

H. H. JENKINS.
Machine for Shaping Metallic Shoe-Shanks.
No. 216,329. Patented June 10, 1879.

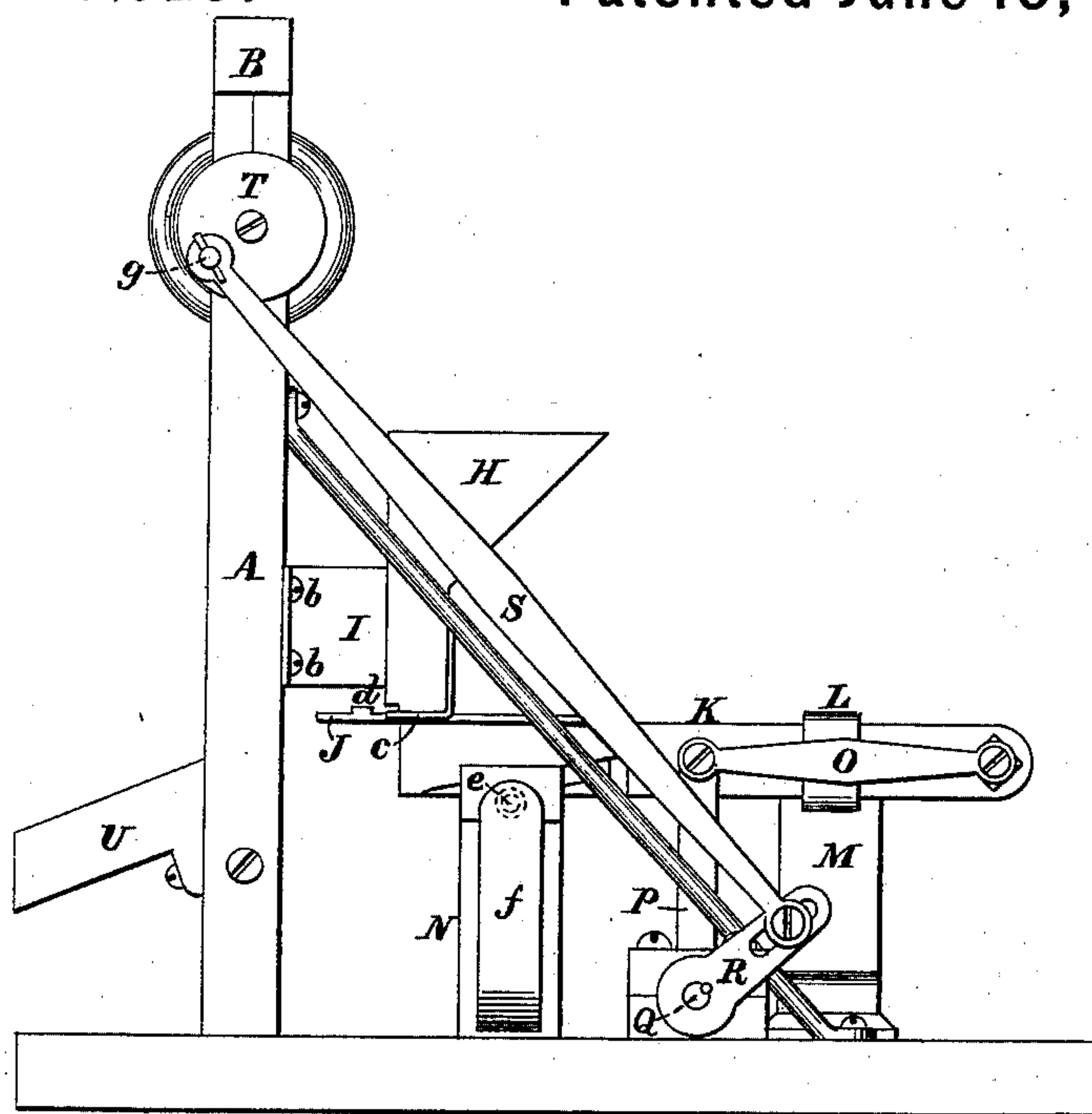


Fig. 2.

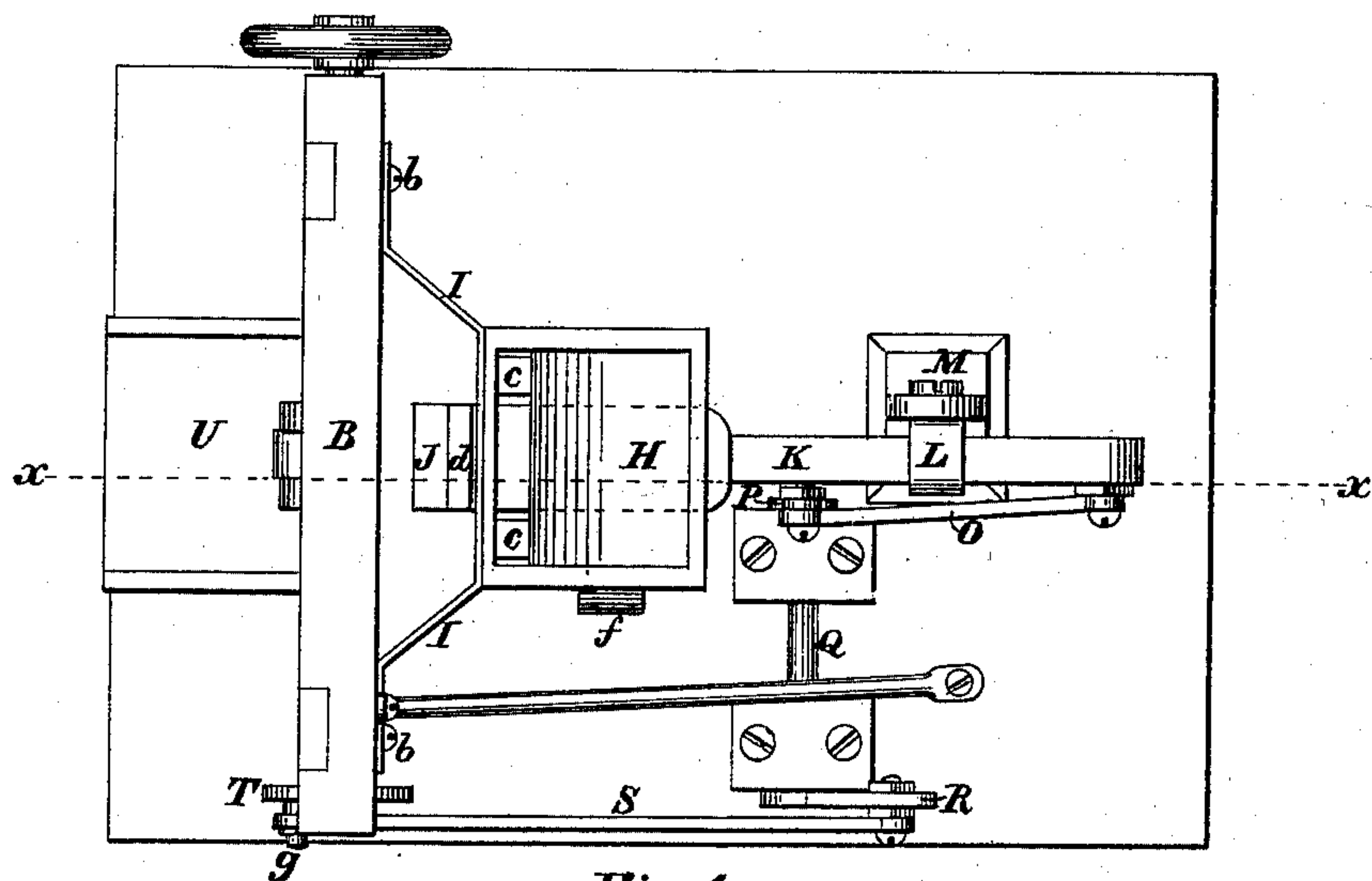


Fig. 1.

Witnesses:

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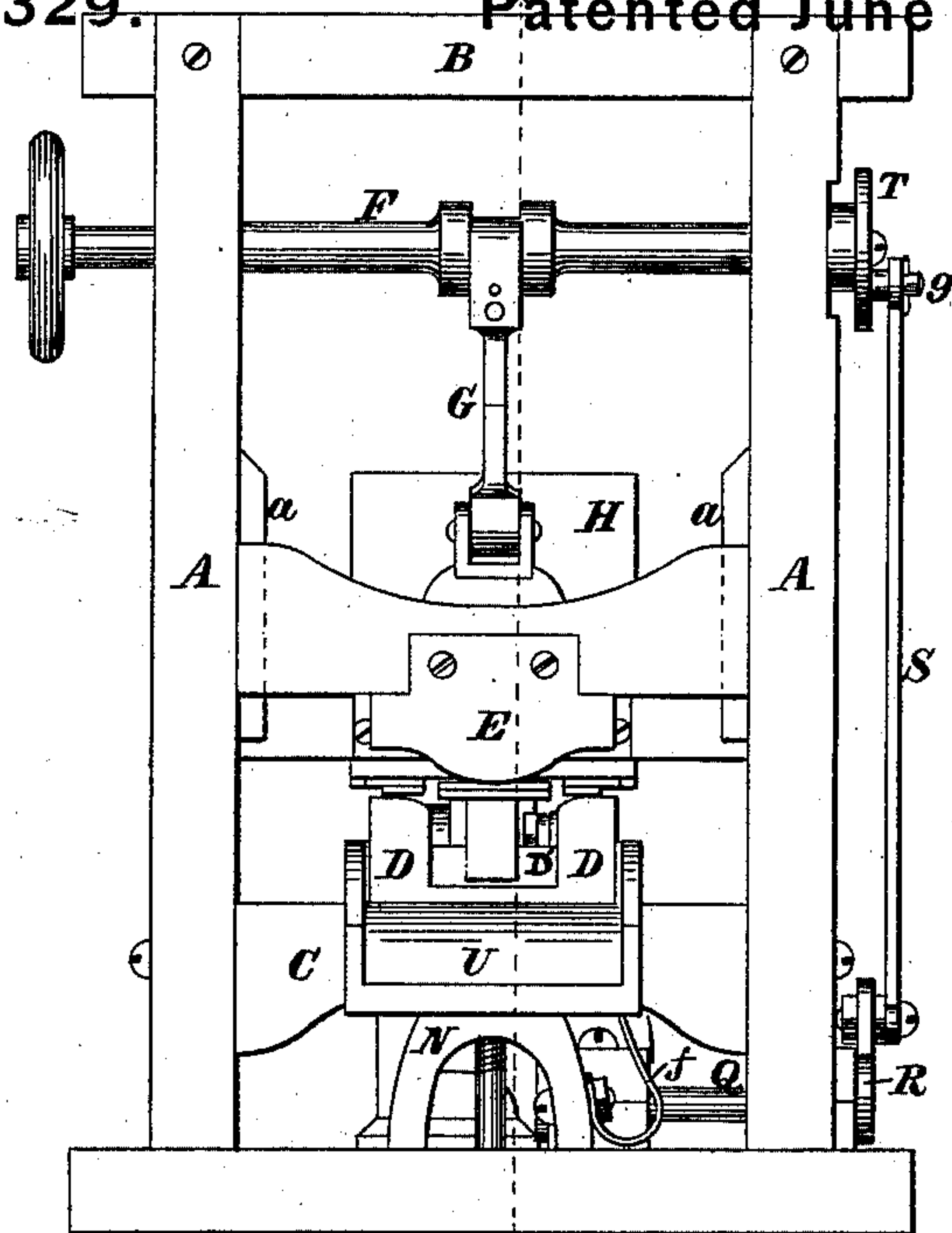


Fig. 3.

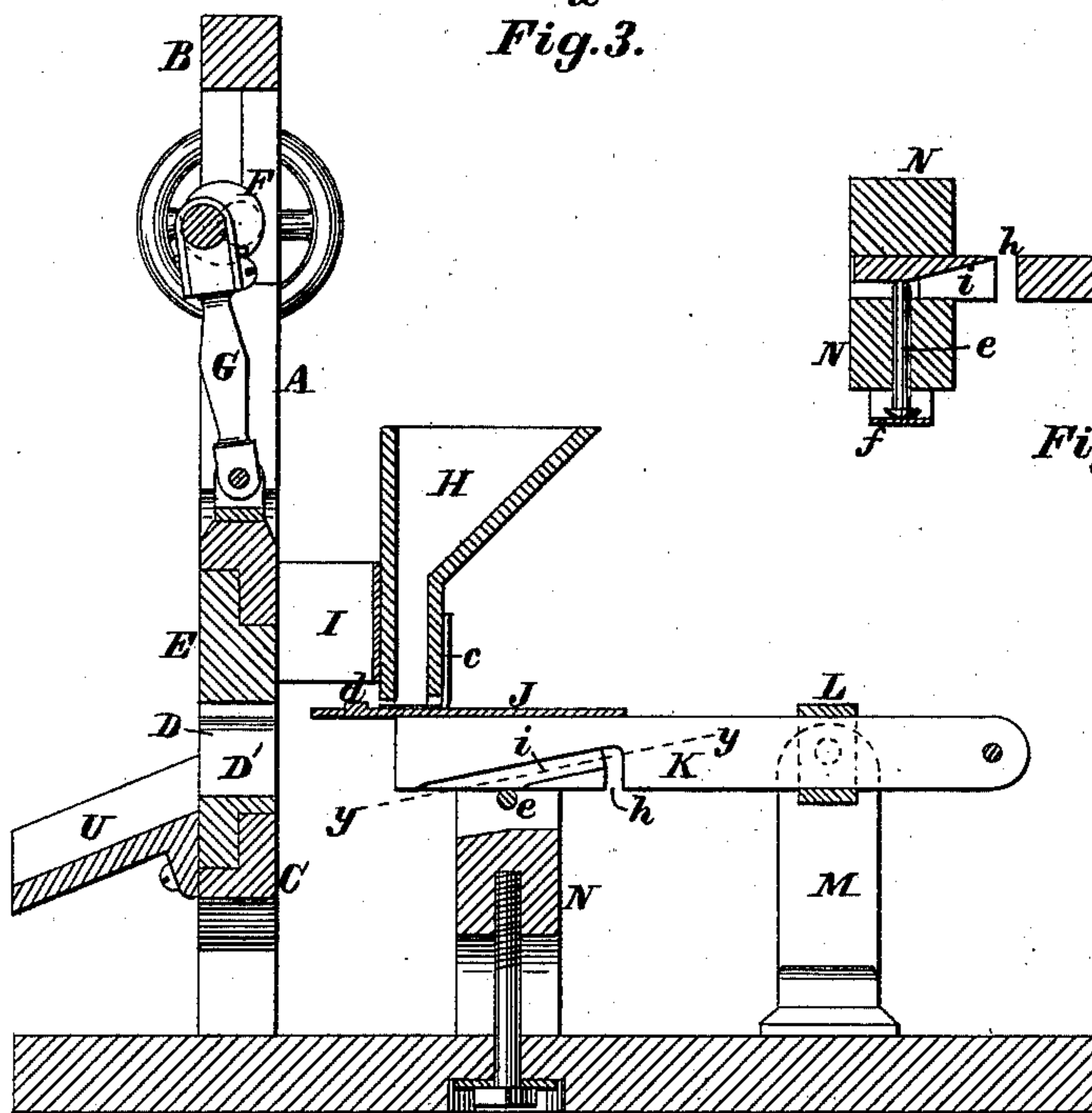


Fig. 4.

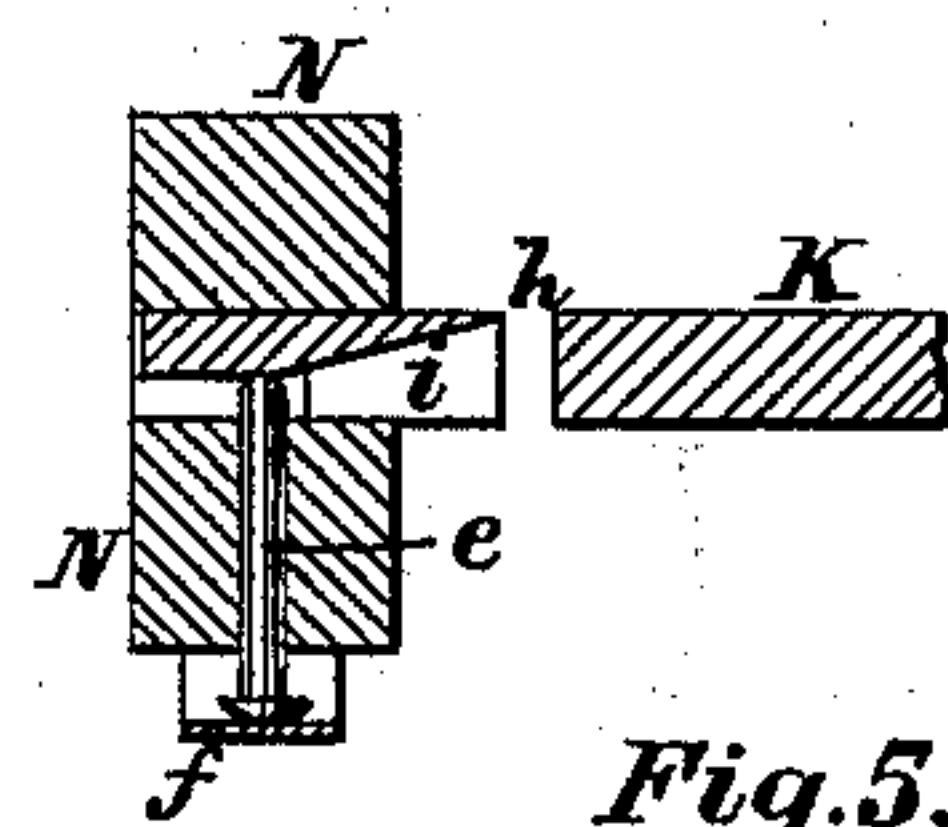


Fig. 5.

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UNITED STATES PATENT OFFICE.

HIRAM H. JENKINS, OF SOUTH ABINGTON, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR SHAPING METALLIC SHOE-SHANKS.

Specification forming part of Letters Patent No. **216,329**, dated June 10, 1879; application filed March 10, 1879.

To all whom it may concern:

Be it known that I, HIRAM H. JENKINS, of South Abington, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Machines for Shaping Metallic Shoe-Shanks, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to a machine for bending or shaping metallic shoe-shanks after they have been cut to the desired dimensions, and may be used separate from or in connection with the cutting devices; and the said invention consists in certain novel combinations and arrangements of the parts, all as and for the purposes hereinafter more fully set forth and claimed.

Figure 1 of the drawings is a plan of a machine embodying my invention. Fig. 2 is a side elevation of the same, showing the feed-plunger in a position near the center of its forward stroke. Fig. 3 is a front elevation. Fig. 4 is a longitudinal section on line *x x* on Figs. 1 and 3; and Fig. 5 is a partial section on line *y y* on Fig. 4, showing the position of the feed-plunger and its relation to its forward bearing when making its backward stroke.

A A are two standards, connected together at their top ends by the cross-beam B, and near the floor by the tie-girt C, upon which is firmly secured in a fixed position the female die D, having the center portion of its upper or working face cut away to form the broad slot D', as shown in Fig. 3. E is the male die, having its lower edge shaped to conform to the desired curve to be given to the shoe-shank, and mounted upon guideways *a a*, formed upon or secured to the uprights A A, and adapted to be reciprocated vertically thereon by the revolutions of the crank-shaft F, acting through the connecting-rod G in a well-known manner. H is a hopper or receptacle, adjustably secured to the uprights A A by means of slotted holes formed in the ends of the bracket I and screws *b b*. The lower portion of the hopper H is made of a width and length adapted to allow the free movement up and down therein of a pile of the blanks to be shaped without allowing room for a blank to fall edgewise between the pile and the side of the hopper.

Two supporting-plates, *c c*, are secured to

that side of the hopper that is farthest away from the dies, and extend under the hopper with their upper surfaces just far enough below the lower edge of that side of the hopper which is next to the dies to allow the free passage of a single blank from the hopper in that direction.

J is the feed-plate, provided upon its upper side with the upwardly-projecting lug or shoulder *d*, and firmly secured to one end of the heavy bar K, mounted at one end in the swivel bearing L, secured to and adapted to oscillate in the stand M, and resting at or near its other end upon the pin *e*, set in the stand N, and retained therein by the spring *f* bearing against its end, as shown.

O is a connecting-rod, pivoted at one end to the rear end of the bar K, and at its other end to the lever P, secured to the inner end of the rocker-shaft Q, to the opposite end of which is secured the lever R, the upper or movable end of which is connected by the rod S to the crank-pin *g*, set in the disk T, secured to the end of the crank-shaft F, each revolution of which imparts to said bar K and plate J a movement from the hopper to the dies and back again to the hopper. In their forward motion from the hopper to the dies, the plate J and bar K move in a straight horizontal line, the lower edge of the bar K resting upon the pin *e*, and the lug or shoulder *d*, engaging with the edge of the lower blank in the pile contained in the hopper H, pushes it therefrom and carries it forward till it is between the two dies D and E, when the slot *h*, cut across the under edge of the bar K, having reached the pin *e*, the bar K being unsupported by said pin, its forward end falls, and the plate J, falling with it, deposits the blank upon the die D, where it remains till the die E descends and bends it to the desired shape, and till the plate J is moved forward a second time to deposit another blank upon the die, when the bent shank is pushed off from the die by the succeeding blank, said shank falling upon the inclined chute U.

When the bar K commences its backward stroke, the cam-shaped or inclined bottom of the inclined groove *i*, acting upon the inner end of the pin *e*, forces it outward against the tension of the spring *f*, and the bar K bears upon the pin *e* along the upper edge of the in-

clined groove *i* till it is raised to its original level, when the pin *e* is forced in again by the spring *f*, so as to extend entirely across the under side of the bar K.

If it is desired to cut and bend the shank at the same time, the cutting-dies should be so arranged that the blanks, as they are cut, shall fall in succession upon supports similar to *c c*, in position to be moved forward by the lug or shoulder *d*, as before described.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In combination with the pivoted feed-plunger J K, with slots *h i*, the spring-pin *e*, substantially as and for the purposes described.

2. The combination, with the feed-plunger J K, with inclined slot *i* and slot *h*, of spring-pin *e* and pivoted yoke L, substantially as and for the purposes described.

3. The combination, in a machine for shaping metallic shoe-shanks, with the feed-plunger J K, with slots *h i*, and pin *e*, of connecting-rod O, lever P, and rock-shaft Q, whereby a horizontal and vertical reciprocating motion is imparted to the feed-plunger, for the purposes specified.

4. The combination, in a machine for shaping metallic shoe-shanks, of hopper H, with the supporting-plates *c c*, and feed-plunger K, with lug *d*, substantially as and for the purposes described.

5. The combination and arrangement, in a machine for shaping metallic shoe-shanks, of dies E D, hopper H *c*, and horizontally-reciprocating and vertically-oscillating feed-plunger J K and spring-pin *e*, substantially as and for the purposes described.

6. The combination and arrangement, in a machine for shaping metallic shoe-shanks, of dies E D, hopper H *c*, horizontally-reciprocating and vertically-oscillating feed-plunger J K, pin *e*, connecting-rod O, lever P, rock-shaft Q, lever R, rod S, and shaft F T, substantially as and for the purposes described.

Executed at Boston, Massachusetts, this 8th day of March, A. D. 1879.

HIRAM H. JENKINS.

Witnesses:

THOS. F. PENDERGAST,
CHAS. H. DREW.