, 1885.

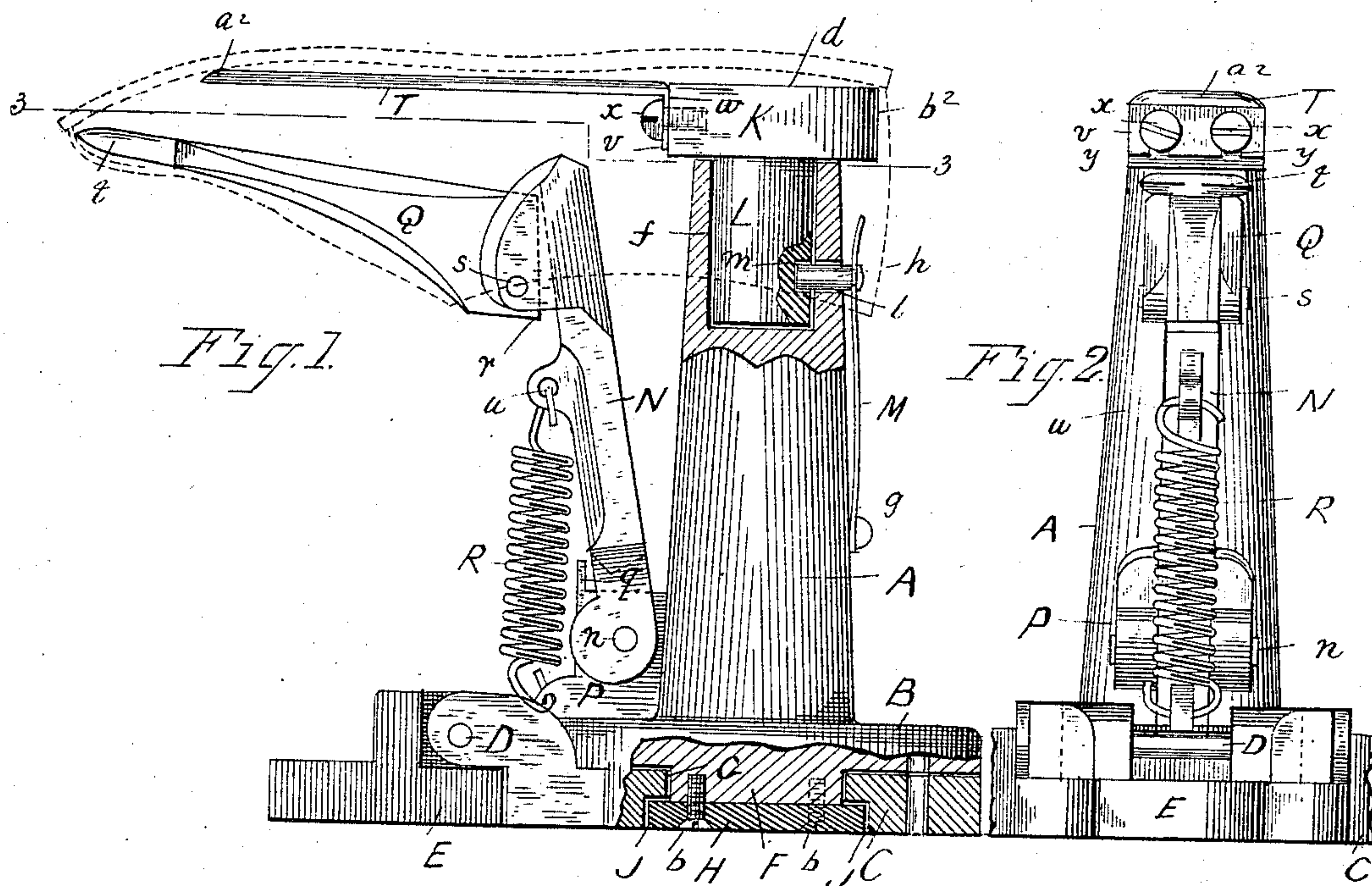


Fig. 3.

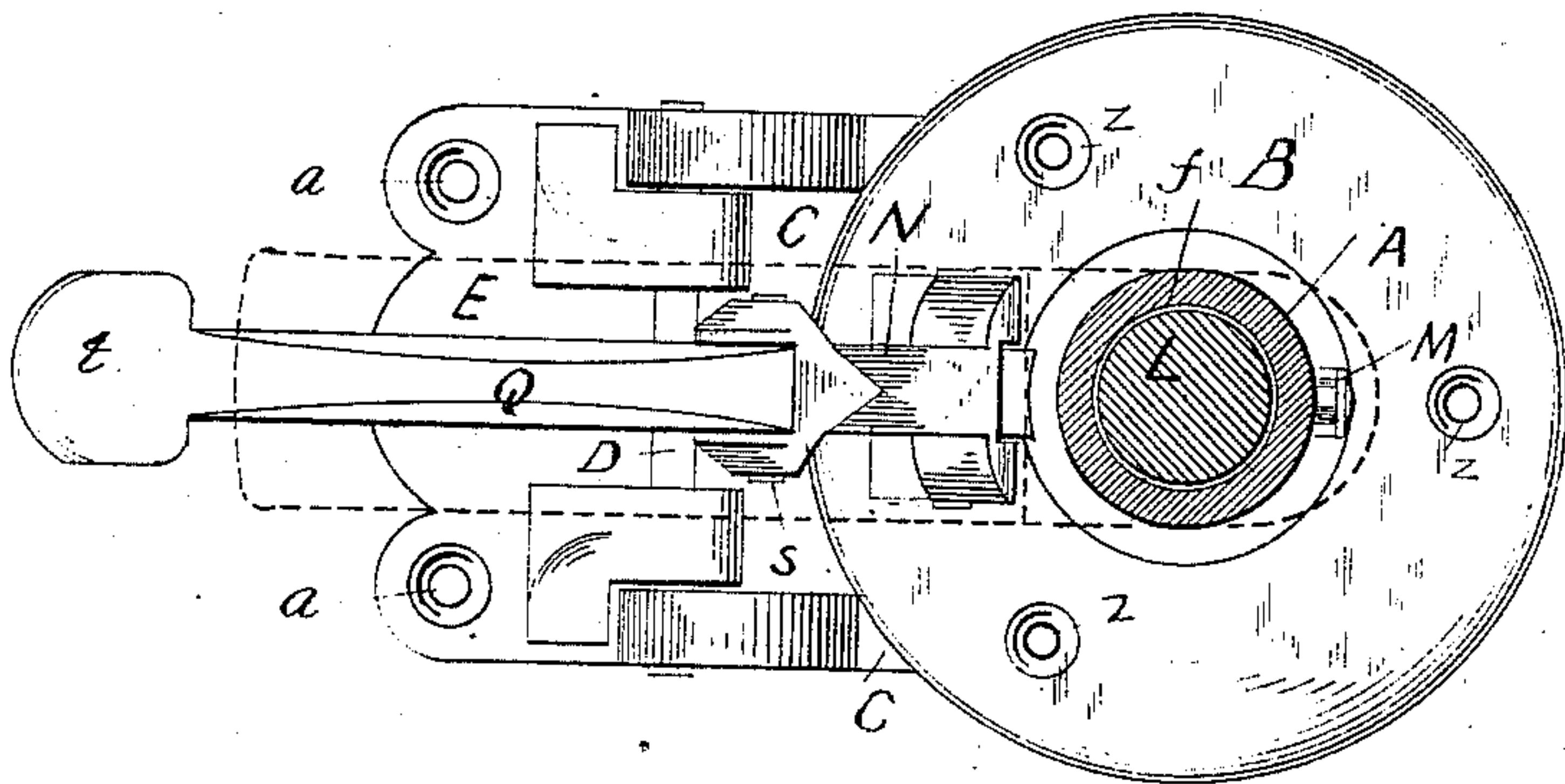
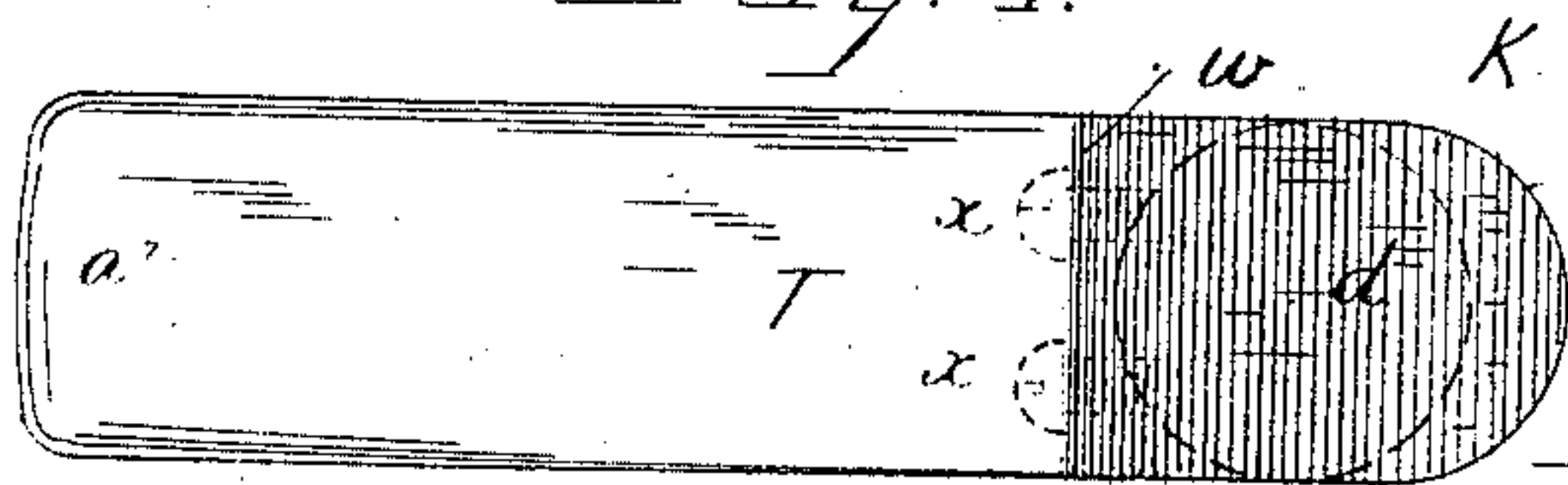


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

EPHRAIM BAILEY, OF WEST NEWBURY, MASSACHUSETTS.

HEEL-JACK.

SPECIFICATION forming part of Letters Patent No. 311,098, dated January 20, 1885.

Application filed October 31, 1884 (No model.)

To all whom it may concern:

Be it known that I, EPHRAIM BAILEY, of West Newbury, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Heel-Jacks, of which the following is a full, clear, and exact description.

This invention relates to a jack for use in supporting a boot or shoe when nailing a heel thereon; and the invention consists, in substance, in combination with a support for a block or rest for the heel portion of the boot or shoe, of an arm pivoted to said support, and constructed and arranged to be placed within the boot or shoe and press against the toe to hold the boot or shoe in suitable position on the block for the proper securing of the heel thereto, all substantially as hereinafter fully described.

It also consists, in combination therewith, of other constructions and arrangements of parts for the holding of the boot or shoe, substantially as hereinafter fully described, reference being had to the accompanying plate of drawings, in which—

Figure 1 is a vertical longitudinal section of a heel-jack constructed according to this invention. Fig. 2 is a front view. Fig. 3 is a horizontal section on line 3 3, Fig. 1, and Fig. 4 is a detail plan view.

In the drawings, A represents a post or support, having a base, B, which base rests and is arranged to turn on a plate, C, hinged at D to a block, E, adapted by screw-holes *a* to be secured to the table or bench. The base B has a downward-projecting central portion, F, circular in cross-section, projecting into a corresponding opening, G, in the plate C, and in which it can freely turn. On its under side is a flat circular plate, H, secured thereto by screws *b*, and of larger diameter, which lies within a shoulder, J, in the under side of plate C, by which the base is prevented from being detached therefrom, but is free to turn thereon.

K is a block of metal substantially of the shape of the heel of a boot or shoe in horizontal section, and adapted to fit within the heel portion of a boot or shoe, for the sole at the heel to rest on the upper surface, *d*, of said block. This block has a pin, L, which fits

within an open socket, *f*, in the upper end of the post, so that it can be easily inserted therein and removed therefrom.

M is a flat spring, secured at one end, *g*, to the side of the post, its free end having a pin, *h*, which passes through an opening, *l*, in the side of the post and enters a socket, *m*, in the pin L of the heel-block, whereby the heel-block is held securely to the post and prevented from turning within its socket.

N is an arm, pivoted at *n* to an upward projection, P, of the base at one side of the post, and extending upward therefrom and arranged to swing on such pivot to and from the post, but limited in its outward movement by a shoulder, *q*, of the projection P. This arm N has pivoted to its upper end at *s* an arm, Q, which extends therefrom substantially in a horizontal direction and swings on such pivot vertically, being limited in its movements by the abutment of its square end *r* against the side of the arm N. This arm Q tapers in thickness toward its outer end, *t*, and side-wise has its outer end widened, as shown more particularly in Fig. 3.

R is a spiral spring, attached at one end to the upright P, and at the other end to the side of the arm N near its top, at *u*, the tension of which serves to hold the arm forward from the post, for the purpose hereinafter stated.

T is a flat plate of metal, attached by its angular portion *v* to the front side, *w*, of the heel-block K by screws *x*, which pass through longitudinal open slots *y* in the angular portion *v*, by which the plate can be attached to and detached from the heel-block and adjusted as to its height, as desired.

The operation of the jack is substantially as follows: The shoe to be heeled is first placed over the outer ends, *t a*², of the arm Q and plate T, and then pressed down at the heel portion over the edge of and onto the upper surface of the heel-block. The tension of the spring R on the arm serves to keep the end *t* of the arm Q closely against the toe, inside the shoe, and thus to keep the back or heel portion of the shoe firmly against the outer edge, *b*², of the heel-block. When so secured the heel is placed in position on the sole and nailed thereon in the usual manner, the heel-block

serving as an anvil against which to hammer and rivet or clinch the nails. The plate T supports the forward part of the shoe. When the heel is secured, the shoe is removed from the jack and another placed thereon for operation thereon, as before.

If desirous of trimming or polishing the edge of the heel or sole, or to burnish the surface of the sole, the post can be swiveled upon its plate C, and can also swing forward on its hinge D for the more convenient operation thereof.

In burnishing or trimming the heel the post in its swiveling movement will turn on the heel-block so that its curved edge will travel in a line concentric to the axial line on which the post turns in its plate. The base B is provided with holes *z*, by which it can be secured to the bench or table by screws when desirous of using the jack independent of its plate C.

Varying sizes of heel-blocks can be used, each being provided with a pin, L, and can also be attached in any other suitable manner; also, varying lengths of arms Q can be used, the pivot *s* being arranged to be removed as desired for the convenient changing of the same, by which varying widths and lengths of shoes can be placed and held on the jack for the securing of the heels thereto.

It is necessary for the proper operation of the jack that the arm Q should be of a length sufficient for it, when the boot or shoe is on the jack, to be pressed back against the spring R, for the tension of the spring to be exerted against the toe to hold the shoe closely against the outer edge, *b*², of the heel-block.

The plate T can be permanently attached to the heel-block, if desired, although it is preferable to attach it so it can be easily removed, as it might be dispensed with sometimes, and, in lieu of being flat or straight, it can conform more particularly to the shape of the shoe-sole.

Having thus described my invention, what I claim is—

1. A jack for heeling boots and shoes, con-

sisting, substantially, of a post carrying a detachable heel-block, in combination with and constructed and arranged to turn in a base, C, the center of which movement is substantially coincident with the center of the outline of the heel of the boot or shoe when secured to the jack, substantially as and for the purpose specified.

2. In a jack for heeling boots and shoes, in combination with a post or support for a heel-block, K, an arm, N, pivoted to said post and provided with a spring, R, and an arm, Q, pivoted thereto, all substantially as and for the purpose specified.

3. In a jack for heeling boots and shoes, in combination with a post or support for a heel-block, K, having a pin, L, to fit a socket, *f*, in said post, a spring-pin, *h*, arranged to engage with a socket, *l*, in said post, and a socket, *m*, in said heel-block pin L, substantially as and for the purpose specified.

4. In a jack for heeling boots and shoes, a post or support for a heel-block, K, and a plate, T, having an angular portion, *v*, adapted to be attached to and detached from said heel-block, substantially as and for the purpose specified.

5. In a jack for heeling boots and shoes, a post or support carrying a heel-block, K, and plate, T, and constructed and arranged to turn in a base, C, said base being hinged to a block, E, substantially as and for the purpose specified.

6. In a jack for heeling boots and shoes, a post or support having a heel-block, K, provided with shoulders, *x*, and a plate, T, having slots *y*, to engage with said shoulders for ready attachment to and detachment from said heel-block, substantially as and for the purpose specified.

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

EPHRAIM BAILEY.

Witnesses:

EDWIN W. BROWN,
WM. S. BELLOWS.