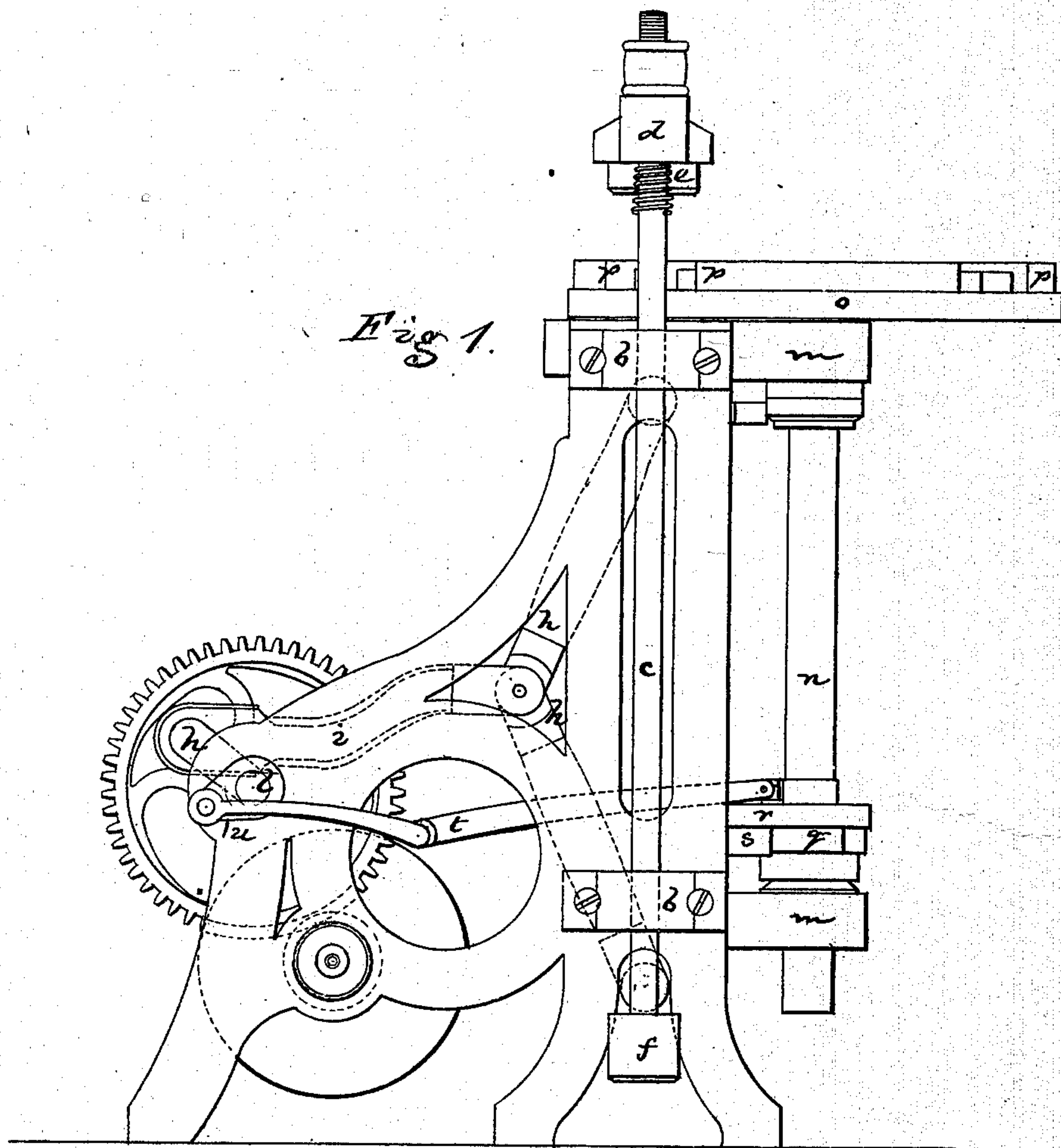


2 Sheets--Sheet 1.

C. M. HAYDEN.
Sole Pressing Machines.

No. 139,577.

Patented June 3, 1873.



Witnesses,
M. W. Frothingham,
L. H. Atiner,

Inventor
Charles M. Hayden,
By his Atty.
Crosby & Gould.

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Fig. 2.

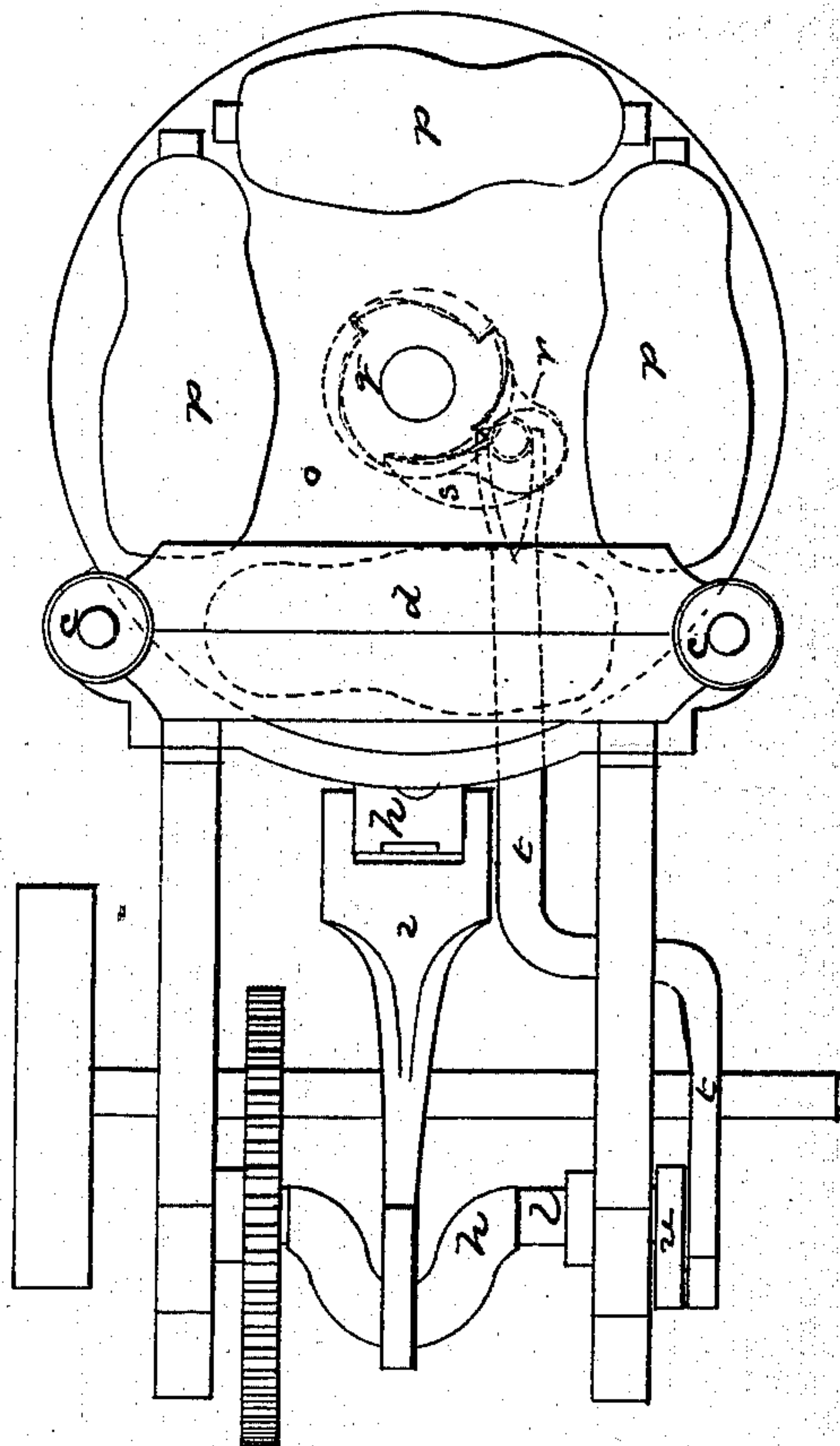
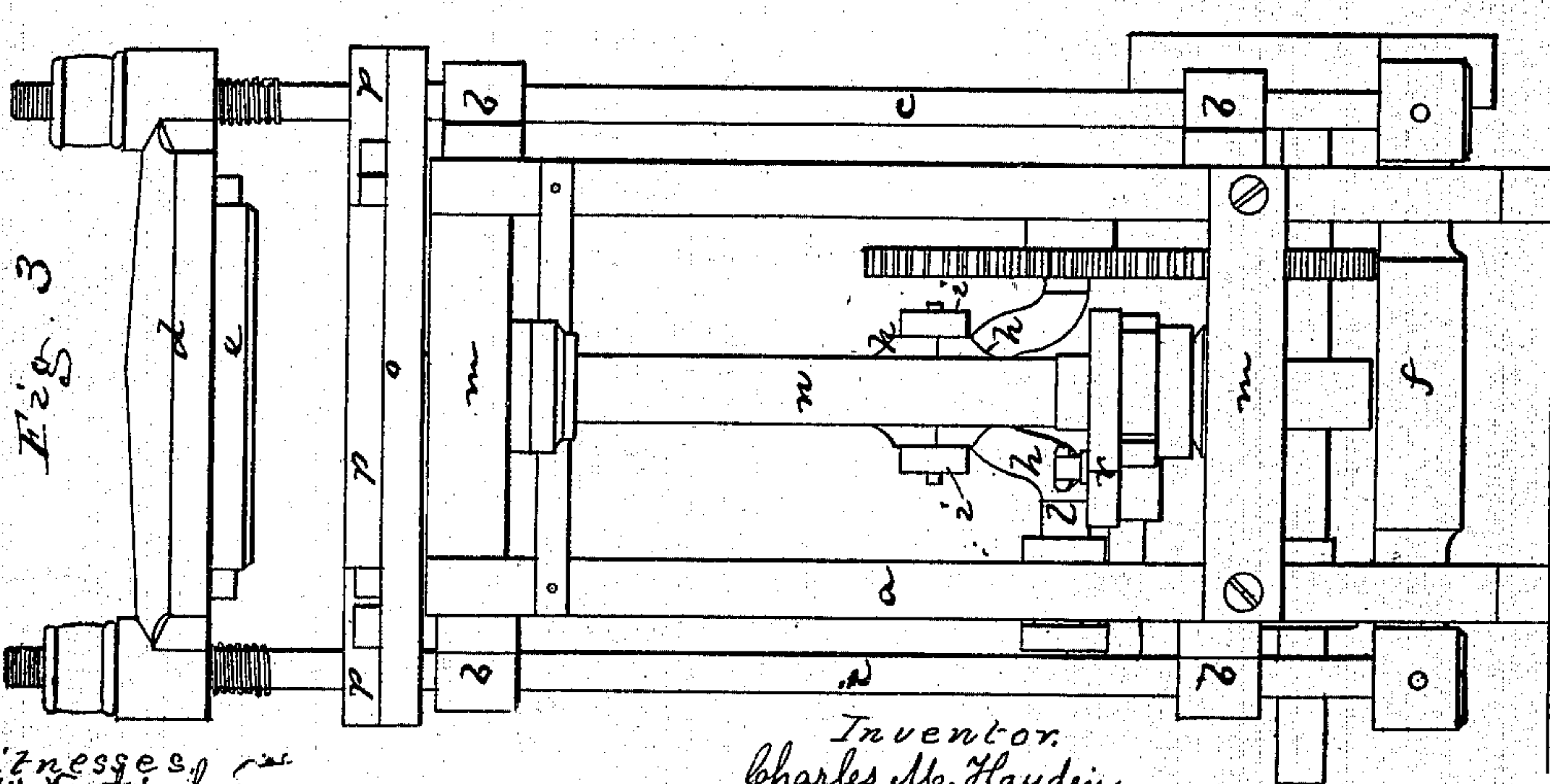


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES M. HAYDEN, OF HANOVER, ASSIGNOR TO HIMSELF AND ZENAS M. LANE, OF EAST ABINGTON, MASSACHUSETTS.

IMPROVEMENT IN SOLE-PRESSING MACHINES.

Specification forming part of Letters Patent No. **139,577**, dated June 3, 1873; application filed May 6, 1873.

To all whom it may concern:

Be it known that I, CHARLES M. HAYDEN, of Hanover, in the county of Plymouth and State of Massachusetts, have invented an Improved Sole-Pressing Machine; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

The invention relates particularly to an organization of the machine by which the operator, in placing soles to be formed by the pressure mechanism, is not brought into such proximity to the press as to endanger the hands. For this purpose I use, in connection with a vertically-operating mold or die-plate, a horizontal wheel, upon which are placed four, or any other suitable number, of bed-plates, against or toward each of which, in turn, the die plate or platen moves to compress and shape the sole laid upon it. This wheel has an automatic intermittent rotative movement in conjunction with the automatic intermittent downward movement of the platen, and while the wheel is at rest for the descent of the platen the outer plate of the wheel is in position for the attendant to place thereon a sole.

It is in the organization thus generally described that the invention primarily consists.

The drawing represents a machine embodying the invention.

Figure 1 shows the machine in side elevation. Fig. 2 is a plan of it. Fig. 3 is an end view.

a denotes a stand or frame having side bearings *b*, in which slide vertical rods *c*, said rods having fixed to their tops a cross-head, *d*, to which the die plate or block *e* is fixed, a cross-bar, *f*, connecting the lower ends of the rods. To the bar *f* and to the bottom of the top beam *g* of the frame *a* the outer ends of toggles *h* are jointed, the inner ends of said toggles being jointed together and to a link, *i*, that connects them with a crank, *k*, on a shaft,

l, which shaft may be driven by any suitable means, the rotation of the crank effecting the reciprocating vertical movements of the die-block, as will be readily understood. At the front part of the frame are two other stationary bearings, *m*, in which is journaled a vertical shaft, *n*, bearing at its top a wheel, *o*, in which are fastened four or any other suitable number of die or bed plates, *p*, each of which, in turn, is brought under the die-block *e*. Fixed on the shaft *n* is a ratchet wheel, *q*, and just above this wheel is a collar having an arm, *r*, to which is jointed a pawl, *s*, the arm being connected by a link, *t*, with a crank-arm, *u*, on the end of the shaft *l*. As the die-block *e* descends the shaft throws back the arm *r* and the wheel is held stationary while the die-block presses into form the sole laid upon the plate *p* beneath the die-block, and as the die-block rises the arm *r* is driven forward and turns the wheel sufficiently to bring the next plate beneath the die-block.

By the movements of the wheel the attendant has always before him the outermost plate for placing the sole thereon, and has no occasion ever to introduce the hand under the platen, and by the position of the sole-receiving plate he is enabled to place the sole more accurately for the action of the die-block than when he has to guard his hands from being taken by the descending platen. For this reason the machine may be run much more rapidly and efficiently than when made in the ordinary manner.

In a machine for pressing the soles of boots and shoes, I claim—

In combination with the vertically-reciprocating pattern or die-block *e* the intermittently-rotating wheel *o* with its die-plates *p*, operating substantially as shown and described.

Executed this 12th day of April, A. D. 1873.

CHARLES M. HAYDEN.

Witnesses:

ERASTUS C. HAYDEN,
MARCUS P. RUSSELL.