

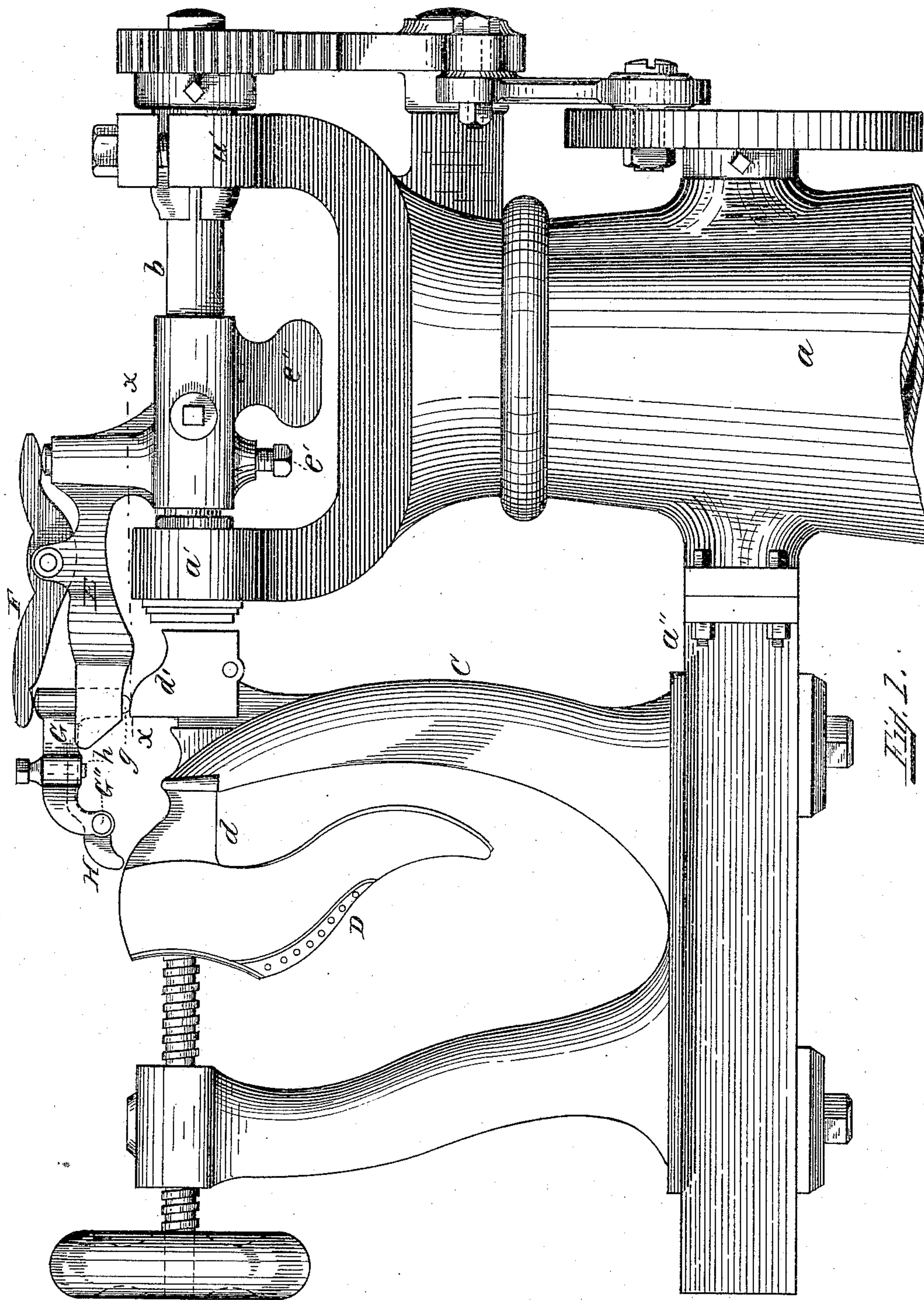
(No Model.)

2 Sheets—Sheet 1.

J. J. HEYS.
BURNISHING MACHINE.

No. 432,874.

Patented July 22, 1890.



7-11

Witnesses:
Francis R. Chapman
Chas J Jackson

Inventor
John J. Hays
by Alban Andren his atty

2 Sheets—Sheet 2.

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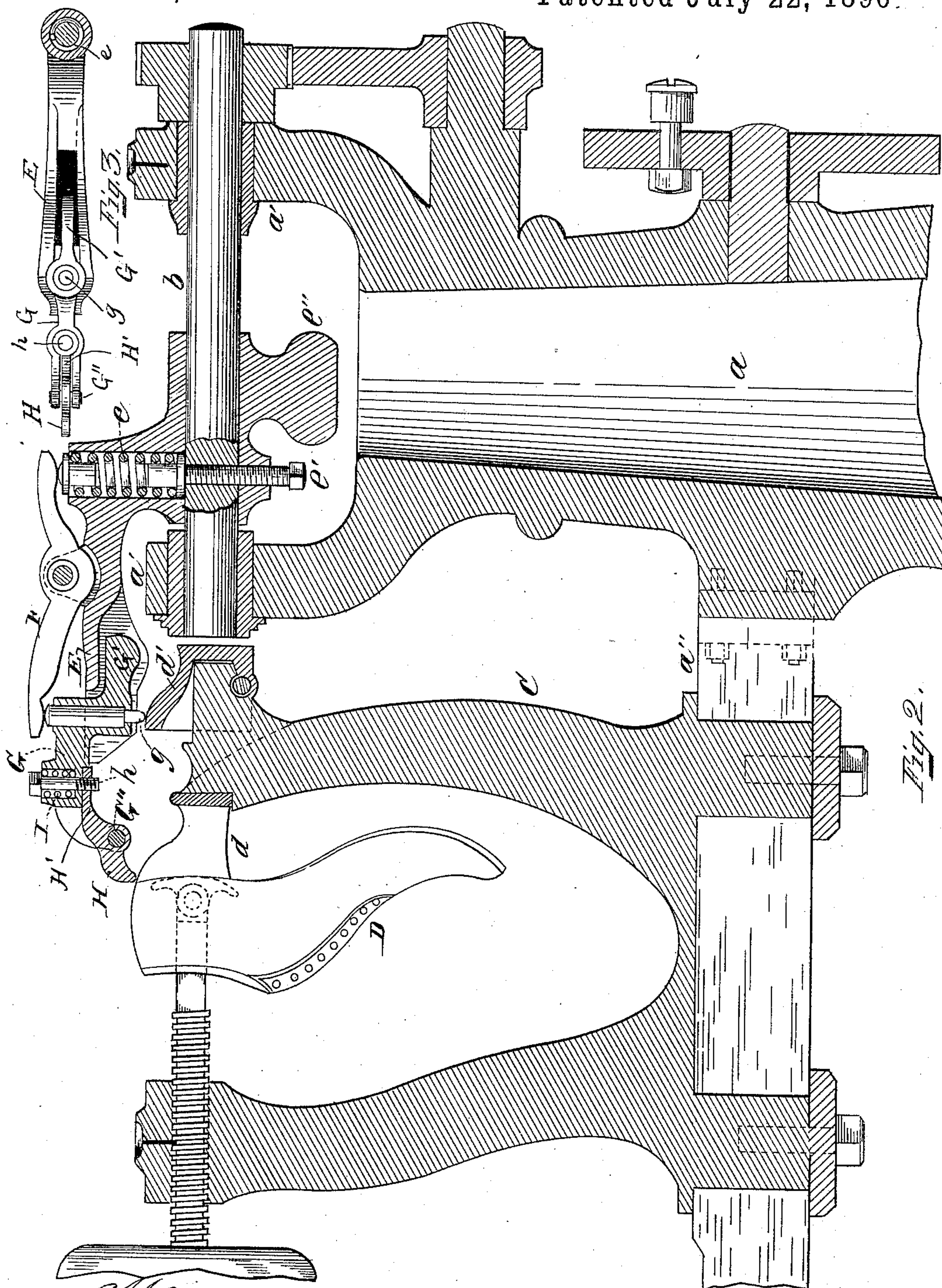


Fig. 2.

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UNITED STATES PATENT OFFICE.

JOHN J. HEYS, OF LYNN, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO
MAURICE V. BRESNAHAN, OF SAME PLACE.

BURNISHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 432,874, dated July 22, 1890.

Application filed April 14, 1890. Serial No. 347,757. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. HEYS, a citizen of England, and a resident of Lynn, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Burnishing-Machines, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to improvements on heel-burnishing machines of the kind known to the trade as "Tapley machines," in which an oscillating burnisher-tool is used, combined with a shoe-holding jack adapted to be moved forward and back relative to said burnisher-tool. In such machines the burnisher-tool is generally pressed directly against the curved heel-surface by means of a spring or springs, which is objectionable in operating on what are termed in the trade "French" heels, on account of the great variation in width of such heels at the top, bottom, and intervening portions thereof, causing the burnisher-tool to be pressed harder against the wider portion of such heels than on the narrower parts thereof, and thus making the burnishing uneven and irregular.

The object of my invention is to avoid this difficulty and cause the burnishing-tool to be held with equal pressure against all parts of the heel, as will hereinafter be more fully shown and described, reference being had to the accompanying drawings, wherein—

Figure 1 represents a side elevation of the improved burnishing-machine. Fig. 2 represents a central longitudinal section of the same, and Fig. 3 represents a horizontal section on the line X X as seen from below said line.

Similar letters refer to similar parts, wherever they occur on the different parts of the drawings.

a represents the standard or frame of the machine, as usual, having bearings *a' a'*, in which is journaled the shaft *b*, which is rocked in said bearings by means of any well-known mechanism usually employed in machines of this kind. I wish to state that I do not confine myself to any particular mechanism for rocking said shaft *b*, as this may be done by means of any desired mechanism without departing from the essence of my invention.

C is the shoe-holding jack having suitable means for securing to it the shoe *D* and its heel *d*, as usual. The jack *C* is adapted to slide forward and back in an arm or bracket *a''*, secured to the standard *a*, in the ordinary manner.

Back of the shoe-heel to be burnished I secure in a suitable manner to the upper rear portion of the jack *C* a heel templet or former *d'*, preferably made of metal and of a size and shape corresponding to that of the heel to be burnished.

To the shaft *b* is secured a forwardly-projecting arm or block *E*, having pivoted to it a lever *F*, the forward end of which is forced against the burnishing-tool holder *G* by means of a suitable spring *e*, interposed between the rear end of the lever *F* and block *E*. In the drawings I have shown said spring *e* as a spiral one arranged within a recess in said block *E*, and provided with an adjusting-screw *e'* for the purpose of regulating the pressure against the lever *F*; but I wish to state that any other kind of spring may be used without departing from the spirit of my invention.

e'' is a balance-weight on the block *E*, as usual. The forward end of the block *E* is preferably made forked, and in such forked end is vertically movable the tool-holder *G*, which latter is preferably provided with a rearwardly-extending wing, vane, or projection *G'*, adapted to be guided in a corresponding recess in the block *E* for the purpose of preventing said tool-holder from swinging sidewise relatively to the block *E* during the oscillating of the latter.

The tool-holder *G* has a contact or bearing point or surface *g*, adapted to be held against the heel-templet *d'* by the influence of the spring *e* and rock-lever *F*, as shown in the drawings.

To the forward end of the tool-holder *G* is pivoted at *G''* the burnisher-tool *H*, having a rear extension *H'*, to which is adjustably secured the lower end of a regulating-screw *h*, surrounded by a spring *I*, located between the under side of the head of said screw and the bottom of a recess *G''* in the tool-holder *G*, in which said spring and regulating-screw are arranged. The object of the spring *I* is to

hold the burnisher-tool H with a proper pressure against the heel *d*, as said tool is oscillated from breast to breast of the latter.

Although a coiled spring I, as shown, is preferable for holding the burnisher-tool against the heel to be burnished, still I wish to state that I do not desire to confine myself to this exact construction, as a spring of any other well-known form may be used to equal advantage without departing from the spirit of my invention.

In constructing the machine I make the spring *e* of a strength sufficient to hold the tool-holder projection *g* at all times in contact with the curved surface of the heel templet or former *d'*, and it will thus be seen that the burnisher-tool H is forced by the influence of its spring I with equal pressure against all parts of the heel, no matter how it varies from its top lift to its base or bottom, and consequently I am enabled to burnish the heel uniformly throughout its entire height and surface.

The operation of my improved machine is as follows: A heel templet, guide, or former *d'* is secured to the jack C, of a size and shape according to the size and shape of the heel that is to be burnished. The shoe D and its heel *d* are then secured to the jack C in any suitable manner. The point *g* of the tool-holder G is caused to bear against the heel-templet *d'* by the influence of the spring *e* and lever F, as above stated, and the burnisher-tool H is held with a uniform and proper pressure against the heel *d* by the influence of the spring I. The machine is then set in operation, causing the shaft *b* to rock forward and back, by which the tool-holder projection *g* is carried against the heel-templet *d'* from breast to breast at the same time that the burnisher-tool H is pressed against the heel *d*. By moving the jack C forward and back in the guide or arm *a''* the burnisher-tool is caused to bear against and burnish all parts of the heel from top lift to base, thus producing a uniform burnish on the said heel throughout its entire surface.

Having thus fully described the nature, con-

struction, and operation of my invention, I wish to secure by Letters Patent, and claim—

1. In a heel-burnishing machine, the combination, with a sliding shoe-carrying jack having a heel templet or former, of a rock-shaft, an arm secured to the rock-shaft and overhanging the templet, a vertically-movable tool-holder carried by the overhanging arm and having at one end a contact-point resting on the templet and at the opposite end a burnishing-tool to bear against the heel to be burnished, and a vertically-oscillating spring-pressed lever pivoted on the overhanging arm and acting at one end on the tool-holder to force the contact-point against the templet, substantially as described.

2. In a burnishing-machine, a sliding shoe-carrying jack and a heel templet or former secured to the same, combined with an adjustable spring-pressed burnisher-tool pivoted on a tool-holder adapted to bear against the heel-templet, and an oscillating arm or lever for carrying said tool-holder, and an adjustable spring-pressed lever for holding the tool-holder against the heel-templet, substantially as and for the purpose set forth.

3. In a heel-burnishing machine, the combination, with a sliding shoe-carrying jack having an attached templet or former, of a rock-shaft having an attached arm overhanging the templet, a vertically-movable tool-holder arranged on said arm and having a contact-point resting on the templet, a swinging burnishing-tool pivoted on the tool-holder, a spring acting on the tool to press it against the heel to be burnished, and a spring-pressed lever acting on the tool-holder to press the contact-point against the templet, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 27th day of March, A. D., 1890.

JOHN J. HEYS.

Witnesses:

ALBAN ANDRÉN,
SELMA R. SCHELIN.