

J. H. SILVERS.
Tag-Machines.

No. 139,270.

Patented May 27, 1873.

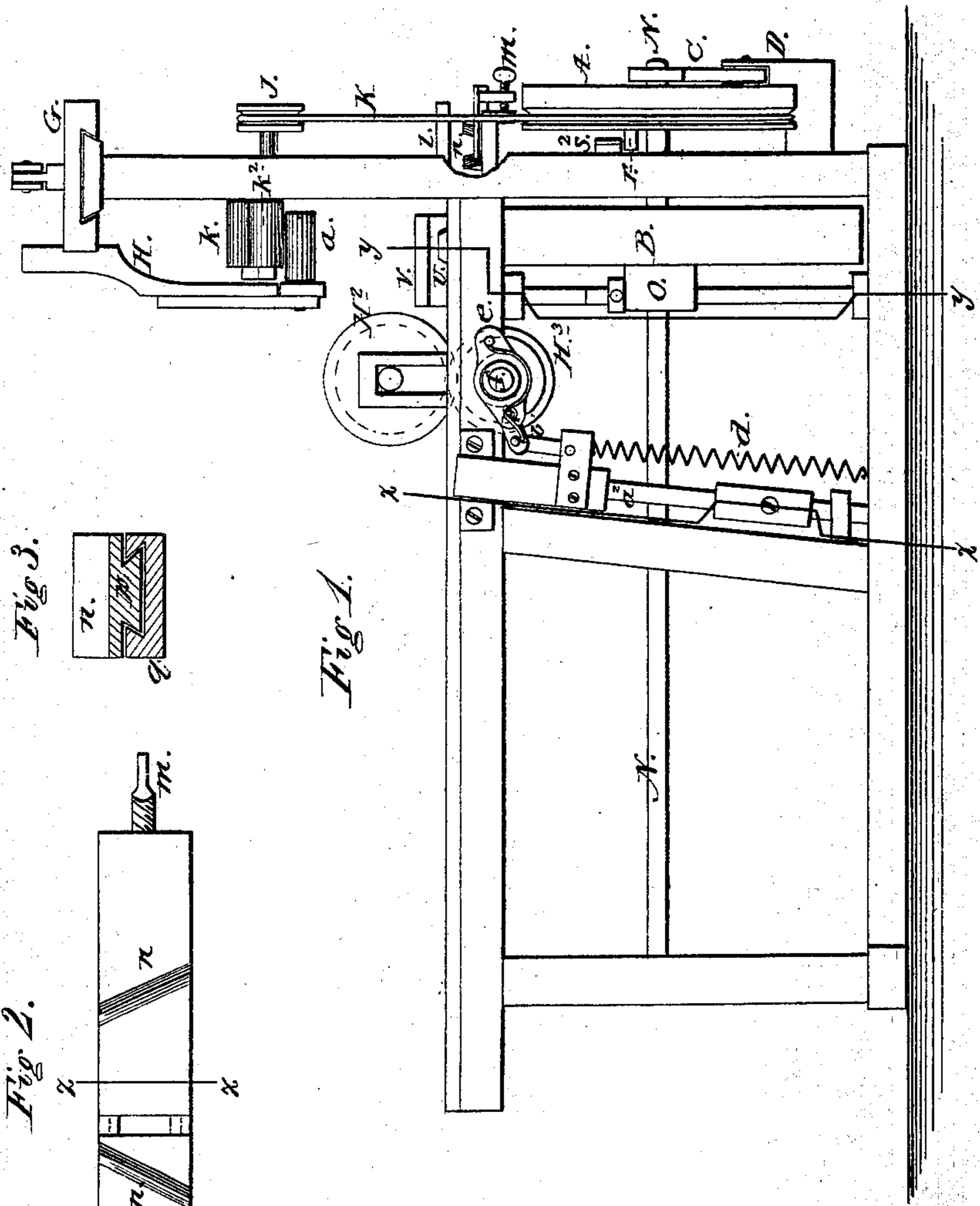


Fig. 3.



Fig. 2.

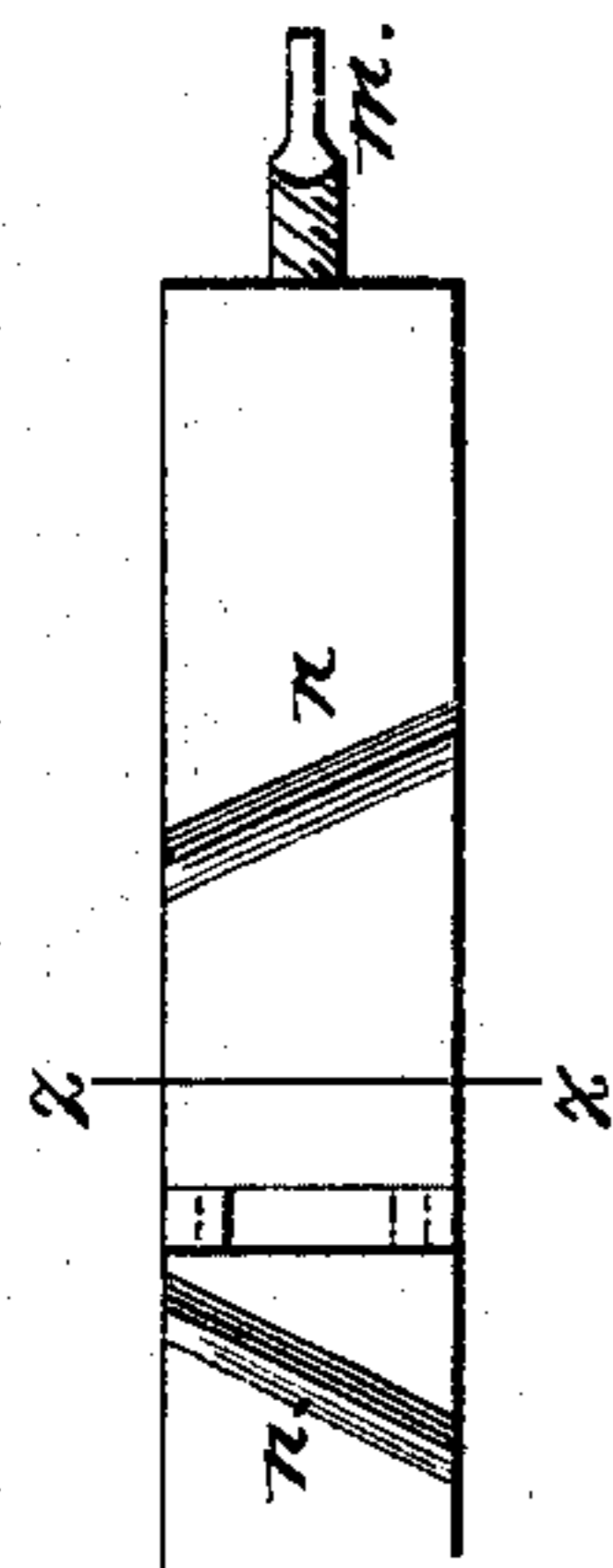
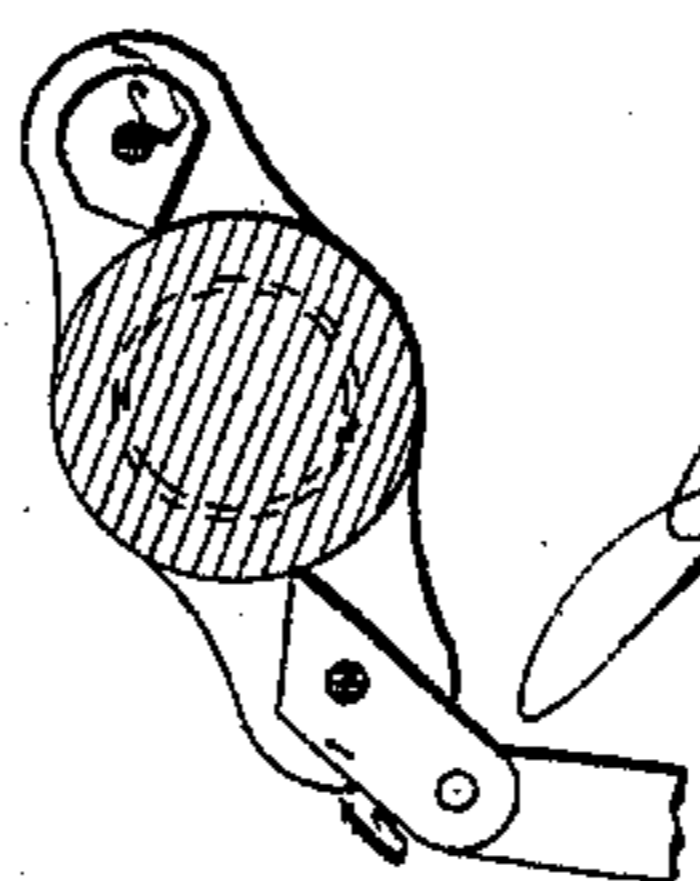


Fig. 1.

Fig. 4.



Witnesses.

J. R. Biddall
A. Moore

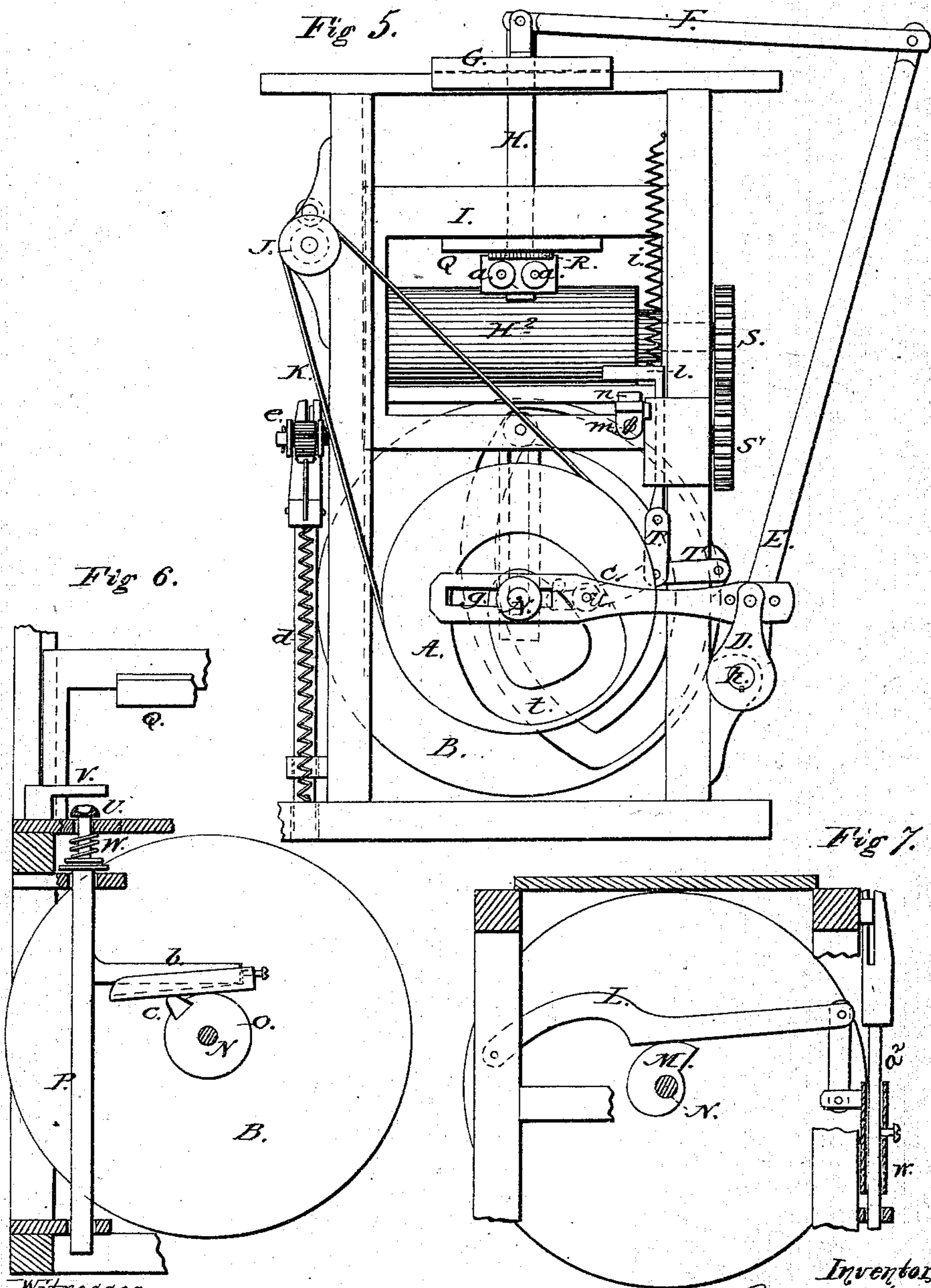
Inventor.

John H. Silvers
per Henry C. Taylor
Atty

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UNITED STATES PATENT OFFICE.

JOHN H. SILVERS, OF HIGHTSTOWN, NEW JERSEY.

IMPROVEMENT IN TAG-MACHINES.

Specification forming part of Letters Patent No. 139,270, dated May 27, 1873; application filed May 29, 1872.

To all whom it may concern:

Be it known that I, JOHN H. SILVERS, of Hightstown, county of Mercer and State of New Jersey, have invented a certain new and useful Improvement in Tag-Machines, which is simple in construction, efficient in operation, and durable in use; and it consists in the employment of an adjustable clipping device, and in the mechanism for operating the same, as hereinafter more fully described and pointed out by the claim.

In the drawings and specification the mechanism employed to deliver the material to the feed-rolls $H^2 H^3$ of the machine is neither shown nor described, it being no part of my present invention, and being substantially the same as shown in patent to C. S. Hutchinson, No. 87,261, dated February 23, 1869; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings with letters of reference marked thereon, forming a part of this specification, in which—

Figure 1 represents a side elevation of the machine; Fig. 2, a detail of the device for clipping the corners of the tag; Fig. 3, a section on line $z z$ of Fig. 2; Fig. 4, a detail of the shackle that operates the feed-rollers; Fig. 5, a front elevation of the machine; Fig. 6, a vertical section, showing the punching device; and Fig. 7, a vertical section, showing the device which operates the feed-rollers.

The device for clipping the corners of the tags simultaneously with the cutting of the tag from the continuous roll of paper consists of two knives or cutters, supported by one of the standards of the frame of the machine, with a movable die directly over them attached to a tension-spring from above, said die having a rod moving in a slot and being attached by a pivot to a toggle-joint lever, which has an arm extending toward the main shaft of the machine. The exterior cam-wheel has a small pin on its inside which serves as a cam to engage at the proper time the curved arm of the toggle-joint lever, bearing it down, and with it the die, which bears against the clipping-knives. When the pin

in the cam-wheel is released the tension-spring returns the die to its place. It is then ready for another blow. This clipping device slides on a dovetail and is adjustable for any width of tag. One of the knives is fixed, while the other is movable. A is the cam-wheel with the groove t formed therein. c is the arm which has the slot g guided by the main-shaft N of the machine. The lever D is attached to the slotted arm C and is moved with it, when the cam-wheel moves, through the agency of the power applied on the main shaft. The pin u , which moves in the groove t , controls the movement of the arm C. To the shaft h is attached the long arm E, which moves with the lever D, and carries the arms F and H attached to the inking-rollers $a a$. This device is so adjusted with reference to the frame which carries the type, and knives which separate the tags from the continuous roll of paper, that at the moment the face of the type reaches a line in common with the rollers, they, (the rollers,) controlled by the cam-wheel A, move across the face of the type and return just in time to allow the frame I to lower to give the cut and make the impression upon the completed tag. The clipping device, shown in detail in Figs. 2 and 3, is situated just outside of the frame I and receives the tag after the tag has been cut and punched. In the device, $n n$ are the cutters, set obliquely to a line in a direction with the movement of the tag to clip the corners of the tag and give it a better shape. One of these cutters is fixed, while the other is adjustable by means of the dovetailed slide p and set-screw m , to suit the width of the tag. This clipping device is operated as follows: With the revolutions of the cam-wheel A a small pin, r , is moved, and at stated intervals comes in contact with the arm S^2 of the toggle-joint lever T and moves the same, bringing with it the die l , which bears on the tag immediately over the cutters $n n$, and by this operation cuts off the corners of the said tag simultaneously with the cutting of the tag from the continuous roll of paper.

The punching device is operated by a cam, O, fixed to the main shaft N, which lifts the arm b and rod P, to which it is attached, the same throwing up the punch V against the

incomplete tag, which bears against the stop V and is punched at the same time as the tag is received from the paper.

I have omitted in my drawings the rod upon which the paper is wound and the device for creasing, pasting, and folding the paper, as they have nothing to do with my improvements, except they assist in performing the work of making the tag.

After the paper comes from the reel upon which it is wound and is folded by the folding device, it passes between the rollers H^2 and H^3 and is carried by them to the cutting, stamping, and punching devices. The roller H^3 is moved by the cam M on the main shaft N, bearing at intervals against the curved arm L. This arm L has a hinged connection with the bar a^2 , and lifts it and causes it to operate the said roller H^3 , through the agency of the shackle e, which is clamped at intervals by the two pointed pieces b c, which bite on both sides of the shaft which connects with said roller. The roller H^3 has a spur-wheel on the end of its shaft opposite the shackle, which engages with a similar spur-

wheel on the shaft of the upper roller H^2 . This gear gives the movement to the upper roller, and the pair H^2 and H^3 feeds the paper forward to the cutting, printing, punching, and clipping devices.

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

1. The clipping device $n n$ and reciprocating die l, in combination with the cam-wheel A, pin r, and arm S^2 , substantially as and for the purpose herein specified.

2. The cutters $n n$, one fixed and the other adjustable by means of the slide p and set-screw m, in combination with a tag-printing device, substantially as and for the purposes herein specified.

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

JOHN H. SILVERS.

Witnesses:

H. S. LITTLE,
LU. SCHRUCK.