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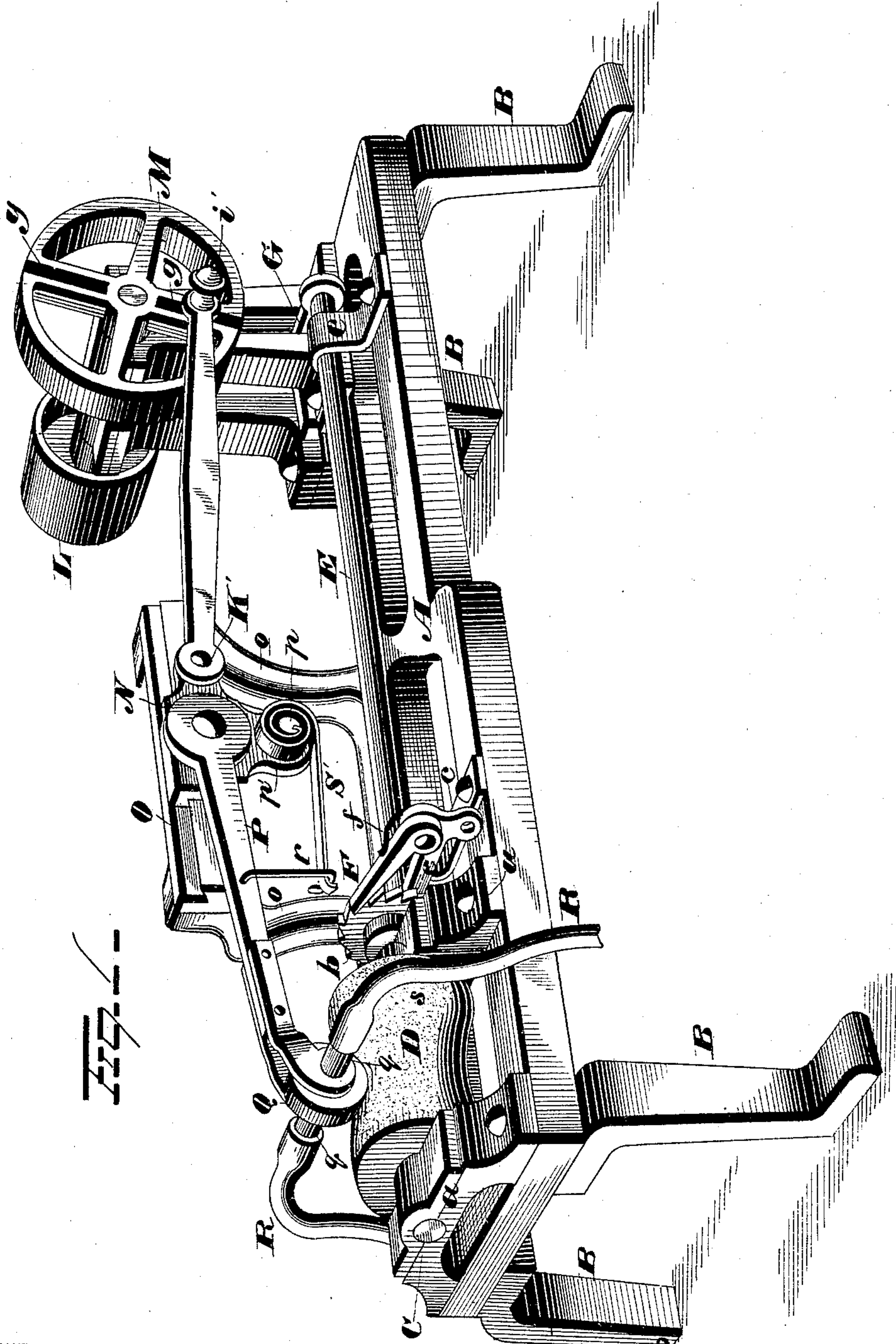
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J. STEVER.

MACHINE FOR IRONING CORSETS.

No. 286,238.

Patented Oct. 9, 1883.



WITNESSES

E. A. Nottingham,
Geo. J. Downing.

INVENTOR

Jeremiah Stever.
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Attorney

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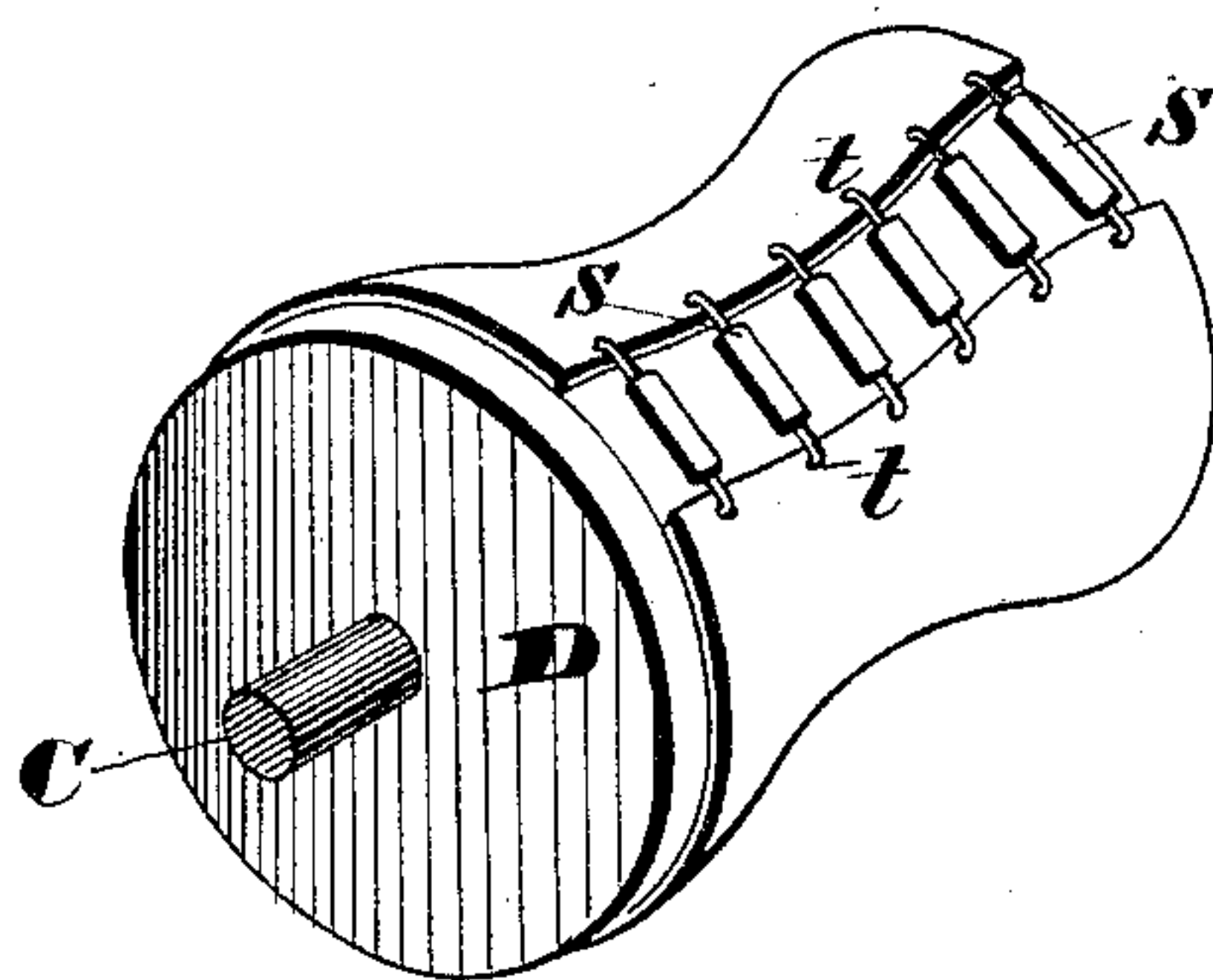
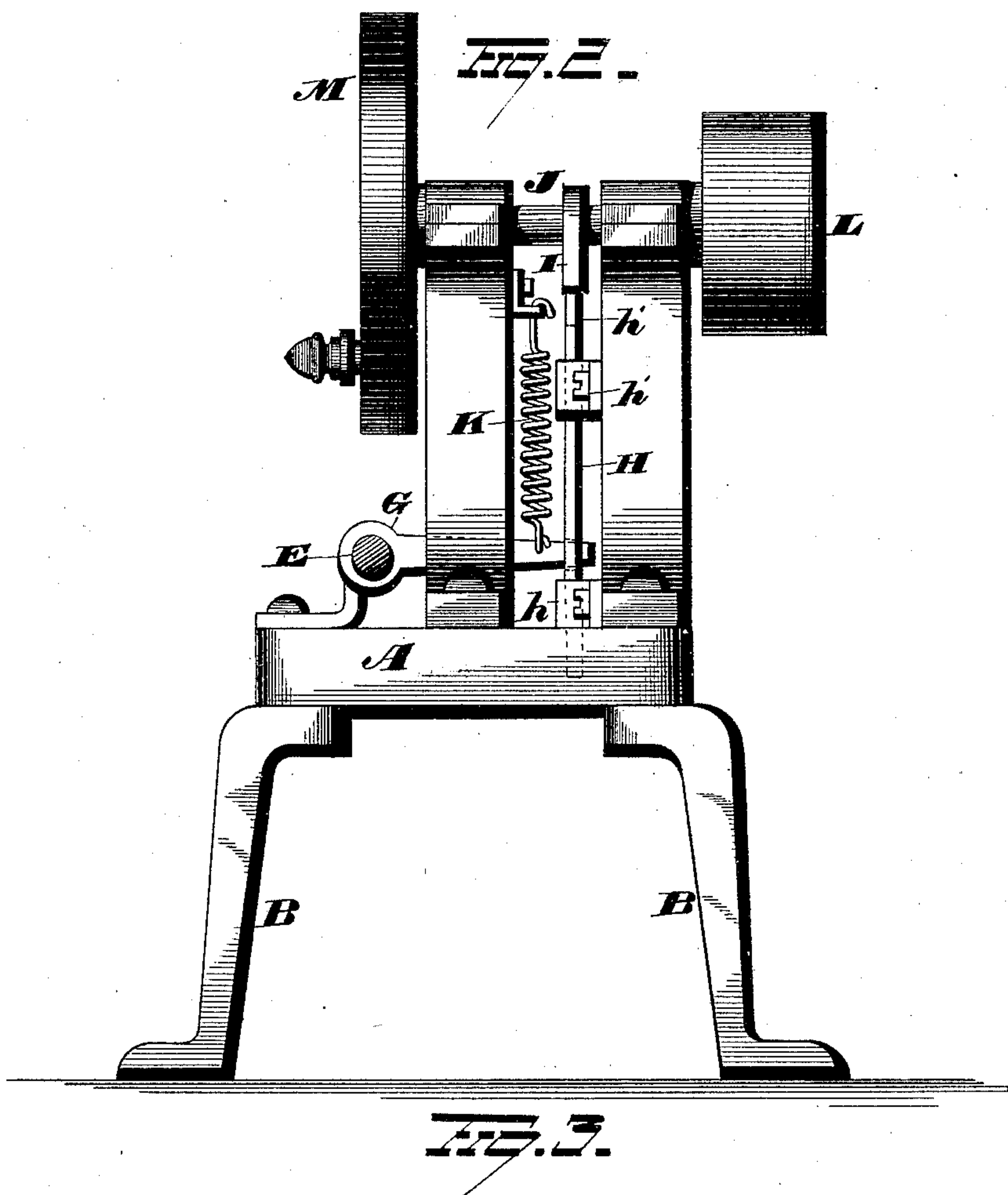
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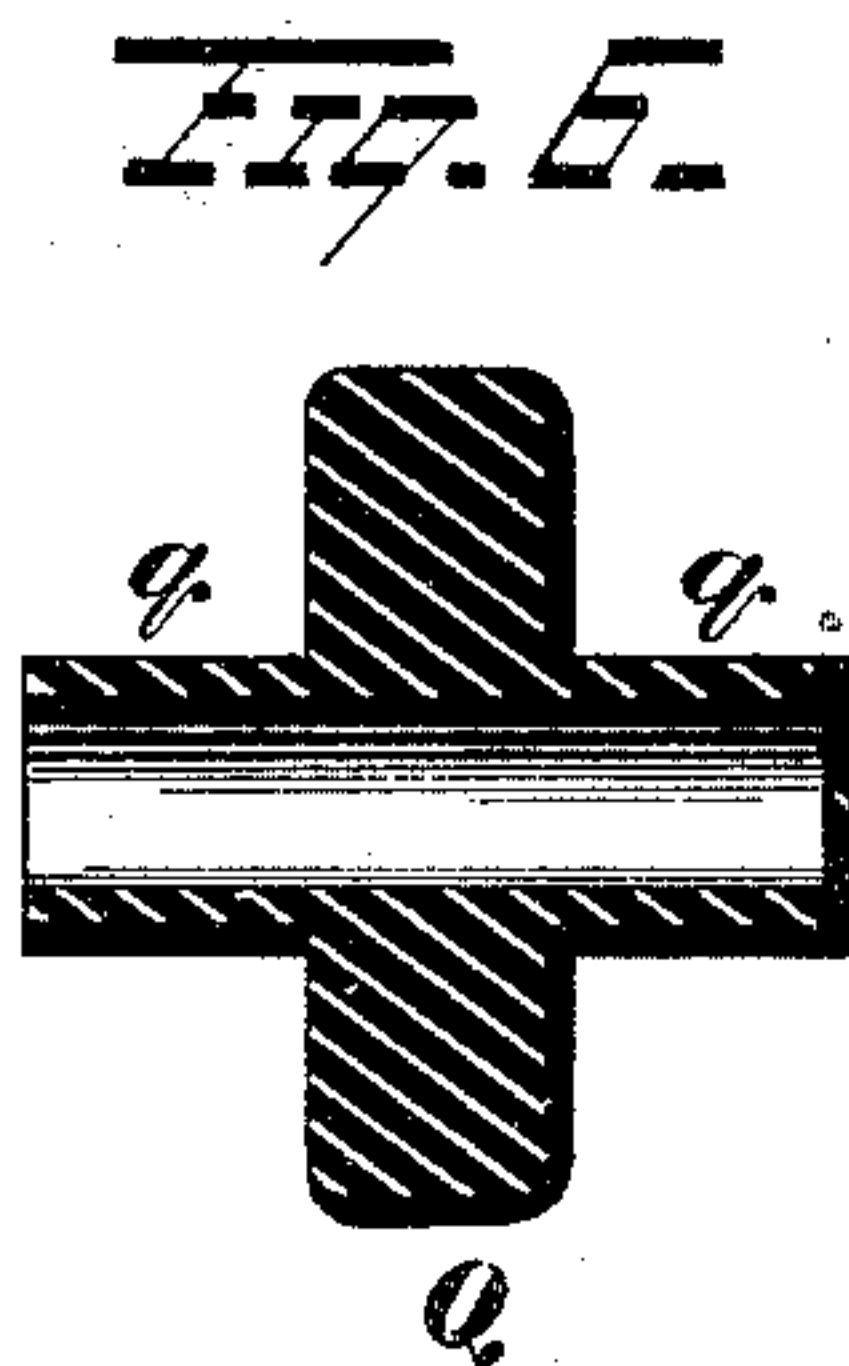
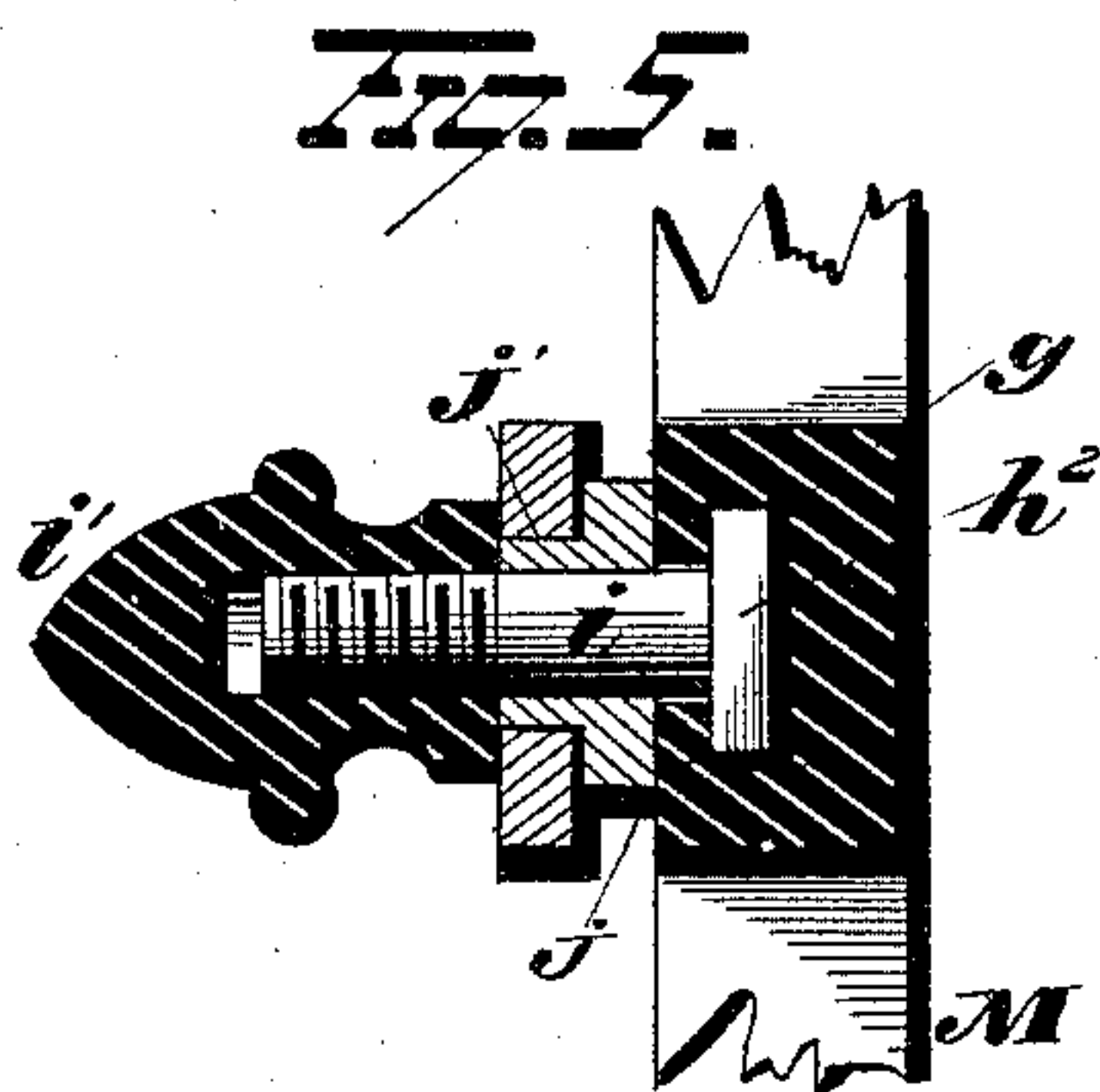
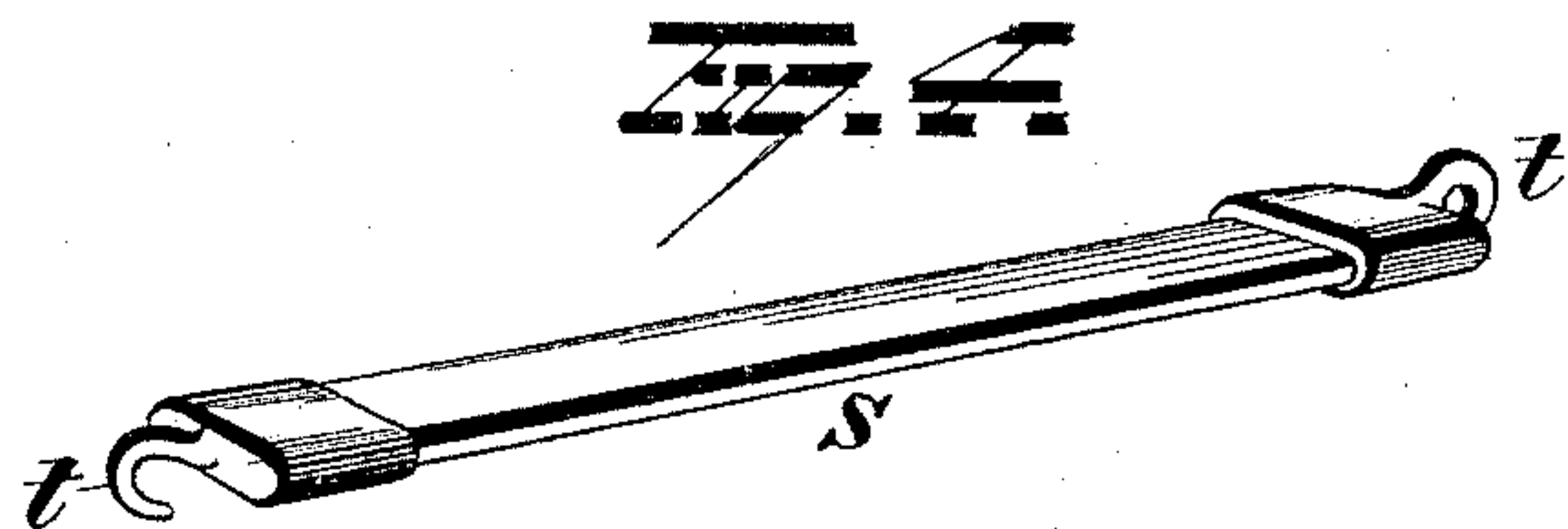
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UNITED STATES PATENT OFFICE.

JEREMIAH STEVER, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR OF ONE-HALF TO FRANK ARMSTRONG, OF SAME PLACE.

MACHINE FOR IRONING CORSETS.

SPECIFICATION forming part of Letters Patent No. 286,238, dated October 9, 1883.

Application filed November 14, 1882. (No model.)

To all whom it may concern:

Be it known that I, JEREMIAH STEVER, of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Ironing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to an improvement in machines for ironing corsets; and the invention consists, first, in a machine for ironing corsets, in the combination, with a rotary form for supporting the corset, of a reciprocating ironing-tool adapted to subject the corset to an ironing process; second, in the combination, with a rotary form for supporting the corset, of a yielding ironing tool or device and means for reciprocating the same; third, in the combination, with a form for supporting the corset, of a reciprocating ironing-tool and means for automatically imparting a rotary movement to the form; fourth, in certain features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of my improvement. Fig. 2 is an end view. Fig. 3 is a detached view of the form, showing the corset secured thereto. Fig. 4 is a detached view of the elastic fastening devices. Fig. 5 is a view in section of the wrist-pin, and Fig. 6 is a transverse section of the ironing wheel or disk.

A represents the bed, and B the legs or supporting-standards.

C is a shaft supported in bearings *a*.

D is the form, which is secured to one end of the shaft. This form may be removably secured to the shaft, so as to allow different sizes or styles of forms to be applied to the same machine.

To one end of the shaft C is secured a ratchet-wheel, *b*. Another shaft, E, is supported in bearings *c*, attached to the frame or bed of the machine, and arranged in adjustment with the shaft C.

To the shaft E is fastened an arm, *e*, having

a pawl, F, pivoted to its outer end, said pawl being retained in engagement with the ratchet-wheel *b* by means of a spring, *f*, or other suitable means. The opposite end of the shaft E has an arm, G, secured thereto, the outer end of which extends through a slot formed in a vertically-reciprocating bar or slide, H, which is held in position by the guideways *h*. The upper end of the arm is beveled, as shown at *h'*, and is acted on by the cam I on the driving-shaft J, while a spring, K, serves to retain the bar H in engagement with the cam. A band-wheel, L, is secured to one end of the shaft J, and motion is imparted thereto and to the machine from any desired source. To the other end of the shaft is attached the crank-wheel M, which is constructed with an undercut radial slot, *g*, within which is received the rectangular head *h²* of the screw-threaded bolt *i*.

Upon the bolt is placed a sleeve, *j*, having a collar, *j'*, the latter fitting between the crank-wheel and pitman, the sleeve serving as a bearing for one end of the pitman. Upon the outer end of the bolt *i* is placed a nut, *i'*, for securing the parts in place. By loosening the nut *i'* the bolt and sleeve, which constitute a crank-pin, may be moved radially toward or from the center of the crank-wheel, and thus insure any desired length of stroke. The opposite end of the pitman is journaled on a pin or stud, K', attached to a slide, N, that reciprocates on the guide O, which latter is supported on brackets *o*.

To the slide is pivoted the rear end of the ironing-arm P, the outer end of which is bifurcated and has a rotary ironing wheel or disk, Q, journaled therein. The trunnions *q* of the ironing-wheel are hollow, and the wheel is either solid, with a hole formed therein, or else made hollow. Flexible pipes R are attached to the trunnions *q* and convey steam to and from the ironing-wheel for heating the same. The arm P is depressed by a spring, S', which is secured at one end to a stud, *p*, attached to an arm, *p'*, on the slide, while the free end of the spring is supported by a link, *r*, attached to the arm. The form D is covered with felt or equivalent yielding material, *s*.

The corset is secured around the form by means of elastic links or strips S, provided with hooks *t* at each end, which are inserted in the eyelets in the back of the corset.

5 Having described the construction of my improved ironing-machine, I will now briefly describe its operation.

A corset is fastened on the form by the elastic strips or links S, as described, whereby the
10 corset is caused to fit the form snugly, and yet is allowed a slight yielding movement to prevent its becoming torn or ripped while being ironed. Steam being conducted through the ironing wheel or disk by means of the flexible
15 tubes, the wheel is heated to the proper temperature for ironing. When motion is imparted to the driving-shaft, the ironing wheel or disk is reciprocated over and in contact with the corset, and as the arm carrying the wheel
20 is made to yield against the pressure of a spring the wheel or roller will accommodate itself to all of the irregular surfaces of the form and iron every portion of the corset uniformly and effectively. The form is automatically rotated to present the entire surface of
25 the corset to the action of the ironing-wheel. This is effected by the cam on the driving-shaft engaging the vertically-reciprocating bar and depressing it, which in turn depresses
30 the arm or crank attached to the shaft E and imparts a partial rotation thereto. As the shaft E turns, it rotates the shaft C, on which the form is mounted, through the pawl-and-ratchet mechanism. The shaft and pawl are
35 rotated backwardly by the spring that serves to raise the bar and keep it in engagement with the cam on the driving-shaft. The corset may be quickly applied to the form, and a rapid reciprocating movement being imparted
40 to the ironing-disk, very little time is required to iron every portion of a corset.

Instead of using a rotary ironing tool or device, I may use a swiveled ironing-tool, and construct the ironing-surface with beveled
45 ends, so as to cause it to follow the irregular surfaces of the form; but I prefer the ironing wheel or disk, for the reason that it does its work without crimping or folding the fabric or catching and tearing the article operated
50 upon. Again, I do not limit myself to any particular means for retaining the ironing-arm in a yielding position. The spring may be mounted in a rotary shaft provided with a crank-arm, and a ratchet be fastened to the
55 shaft, and a pawl arranged to engage with the ratchet-teeth. Thus by coiling or uncoiling the spring its tension could be regulated as desired. Other forms of springs might be used and caused to effect the same results.
60 Again, other means might be employed for rotating the form.

Instead of using a cam in the manner shown, I might use an eccentric or crank with proper connections for imparting a step-by-step feed
65 to the form.

The form may be made of a single piece of

wood, or it may be made of metal, and may be made in sections hinged together, so as to be expanded or contracted for securing the corset thereto and removing it from the form
70 after it has been ironed.

The stroke of the machine may be regulated for different lengths of corsets or other articles by changing the position of the crank-pin.
75

As it is evident that many changes in the form, construction, and relative arrangement of the different parts of the machine might be resorted to without departing from the spirit of my invention, I would have it understood
80 that I do not restrict myself to the particular construction and arrangement of parts shown and described.

I am aware that machines for ironing hats have been provided with rotary forms, and
85 with ironing-tools arranged to be reciprocated over said forms; and hence I do not claim, broadly, a rotary form in an ironing-machine, but restrict my claims to my improvement in machines for ironing corsets, which
90 is, so far as I am aware, the first machine ever produced for this purpose.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—
95

1. In a machine for ironing corsets, the combination, with a rotary form constructed substantially as described, whereby a corset may be fitted and removably secured thereto, of a reciprocating ironing tool or device, substantially as set forth.
100

2. In a machine for ironing corsets, the combination, with a rotary form for supporting the corset, of an ironing wheel or disk journaled in a reciprocating arm or support, substantially as set forth.
105

3. In a machine for ironing corsets, the combination, with a rotary form for supporting the corset, of an ironing wheel or disk journaled in a reciprocating arm or support, and
110 means for conveying heat to said wheel, substantially as set forth.

4. In a machine for ironing corsets, the combination, with the rotary form for supporting the corset, of an ironing wheel or disk, slide,
115 and yielding arm for actuating the said wheel or disk, substantially as set forth.

5. In a machine for ironing corsets, the combination, with the rotary form for supporting the corset, of the ratchet and pawl, and devices for imparting rotary motion to said form, substantially as set forth.
120

6. In a machine for ironing corsets, the combination, with the rotary form for supporting the corset and its supporting-shaft, of a separate shaft and pawl-and-ratchet mechanism for transmitting the motion of one shaft to the other, substantially as set forth.
125

7. The combination, with the rotary form for supporting the corset and the supporting-shaft, of the driving-shaft and intermediate shaft, and means, substantially as described,
130

for converting the continuous rotary motion of the driving-shaft into an intermitting rotary motion of the form, substantially as set forth.

- 5 8. The combination, with the form and the corset, of yielding straps S, provided with hooks *t*, for securing the corset to the form, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JEREMIAH STEVER.

Witnesses:

GEO. F. GRAHAM,
GEO. F. DOWNING.