

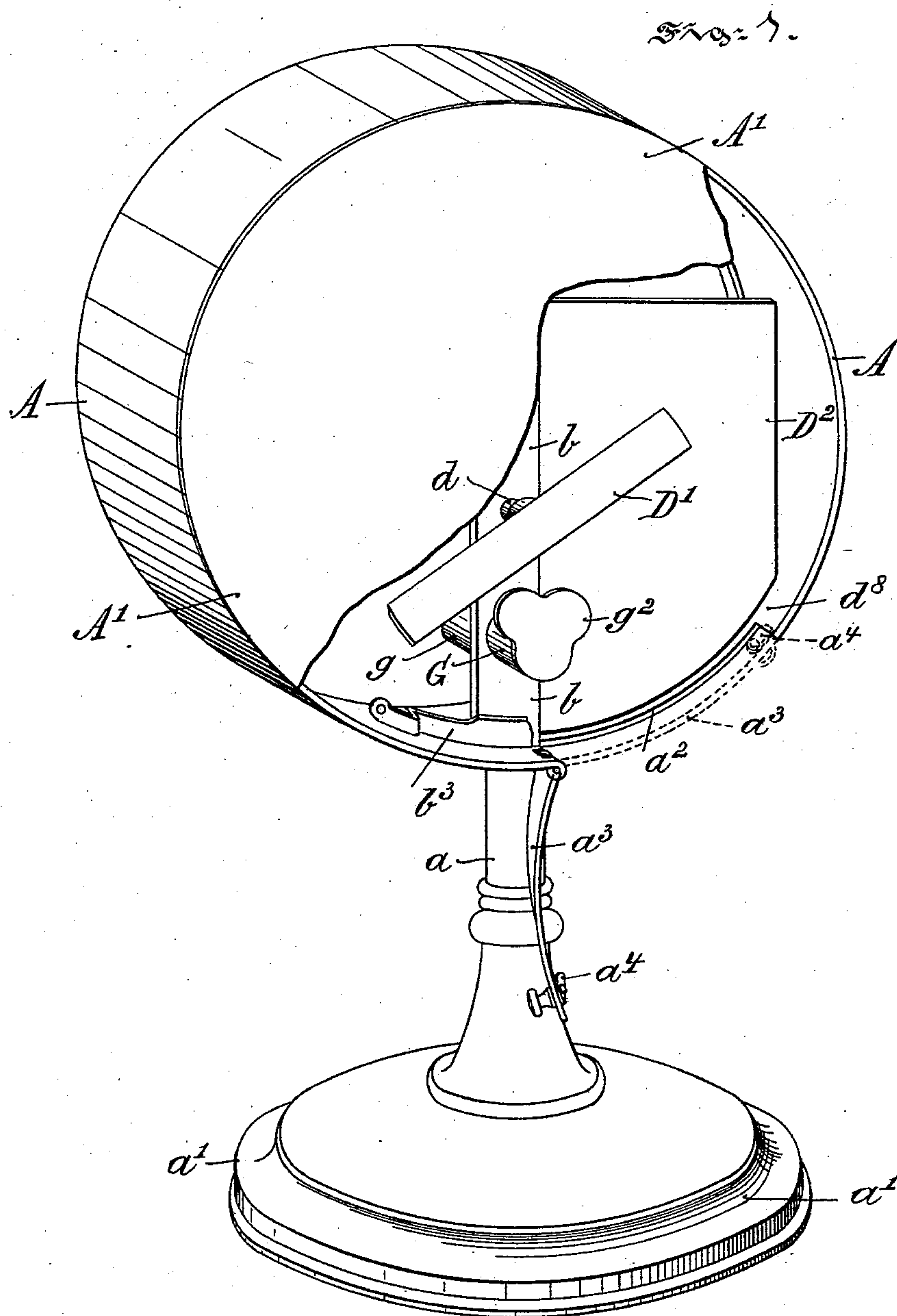
(No Model.)

3 Sheets—Sheet 1.

F. P. SPARMAKER.
CIGAR TIP CUTTER.

No. 528,996.

Patented Nov. 13, 1894.



Witnesses:
Thomas M. Smith.
Richard C. Maxwell.

Inventor:
Frank P. Sparmaker,
By Walter Douglas
Attorney.

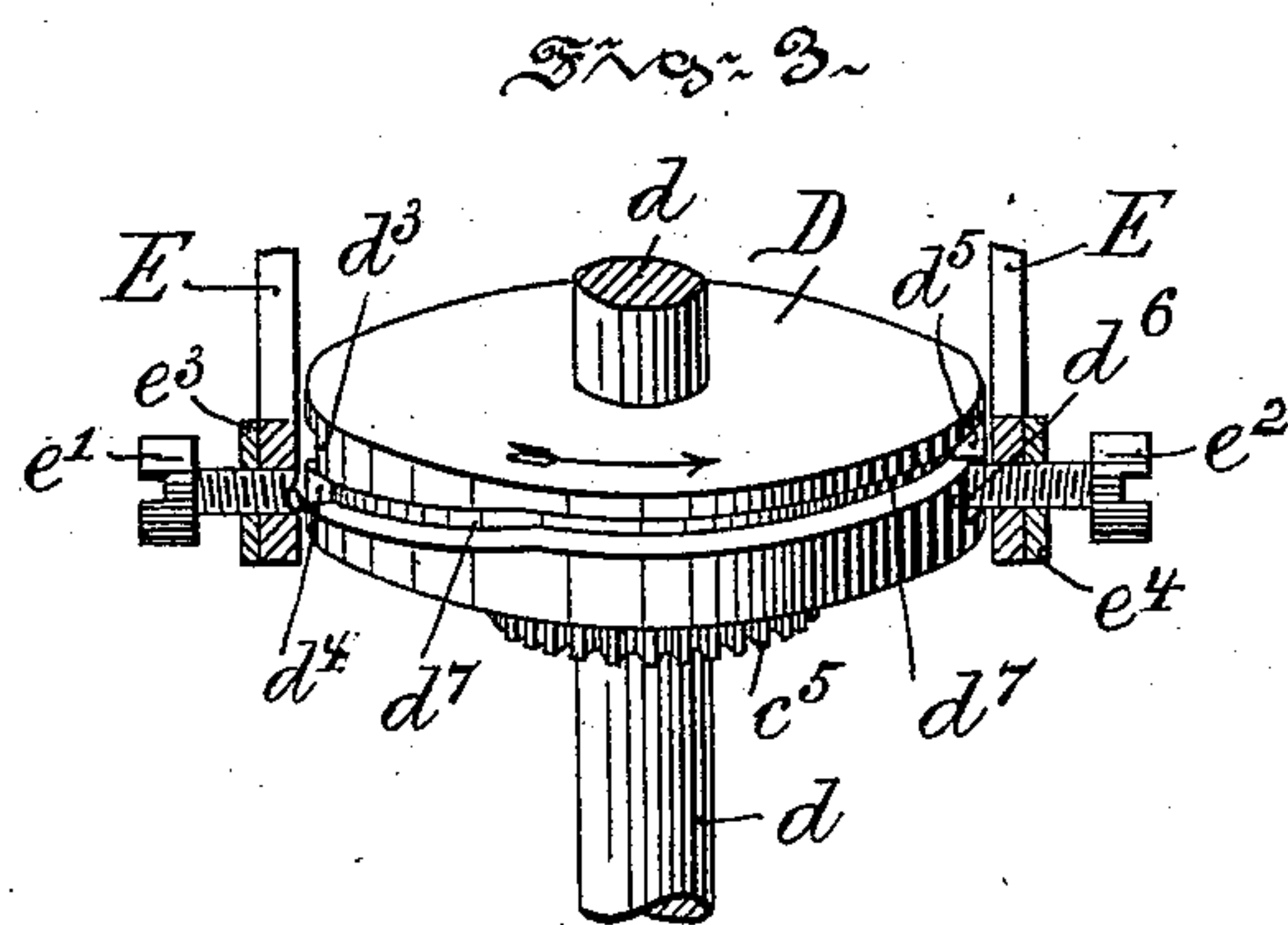
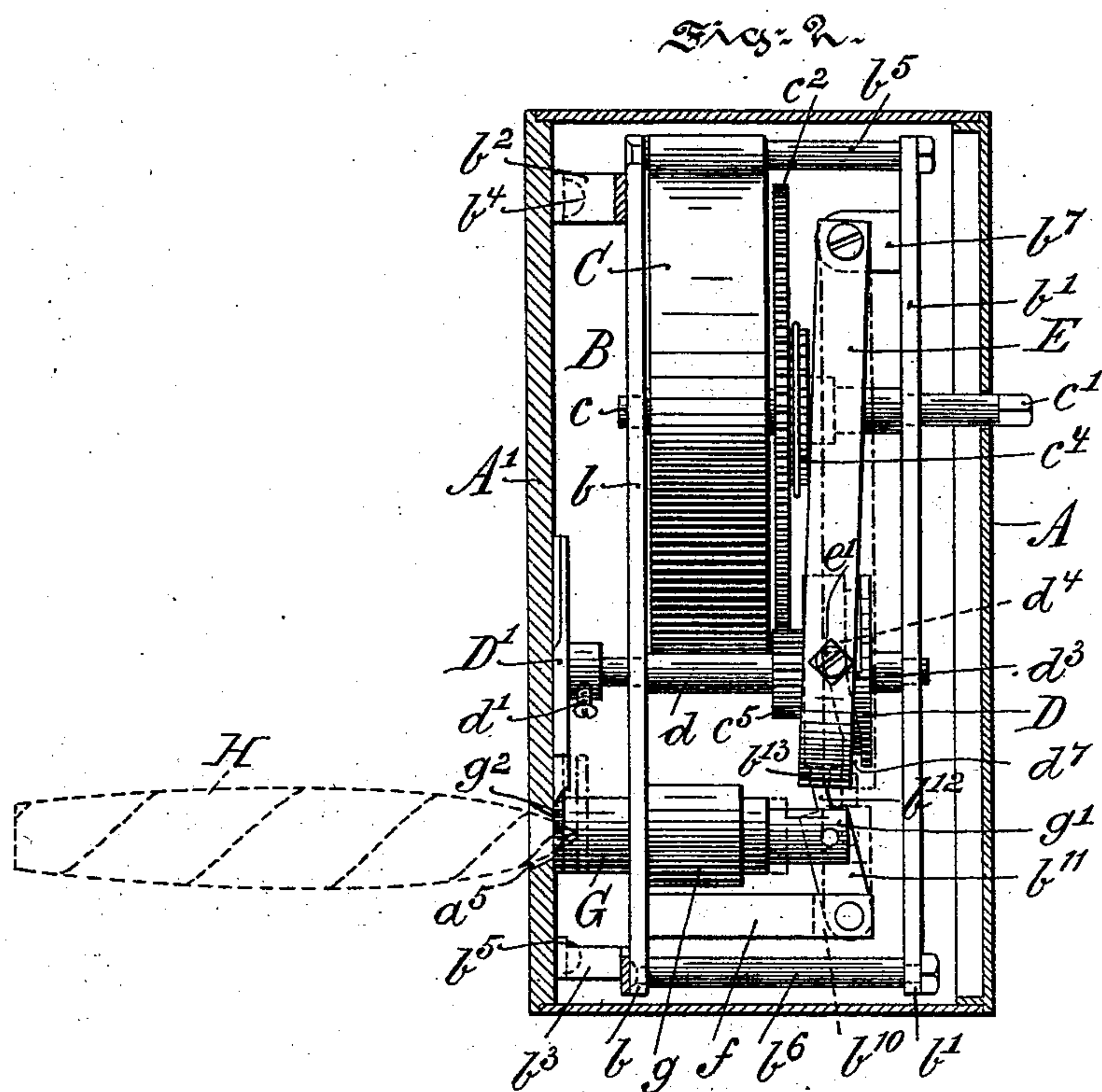
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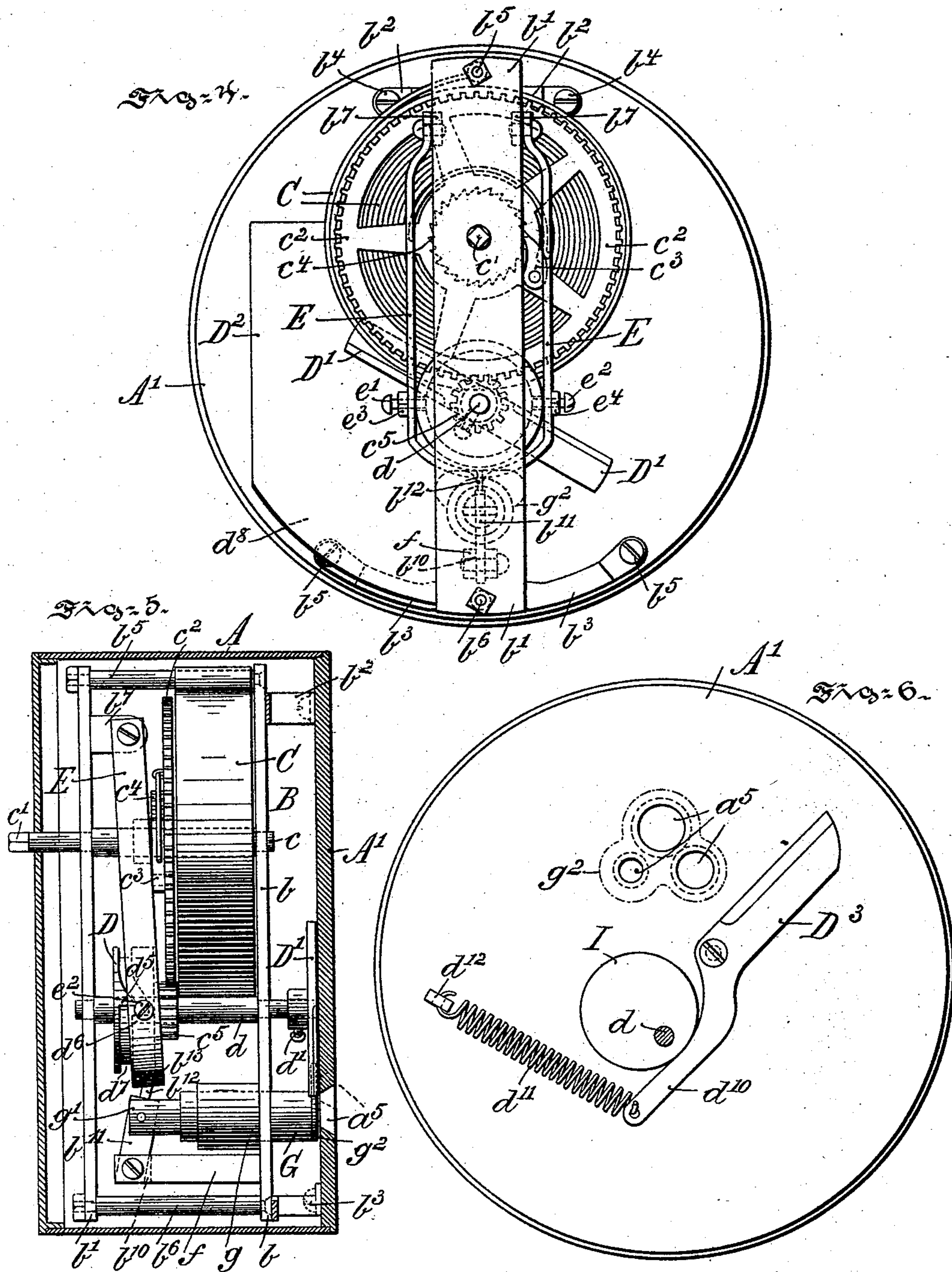
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UNITED STATES PATENT OFFICE.

FRANK P. SPARMAKER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO WILLIAM T. CUNNINGHAM, OF SAME PLACE.

CIGAR-TIP CUTTER.

SPECIFICATION forming part of Letters Patent No. 528,996, dated November 13, 1894.

Application filed August 18, 1894. Serial No. 520,660. (No model.)

To all whom it may concern:

Be it known that I, FRANK P. SPARMAKER, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Cigar-Tip Cutters, of which the following is a specification.

My invention has relation to a portable appliance for severing by a shear cut the tip end of a cigar; and in such connection it relates more particularly to the general construction and arrangement of such an appliance.

The principal objects of my invention are first, to provide a simple, durable and effective device for cutting the tip end of a cigar or the like; second, to provide a portable device for severing the tip end of a cigar or the like having mechanism controlled by a coiled spring for actuating a swinging frame provided with means engaging a grooved cam which is adapted to reciprocate a plunger and the said spring permitting of the actuation of a rotary knife or blade, the construction being such that when pressure is brought to bear against the end of said plunger the knife or blade is actuated to sever the tip of a cigar and the plunger then returned to its initial position and the blade to an inoperative condition; third, to provide a portable device having a spring controlled mechanism arranged so that upon pressure exerted against a reciprocating plunger adjacent to an opening, a knife or blade will be caused to sever by a shear cut matter in the path thereof, and the plunger and knife or blade then returned automatically to their respective positions for permitting of a similar operation of the severing of the tip end of a cigar or the like; fourth, to provide a portable device for severing the end of a cigar or the like controlled by a mechanism adapted to permit of the actuation of a knife or blade in the path of openings normally closed by a plunger and which by pressure brought to bear against one face thereof, allows of a knife or blade being actuated; and fifth, to provide a cigar cutter having a swinging frame with stop-pins connected therewith and adapted to travel in a grooved and recessed cam and having in pivotal connection therewith a plunger adapted

to close a series of openings in the face plate of the device and a shaft actuated by gear-mechanism under the control of a spring for actuating said knife or blade by pressure brought to bear against said plunger to permit of the severing of the tip of a cigar, and in the release of said pressure on the return of said blade and plunger to initial positions.

My invention stated in general terms, comprises a cigar cutter constructed, arranged and adapted for operation in substantially the manner hereinafter described and claimed.

The nature and general features of my invention will be more fully understood from the following description taken in connection with the accompanying drawings forming part hereof, and in which—

Figure 1, is a perspective view of a cigar tip cutter, comprising a casing having a standard and having in said casing the working members of the appliance embodying features of my invention, the face plate being shown broken away to expose to view certain of the internal parts, as the knife or blade, the shield and latch-door for permitting of the removal of the clipped off end of the cigar or the like and also the plunger plate for normally closing the openings in said face plate. Fig. 2, is a vertical section through the casing or housing of the device, showing the internal mechanism thereof embodying the features of my invention, and also showing how the tip end of the cigar is inserted through an opening in the face plate and the position of the plunger and knife or blade at the moment of severance by the latter of the tip from the cigar. Fig. 3, is a perspective view of the grooved and recessed cam and the adjustable stop-pins of the swinging-frame adapted to engage with said cam for controlling the movement of a plunger adapted to close openings in the face plate of the device. Fig. 4, is a rear elevational view of the face-plate of the device with the internal mechanism of the device supported in frame-work therefrom and showing also the shield located beyond the rear of the face plate and connected with said frame-work to form a channel or chamber for the severed tips so as to permit of their removal through an opening in the casing or housing, as illustrated in Fig. 1, closed

by a latch-door. Fig. 5, is a vertical sectional view through the casing or housing of the device, showing the internal mechanism with the plunger and knife or blade in their respective initial positions for permitting by pressure against the plunger of the knife or blade being caused to rotate in the path of the tip of an inserted cigar through an opening in the face-plate of the device; and Fig. 6, is a rear elevational view of the disk constituting the face plate of the casing or housing, with a slightly modified form of the arrangement of the knife or blade actuated by an eccentric on the main driven shaft of the device and with a retracting spring connected with one end of the knife or blade for returning the same to its initial position after being actuated by said eccentric.

Referring to the drawings, A, is a cylindrical casing or housing supported by a standard a , having a conical or other shaped base a' . In the bottom portion of the casing A, is provided a curved slit a^2 , closed by a hinged door a^3 , having a latch, a^4 , for holding the same to position against the casing A. This door is provided in order to allow the clipped ends of the cigars accumulating in the bottom of the casing A, being removed from the same and in order by their accumulation therein not to interfere with the working of internal mechanism of the device to be presently explained.

A' , is the face plate provided with a series of openings a^5 . These openings are preferably arranged in a cluster and form a three leaf clover and preferably of different sizes in order to permit of a varying quantity or extent of the tip end of a cigar being severed.

B, is a frame comprising back and front plates b and b' .

b^2 and b^3 , are brackets connected with the back plate b , and these brackets are secured by means of screws b^4 and b^5 , to the rear surface of the face-plate A' .

b^6 , are distance pieces connected with the two members of the frame B, and to the upper distance piece b^5 , is connected one end of a leaf spring C, the other end of which is connected with a cross-shaft c , journaled in the members b and b' , of said frame B. This shaft c , has a square extremity c' , for the reception of a key, not shown, for permitting of the spring being wound into a coil on said shaft c , as illustrated in Figs. 2, 4 and 5. Mounted on the shaft c , is a large gear-wheel c^2 , which is provided with a spring controlled pawl c^3 , engaging with a small toothed wheel c^4 , which is also mounted on the shaft c . The large gear-wheel c^4 , meshes with a pinion c^5 , mounted on a cross-shaft d , journaled to the frame B, of the device. This shaft d , carries a grooved cam-wheel D, near one extremity thereof and near the opposite extremity is mounted thereon a flat beveled edge knife or blade D' , which is detachably connected therewith by means of a set-screw d' , the cam-wheel D, at suitable distances apart pro-

vided with notches or projections d^3 , d^4 , d^5 and d^6 , as illustrated in Figs. 2, 3, 4 and 5, and with an inclined groove d^7 , as clearly shown in Figs. 3, 4 and 5.

D^2 , is a shield secured to the rear member b , of the frame B, and constituting one wall of a channel d^8 , the face-plate A' , forming the other, and through which channel the severed tips of cigars fall to the bottom of the casing A, and may be removed through the slit a^2 , by opening the latch-door a^3 .

The member b' , of the frame B, at the upper portion thereof is provided with lugs or projections b^7 , and pivotally attached thereto is a U-shaped frame E. The lower portion of the frame E, is provided with threaded stops or pins e' and e^2 , having nuts e^3 and e^4 , mounted thereon for controlling the position of the pins in the frame E, with respect to their engagement with the grooved cam-wheel D, and these pins inwardly extending from each side of the frame E, into the groove d^7 , of the cam-wheel D, in a certain movement of the latter engage with certain of the series of notches or projections of said wheel D, to lock the same to position for a purpose to be presently more fully explained.

f , is a bar connected with and projecting from the rear member b , of the frame B. This bar has a slot b^{10} , formed in the forward end thereof, and in pivotal engagement therewith is a link b^{11} , the upper end of which link is formed with a pin b^{12} , which loosely engages in a slot b^{13} , formed in the base portion of the U-shaped arm E.

G, is a transverse plunger movably engaging a cylindrical bearing g , extending from the member b , of the frame B. This plunger G, has a bifurcated end g' , in pivotal connection with the link b^{11} .

The front end of the plunger G, is provided with a triangular or similar shaped plate g^2 , as clearly illustrated in Figs. 1, 4 and 6, which is adapted to close the series of openings a^5 , in the face-plate A' .

In the use of the appliance of my invention the tip end of the cigar is brought into contact with the plate g^2 , of the plunger G, as shown in Fig. 2, and by pressure brought to bear against the plate g^2 , the swinging frame E, will be forced inward to cause the pins e' and e^2 , thereof to be disengaged from certain of the notches or projections d^3 , d^4 , d^5 and d^6 , of the cam-wheel D, rotatable in the direction indicated by the arrow in Fig. 3, and under the force of the coiled spring C, mounted on the shaft c , the large gear-wheel c^2 , is caused to actuate the pinion c^5 , on the shaft d , and thereby to rotate the knife or blade D' , so that by a shear cut the tip end of a cigar H, is severed. Upon the withdrawal of the tip end of the cigar from one of the series of openings a^5 , in the face plate A' , the plunger plate g^2 , will be returned by the plunger G, to its initial position against the series of openings a^5 , in the face-plate A' , and the knife blade D' , will assume an inopera-

tive position, for example, such as shown in Figs. 1 and 5, and with the pins e' and e^2 , of the swinging frame E, in engagement with the notches or projections d^4 and d^6 , as shown in Fig. 3, the knife and plunger being respectively in such position as that when the tip end of a cigar is again brought against the plate g^2 , by a slight pressure exerted, the pins e' and e^2 , will be released from the recesses, notches or projections d^4 and d^6 , of the cam-wheel D, to cause said knife to be again rotated through the intervention of the spring controlled mechanism hereinbefore described to sever a tip of a cigar and to cause after the severance of the same of the return of the plunger plate g^2 , to initial position against the face plate A' , for another operation.

It may be here remarked that the operation of the mechanism for the performance of the functions of my invention are carried out automatically by pressure brought to bear against the plunger plate g^2 , in the manner hereinbefore fully explained.

With reference to Fig. 6, the construction is the same as that of Figs. 1 to 5 inclusive, with the exception of the arrangement of the knife or blade and the manipulations of the same. In this instance, the cutter D^3 , is pivotally connected with the face-plate A' , and is provided with an arm d^{10} , having at the rear end thereof an opening for one end of a coiled retracting spring d^{11} , the other end of which engages a staple d^{12} , secured into the face plate A' . The knife in this instance is vibrated in the path of the openings a^5 , in the face-plate A' , when the tip end of a cigar or the like has been inserted through one of the openings a^5 , by means of an eccentric I, rigidly mounted on the driven shaft d , which also carries the grooved and notched cam-wheel D. The shaft d , is rotated by means of gear and pinion mechanism under the control of the coiled

leaf spring C, as shown in Figs. 2, 4 and 5. When the tip end of a cigar is inserted through one of the series of openings a^5 , the plunger plate g^2 , as shown in Figs. 2, 4 and 5, will be forced inwardly and therewith the movable frame E, will cause the pins e' and e^2 , to be released from certain of the recesses, notches or projections of the cam-wheel D, to permit of a rotation of said wheel through the intervention of the gear and pinion mechanism hereinbefore explained under the force of the leaf spring C, and therewith the eccentric I, will actuate the pivotal blade D^3 , in the path of the tip of the cigar inserted through one of the series of openings a^5 to serve the severing of the same, and upon the release of the cigar under the tension of the retracting spring d^{11} , the blade D^3 , will be returned to the position it previously occupied, being that illustrated in Fig. 6.

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

A cigar-tip cutter, comprising a casing having a standard, a face-plate having a series of openings therein, a blade located in the path of said openings, a shaft, a notched and grooved wheel, a swinging frame provided with pins engaging said wheel, a plunger adapted to close said openings, means connecting said plunger with said swinging frame and spring actuated gear-mechanism for permitting of the movement of said blade when pressure is brought to bear against said plunger, substantially as and for the purposes set forth.

In testimony whereof I have hereunto set my signature in the presence of two subscribing witnesses.

FRANK P. SPARMAKER.

Witnesses:

RICHARD C. MAXWELL,
THOMAS M. SMITH.