

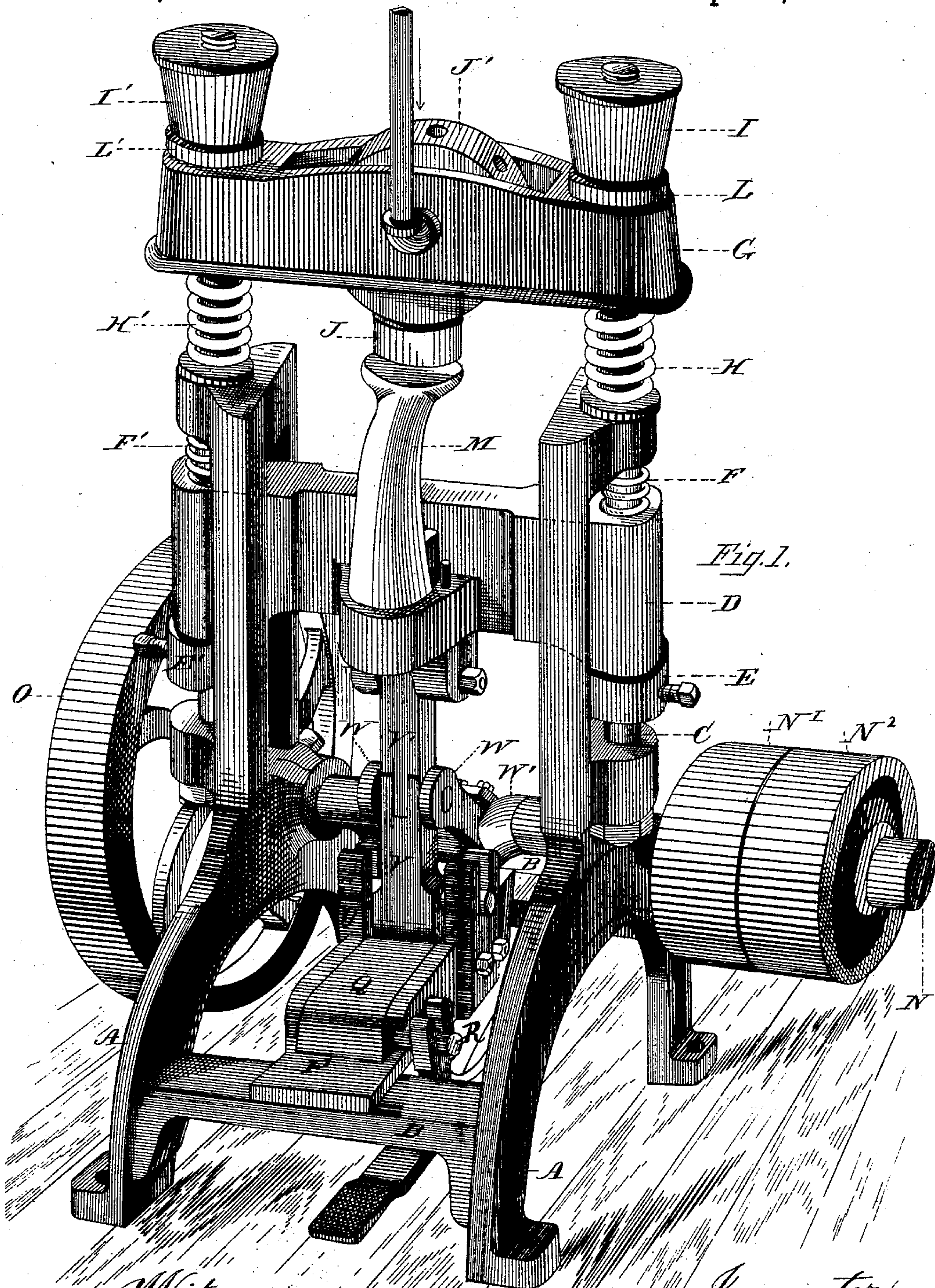
(No Model.)

2 Sheets—Sheet 1.

J. J. ANDERSON.  
STAMPING MACHINE.

No. 435,384.

Patented Sept. 2, 1890.



Witnesses:  
Ralph W. Estoppe  
Clara L. Tower

Inventor:  
James J. Anderson  
per Eugene Humphrey  
his atty-



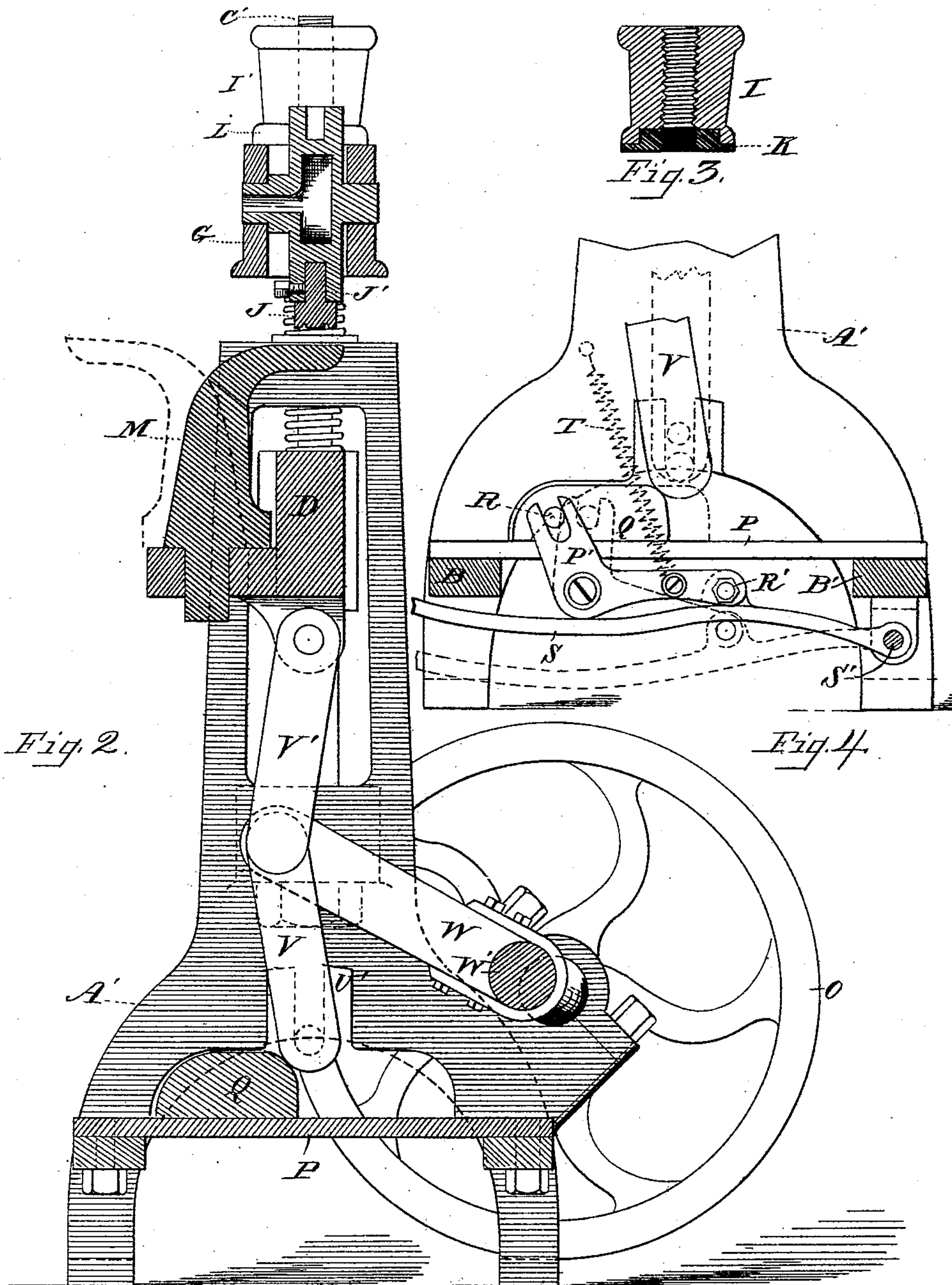
(No Model.)

2 Sheets—Sheet 2.

J. J. ANDERSON.  
STAMPING MACHINE.

No. 435,384.

Patented Sept. 2, 1890.



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# UNITED STATES PATENT OFFICE.

JAMES J. ANDERSON, OF MARLBOROUGH, MASSACHUSETTS.

## STAMPING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 435,384, dated September 2, 1890.

Application filed January 13, 1890. Serial No. 336,787. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES J. ANDERSON, of Marlborough, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Shoe-Sole-Stamping Machines, which will, in connection with the accompanying drawings, be hereinafter fully described, and specifically defined in the appended claims.

My invention relates to "stamping-machines" such as are employed in the manufacture of boots and shoes for imprinting upon the bottoms thereof the manufacturer's name, trade-mark, or other distinguishing impression.

The object of my improvement is to facilitate such stamping operation and avoid imperfect impressions and misprints and secure greater safety to the operator in manipulating the work; and my invention consists in the novel devices and combinations of mechanism, hereinafter fully set forth, and specifically pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a front perspective view of a stamping-machine embodying my invention. Fig. 2 is a central vertical section of the same as on line *x x*, Fig. 1, and as viewed from the right of said figure. Fig. 3 is a detached vertical section through the regulating-nut and its threaded rod, shown in elevation on the upper part of Fig. 2. Fig. 4 is a detached sectional elevation as viewed from the right of Fig. 1, and showing in detail the treadle devices in two positions, indicated, respectively, by solid and broken lines.

The general construction of the machine as to frame-work and arrangement of the shoe-holder and die relatively to each other is not new; but the treadle devices, by which the lifting mechanism is rendered practically operative or inoperative by depressing or releasing the treadle at the will of the operator and the adjustable yielding pressure on the die, are novel features.

A and A' are the side frames of the machine, held together laterally by cross-bars B and B'.

Supported in projections on the side frames are vertical rods C and C', which rods pass through the ends of a lifting-bar D, which extends from one rod to the other through open-

ings in the frame, as shown. Bar D rests upon adjustable collars E and E', which are secured in place on said rods by set-screws, as shown. Depressing-springs F F' serve to force the bar down upon the collars when the lifting-force of the mechanism is not operating on the bar.

Rods C and C' extend above the frame of the machine and through a die-supporting cap G. This cap is upheld by springs H H', which yield to the downward pressure of the regulating-nuts I I', threaded on the tops of the rods C C', when said nuts are turned so as to force the die-cap downward, and when the nuts are retracted the springs H H' react and cause the cap to rise accordingly.

The die J is secured in the usual block or wheel J', constructed and arranged to be steam-heated in the usual manner, as shown.

Nuts I I' have internal recesses K, as shown in Fig. 3, formed therein to receive an elastic cushion or spring L. (Shown in Figs. 1 and 2.) The purpose of this cushion will be hereinafter explained.

The usual shoe horn or support M is arranged to swivel in its bearing on the front of its supporting-bar D, to receive the shoe and turn and present the same properly to the overhanging die.

On the back of the machine is journaled the driving-shaft N, on one end of which is mounted the usual fixed and loose pulley N' and N<sup>2</sup>. On the opposite end of the shaft is the usual balance-wheel O.

Extending from the front cross-bar B to the rear cross-bar B', and secured centrally thereto, is a grooved bar or platform P, in the groove formed by the raised sides of which a sliding block Q is arranged to operate horizontally.

To a downward projection from platform P a lever P' is pivoted, as shown in Fig. 4, and the forked end of the same engages a pin R secured in and projecting from block Q. The other end of this lever is pivoted at R' to the treadle S, which treadle has as its fulcrum a pin S' in a stud projecting downward from bar B', while the free end of the lever extends outward in front of the machine, as shown.

A spiral spring T, secured at one end to the inner face of frame A and at its opposite end attached to treadle S, exerts its contractile



force to raise the treadle and the end of the lever P' attached thereto.

To the sides of the platform P are secured upright bearings U U', in which the pintles laterally projecting from the arm V of a knuckle-jointed lever have their bearings, while the opposite arm V' of said lever is pivoted to an overhanging projection from bar D, and to said knuckle-joint a third arm W is pivotally connected and at its opposite end is properly attached to the crank W' of the driving-shaft N. The knuckle-jointed lever is operated by this crank and its connecting-arm whenever the driving-pulley is turned in either direction; but said lever when thus actuated is practically inoperative upon the lifting-bar D and its attached shoe-support M when the sliding block Q is withdrawn from beneath the arm V of the lever, as the lever then has no base upon which to exert its lifting force; but when the treadle S is depressed by the foot of the operator and block Q is thereby forced forward under arm V, (the shape of the block and arm being such as to facilitate this movement,) then the operation of the lever by the crank-shaft through its connecting-arm will raise the lifting-bar D, together with the shoe-support M, and carry the bottom of the shoe supported thereon into contact with the face of die J with sufficient pressure to effect the imprint thereon desired. When the operator removes his foot from the treadle and releases the same then spring T, assisted by two springs F and F', above bar D, arranged to react downwardly on said bar, will raise said treadle and, through lever P' connected therewith and with block Q, will at the same time quickly withdraw said block from beneath arm V, and thus relieve bar D from operation by the jointed lever, though the crank-shaft continues its revolutions. By these means it is rendered unnecessary to stop the belt from the fixed to the loose pulley and stop the machine entirely in order to arrest the stamping operations, such movements being under the control of the foot of the operator, leaving his hands free to manipulate the shoe. Consequently there is less danger of ruining the shoe-sole by accidentally repeating the impressions of the stamp upon it, as frequently happens with machines as hitherto constructed, and less danger of injuring the hands of the operator.

When the die is adjusted in proper relation to the shoe-horn M, by means of the nuts I and I', for stamping a certain kind of shoes; there will be some variation in the thickness of the inner soles, and consequently if the die is rigid against the upward pressure of

the shoe-soles there will be, as hitherto, an inequality in the impressions made, some being, perhaps, too light, others so deep as to mar the appearance of the sole. To obviate this difficulty, I place the cushions L under the depressing-nuts I, which, when the die is properly adjusted to the horn, as stated, will be sufficiently rigid to effect a clear and distinct impression of the die upon the soles, but at the same time yielding enough to accommodate the stamp to the inequalities of thickness in the soles, and thus prevent marring the same by excessive pressure against the die.

I claim—

1. In a stamping-machine, the combination, with a frame provided with a die and a work-support movable relatively thereto, of a knuckle-joint secured to the work-support at one end, a grooved bar beyond the opposite end of the joint, one wall of which is slotted, a block within the groove having a pin which projects through the slot, a spring-actuated treadle below and pivotally secured at one end to the bar, and a bell-crank lever pivotally secured to the bar, one end of which is connected with the treadle, and the opposite end is slotted and engages with the pin on the block, whereby the block may be moved to and fro between the end of the joint and the bar, substantially as described.

2. In a stamping-machine, the combination, with the frame provided with a die and a supporting-cap, of a work-support movable relatively to the die, slotted bearings at the base of the machine, a knuckle-joint secured at one end to the work-support and having its lower end loosely secured and guided by the slots in the bearings at the base of the machine, and a block upon the base movable to and fro beneath the lower end of the knuckle-joint, substantially as described.

3. In a stamping-machine, the combination, with the frame having projections upon its sides, of vertical rods through the projections and extending above the top of the frame, a bar upon the rod between the upper and lower projections upon each side of the frame, an adjusting-collar below and a spring above the bar at each end between the projections, a die-cap upon the upper ends of the rods, a spring below and an adjusting-nut and an interposed elastic packing above each end of the cap, and means for moving the bar upon the rods, substantially as described.

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