

(No Model.)

2 Sheets—Sheet 1.

A. G. HUNTER.

MECHANISM FOR OPERATING A ROLL OF PAPER.

No. 364,822.

Patented June 14, 1887.

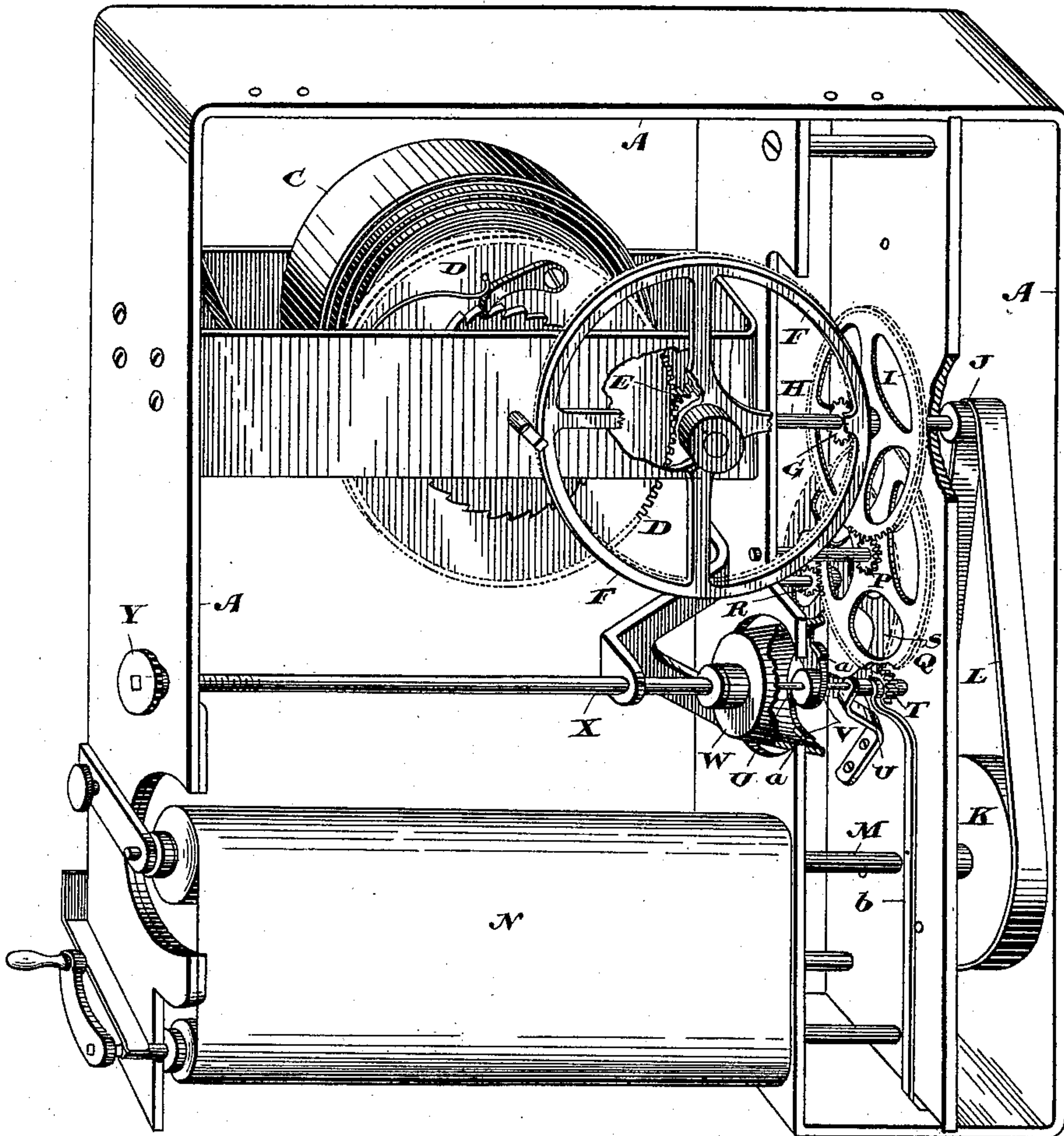


Fig. 1.

Witnesses.

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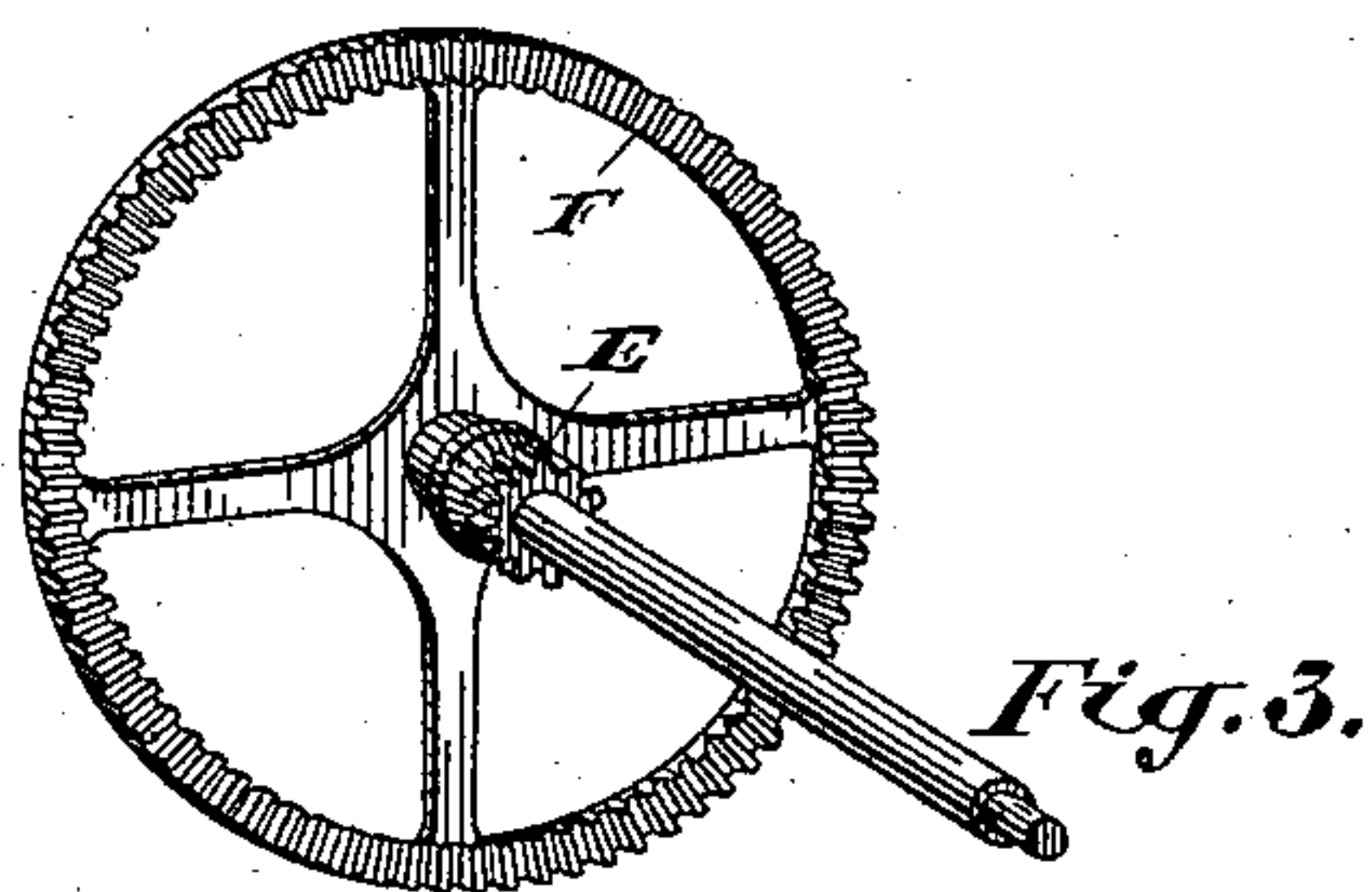
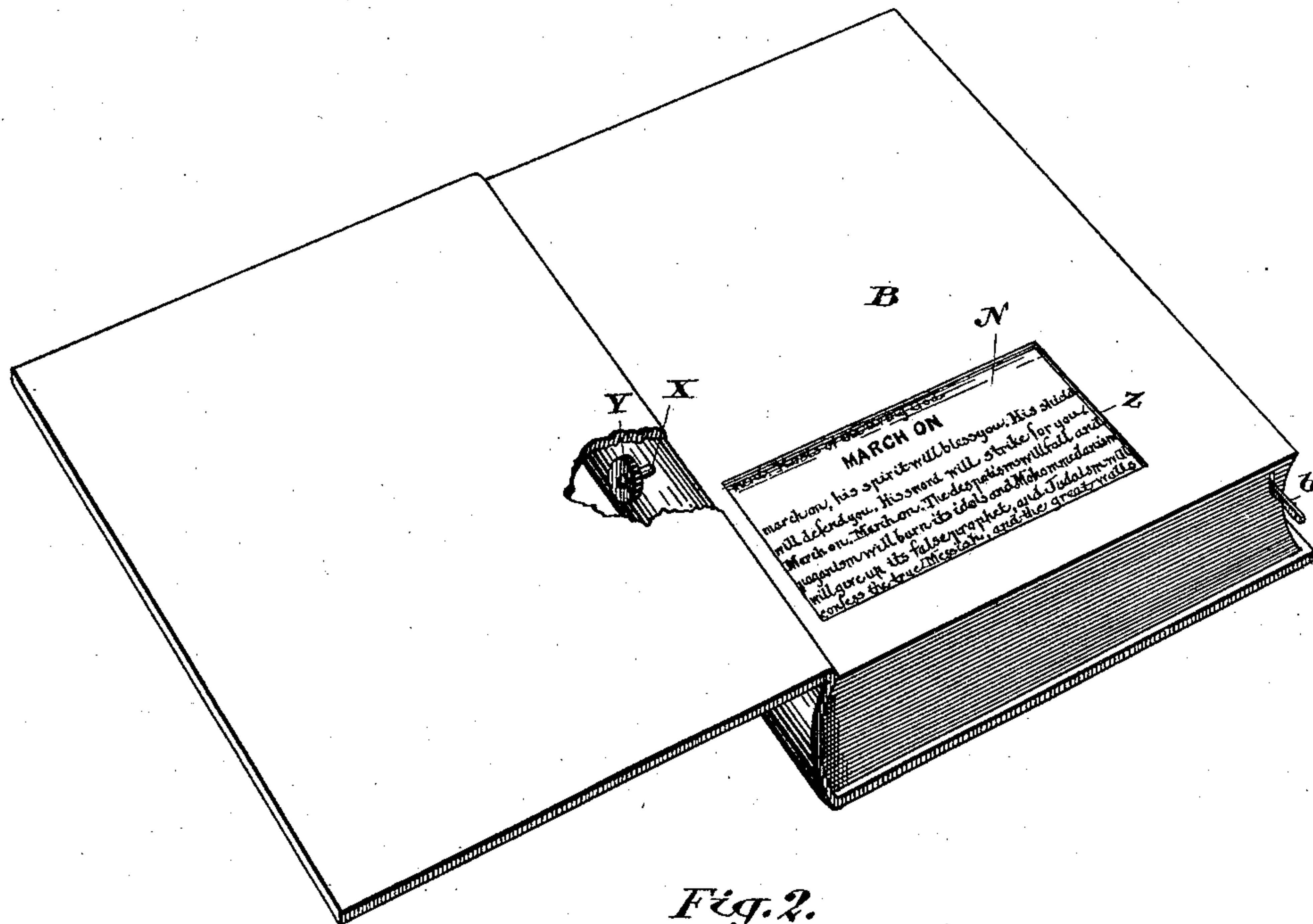
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UNITED STATES PATENT OFFICE.

ALEXANDER GOKEY HUNTER, OF DUNDALK, ONTARIO, CANADA.

MECHANISM FOR OPERATING A ROLL OF PAPER.

SPECIFICATION forming part of Letters Patent No. 364,822, dated June 14, 1887.

Application filed February 28, 1887. Serial No. 229,250. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER GOKEY HUNTER, of the town of Dundalk, in the county of Grey, in the Province of Ontario, Canada, estate agent, have invented a certain new and useful Improved Mechanism for Operating a Roll of Paper, of which the following is a specification.

The object of the invention is to provide a device in which a roll of paper having printed or written on its surface the subject-matter of any lecture or other reading-matter may be placed and caused to move at any desired speed in front of an opening formed in the case containing the said roll of paper; and it consists, essentially, in placing within a case, preferably made in the form of a book, a roll of paper having the lecture or other reading-matter written or printed on it, the said roll of paper being carried on suitable drums operated by mechanism so arranged that its speed may be regulated, in order that the moving paper may be caused to travel at such a speed as may be most suitable for the reader using the device, the whole being arranged substantially as hereinafter more particularly explained.

Figure 1 is an enlarged perspective view of the roll of paper and mechanism for operating the same. Fig. 2 is a perspective view of the book-shaped case designed to contain the mechanism shown in Fig. 1. Fig. 3 is a perspective detail of the side spur-wheel and its pinion for conveying the movement of the spur-wheel operated by the spring, and the mechanism for operating and controlling the movement of the roll of paper.

In the drawings, A represents a frame made any suitable design, but preferably made to fit a case, B, made in the shape of a box, as shown in Fig. 2.

C is an ordinary clock-spring, which is wound up in the ordinary manner, and is arranged to drive an ordinary spur-wheel, D, which meshes with a pinion, E, attached to the spindle of the side spur-wheel, F. This spur-wheel F meshes with a pinion, G, fixed to the spindle H, on which the spur-wheel I and pulley J are fixed. The pulley J is connected to the pulley K by means of the belt L, so that the motion of the pulley J is conveyed to the pulley K, and

through it to the spindle M, around which the paper N is rolled.

With the view of controlling the speed of the mechanism herein described, I provide the following brake mechanism, consisting of a spur-wheel, I, connected to the spindle H, and meshing with a pinion, P, on which the spur-wheel Q is fastened. This spur-wheel Q meshes with a pinion, R, connected to the spur-wheel S, which meshes with a pinion, T, fastened to the spindle U, to which spindle the springs V are attached. These springs have rubber tips *a*. An internally-tapered drum, W, is fixed to a spindle, X, which is carried in suitable bearings, so that its center line shall be an extension of the center line of the spindle U, but which spindles are independent of each other. One end of the spindle X has a screw cut on it and passes through a nut held by or formed in the frame A. A thumb-wheel, Y, is attached at one end of the spindle X, so that the said spindle may be readily adjusted longitudinally when required. The longitudinal adjustment of the spindle X, of course, conveys a corresponding movement to the drum W, causing it to move toward the springs V or away from them, according to the direction in which the said spindle X is caused to revolve. The springs V are designed so as to hold the rubber tips *a* against the interior surface of the drum W, and as the spindle U, to which the springs V are attached, is connected by the gearing hereinbefore described to the main driving mechanism of the machine, the tips *a*, pressing against the drum W, act as a brake upon the said mechanism; consequently the drum W controls the speed of the said mechanism by simply forcing the said drum W toward the springs V, thereby increasing the friction on the said springs and causing the paper N to travel more slowly in proportion to the increase of the friction, as described. The paper N has printed or written on it the reading-matter which the lecturer or other party wishes to deliver, and when the frame A is placed within the case B the writing or printing on the paper N will be exposed through the opening Z, which may be made any desired size. If the reader finds the reading-matter traveling too quickly in front of him, he merely seizes the

thumb wheel Y and adjusts the spindle X so as to bring the drum W nearer to or farther from the springs V, and in this way the speed of the paper may be regulated to a nicety. A lever, *b*, is pivoted in the frame A, and extends through the case B, as shown in Fig. 2. Its other end extends over the spindle U, which may be stopped from moving by simply adjusting the lever *b* so as to press against the said spindle.

What I claim as my invention is—

1. The paper N, rolled upon a suitable spindle and placed within a case, B, having an opening formed in it, in combination with mechanism designed to impart a traveling movement to said paper, an internally-tapered drum, and a friction-brake connected with said mechanism and designed to operate on said drum, substantially as and for the purpose specified.

2. The paper N, rolled upon suitable spindles and placed within a case, B, having an opening, Z, formed in it, and mechanism for im-

parting motion to the said paper N, in combination with an internally-tapered drum, W, connected to a longitudinally-adjustable spindle, X, and arranged to engage with springs V, which are attached to mechanism connected to the main driving mechanism of the machine, substantially as and for the purpose specified.

3. The paper N, rolled upon suitable spindles and placed within a case, B, having an opening, Z, formed in it, and mechanism for imparting motion to said paper, combined with an internally-tapered drum, W, the longitudinally-adjustable spindle X, to which said drum is connected, the spindle U, springs V, attached thereto, thumb-wheel on the spindle X, and connections between the spindle U and the main driving mechanism, substantially as and for the purpose specified.

Dundalk, February 9, 1887.

ALEXANDER GOKEY HUNTER.

In presence of—

W. J. WARDELL,

C. H. NEWELL.