

No. 621,185.

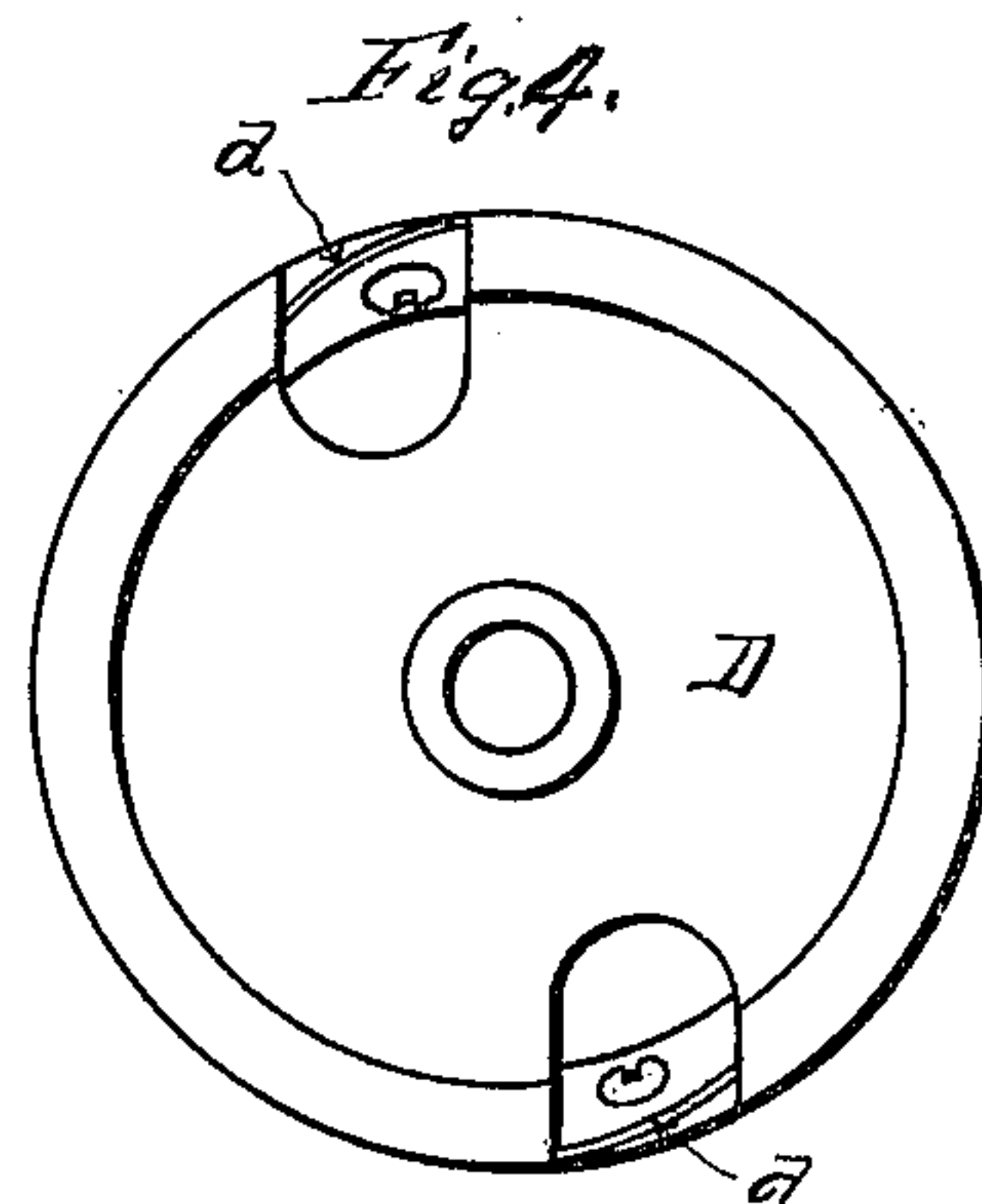
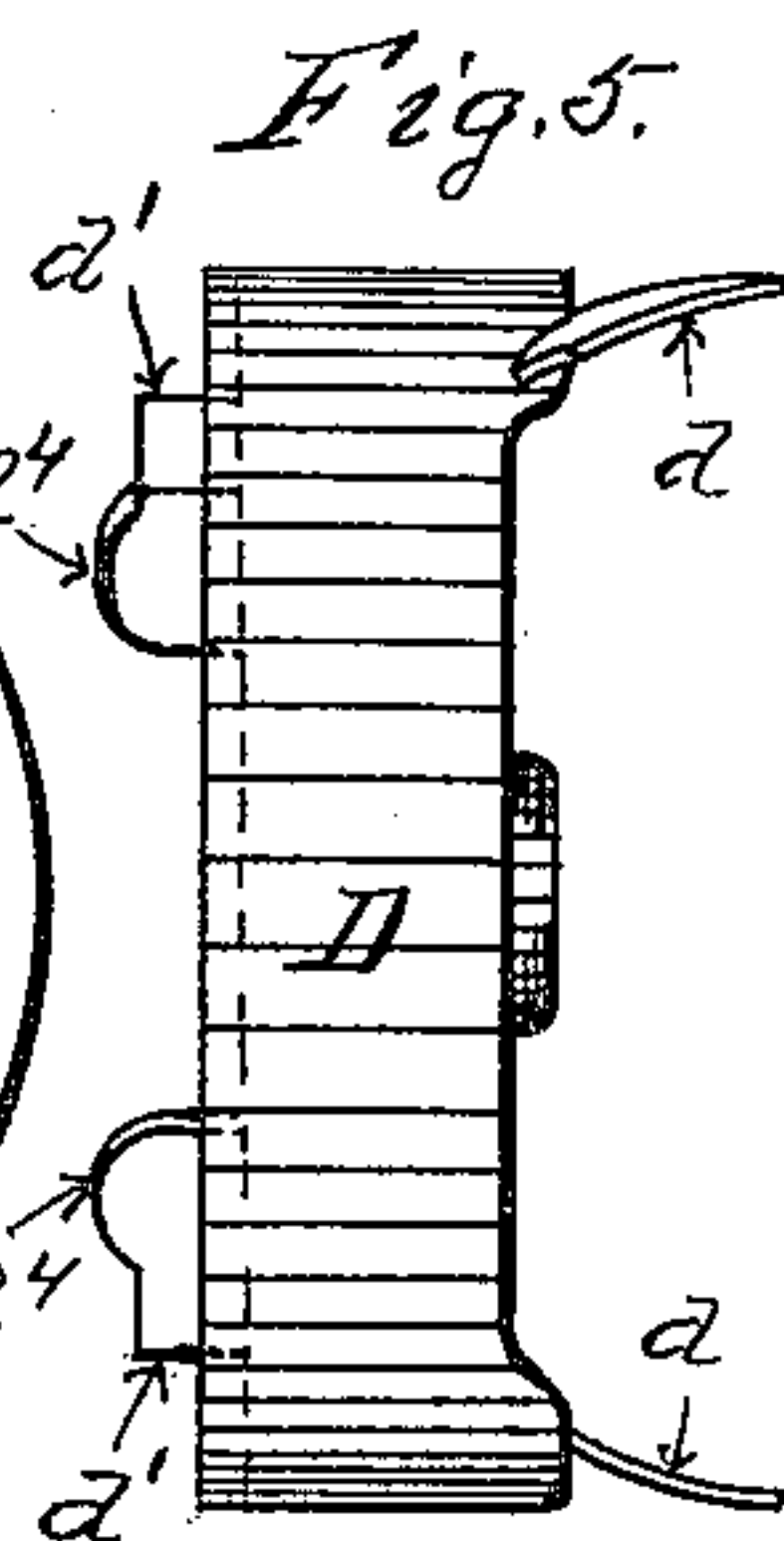
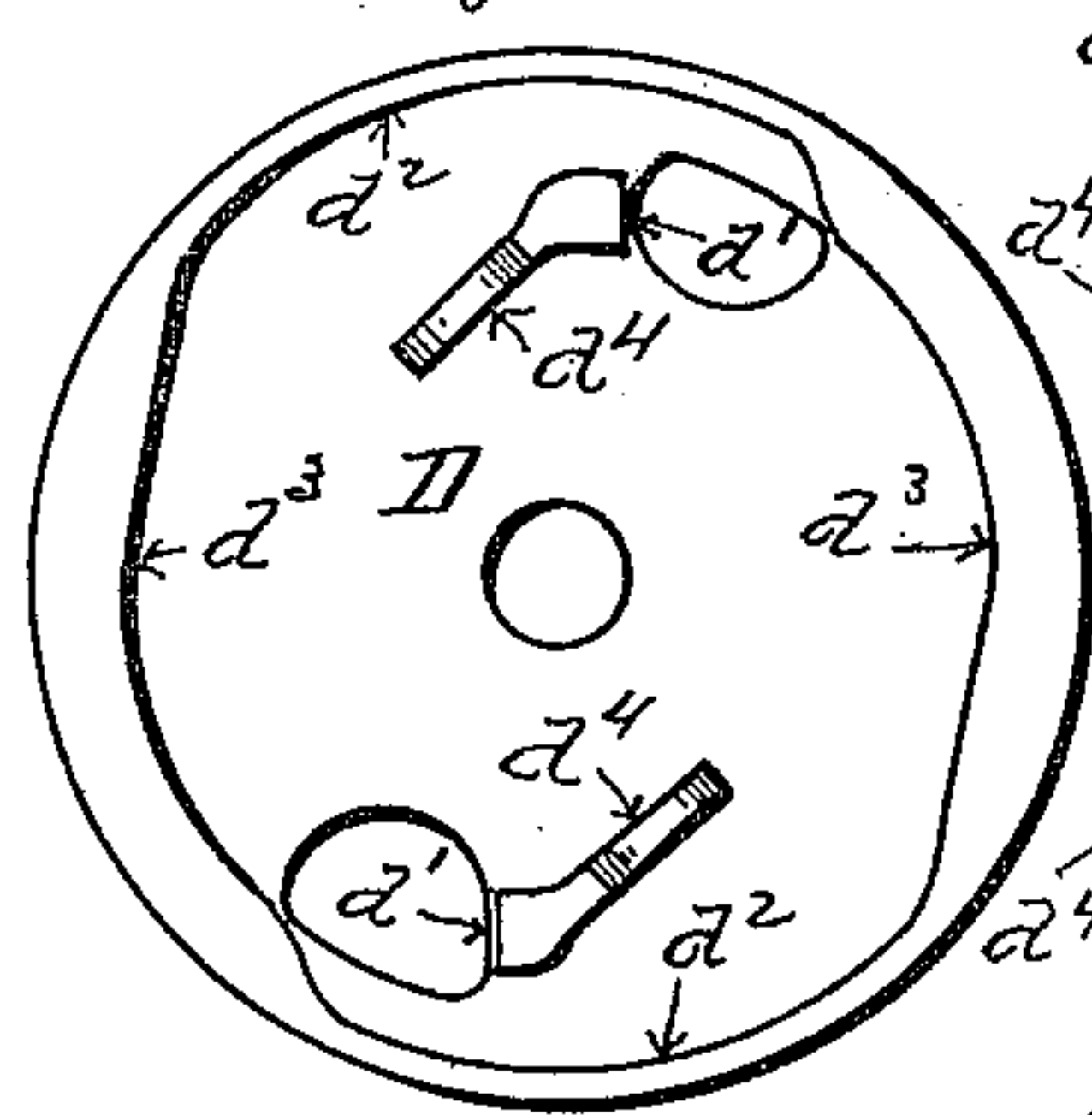
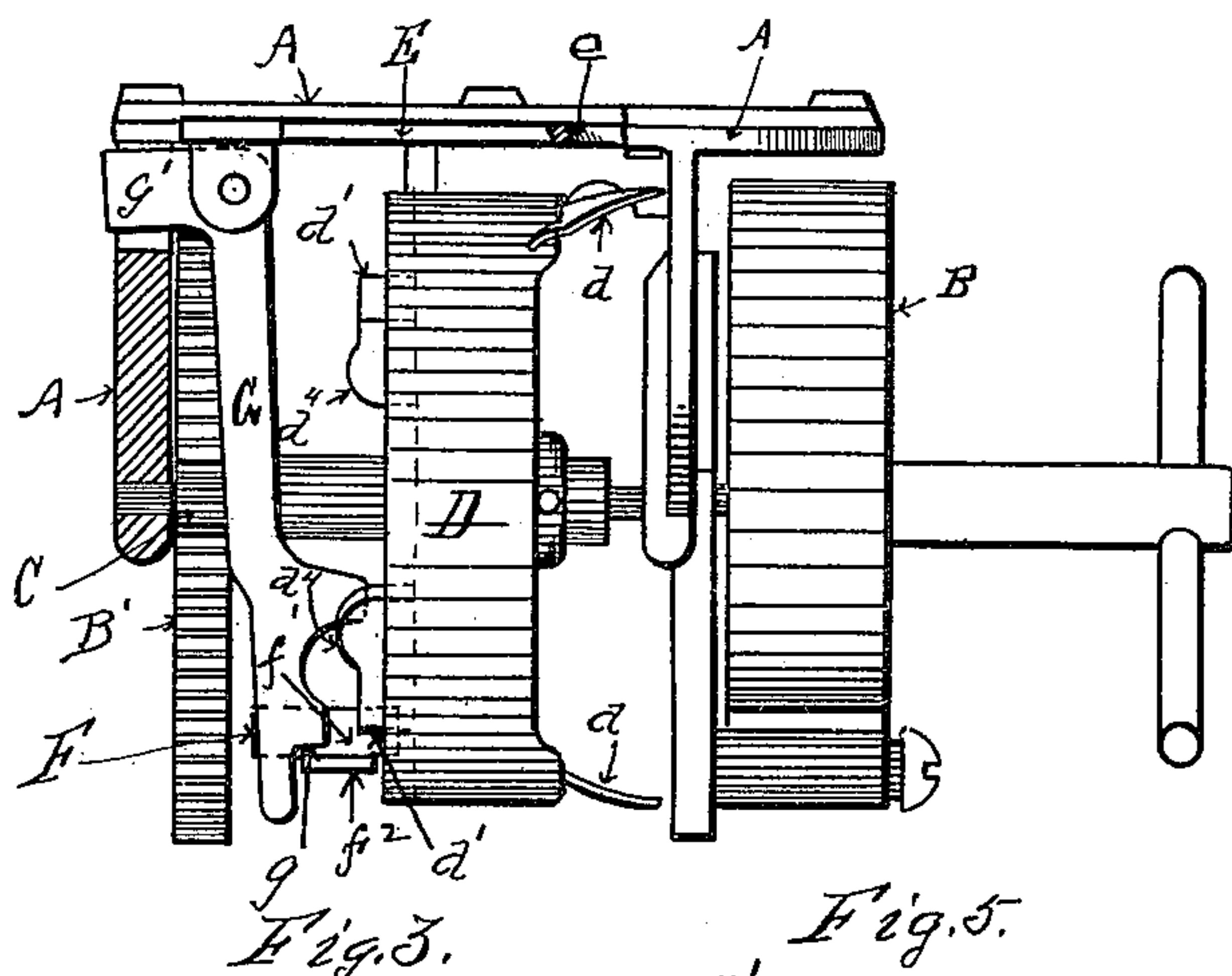
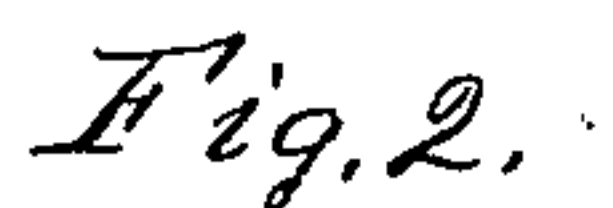
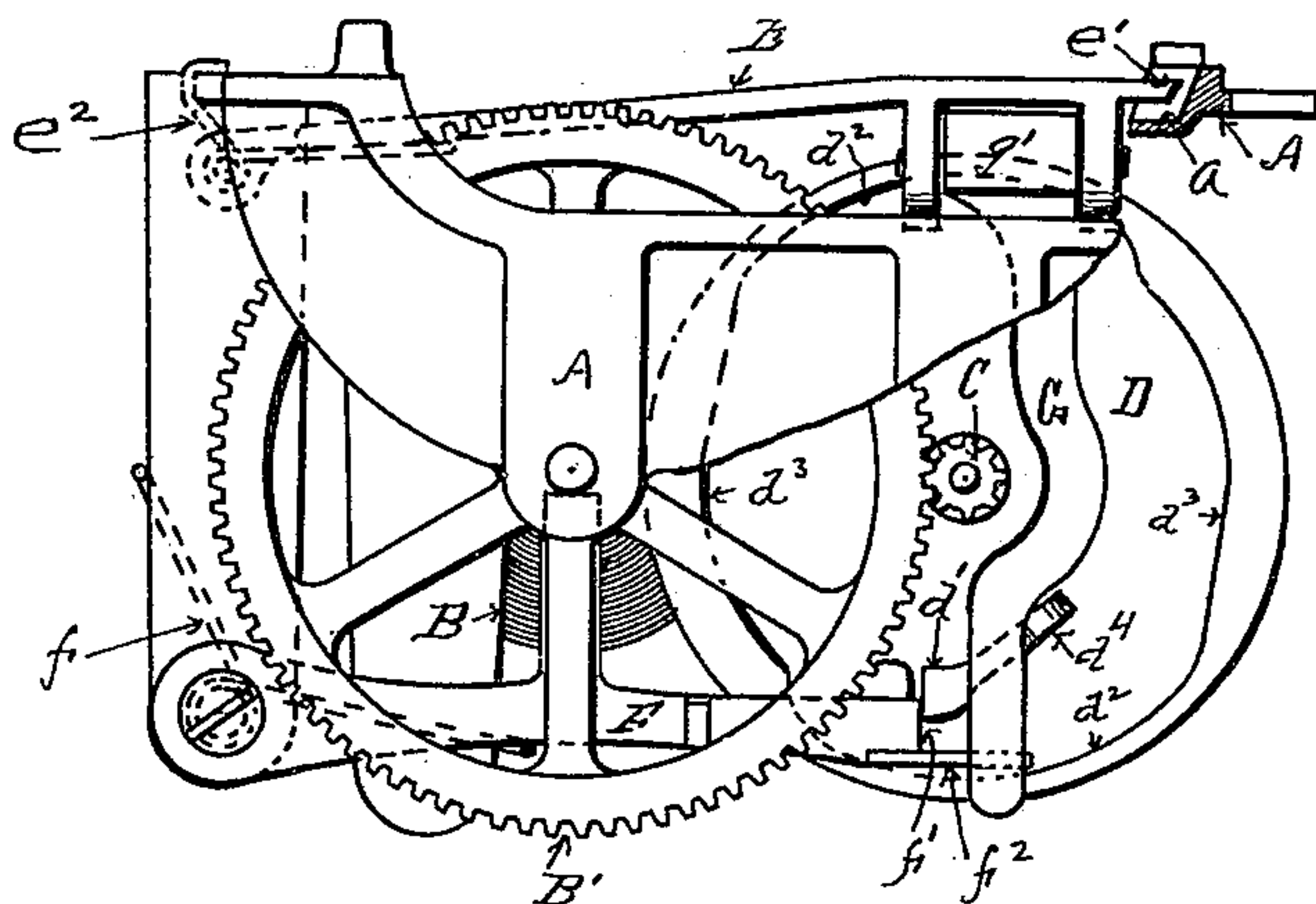
Patented Mar. 14, 1899.

E. WALKER.
CIGAR TIP CUTTER.

(Application filed Sept. 6, 1898.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES

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2 Sheets—Sheet 2.

Fig. 6.

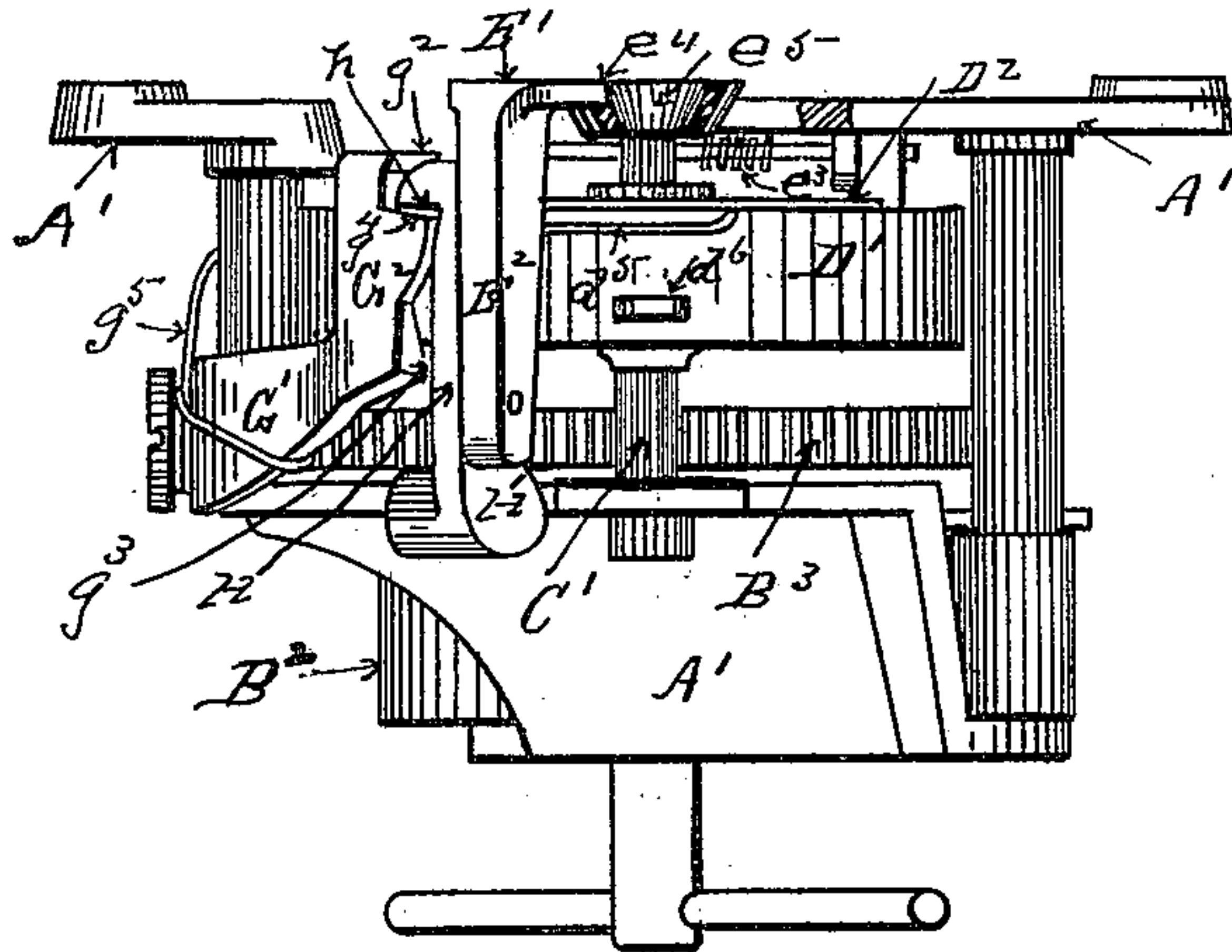


Fig. 7.

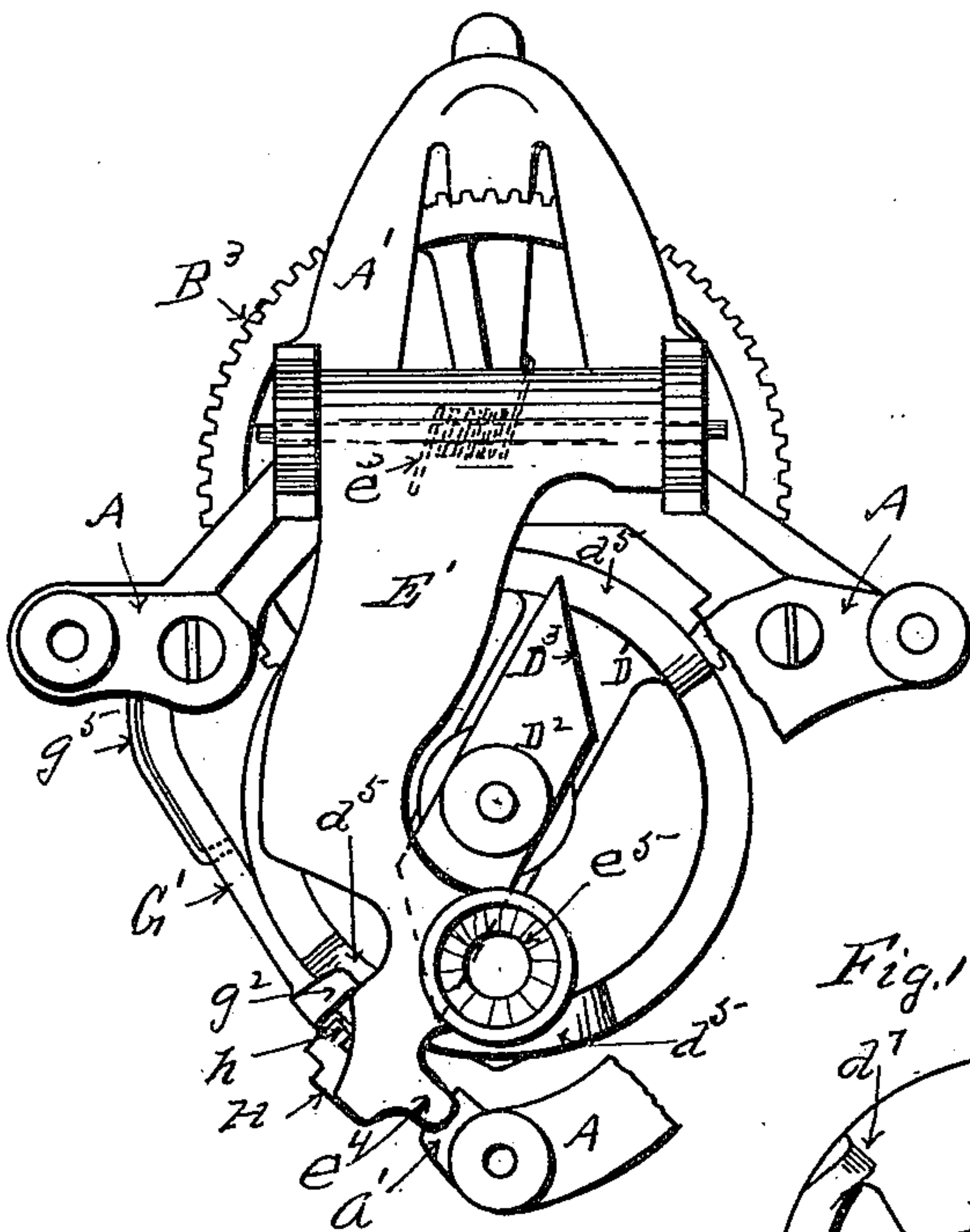


Fig. 8.

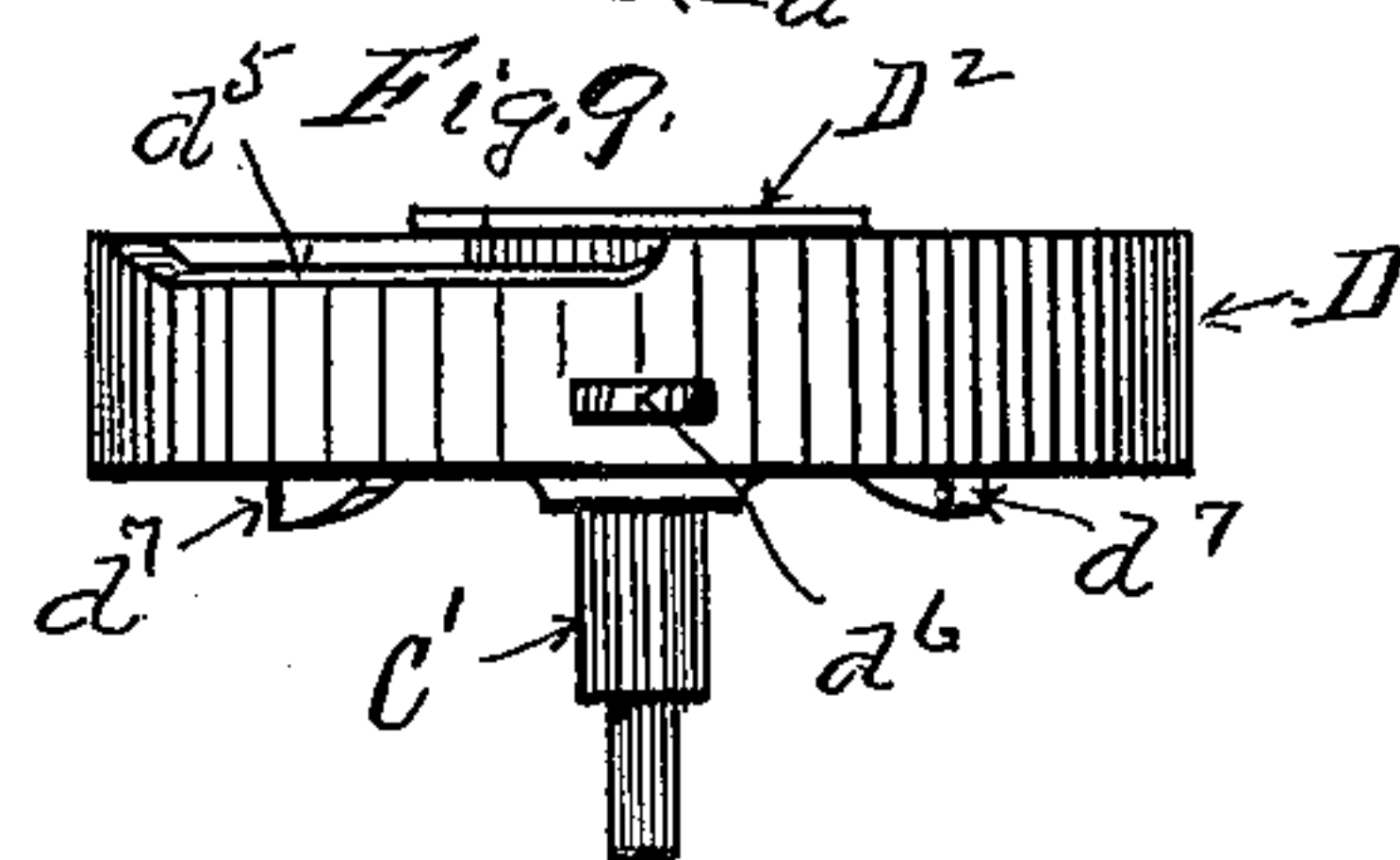
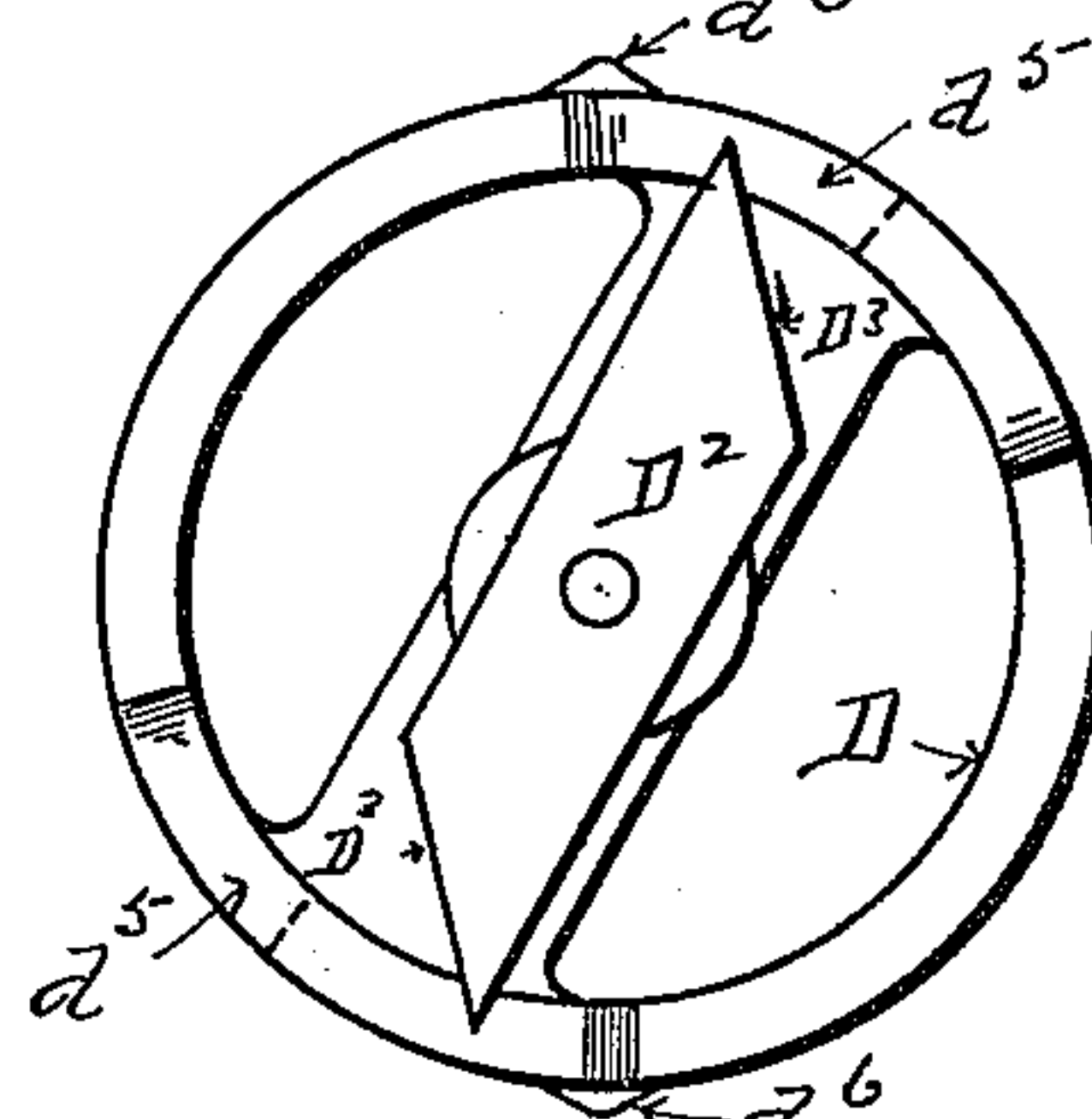
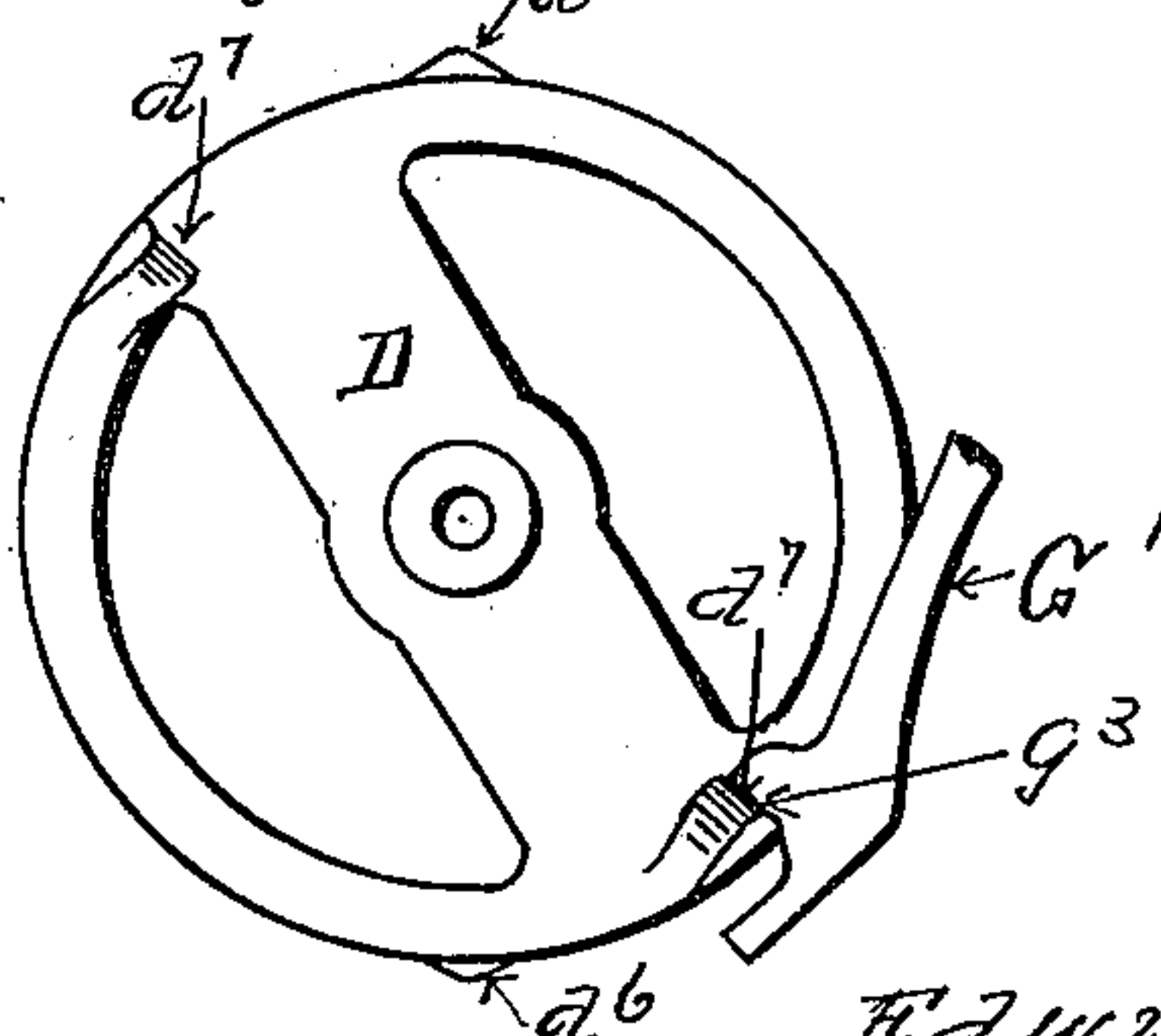


Fig. 10.



WITNESSES

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UNITED STATES PATENT OFFICE.

REISSUED

EDWIN WALKER, OF ERIE, PENNSYLVANIA.

CIGAR-TIP CUTTER.

SPECIFICATION forming part of Letters Patent No. 621,185, dated March 14, 1899.

Application filed September 6, 1898. Serial No. 690,326. (No model.)

To all whom it may concern:

Be it known that I, EDWIN WALKER, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Cigar-Tip Cutters; 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 of reference marked thereon, forming part of this specification.

My invention relates to improvements in cigar-tip cutters; and it consists particularly in the improvements in the tripping and stop mechanism thereof whereby the rotating cutter is started and stopped.

The object of this invention is to insure the action of the stop mechanism under all circumstances. This is accomplished by a combination of levers and cams and stops operating together, so that after the rotary cylinder upon which the cutters are mounted starts to rotate the stop mechanism is automatically forced into contact with a lug on the cylinder, so as to stop it after it has rotated the required distance to cut off the cigar-tip. The mechanism which I have devised to accomplish this result and its operation are hereinafter fully set forth and described, and illustrated in the accompanying drawings, in which—

Figure 1 is a side view in elevation of a cigar-tip cutter embodying my invention with a portion of the frame broken away. Fig. 2 is a front view in elevation of the same with a portion of the frame broken away. Fig. 3 is a side view in elevation of the cutter-cylinder, showing the cams and stops thereon. Fig. 4 is a side view in elevation of the opposite side of the cutter-cylinder, showing the manner of securing the cutters thereon. Fig. 5 is a front view in elevation of the cutter-cylinder, showing the knives and stops thereon. Fig. 6 is a front view in elevation of a modified construction of my invention with a portion of the framework broken away. Fig. 7 is a top or plan view of the same. Fig. 8 is a top or plan view of the cutter-cylinder and knives thereon. Fig. 9 is a side view in elevation of the same. Fig. 10 is a view of the

under surface of the cutter-cylinder, showing the stops and a section of the stop-lever in engagement therewith.

In Figs. 1, 2, 3, 4, and 5 of the drawings thus illustrating my invention the framework A and the spiral spring B, driving a gear-wheel B', intermeshing with and driving the pinion C on the shaft of the cutter-cylinder D, are constructed and operated in the usual manner. The cutter-cylinder D in this construction has projecting from one side of its periphery knives d , which have inclined cutting edges adapted to pass under and in close proximity to the opening e in the tripping-lever E when it is depressed, so that the end e' thereof strikes the depression a' in the top of the frame and the tip of a cigar inserted in the opening e , and the tripping-lever E being depressed thereby one of the knives d is carried past the opening e and the cigar-tip cut off by a shearing cut of one of the knives d . This lever E is pivoted at the rear of the top of the machine and is provided with a retracting-spring e^2 , (shown in dotted lines in Fig. 1,) which operates to raise the front end of it when the pressure of the cigar is removed, and for stopping the rotation of the cutter-cylinder D there is a horizontal stop-lever F pivoted to the machine-frame and provided with a retracting-spring f . (Shown in dotted lines in Fig. 1.) At the opposite end of the stop-lever F there is a shoulder f' , which projects laterally toward the face of the cutter-cylinder D and normally is held into contact with one of the stops d' thereon by the spring f . This shoulder also extends over the cam-surfaces d^2 d^3 on the side of the cutter-wheel D. On the shoulder f' there is a longitudinal extension f^2 , adapted to be engaged by a shoulder g on the vertical arm G, pivoted to and extending downward from the tripping-lever E, as clearly illustrated in Figs. 1 and 2. This lever G is provided at its upper end with a lateral weight g' , which operates to normally retain the shoulder g on the lower end thereof in contact with the top of the projection f^2 on the lever F, so that when the tripping-lever E is depressed at any time, it forces the arm G downward, and the shoulder g thereon forces the shoulder f' of the stop-lever F downward and off of the stop d' on the cutter-cylinder D, with

which it is normally in engagement, and permits the rotation of the cutter-cylinder D. When the stop-lever F is thus forced downward, the shoulder f' thereon contacts with the depressed portion d^2 of the cam-surface $d^2 d^3$ on the cutter-cylinder D, and the cutter-cylinder D being thus released starts, and the rear portion d^4 of the stops d' at once contacts with the arm G and instantly throws the shoulder g thereon out of engagement with the projection f^2 , and the rotation of the cylinder continuing causes the shoulder f' on the stop-lever F to be raised by the higher portion d^3 of the cam-surface $d^2 d^3$, so that it is in direct line with and engages the stop d' at the opposite side of the cutter-cylinder D and stops it at a half-revolution thereof. Meanwhile the suspended arm G has fallen back with the shoulder g thereon in engagement with the extension f^2 on the stop-lever F, ready to again operate.

In Figs. 6, 7, 8, 9, and 10 I show a modified construction of this invention in which the cutting-cylinder and knives thereon rotate horizontally under the tripping-lever instead of vertically, as in the construction hereinbefore described. In this modified construction the frame A' and the spiral spring B², driving a gear-wheel B³, intermeshing with and driving a pinion C' on the shaft of the cutter-cylinder D', are constructed and operate in the usual manner. Upon the top of the rear of the machine there is mounted a tripping-lever E', which extends forward over the cutter-cylinder D' and is provided with a retracting-spring e^3 , (shown in Fig. 1, and in dotted lines in Fig. 2,) which operates to retain the outer end e^4 of the lever E in a normally-upraised position, while the downward movement thereof is limited by a stop a' on the frame, so that when it is depressed upon the stop a' the cutter-knives D² on the cutter-cylinder D', which knives have inclined cutting edges D³, will pass directly under the cigar-tip opening e^5 , so that a cigar-tip inserted therein will be cut off by the shearing action of the knife when the tripping-lever E' is depressed. On the upper side of the cutter-cylinder D' there are two cam-shaped depressions d^5 , and on the periphery thereof two projections d^6 , and upon the under surface thereof two stops d^7 , and to the side of the frame A' there is pivoted a stop-lever G', which projects forward, and the front end thereof is provided with a vertical section G², which is adjacent to the periphery of the cutter-cylinder D'. On the upper end of the projection G² there is an inwardly-projecting lug g^2 , which extends over the upper edge of the cutter-cylinder D', and there is another inwardly-projecting stop-lug g^3 , which extends under the cutter-cylinder D', where it is adapted to engage the stops d^7 thereon, as illustrated in Fig. 10. There is also another longitudinally-extending shoulder g^4 on the stop-lever G', adapted to be engaged by a swing-catch H, pivoted to a downwardly-

projecting arm E² on the tripping-lever E'. This catch is provided with a counterweight H' on its lower end, which normally retains it in a vertical position, with the hook h on the upper end thereof normally in engagement with the shoulder g^4 on the stop-lever G', so that when the tripping-lever is depressed the projecting lug g^2 passes down into one of the cam-shaped depressions d^5 in the upper edge of the cutting-cylinder D', which allows the stop-lug g^3 to be depressed below the stop-catch d^7 on the lower edge of the cutting-cylinder D', which allows the cutting-cylinder to revolve, and as the projection d^6 on the periphery of the cylinder passes the vertical lever H it throws the upper end of it outward, disengaging the hook h thereon from the lug g^4 , and as the cutter-cylinder continues to revolve the lug g^2 passes up out of the depression d^5 in the cutting-cylinder D' and raises the stop-lug g^3 into line with and so as to engage the stop-lug d^7 on the opposite side of the cutting-cylinder D' and stop it at a half-revolution. Meanwhile the vertical lever-catch H has resumed its normal position, with the catch h thereon in engagement with the lug g^4 on the stop-lever G' ready to be again operated. The stop-lever G' is also provided with a spring g^5 , which operates thereon to retain it in a normally-upraised position.

It will be observed that in both these constructions, while the mechanism thereof somewhat differs, yet the principle of their construction and operation are the same, as both constructions utilize stop-levers and cam-surfaces on the cutter-cylinder to automatically restore the stop-levers to engagement with the stops on the cutter-cylinder, so as to insure the stopping of the cutter-cylinder at each half-revolution.

Having thus described my invention, so as to enable others to construct and use the same, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination in a cigar-tip cutter, of a spring-actuated cutter-cylinder, stops and cam-surfaces on said cutter-cylinder, a stop-lever adapted to engage the cam-surfaces and stops on said cutter-cylinder, a tripping-lever having an opening therein for the insertion of a cigar-tip, and lever mechanism thereon for engaging and operating said stop-lever, substantially as and for the purpose set forth.

2. The combination with the spring-actuated cutter-cylinder of a cigar-tip cutter, of knives on said cylinder, lugs thereon adapted to engage tripping and stop lever mechanism, and cams thereon adapted to throw the tripping and stop lever mechanism into engagement with the stops on said cylinder, and tripping and stop lever mechanism adapted to engage said stops and cams, substantially as and for the purpose set forth.

3. The combination in a cigar-tip cutter, of a spring-actuated cutter-cylinder, cutter-knives thereon having their cutting edges inclined so as to operate with a shearing cut,

stops and cam-surfaces on said cylinder, a
stop-lever adapted to engage said cams and
stops, and a tripping-lever having an open-
ing therein for the insertion of a cigar-tip,
5 lever mechanism mounted thereon adapted
to engage and release the stop-lever from the
stops on the cylinder, and lugs on the cylin-
der adapted to detach the tripping-lever

mechanism from the stop-lever mechanism,
substantially as and for the purpose set forth. 10

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

EDWIN WALKER.

Witnesses:

BERRY A. STURGEON,
HENRY A. CLARK.