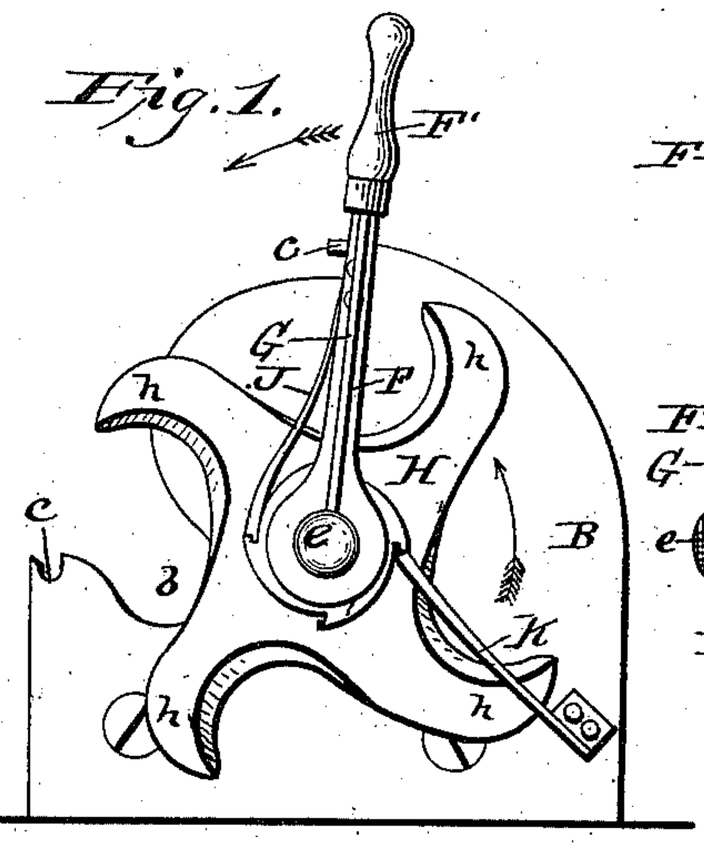
(No Model.)

C. P. YOUNG & J. W. SHERTZER.

CIGAR CUTTER.

No. 385,221. Patented June 26, 1888.

Fig. 1.



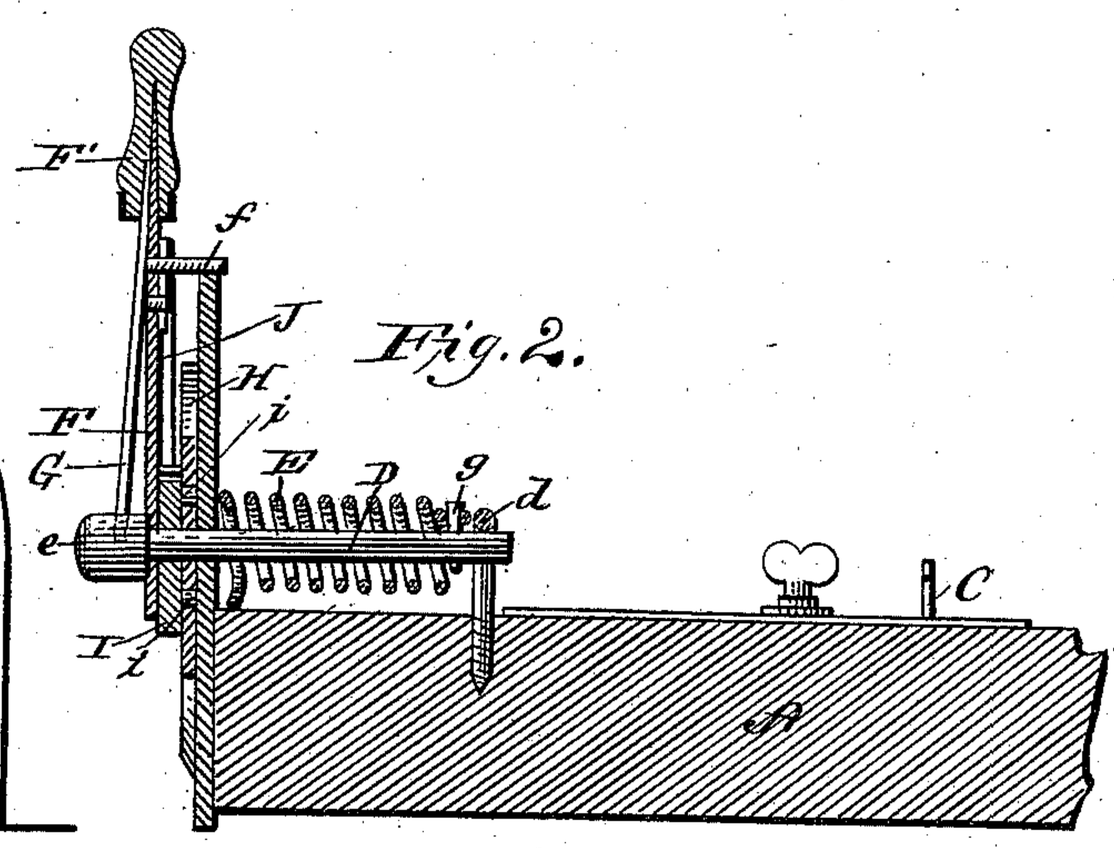


Fig. 2.

Fig. 3.

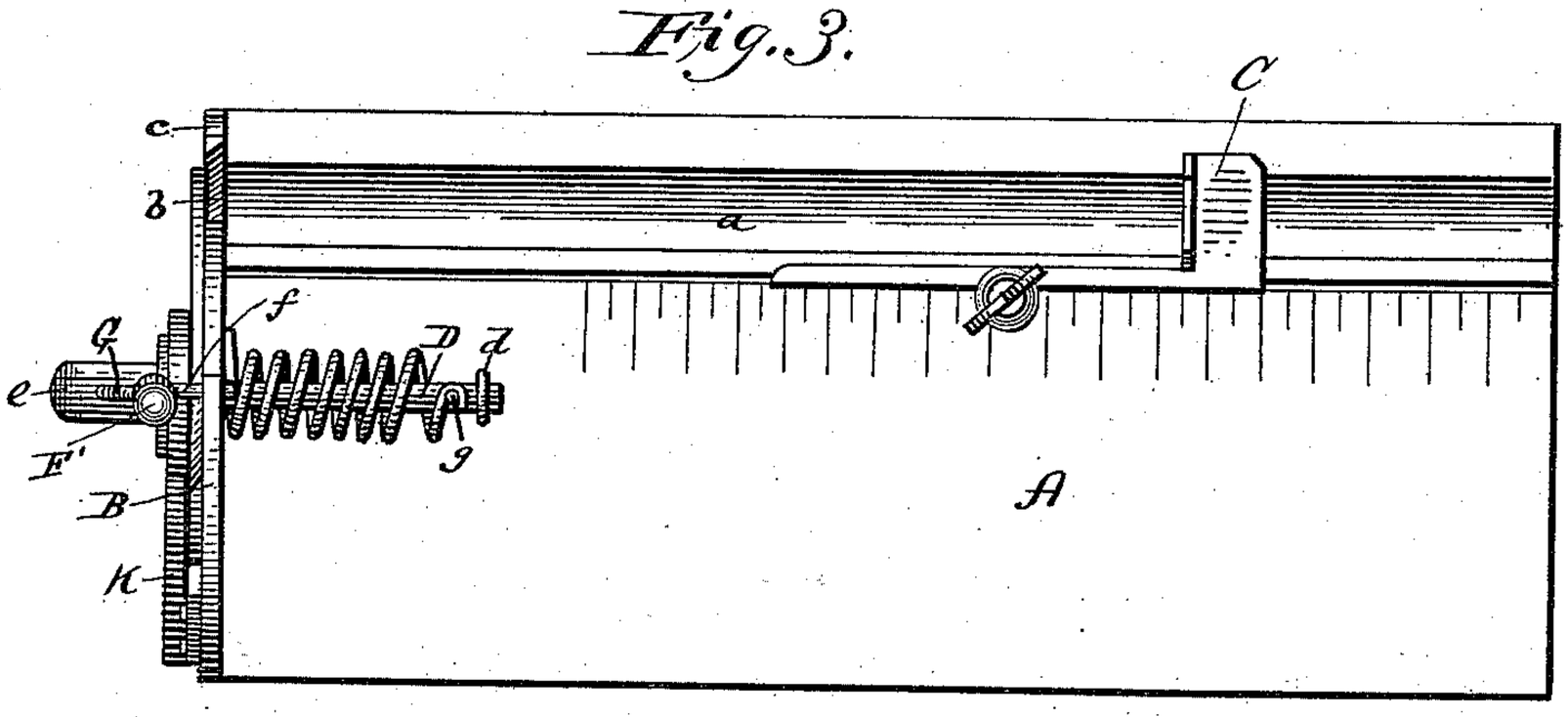


Fig. 4.

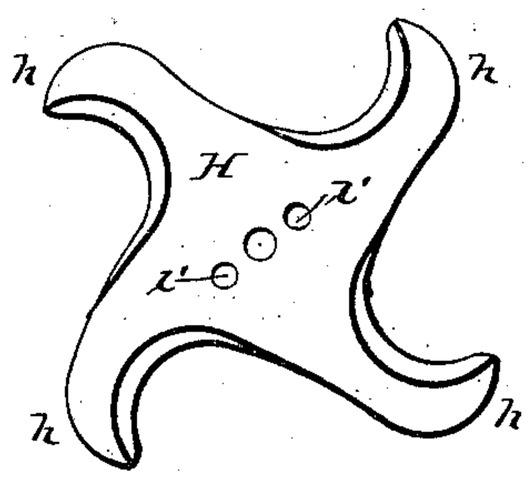


Fig. 5.

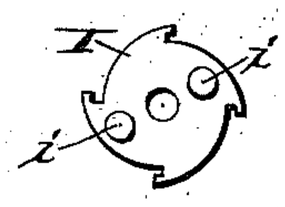


Fig. 6.

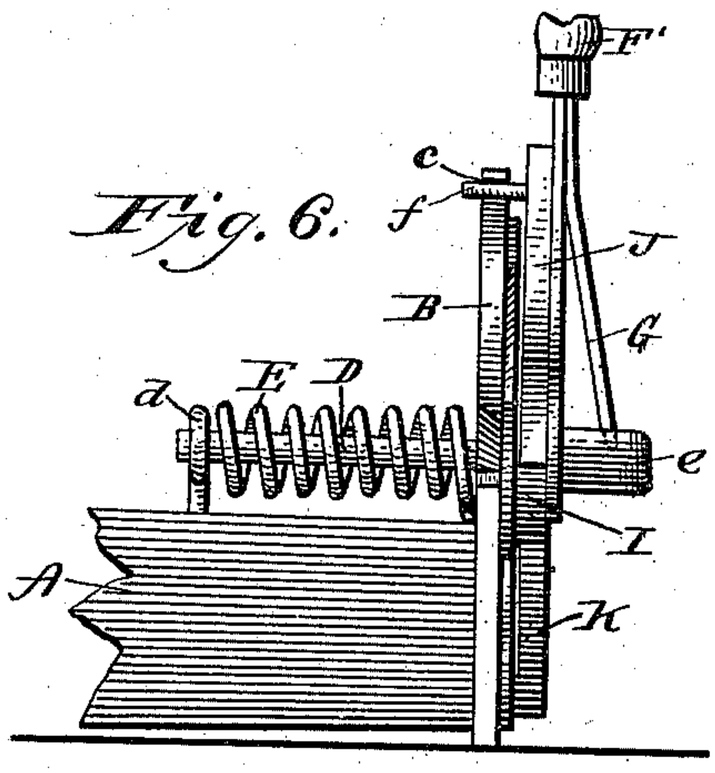


Fig. 7.

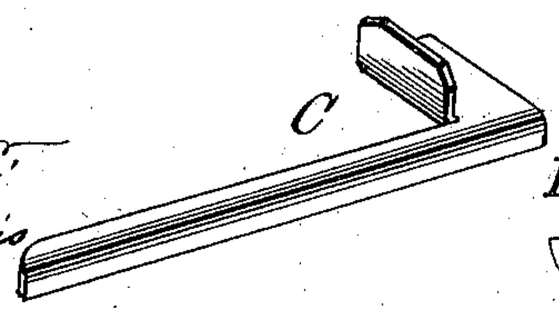
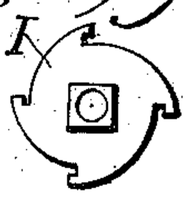


Fig. 8.



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UNITED STATES PATENT OFFICE.

CHARLES P. YOUNG AND JOHN W. SHERTZER, OF YORK, PENNSYLVANIA;
SAID SHERTZER ASSIGNOR TO JOHN H. THOMAS, OF SAME PLACE.

CIGAR-CUTTER.

SPECIFICATION forming part of Letters Patent No. 385,221, dated June 26, 1888.

Application filed April 18, 1888. Serial No. 271,025. (No model.)

To all whom it may concern:

Be it known that we, CHARLES P. YOUNG and JOHN W. SHERTZER, citizens of the United States, residing at York, in the county of York and State of Pennsylvania, have invented certain new and useful Improvements in Cigar-Cutters, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention has relation to certain new and useful improvements upon that class of cigar-cutting machines employed to sever the butt-ends of the cigars after the same have been properly shaped and wrapped.

The invention has for its objects, mainly, to so construct and operate the cutter or knife whereby the return or retrograde movement of the same, which takes place in the machines now in use when the operating-handle is released, is entirely obviated, this reverse movement of the knife, it is well known, often serving to disturb the filling at the ends of the cigars, and at times breaking the wrappers thereon, especially when the knife is somewhat dull.

Another object we have in view is to so construct and improve the cutter that the delay and inconvenience caused by the necessity of frequently removing the same for the purpose of sharpening is to a great measure done away with, as will more fully hereinafter appear.

The invention consists in certain novel features of construction and arrangement of parts, which will be fully hereinafter specified, and particularly pointed out in the claims appended.

Referring to the accompanying drawings, which form a part of this specification, Figure 1 represents an elevation of the cutter end of the machine; Fig. 2, a longitudinal sectional view of the machine; Fig. 3, a plan view of the same; Fig. 4, a detail view of the cutter; Fig. 5, a detail view of the ratchet-wheel which engages with the cutter and rotates the same; Fig. 6, a side elevation of the cutting apparatus; Fig. 7, a detail perspective view of the gage-plate for regulating the length of the cigars; Fig. 8, a detail view of a slight modification of the ratchet-wheel shown in Fig. 5.

In the drawings, the letter A designates the base of the machine, which is of the usual construction, being provided with a trough or groove, *a*, near one of its longitudinal edges, for the reception of the cigars to be trimmed, and a throat-plate, B, at one end.

C designates the gage attached adjustably to the base of the machine and extending across the cigar-trough *a*, whereby the length of the cigars may be regulated at will. The throat-plate B is constructed, as usual, with the throat *b* (the lower edge of which is sharpened to assist the cutter in severing the end of the cigar) and the stops *c*, for limiting the movement of the operating-lever. Journaled in a bearing, *d*, secured to the base A, and in an aperture in the throat-plate B, is a short rock-shaft, D, provided with a head or enlargement, *e*, the headed end of this shaft projecting a short distance from the face of the said throat-plate. Surrounding this shaft D, between the bearing *d* and the throat-plate, is a helical spring, E, which is attached to the shaft at one end and has its other end resting upon the base A, the tendency of this spring being to restore the operating-handle, when released by the operator, to its normal vertical position, as well as to hold the rotating cutter firmly against the throat-plate B.

The letter F designates the operating-lever, which is removably attached to shaft D and abuts against the shoulder formed by the enlargement *e* on the same. In this instance this lever is secured to the shaft, so as to rotate with it, (but at the same time be detachable from it,) by means of the rod G, the lower end of which enters a recess formed in the head *e* of the shaft, and its upper end enters the socket in the handle F′, secured to the operating-lever.

The operating-lever is provided with a pin, *f*, which strikes against the stops or abutments *c c* upon the throat-plate, and thereby limits the movement of the lever.

Mounted loosely upon the rock-shaft D, and resting close up against the face of the throat-plate, is the rotating cutter H, which in this instance consists of four radial hook-shaped cutting-blades, *h*, all the cutting-edges of which are preferably curved and directed alike; also, mounted loosely upon the rock-shaft D, between the cutter and operating-lever, is a ratchet-wheel, I, provided with pins *i* on its

inner face, which engage similar apertures, *i'*, in the cutter, whereby the ratchet-wheel and cutter are caused to rotate together. In lieu of the pins *i* to engage the cutter, a square or angular projection, as shown in Fig. 8, may be employed for this purpose, the cutter being of course provided with a similar aperture. In order to rotate the ratchet-wheel and cutter, a spring-pawl, J, is secured to the operating-lever, this pawl engaging with the teeth of the ratchet-wheel, as shown. To prevent a reverse movement of the ratchet-wheel, there is secured upon the face of the throat plate, outside the radius of the cutter, another spring-pawl, K, which also engages with the teeth of the ratchet-wheel. When the operating-lever is brought down to a horizontal position, the cutter will be rotated one fourth of a revolution, (through the medium of the pawl J and ratchet-wheel I,) this being sufficient to carry one of the radial curved blades past the throat *b*, and thus sever the projecting end of the cigar. The instant the lever is released the helical spring will carry it back to its vertical position, ready for another operation, the cutter and ratchet-wheel being prevented from being carried back with the lever by means of the stationary spring-pawl K on the throat-plate.

It will be observed that the cutter is rotated continuously in one direction only, the radial blades being used one after another at each successive operation of the lever until they all become dull. By this construction frequent removal of the cutter for sharpening purposes is not only obviated—there being four blades to become dull before removal is necessary—but the reverse or retrograde movement of the knife (necessary to all reciprocating cutters) is entirely obviated.

To remove the cutter for any purpose, the handle F' and rod G are removed, and the pin *g* in the shaft D is also withdrawn. The shaft D may then be withdrawn and the cutter removed.

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

1. In a cigar cutter, the combination, with the base and the throat-plate, of the spring-actuated rock-shaft, the operating-lever attached thereto, so as to rotate with it, a rotating cutter mounted loosely upon the rock-shaft, a ratchet-wheel mounted loosely upon the rock-shaft and engaging the said cutter, and the pawls, substantially as described.

2. In a cigar-cutter, the combination, with the base and the throat-plate, of the spring-actuated rock-shaft provided with a head, *e*, a rotating cutter, H, provided with blades *h*, a ratchet-wheel engaging the cutter H, the said cutter and ratchet-wheel being mounted loosely upon the rock-shaft, the operating-lever, also upon this shaft, the rod G, adapted to secure the operating-lever to the shaft, the handle F', and the spring-pawls, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES P. YOUNG.
JOHN W. SHERTZER.

Witnesses:
M. L. BARSHINGER,
GEORGE B. KRABER.