

(No Model.)

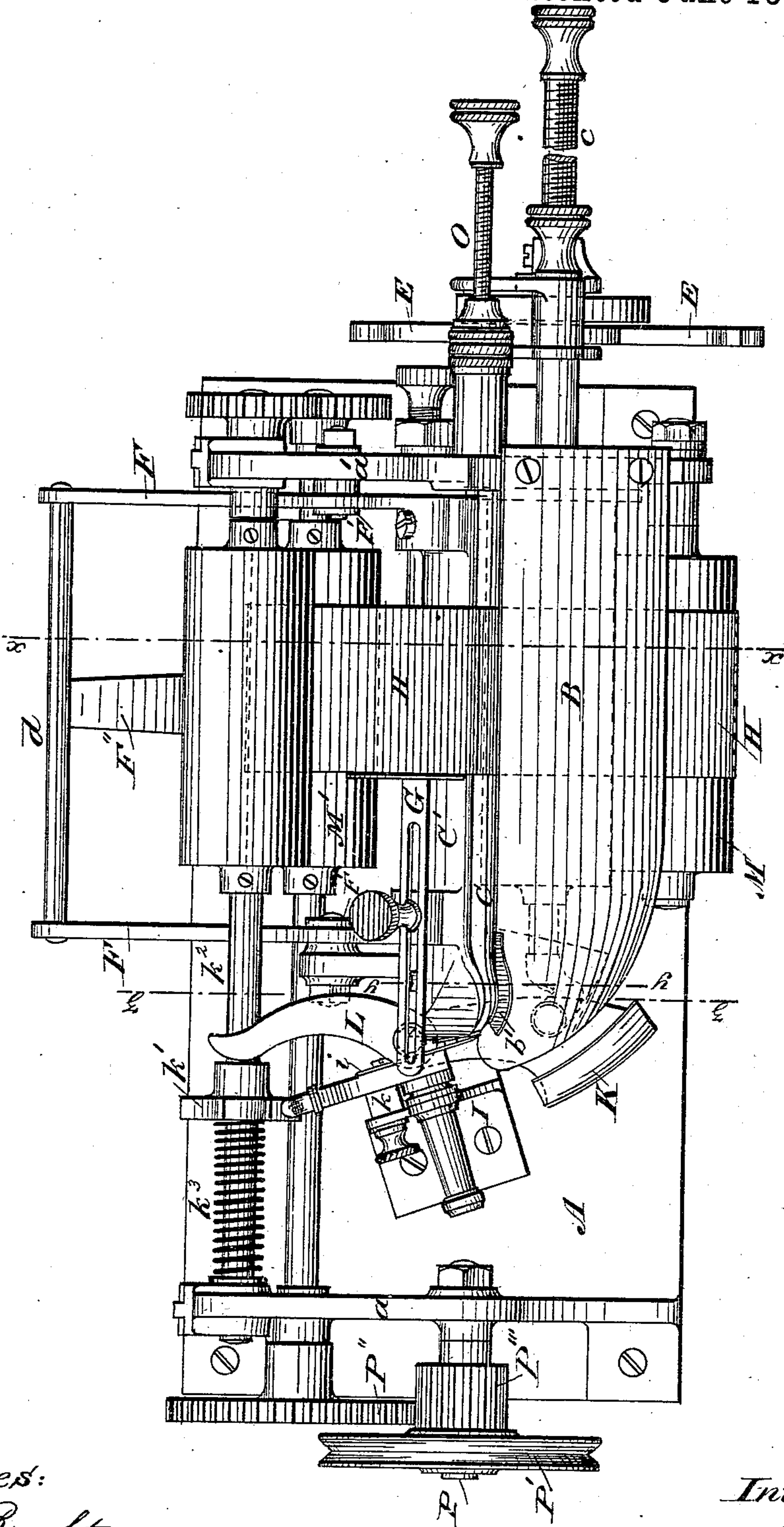
3 Sheets—Sheet 1.

F. HAEHNEL.  
CIGAR MACHINE.

No. 259,638.

Patented June 13, 1882.

Fig. 1.



Witnesses:

J. C. Brecht  
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Inventor:

Frederic Haehnel

(No Model.)

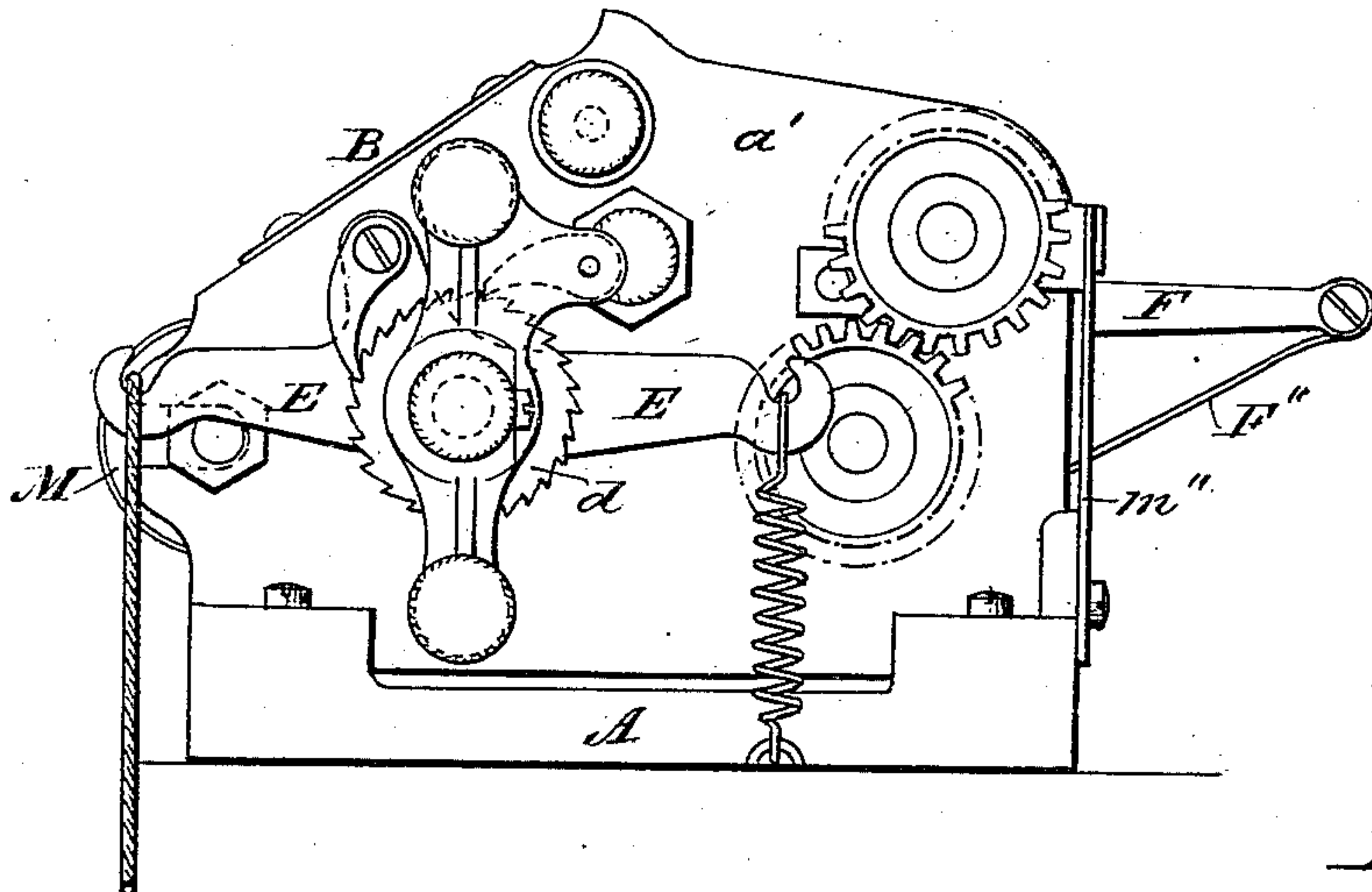
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F. HAEHNEL  
CIGAR MACHINE.

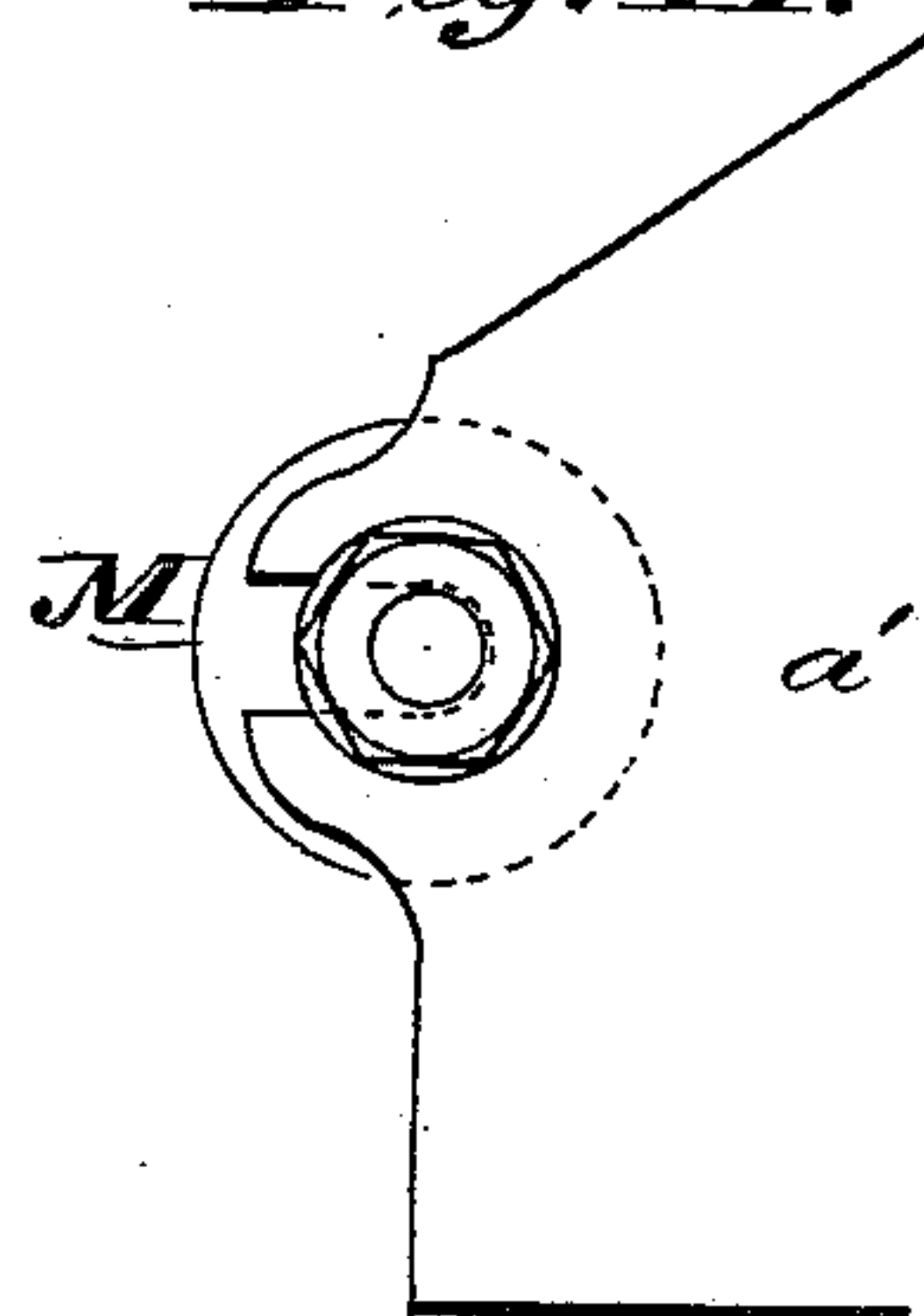
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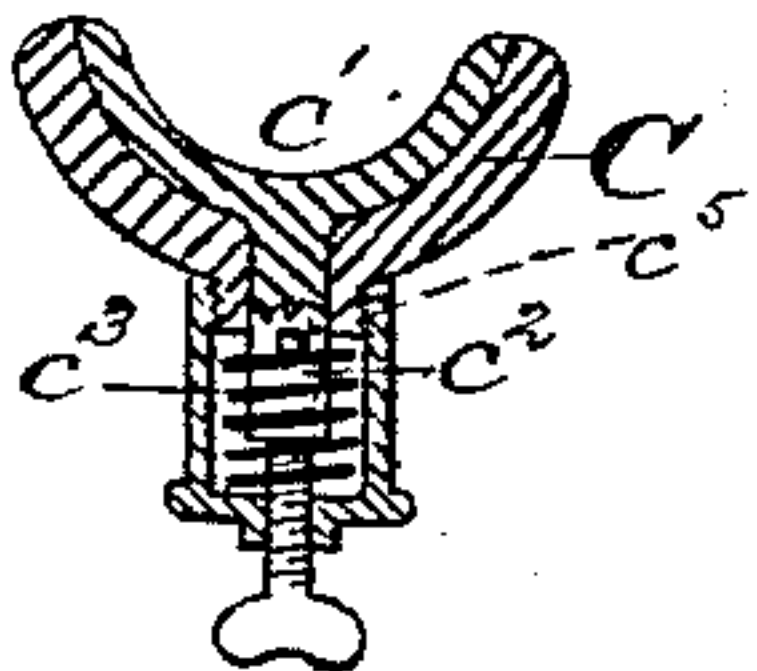
*Fig. 2.*



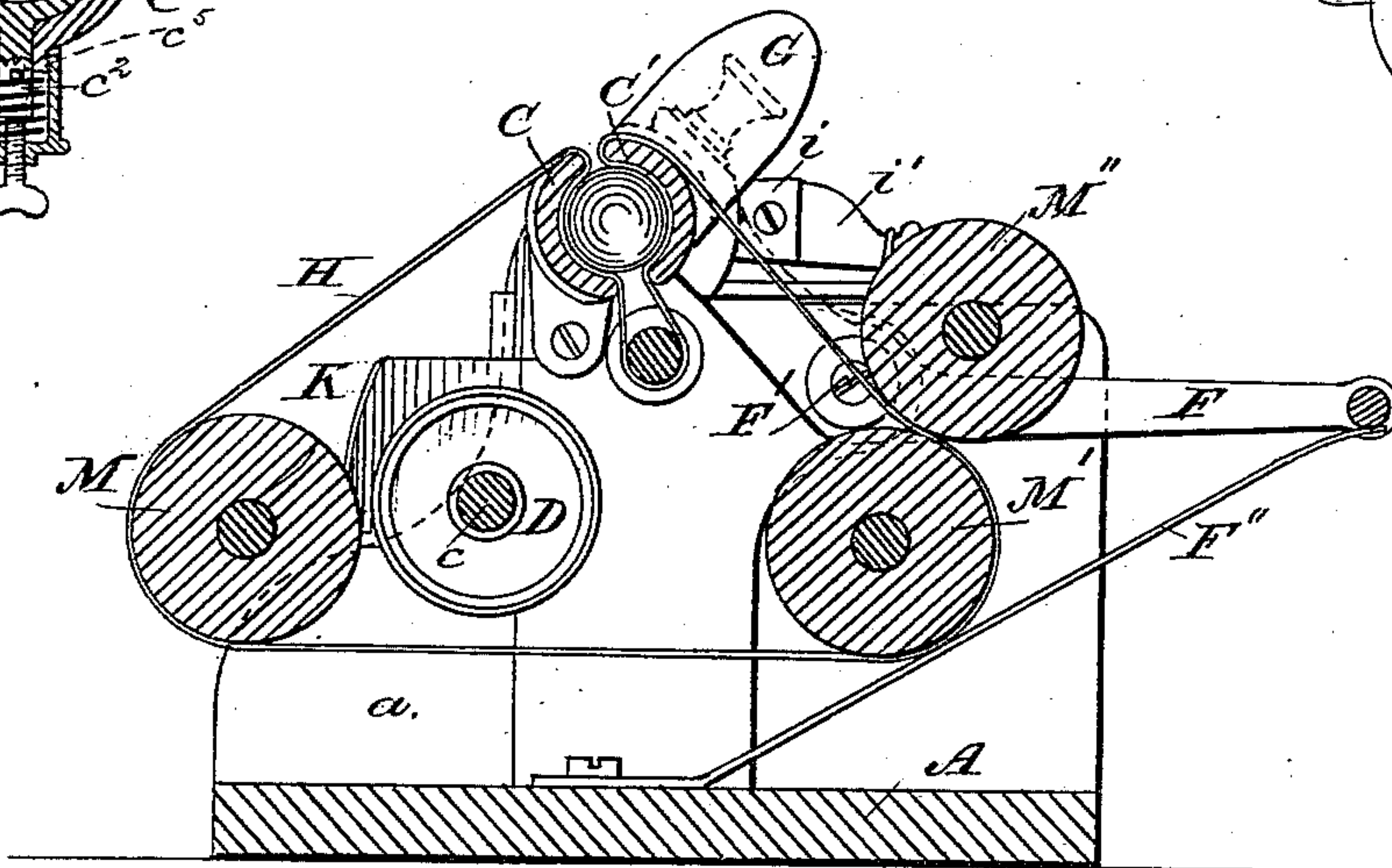
*Fig. 11.*



*Fig. 10.*



*Fig. 3.*



*Witnesses:*

T. C. Brecht.  
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Inventor:

Frederic Kachner



(No Model.)

3 Sheets—Sheet 3.

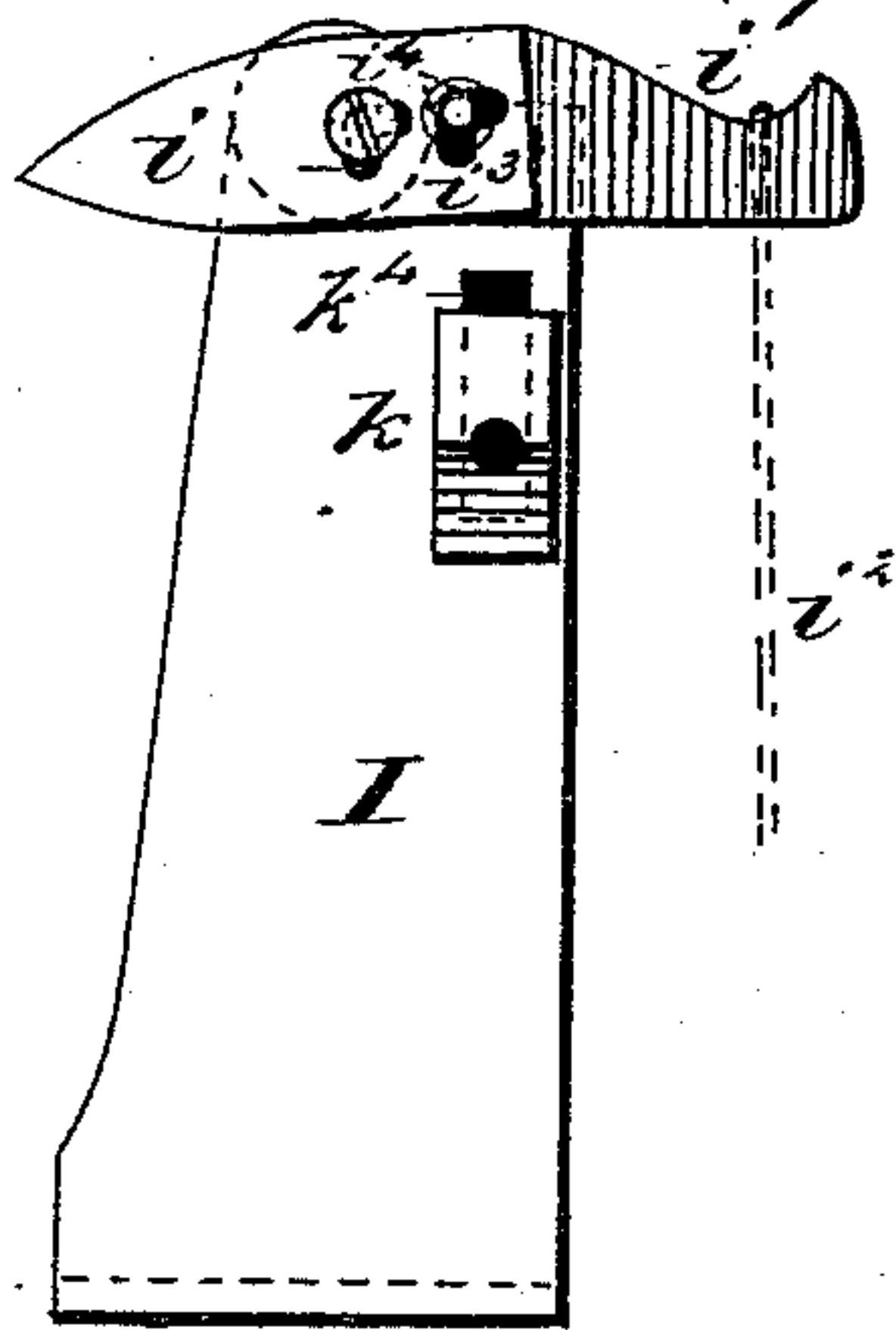
F. HAEHNEL.

CIGAR MACHINE.

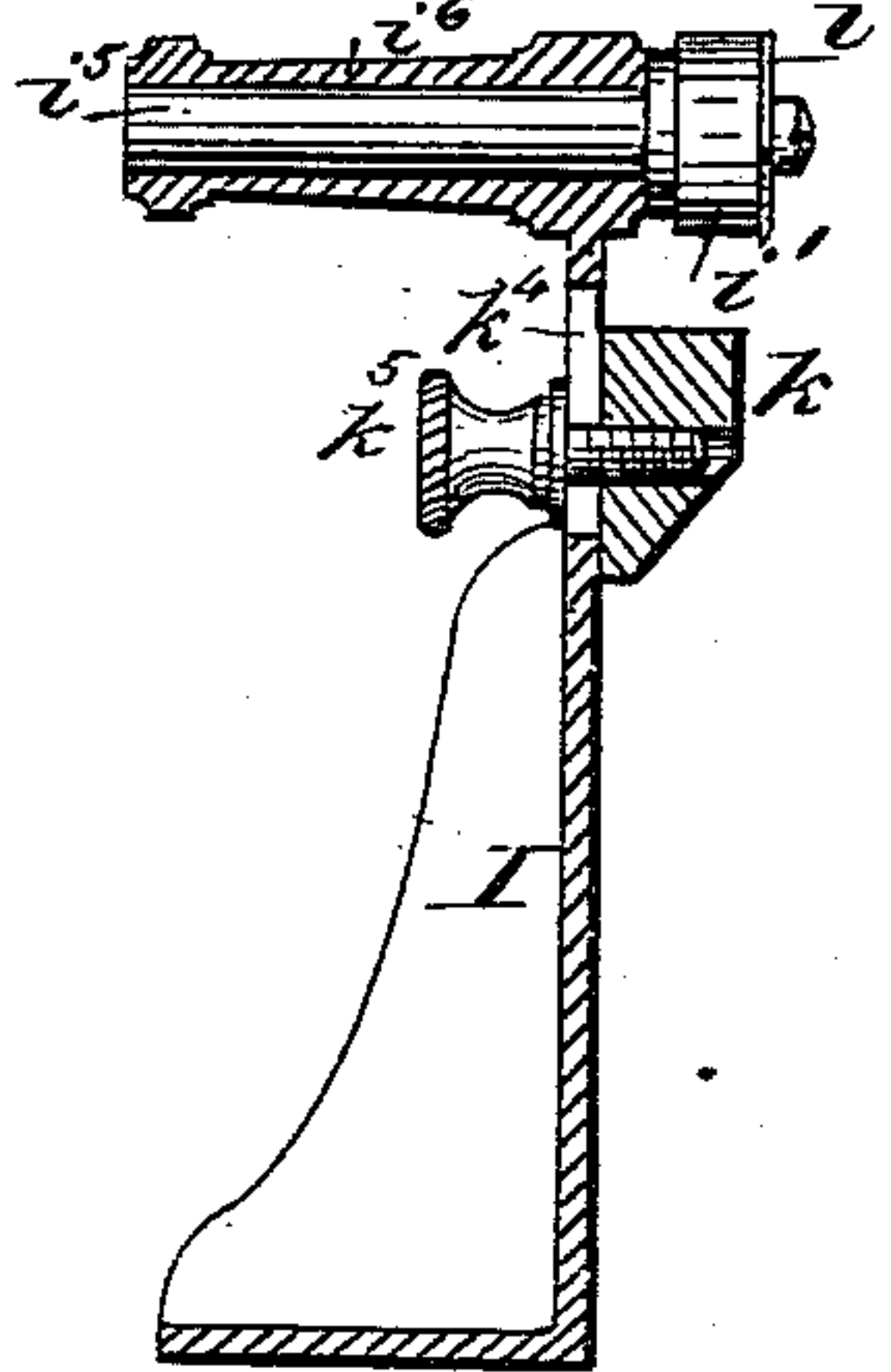
No. 259,638.

Patented June 13, 1882.

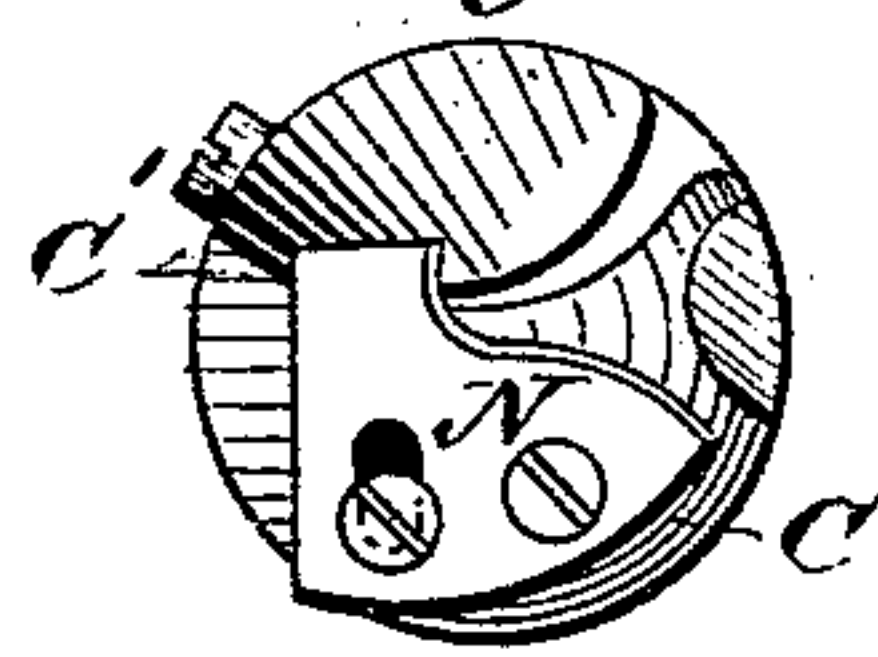
*Fig. 4.*



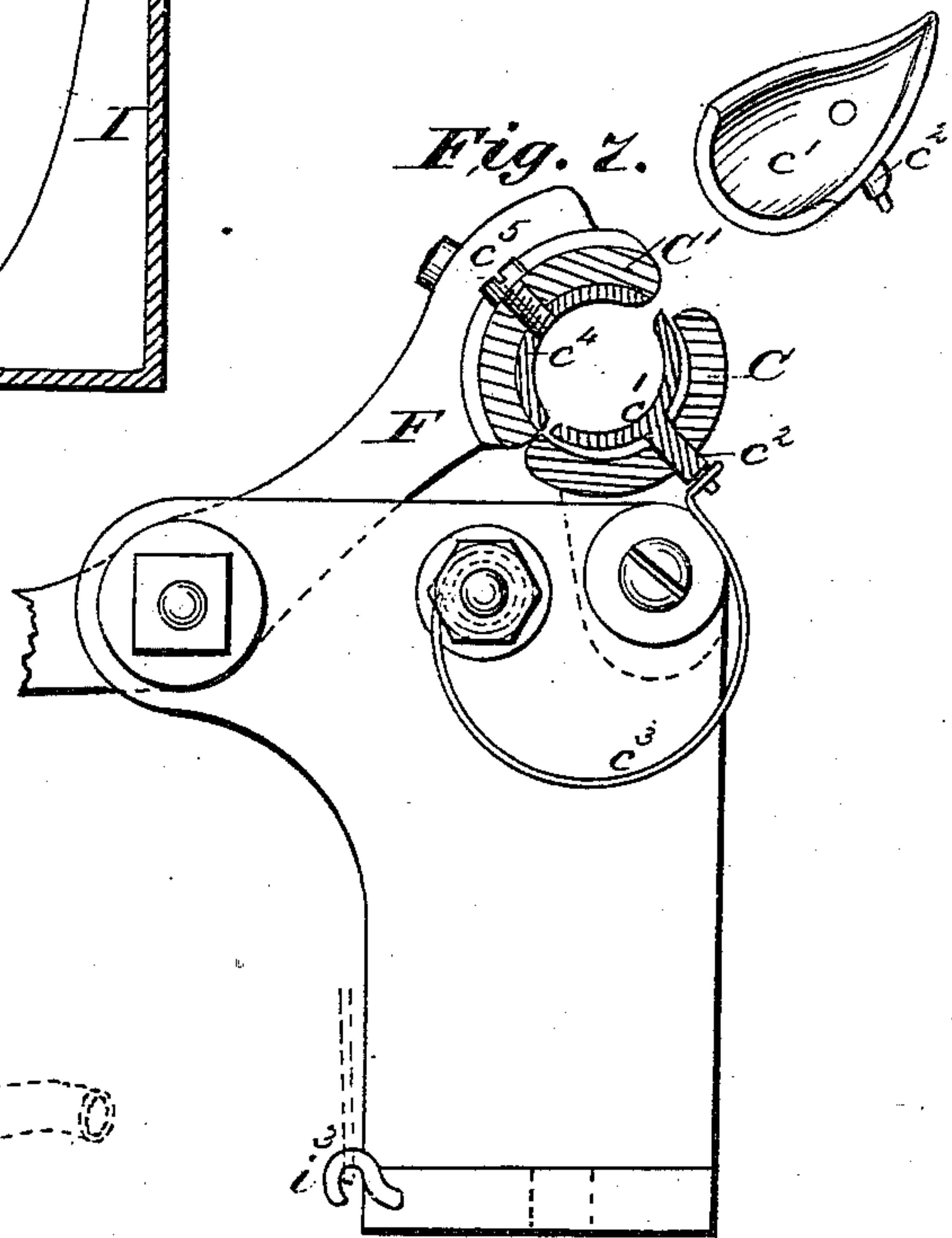
*Fig. 5.*



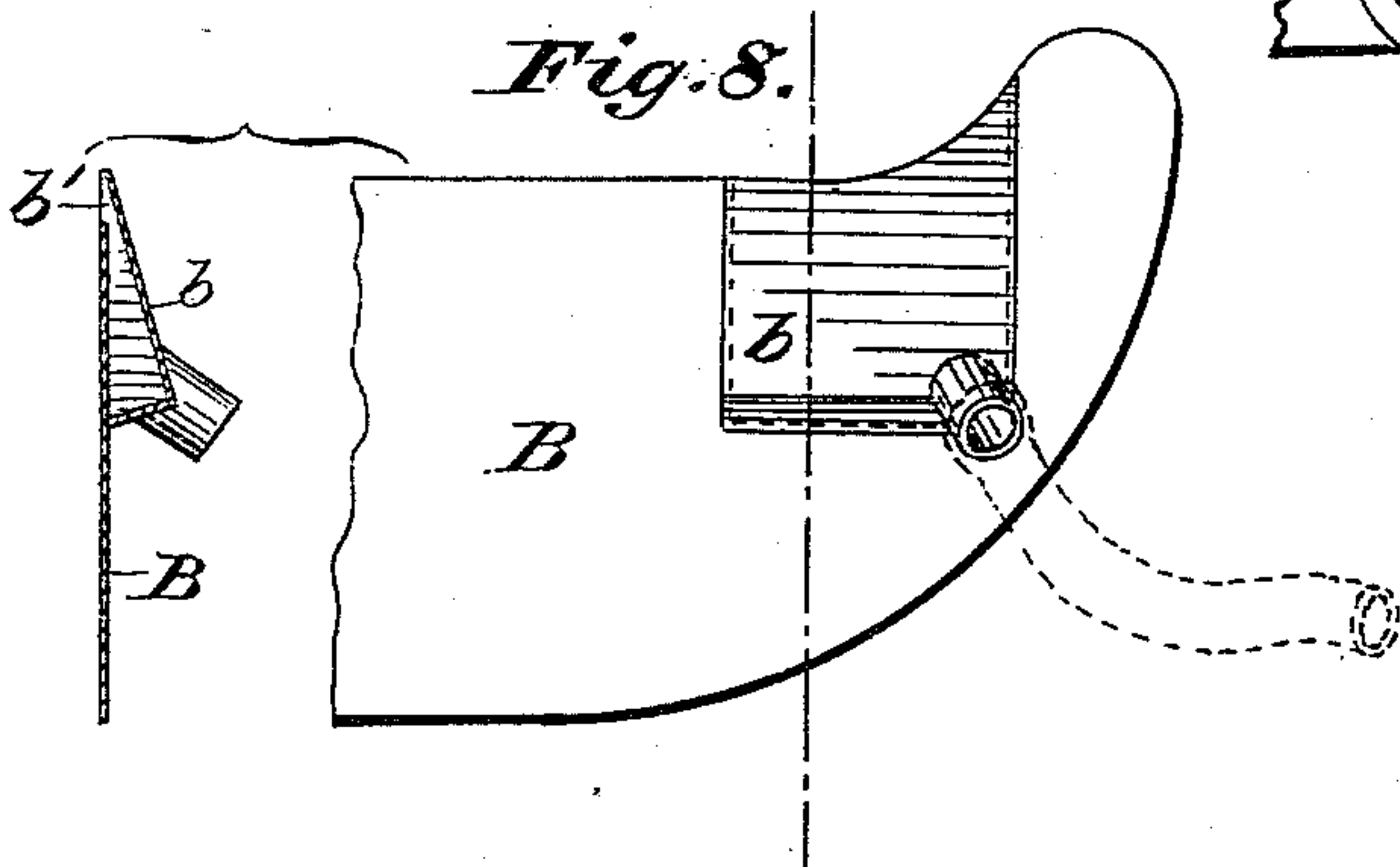
*Fig. 6.*



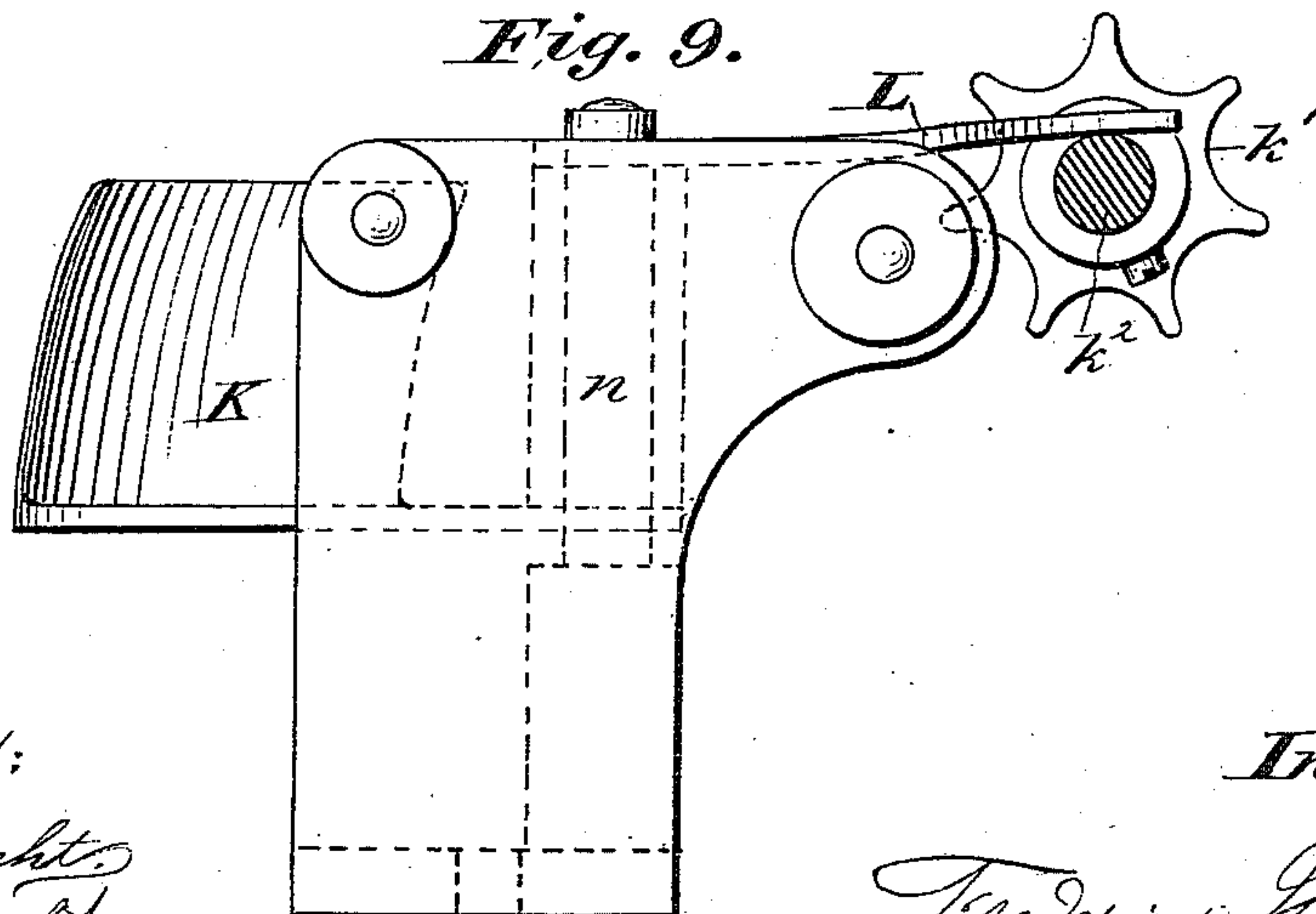
*Fig. 7.*



*Fig. 8.*



*Fig. 9.*



Witnesses:

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Inventor:

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# UNITED STATES PATENT OFFICE.

FREDERIC HAEHNEL, OF NEW ORLEANS, LOUISIANA, ASSIGNOR TO THE  
NEW ORLEANS CIGAR FACTORY, OF SAME PLACE.

## CIGAR-MACHINE.

SPECIFICATION forming part of Letters Patent No. 259,638, dated June 13, 1882.

Application filed August 15, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERIC HAEHNEL, having declared my intention to become a citizen of the United States of America, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Cigar-Making 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to that class of cigar-machines in which the cigar is wrapped and finished. The object is to produce a machine that is simple in its construction and operation, not liable to get out of order, and one that will do its work in a very thorough and neat manner.

My invention consists in the construction and arrangement of certain parts of a cigar-machine, as will be more fully described hereinafter, reference being had to the accompanying drawings, and it will be more fully pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of the machine. Fig. 2 is an end view of the same. Fig. 3 is a cross-section on line *x x* of Fig. 1. Figs. 4 and 5 are enlarged views of the adjustable vibrating cutter and support or stand. Fig. 6 is an enlarged view of the stationary adjustable cutter or knife. Fig. 7 is a cross-section on line *y y* of Fig. 1, with the removable tip-former in perspective. Fig. 8 is a plan and cross-section of the paste-receptacle formed on the wrapper-bed. Fig. 9 is a cross-section on line *z z* of Fig. 1. Fig. 10 is a modification of the removable tip-former with spring. Fig. 11 is a detail view of the adjustable tightening-roller.

In the drawings, A is the bed-plate of the machine, secured to any suitable table, standards, or bench. The bed-plate has at each end an upright, *a a'*, in which the shafts of the rollers, gearing, paste holder or reservoir, and cigar or bunch holder are supported.

To the bracket *a'* is secured a table, B, which

is curved at one end toward the tip of the bunch-holder, and is provided on its lower side with a paste-receptacle, *b*, connecting by a flexible tube (shown in dotted lines in Figs. 1 and 8) with the paste reservoir or holder D, in which is arranged a piston-head secured to the screw-threaded piston-rod *c*, so as to be automatically fed forward by means of a ratchet, *d*, and double pawl-lever E, one end of which is operated by a treadle and a spring at the other.

At the upper side of the table B is an oblong opening, *b'*, through which the paste is forced against the wrappers of the cigars.

Instead of the piston and reservoir, any other suitable mechanism may be employed, by which the paste is conveyed to the wrapper.

In the upper central part of the support *a'* is secured the lower half, C, of the bunch-holder. This bunch-holder has at one end a removable and adjustable tip-former, *c'*, having a teat or projection, *c''*, which passes through the lower part of the bunch-holder, and is pressed upward by a spring, *c'''*, bearing against a pin, *c''''*, the object being to compensate for any inequality in the size of the point of the bunch or cigar. Instead of this arrangement, the spring may be a coiled spring and adjusted by a screw, as shown in Fig. 10, which passes through a cap.

The upper part, C', of the bunch-holder is also provided with a removable tip-former, *c''''*, held in position by a screw, *c'''''*.

At each end of the part C' is arranged a pivoted arm or lever, F, having a fulcrum, F', on each side secured to the frame, connected by a transverse bar, *d*, by which, when it is desired to introduce or remove a bunch or a finished cigar, upon pressing down upon the bar *d* with the hand, the upper part, C', of the bunch-holder is raised, the levers F moving upon their fulcrums. By removing the hand the spring F'', bearing against the lower side of the bar *d*, will force the part C' down again to its closed position.

An adjustable gage, G, is secured to the part C' for guiding the endless belt H, which bears against it, and by the belt the bunch is revolved. The belt passes over the rollers in a similar manner, as shown in my former patent, No. 200,054; but the roller M, over which the



endless belt passes, is made adjustable in its bearings by any suitable means, so as to enable the operator to loosen or tighten the belt to adapt it to the different thicknesses of bunches or cigars to be wrapped. The endless narrow belt H passes around the rollers M M', and into one part, C, of the bunch-holder and out through the part C', and receives its motion by said rollers, the gearing P'' P''', and pulley P'. The pressure-roller M'', which keeps the belt taut, is forced inward by means of a spring, m'', secured to the frame. (Best seen in Fig. 2.)

In close proximity to the tip end of the bunch-holder is arranged a standard or support, I, in the upper part of which is pivoted a vibrating adjustable knife or cutter, i, attached to a lever, i'. The cutter i is provided with angular slot i<sup>3</sup> i<sup>4</sup>, so that it can be adjusted in a vertical or horizontal direction, as desired. The standard is also provided with an adjustable stop, k, by which the amount of vibration of the cutter is regulated. The stop k is adjusted by means of a thumb-screw, k<sup>5</sup>, and a slot, k<sup>4</sup>, as best seen in Fig. 5.

To the tip end of the lower part, C, of the bunch-holder is attached an adjustable curved knife, N, having at its rear side a curved elevated section, by which the wrapper is prevented from passing through between the bisected tip part of the bunch-holder.

The cutter i receives its motion by means of an adjustable sprocket-wheel, k', on the shaft k<sup>2</sup>, and is pressed forward by a spring, k<sup>3</sup>, on said shaft.

To the end of the lever i' is attached a spring, i<sup>2</sup>, secured to a hook, i<sup>3</sup>, or other suitable place, and is by said spring drawn against the teeth of the sprocket-wheel.

The arm i', that carries the knife i, is pivoted to its standard I by a long pivoted bearing, i<sup>5</sup>, oscillating in a hub, i<sup>6</sup>, and serves to give it steadiness. This knife i is capable of adjustment upon the arm i' by means of the two angular slots i<sup>3</sup> i<sup>4</sup> and suitable set-screws. The purpose of the adjustment is to raise or lower the knife-point or increase or diminish its length.

A thumb-plate, K, is secured to a hub on the upright shaft n, and to the upper end of said hub is attached a curved arm, L. When it is desired to stop the working of the cutter the thumb-plate is pressed upon, by which the sprocket-wheel is thrown out of contact with the lever i' and causes it to stop. When released the cutter returns and operates as before.

Within the bunch-holder is arranged the regulator O, similar to the one shown in my former patent, by which the length of the cigar is regulated.

The operation is as follows: The bunch being properly prepared, the treadle is depressed, which raises the upper part of the bunch-holder. The bunch is then placed in the lower part, C, of the bunch-holder, resting on the

narrow belt H, and the upper part is then by hand lowered. The paste-holding reservoir D having been properly charged, motion is imparted to the driving-shaft P by means of the foot-treadle, pulley P', and gears P''. The revolution of the pressure-roller M'' and rollers M M' causes the endless belt H to be moved around in and to pass through the bunch-holder, and this causes the bunch to revolve in order to be wrapped. The wrapper is spread or played out over the table B until it reaches the rounded end of the same, when the vibrating cutter pinches into the wrapper, and therefore allows that part of the wrapper to open and turn around the tip end of the bunch or cigar. As soon as the wrapper has been sufficiently rolled around the point of the bunch or cigar, the operator presses upon the thumb-plate, which causes the vibrating cutter to stop, and therefore does not cut off the surplus wrapper, but allows it to wind itself around the point or tip of the cigar and gives it a complete finish. The heel of the foot-treadle is depressed at the proper time, which causes, through the intermediate mechanism, the pawl to engage with the teeth of the ratchet-wheel d, turning the same. This, by means of the screw-thread on the piston-rod c, forces the piston-head farther into the paste-holding cylinder or reservoir, and causes the paste to pass through the flexible tube into the receptacle b under the table B, and through the oblong opening b' against or under the wrapper at the end, where the tip of the cigar is formed.

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

1. In a cigar-machine, a bunch-holder provided with a removable adjustable conforming tip-former, c', in combination with a suitable spring, substantially as specified.

2. In a cigar-machine, the vibrating cutter i, having the angular slots i<sup>3</sup> and i<sup>4</sup>, and pivoted to a standard, I, and means for operating it intermittently, substantially as described.

3. In a cigar-machine, the vibrating cutter i, having the angular slots i<sup>3</sup> i<sup>4</sup>, and pivoted to a standard, I, provided with an adjustable stop, k, in combination with means for operating said knife intermittently, substantially as set forth.

4. In a cigar-machine, the curved plate K, attached to a curved lever, L, arranged on the shaft n, in combination with the sprocket-wheel k' and spring k<sup>3</sup>, on the shaft k<sup>2</sup> for throwing the sprocket-wheel out of contact with the lever i', substantially as and for the purpose described.

5. In a cigar-machine, the table B, provided with a receptacle b and opening b', constructed and arranged as shown, in combination with a flexible tube and a paste-reservoir, D, all as shown, and for the purpose set forth.

6. In a cigar-machine, the adjustable knife N, provided with a curved cutting-heel, con-



constructed as shown, in combination with the bunch-holder C C' and vibrating knife *i*, all arranged substantially as specified.

7. In a cigar-machine, the vibrating cutter *i* on the lever *i'*, operated by the sprocket-wheel *k'* on shaft *k*<sup>2</sup>, in combination with the stationary knife N, secured adjustably to the lower part, C, of the bunch-holder, and the part C', all arranged substantially as specified.

8. The vibrating cutter *i*, having rectangular slots *i*<sup>3</sup> *i*<sup>4</sup> for adjusting said cutter to the lever *i'*, which is pivoted to the standard I, in combination with the lever L on the vertical shaft *n*, the sprocket-wheel *k'* on shaft *k*<sup>2</sup>, the

thumb-plate K, and the bunch-holder, all substantially as shown and specified.

9. In a cigar-machine, the table B, provided with a receptacle, *b*, on its lower side and an elongated opening, *b'*, in combination with a flexible tube and a paste-reservoir, D, for delivering the paste to the under side of the cigar-wrapper, substantially as shown and set forth.

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

FREDERIC HAEHNEL.

Witnesses:

T. C. BRECHT,

F. E. BRECHT.