

No. 883,617.

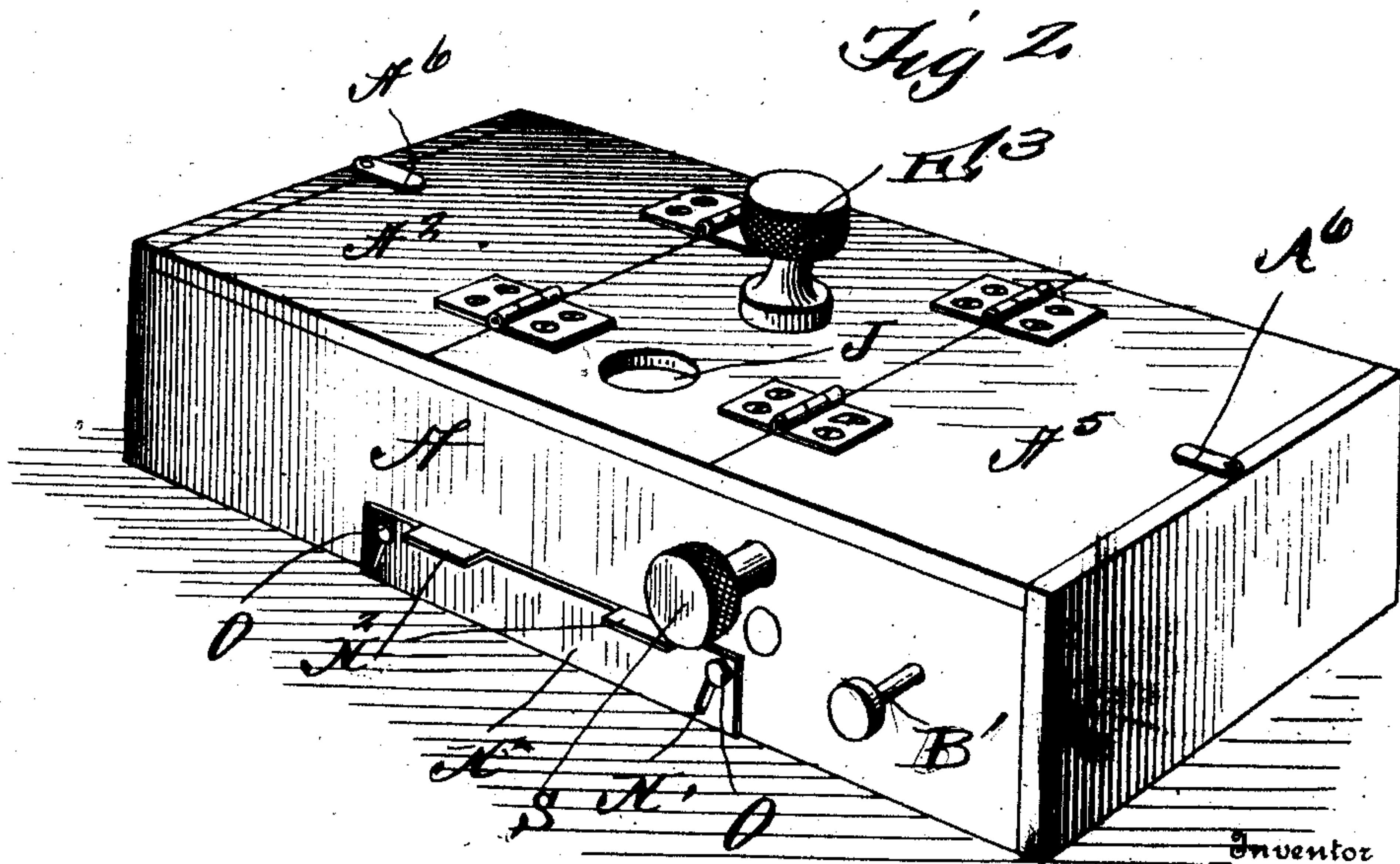
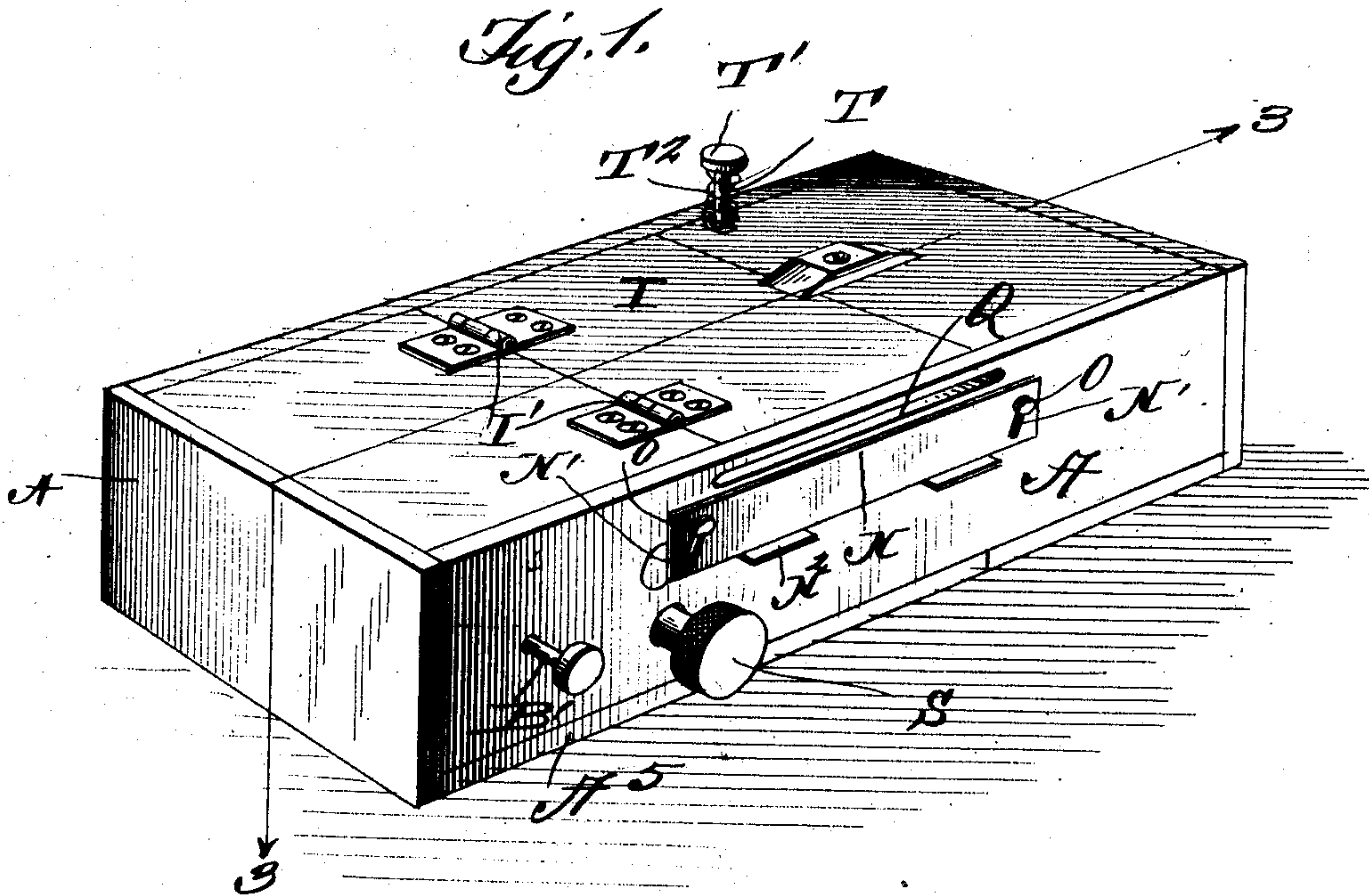
PATENTED MAR. 31, 1908.

B. H. BRAGG.

CONTINUOUS PHOTOGRAPHIC PRINTING APPARATUS.

APPLICATION FILED OCT. 11, 1907.

3 SHEETS—SHEET 1.



Witnesses

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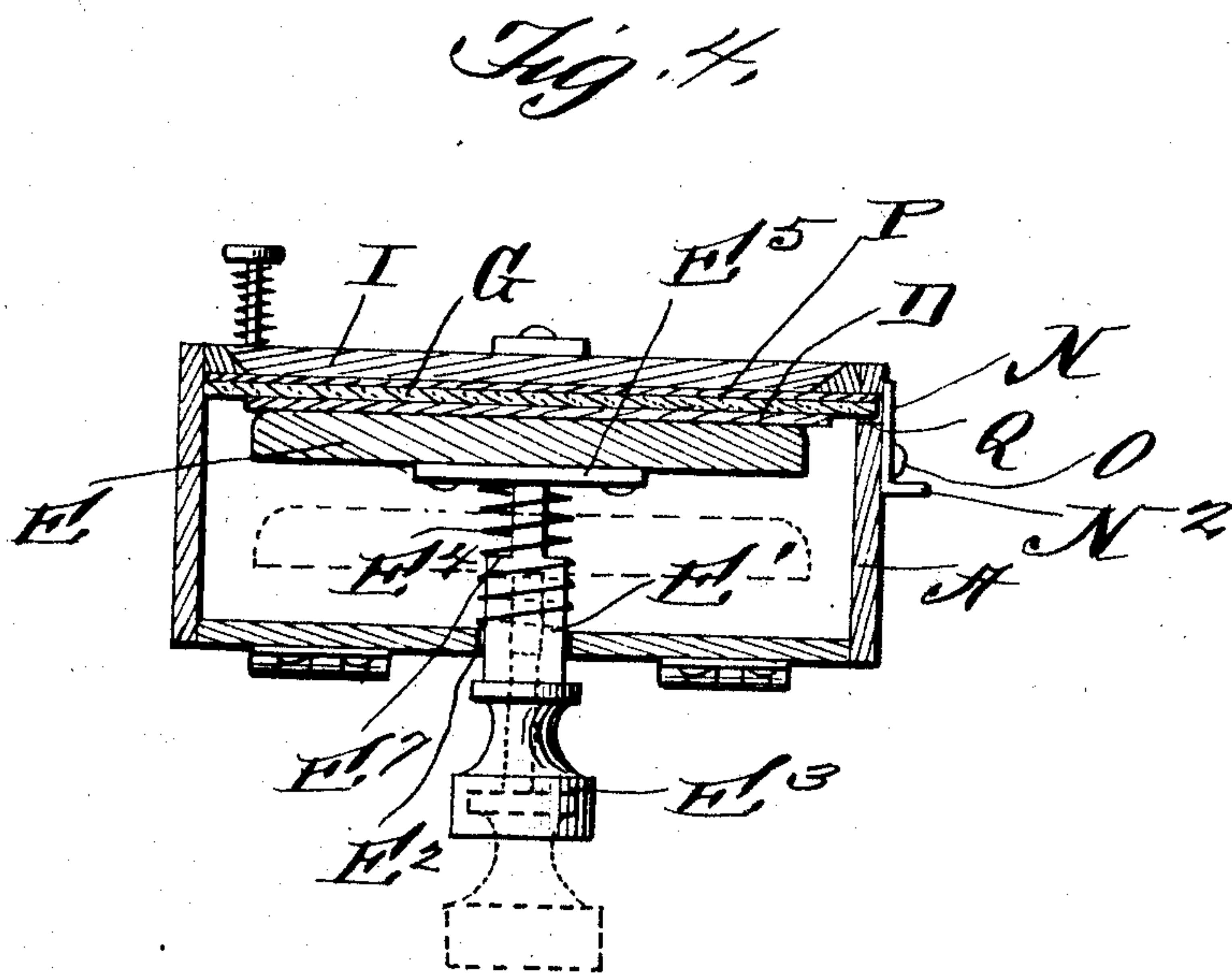
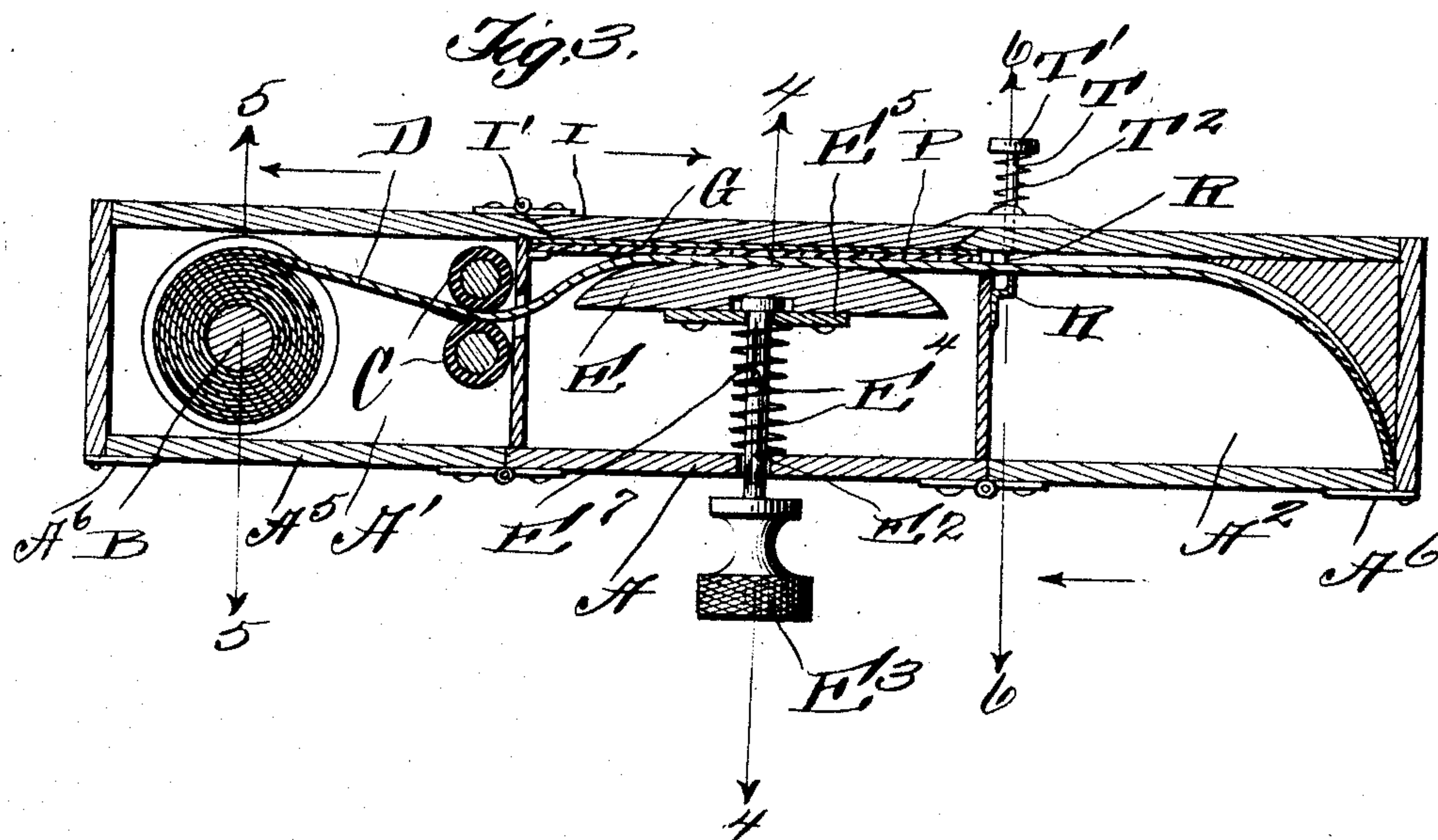
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3 SHEETS—SHEET 2.



Witnesses

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3 SHEETS—SHEET 3.

Fig. 5.

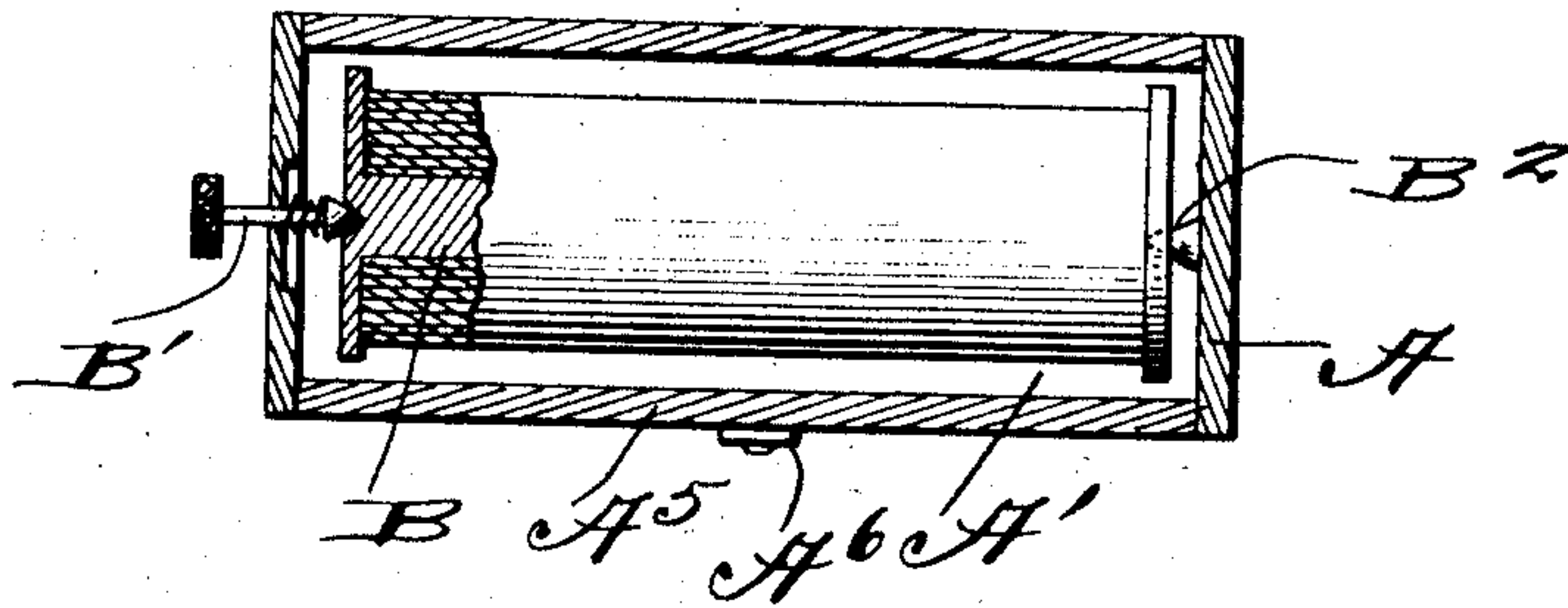
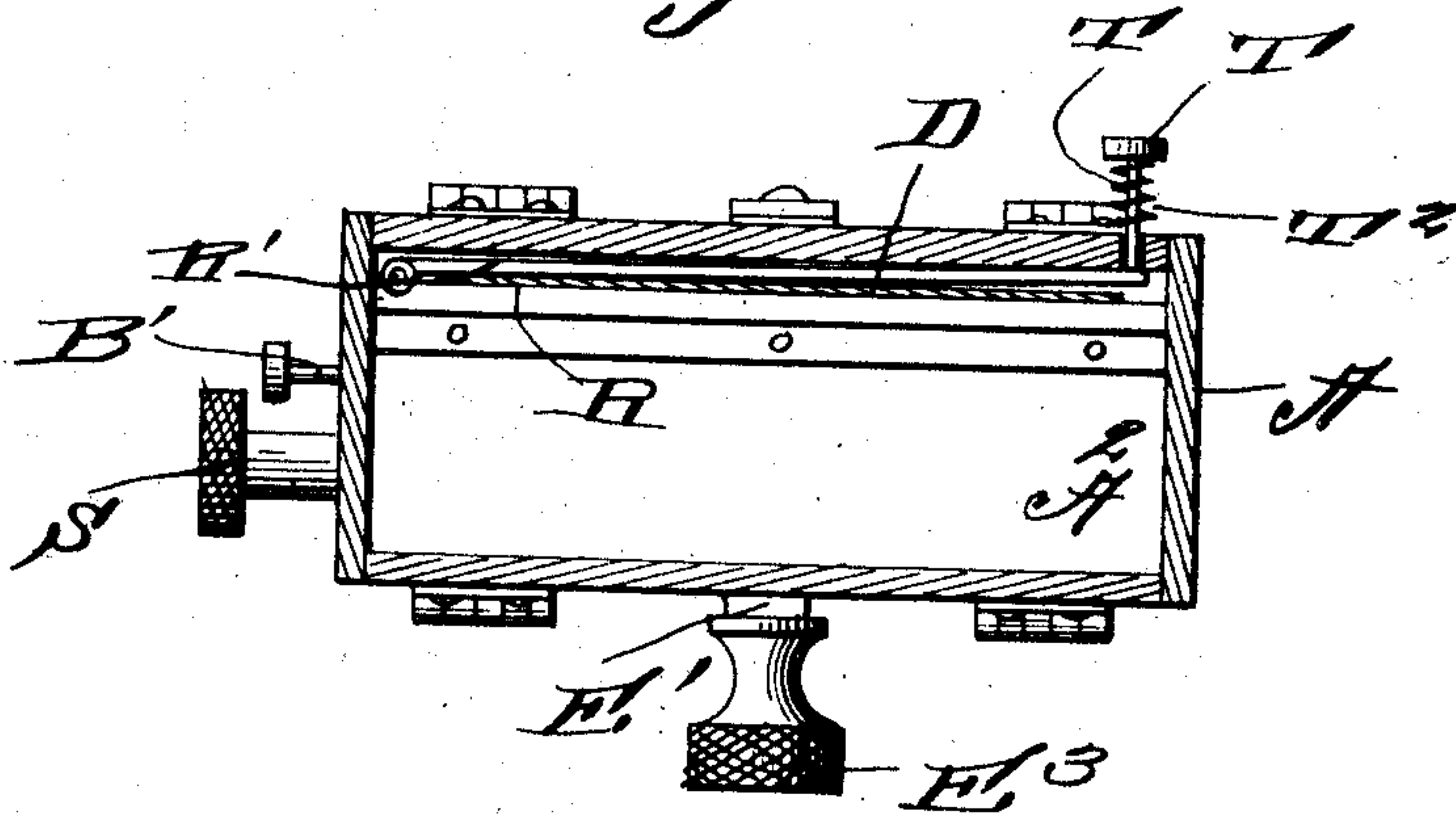


Fig. 6.



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# UNITED STATES PATENT OFFICE.

BENJAMIN HANASION BRAGG, OF WHITMAN, MASSACHUSETTS.

## CONTINUOUS PHOTOGRAPHIC-PRINTING APPARATUS.

No. 883,617.

Specification of Letters Patent.

Patented March 31, 1908.

Application filed October 11, 1907. Serial No. 397,000.

*To all whom it may concern:*

Be it known that I, BENJAMIN HANASION BRAGG, a citizen of the United States, residing at Whitman, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Continuous Photographic-Printing Apparatus; 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in continuous printing apparatus for photographer's use, and comprises various details of construction and combinations and arrangements of parts which will be hereinafter fully described and then specifically defined in the appended claims.

I illustrate my invention in the accompanying drawings, in which:—

Figure 1 is a perspective view of the apparatus. Fig. 2 is a perspective view showing the under surface of the casing. Fig. 3 is a longitudinal sectional view on line 3—3 of Fig. 1. Fig. 4 is a sectional view on line 4—4 of Fig. 3. Fig. 5 is a sectional view on line 5—5 of Fig. 3, and Fig. 6 is a sectional view on line 6—6 of Fig. 3.

Reference now being had to the details of the drawings by letter, A designates a casing containing the operative parts of the apparatus and is provided with two compartments, designated respectively by letters A' and A<sup>2</sup>, for the reception of the film of negatives. One of said compartments A' has a reel B which is shown clearly in Fig. 5 of the drawings held in place by means of a spring-pressed pin B', the opposite end of the reel being held upon a pivot B<sup>2</sup>, which is a common mechanical construction in holding reels in cameras.

C—C designate two rollers, preferably covered with rubber, and adapted to feed the sheet of printing paper D forward from the reel B.

E designates a spring-pressed block to which the screw E' is swiveled, the shank portion of said screw passing through an aperture E<sup>2</sup> in the casing and provided with a thumb nut E<sup>3</sup> thereon. It will be noted that the shank portion of said stem has shoulders E<sup>7</sup> which, when the stem is pulled out in the

position shown in dotted lines, may be given a partial rotary movement in order to engage the outside of the casing to hold the stem at its farthest outward throw, whereby the printing paper may be easily fed forward.

E<sup>4</sup> designates a coiled spring which is interposed between a plate E<sup>5</sup> upon said block and the inner surface of the casing, as shown clearly in Fig. 3 of the drawings. Said printing paper D, it will be noted, is held by the block E against the negatives G, which are mounted within the casing and to which light may have access through the opening to which a door I is applied, the latter being hinged at I'.

Referring to Figs. 1 and 2 of the drawings will be seen a slide N having slots N' formed therein, said slots receiving the headed pins O and N<sup>2</sup> designate lugs projecting from said slide whereby the same may be moved back and forth to open or close a slot Q formed in the side of the casing and in which a slide P may be inserted when it is desired to change the negative or for any other purpose.

In order to sever the strip after being printed, I provide a cutting device consisting of a stationary knife R, to which a blade R' is pivoted and T designates a post secured to the latter and having a button T' at its end and T<sup>2</sup> designates a coiled spring interposed between said button and the top of the casing. The strip of printing paper is adapted to pass between the cutting blades and to be severed thereby as the movable blade is depressed, thereby effecting a shearing cut. The coiled spring T<sup>2</sup>, before referred to, serves to return the pivotal shearing blade R' to its normal position after having been depressed.

Referring to Fig. 2 of the drawings will be seen a sight aperture J, covered preferably by a ruby glass whereby the marks upon the paper may be viewed without effecting the sensitiveness of the paper. One of said compartments is provided with a hinged lid A<sup>5</sup>, as shown in Fig. 2 of the drawings, suitable buttons A<sup>6</sup> being provided to hold the covers closed.

In operation, the roll of printing paper is first wound upon the reel and the latter inserted in one of the compartments and fed between the rollers C and the spring-pressed block E and the negative. When it is desired to make an exposure, the cover I is swung open, after which by turning the thumb screw S fixed to one of said rollers C, the



printing sheet may be fed through into the compartment A and severed by the depression of the spring-pressed shearing blade. After the exposure is made, the cover I may  
 5 be closed until a fresh piece of the paper is brought forward for a new print. When it is desired to remove the negative, the block E may be withdrawn under tension of the spring E<sup>2</sup> from contact with the printing pa-  
 10 per which holds the same tightly against the negative. In the event of films being used, a transparent plate is first inserted in the casing to assume the position taken by the last negative and against which transparent plate  
 15 a film may be held.

From the foregoing, it will be noted that, by the provision of an apparatus embodying the features set forth, a simple and efficient apparatus is afforded whereby a continuous  
 20 series of pictures may be printed from a negative and severed individually, if desired, and so arranged that it may be adapted for use either with glass negatives or films.

What I claim to be new is:—

25 1. A printing apparatus comprising a casing having a reel therein upon which printing paper is adapted to be wound, means for feeding paper from one compartment into another, negative holding means adjacent to  
 30 an opening in the casing, a spring-pressed

member adapted to hold the printing paper against a negative over said opening, one of the sides of the casing having an elongated slot adapted to receive a slide, headed pins  
 35 upon the side of the casing, a closure comprising a strip of metal having transverse slots through which said pins extend, said closure adapted to have a sliding movement over said slide, as set forth.

2. A printing apparatus comprising a cas- 40  
 ing having a reel therein upon which printing paper is adapted to be wound, means for feeding paper from one compartment into another, negative holding means adjacent to  
 45 an opening in the casing, a spring-pressed member adapted to hold the printing paper against a negative over said opening, one of the sides of the casing having an elongated slot adapted to receive a slide, headed pins  
 50 upon the side of the casing, a closure comprising a strip of metal having transverse slots through which said pins extend, lugs projecting from the slide adapted to cover  
 said slot, as set forth.

In testimony whereof I hereunto affix my 55  
 signature in the presence of two witnesses.

BENJAMIN HANASION BRAGG

Witnesses:

ROSANNA CALLANAN,  
 GEO. D. SOULE.