

(No Model.)

J. M. FRY.  
CIGAR BUNDLING MACHINE.

No. 370,252.

Patented Sept. 20, 1887.

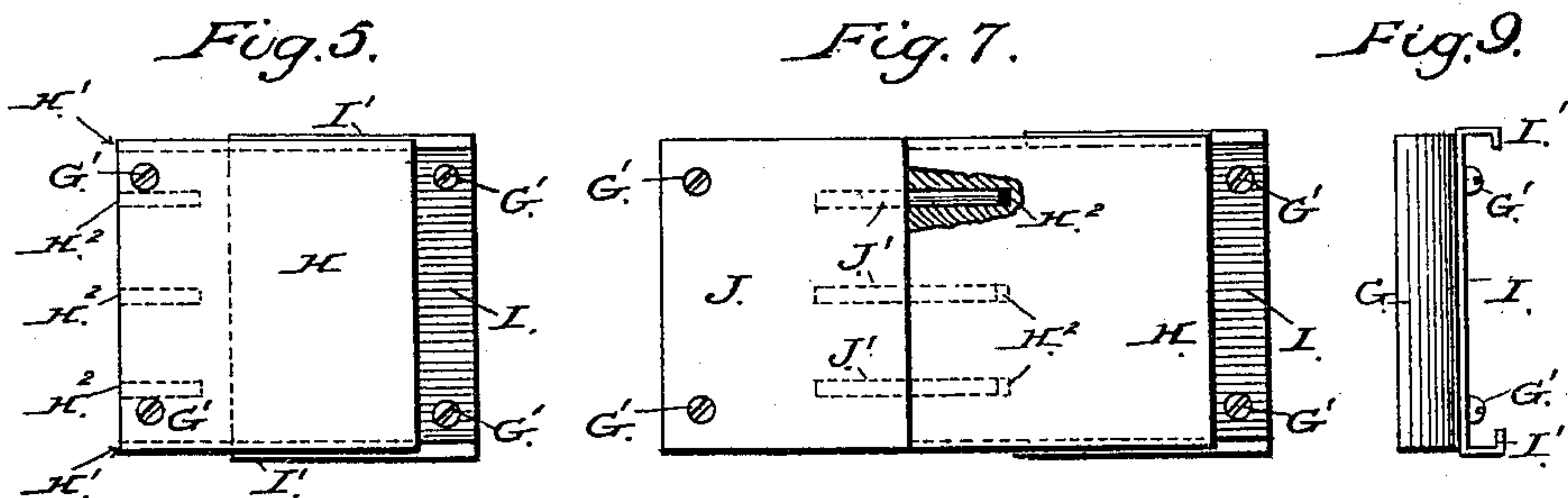
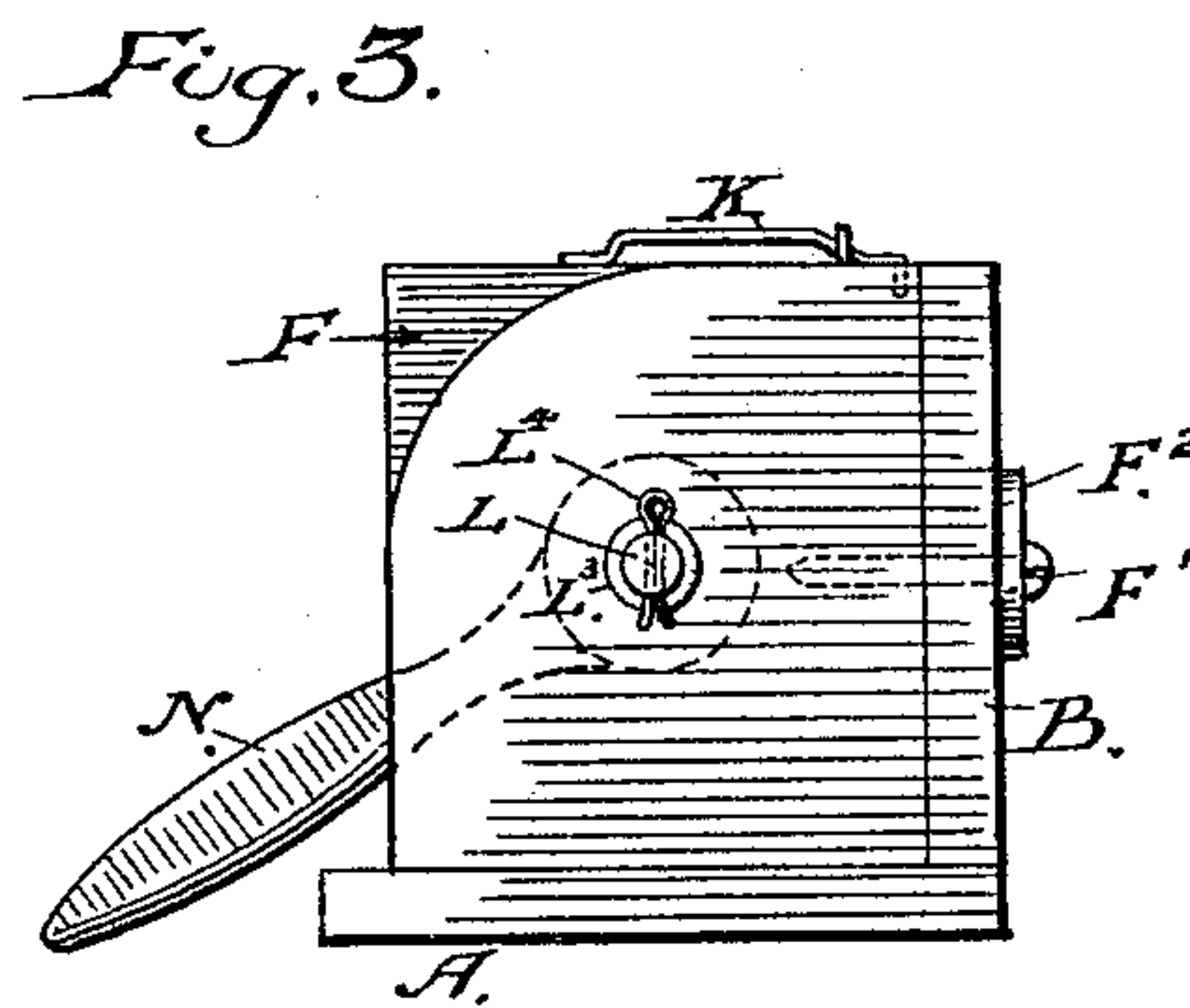
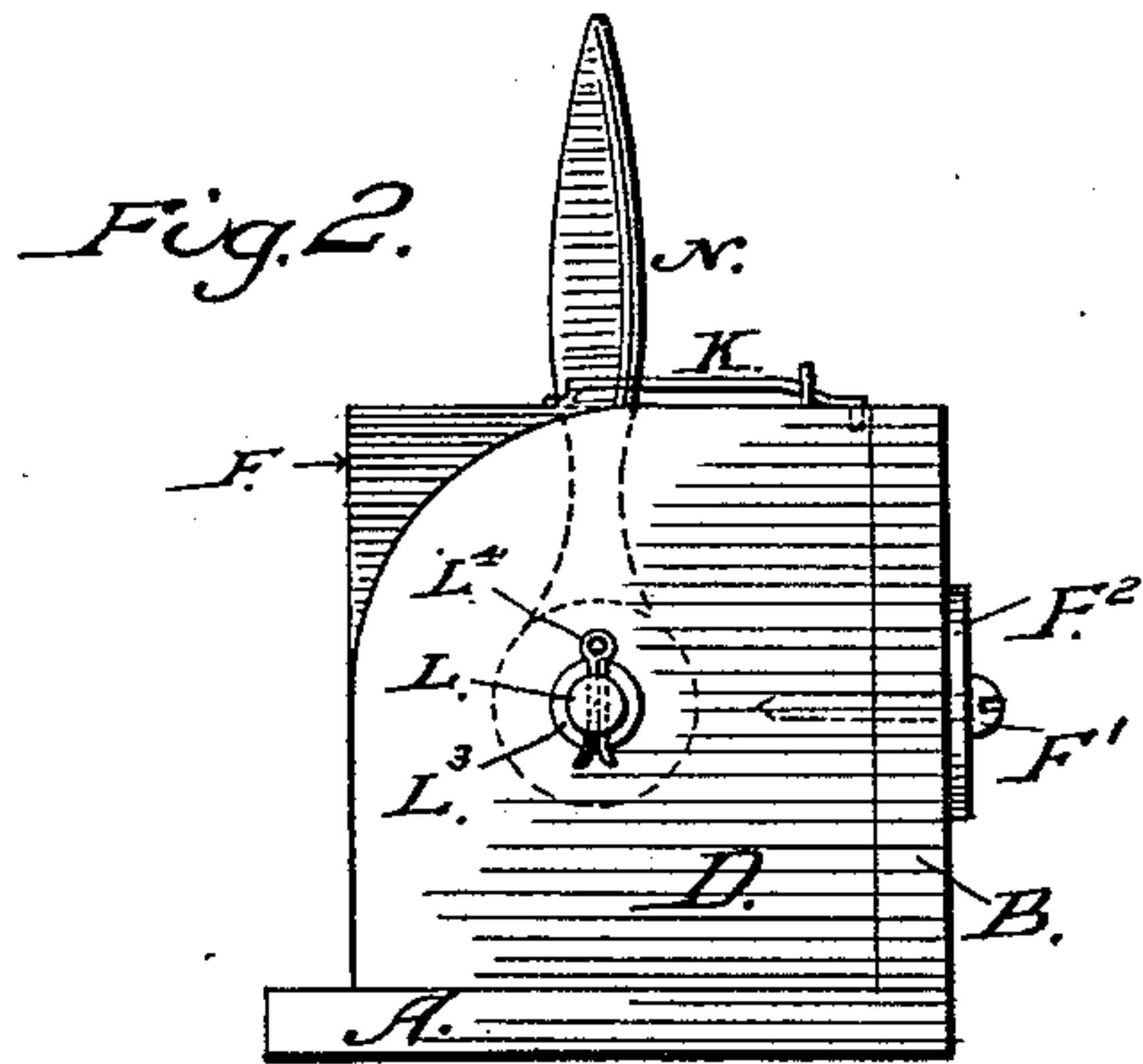
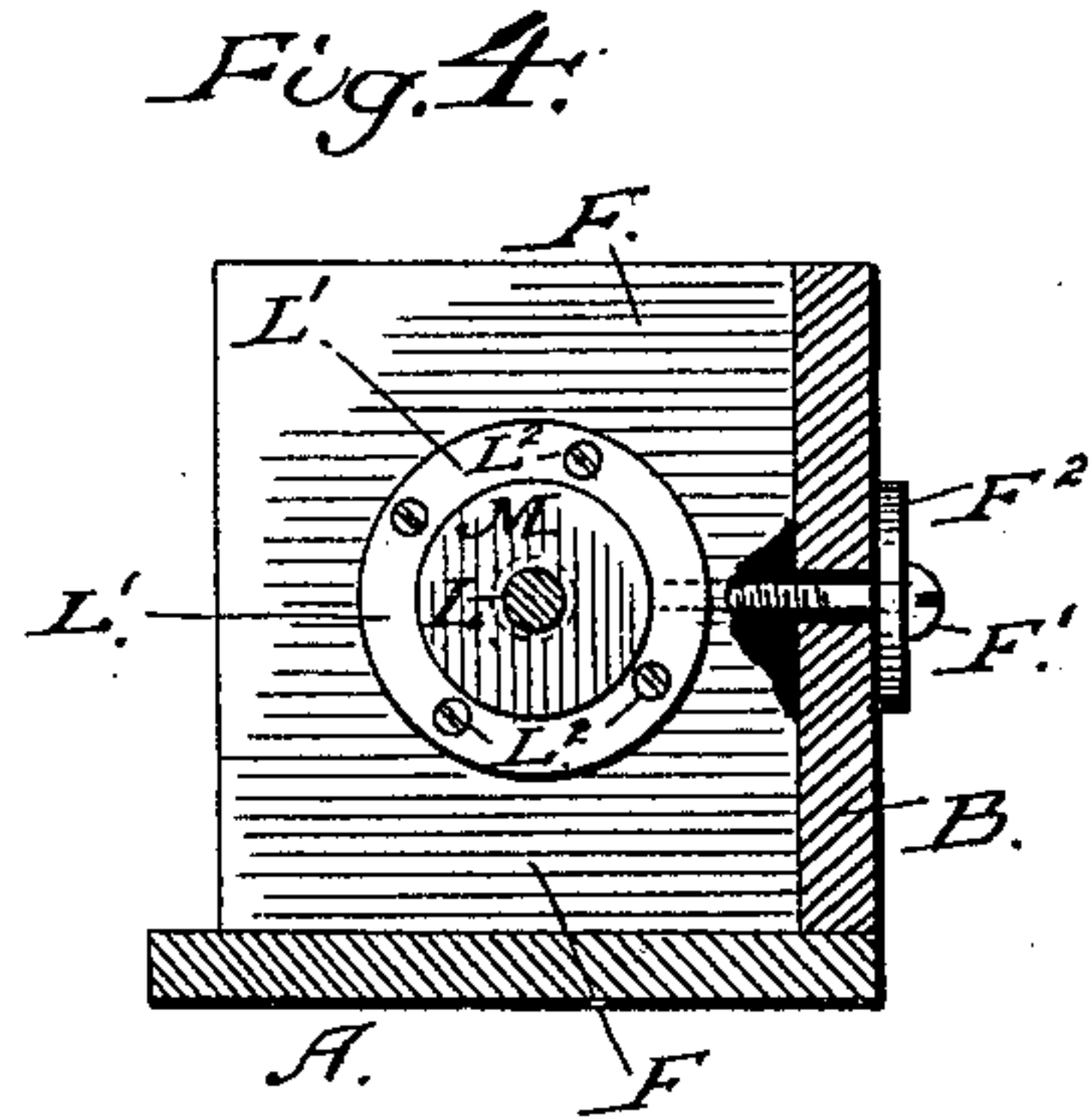
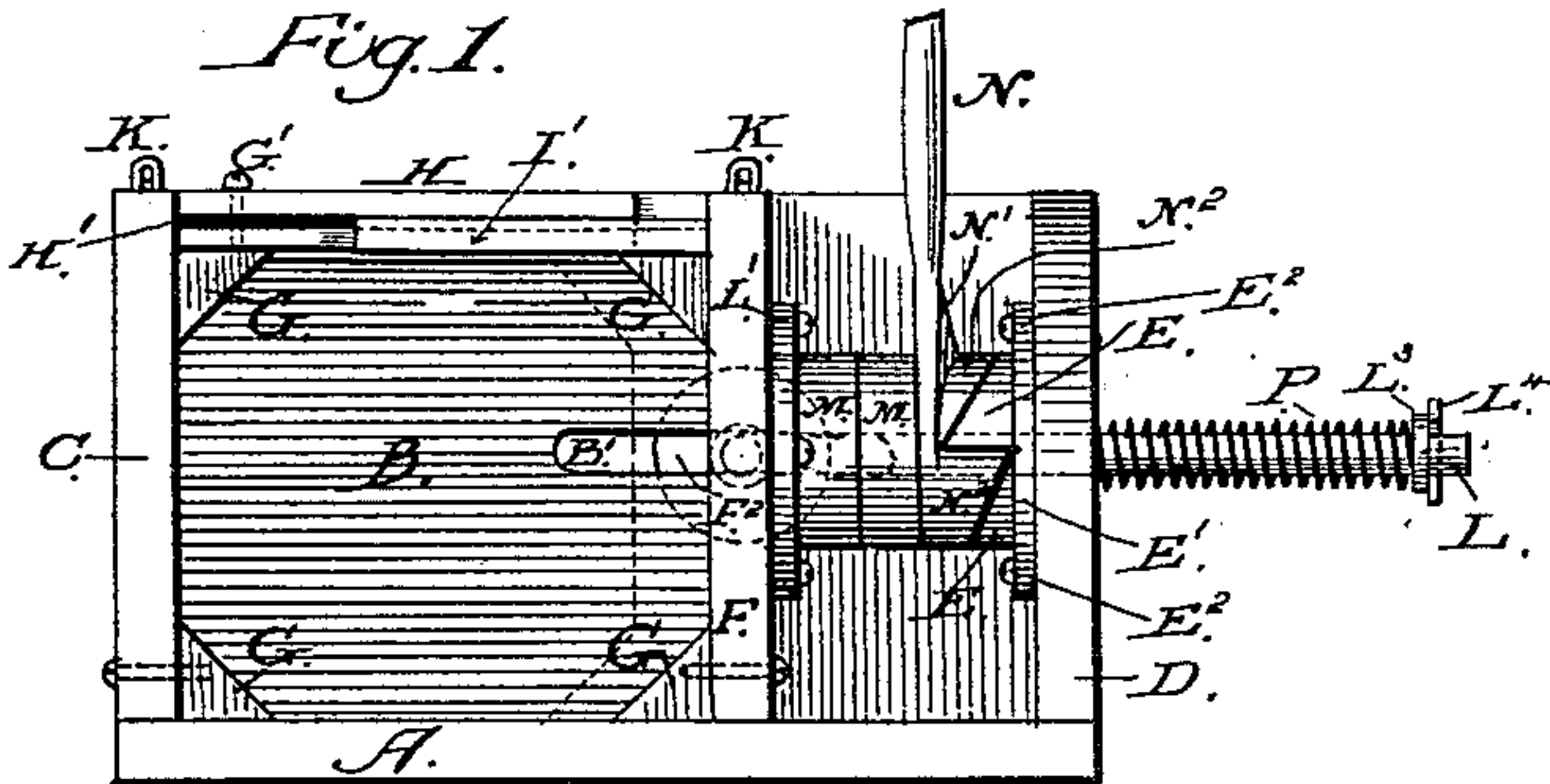
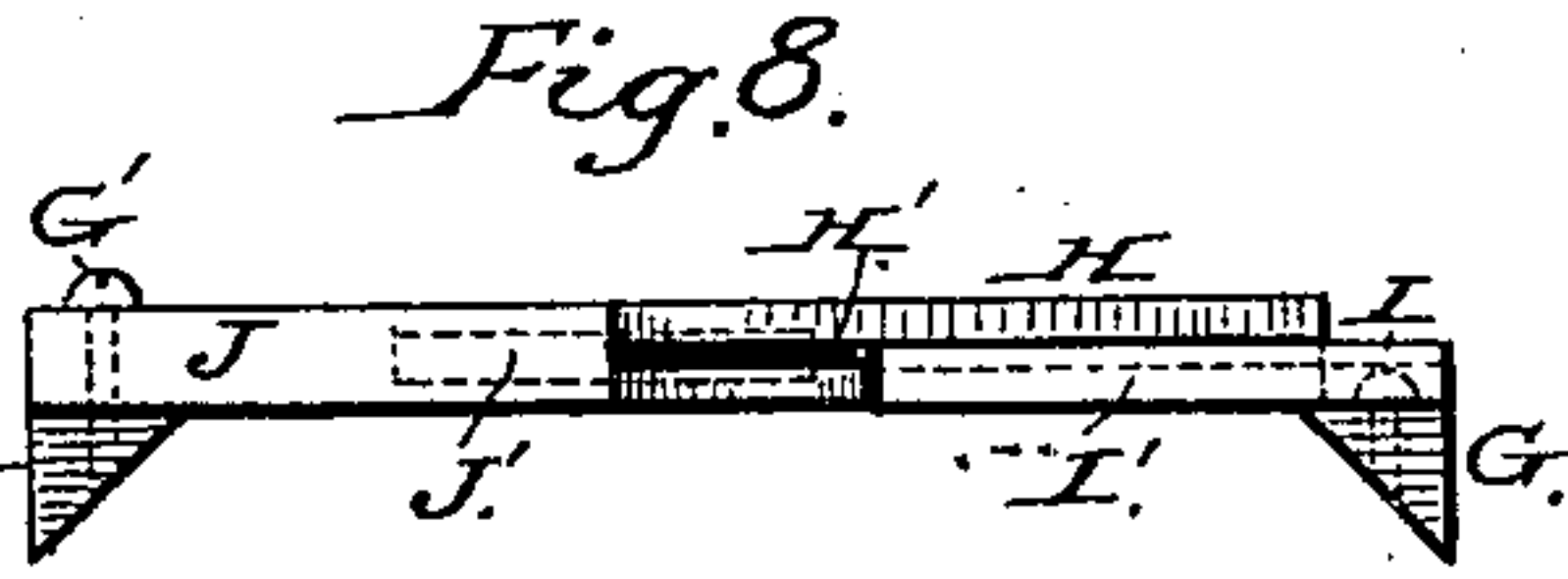
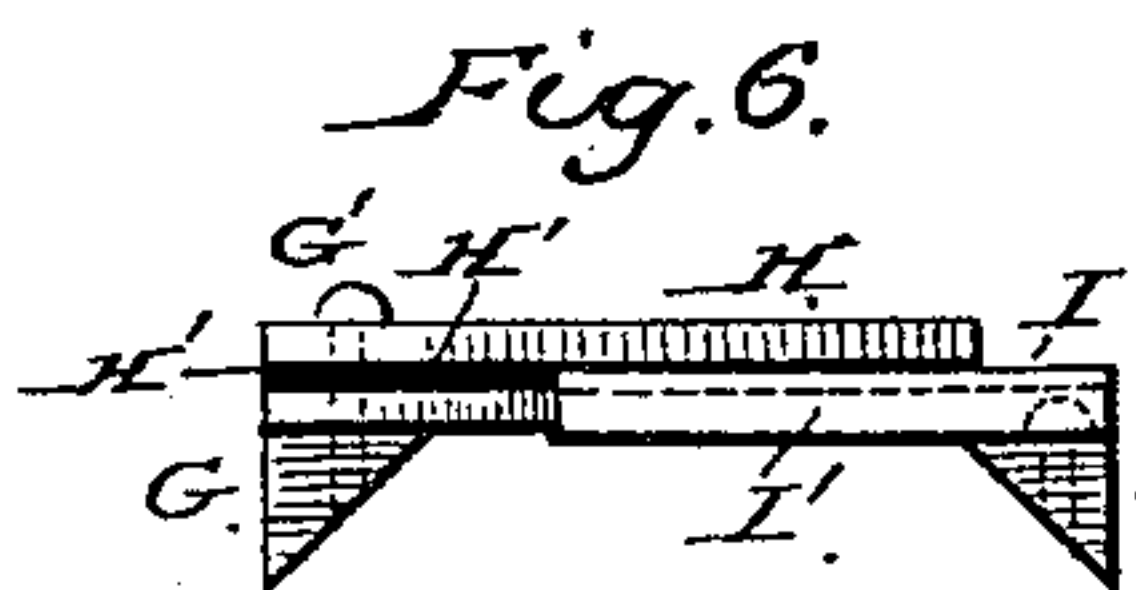


Fig. 7.

Fig. 9.



Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN M. FRY, OF ROTHSVILLE, PENNSYLVANIA.

## CIGAR-BUNDLING MACHINE.

SPECIFICATION forming part of Letters Patent No. 370,252, dated September 20, 1887.

Application filed November 12, 1886. Serial No. 218,674. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN M. FRY, a citizen of the United States, residing at Rothsville, county of Lancaster, State of Pennsylvania, have invented a new and useful Improvement in Cigar-Bundling Machines, of which the following is a specification.

This invention relates to a sliding-jaw bundler operated by a hand-lever provided with annular inclined plane surfaces working in contact with a corresponding fixed plane upon the end piece of the bundler.

The object of the improvement is to supply a cheap, effective, and simple machine that may be readily adjusted to bundle from one hundred down to twenty-five cigars at a single operation.

The accompanying drawings show clearly the manner in which I attain the above objects, like letters of reference indicating like parts throughout.

Figure 1 is a front elevation of the machine in position ready to be filled with cigars. Fig. 2 is an end view of the same with the operating-lever in its normal position prior to the bundle of cigars being pressed. Fig. 3 is an end view showing the operating-lever turned down, which brings the movable jaw into the position shown by the dotted lines upon Fig. 1, and presses the bundle of cigars. Fig. 4 is a section of the back of the machine, showing the longitudinal perforation therein for the screw-retaining guide to the movable jaw. Fig. 5 is a plan, and Fig. 6 is a side elevation, of the regular sliding top cap. Fig. 7 is a plan, and Fig. 8 is a side elevation, of the extension sliding top cap. Fig. 9 is an end view of the metallic sliding piece.

A represents the base-plate; B, the back of the machine; C, the fixed abutment; D, the operating end of the machine; E, an annular inclined plane secured to or cast integral with the same; and F is the movable jaw, sliding free upon the base-plate and held in sliding contact with the back by a screw, F', playing freely in a longitudinal slot, B', in said back. A washer, F<sup>2</sup>, permits adjustment of contact between the parts.

G represents fillets of any desired form, secured by screws G' to their respective parts, and which are readily changed when desired.

H is the top cap, provided with side grooves, H', and dowel-pin holes H<sup>2</sup>. A metallic slide, I, having its sides I' turned upward and inward, as shown in Fig. 9, fits and slides within the grooves H' of the cap, and secured thereto by screws G' is a fillet G.

J is an extension-piece, made of varying widths, governed by the number of cigars to be bundled above the minimum, which is provided with fillet G at one end and with dowel-pins J' at the opposite end, the latter fitting within the dowel-pin holes H<sup>2</sup> of the cap H.

K is a spring ribbon-holder. The ribbon for tying the bundle is laid within the machine prior to putting in the cigars, and the ends of the same are passed under and held by the spring-holder K until the cigars are pressed. The cap H is then removed and the ribbon tied, thus retaining the form of the bundle.

L is a stem secured to the movable jaw F by a flange, L', and screws L<sup>2</sup>, or in any other suitable manner, and is given length sufficient to adapt the movable jaw F to press from one hundred down to twenty-five cigars in bundles.

M M are loose sleeves or take-ups, which are used to take up the space upon the stem L when the movable jaw F is shifted to pack or bundle a smaller number of cigars than one hundred, the sleeves varying in length for that purpose.

N is the operating-lever, having a hub, N', upon one of its faces, said hub being provided with annular inclined planes N<sup>2</sup>.

E is an annular inclined plane secured by a flange, E', and screws E<sup>2</sup>, or in any other suitable manner, to or may be cast integral with the operating end of the machine.

P is a spiral spring strung upon the stem L, resting against the operating end of the machine, and held in operative contact therewith by a washer, L<sup>3</sup>, and removable pin L<sup>4</sup>, said spring being for the purpose of keeping the parts in contact with each other and for returning the jaw F to place after compression of the bundle of cigars.

The operation of the machine is as follows: The cigars to be bundled are laid between the jaws C and F while the lever N stands as shown in Figs. 1 and 2. The cap H, with its sliding piece I, is drawn out to permit its filling up the space between the jaws C and F,



and is held down upon the cigars with the left hand, while the right hand is used to throw the lever N into the position shown in Fig. 3. This causes the inclines N<sup>2</sup> to ride upon the corresponding inclines, E, secured to the operating end D of the machine, and causes the movable jaw F to advance from the position shown in the full lines of Fig. 1 to the position shown by the dotted lines upon the same figure, at the same time compressing the spring P. After vertical pressure upon the cap H by the usual press, the cap is removed, the ends of the ribbon are loosened from the spring-holders K, and the bundle is tied. The lever N is then raised to a vertical position, the spring P expands as the arm rises, keeps the planes N<sup>2</sup> and E in contact, and draws back the movable jaw F ready for a repetition of the operation.

What I claim is—

1. In a cigar-bundling machine, the combination of a frame provided with fixed end pieces and a back having slot B', the sliding jaw F, the guiding-screw and washer connecting the said jaw with the back, the annular inclined planes E, secured to one of the end pieces, the stem L, secured to the sliding jaw and projecting through the said annular inclined planes, the lever N, provided with annular inclined planes journaled upon the said stem for operating the sliding jaw, and the cap H, provided with slide I, substantially as and for the purpose set forth.

2. In a cigar-bundling machine, the combination of a frame provided with fixed end pieces and a back having slot B', the sliding jaw F, the guiding-screw and washer connecting the said jaw to the back, the annular inclined planes E, secured to one of the end pieces, the stem L, secured to the sliding jaw and projecting through the said annular inclined planes, the lever N, provided with annular inclined planes journaled upon the said stem for operating the sliding jaw, the pin L<sup>4</sup>, passing through the end of the stem, the washer L<sup>3</sup>, and the spring P, interposed between the said pin and the end piece of the frame, and the cap H, provided with the slide I, substantially as and for the purpose set forth.

3. In a cigar-bundling machine, the combination of a frame provided with a fixed end piece, a sliding jaw guided in the said frame, the annular inclined planes E, secured to the said end piece, a stem secured to the sliding jaw and projecting through the said annular inclined planes, and the lever N, provided with annular inclined planes journaled upon the said stem for operating the sliding jaw, substantially as and for the purpose set forth.

4. In a cigar-bundling machine, the combination of a frame provided with a fixed end piece, a sliding jaw guided in the said frame, the annular inclined planes E, secured to the said end piece, a stem secured to the sliding jaw and projecting through the said annular inclined planes, the lever N, provided with annular inclined planes journaled upon the said stem for operating the sliding jaw, and the washers M, interposed between the said lever and the sliding jaw, substantially as and for the purpose set forth.

5. In a cigar-bundling machine, the combination of a frame provided with a fixed end piece, a sliding jaw guided in the said frame, the annular inclined planes E, secured to the end piece, a stem secured to the sliding jaw and projecting through the said annular inclined planes, the lever N, provided with annular inclined planes journaled upon the said stem for operating the sliding jaw, the pin L<sup>4</sup>, passing through the end of the stem, and the washer L<sup>3</sup> and spring P, interposed between the said pin and the fixed end piece of the frame, substantially as and for the purpose set forth.

6. In a cigar-bundling machine, the combination of the cap H, provided with the side grooves, H', and dowel-pin holes H<sup>2</sup>, the extension-piece J, provided with a fillet, G, and dowel-pins J', engaging with said dowel-pin holes, and the slide I, also provided with a fillet G and with the flanges I', engaging with the side grooves in the cap, substantially as and for the purpose set forth.

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Witnesses:

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D. B. KRAATZ.