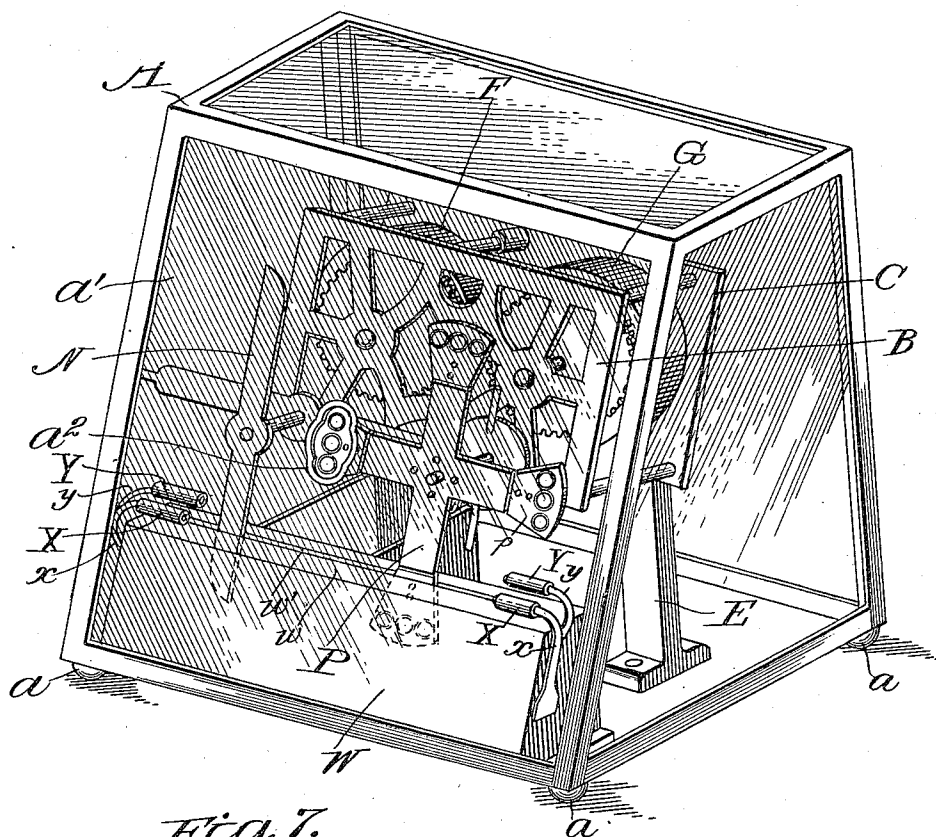


G. A. CASPERS & A. LIEBERMAN.  
HYGIENIC CIGAR CUTTER.  
APPLICATION FILED DEC. 9, 1913.

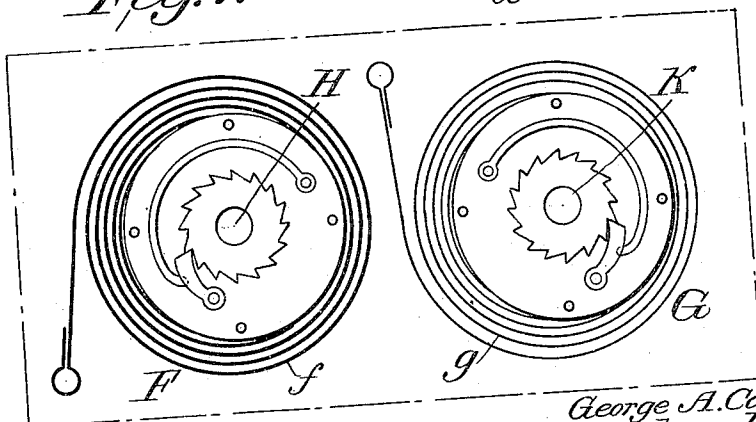
Patented Jan. 12, 1915.  
4 SHEETS—SHEET 1.

1,124,590.

*Fig. 1.*



*Fig. 7.*



Witnesses

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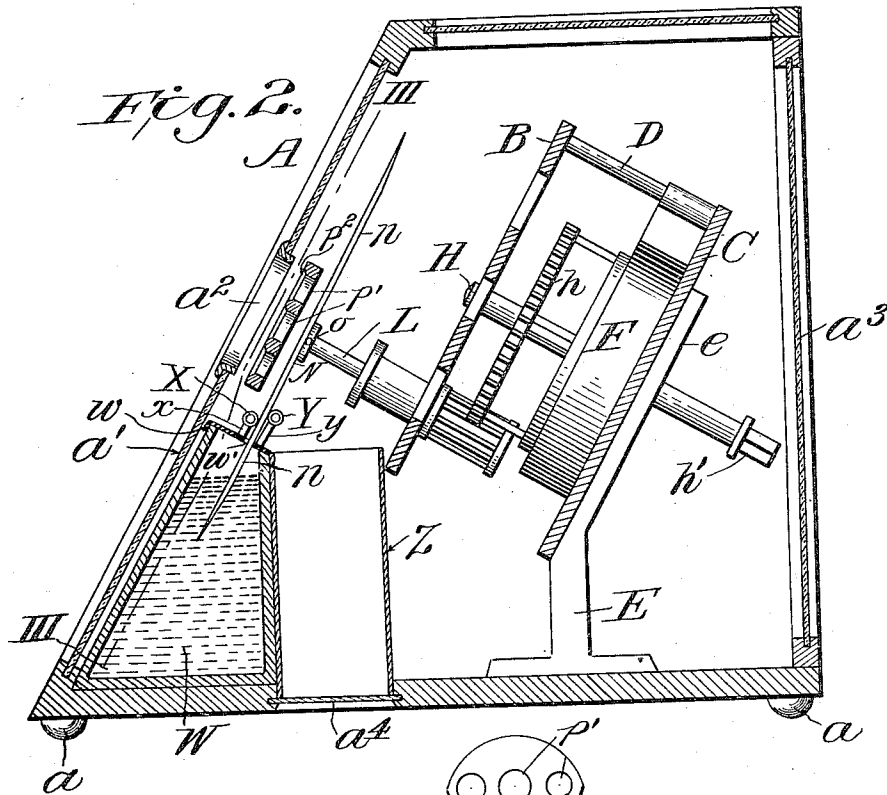
HYGIENIC CIGAR CUTTER.

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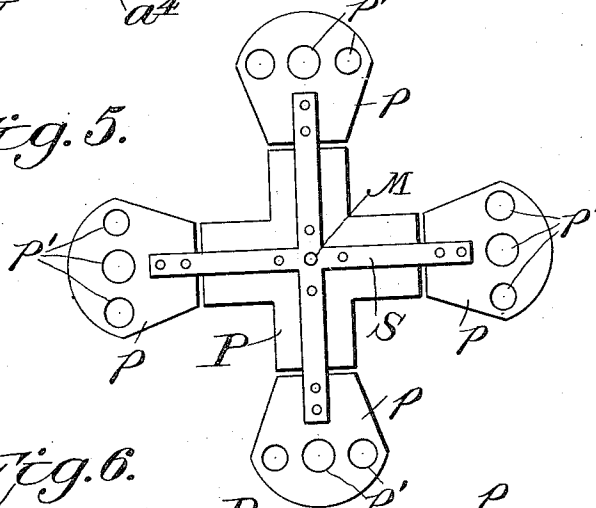
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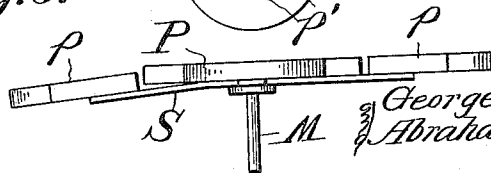
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*Fig. 5.*



*Fig. 6.*



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4 SHEETS—SHEET 3.

1,124,590.

Fig. 3.

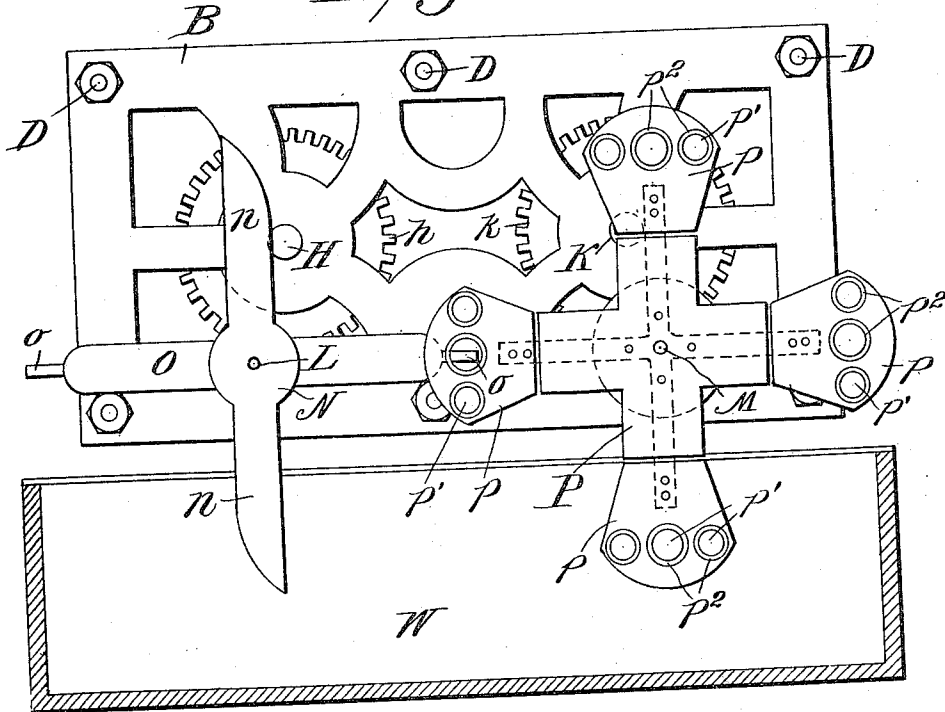
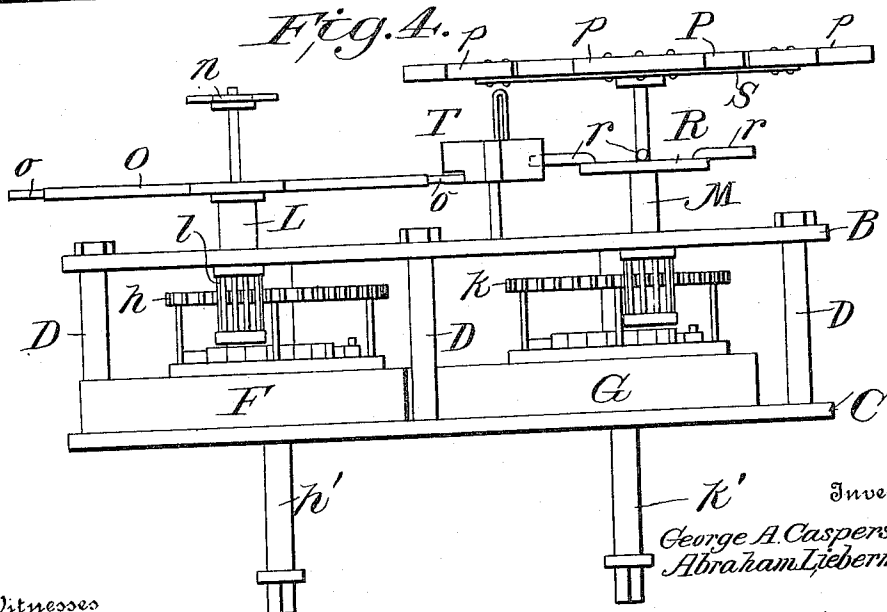


Fig. 4.



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1,124,590.

Fig. 8.

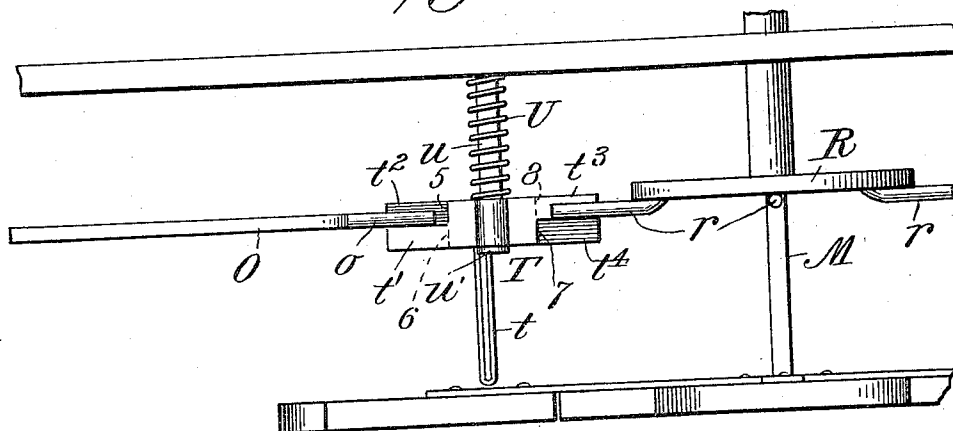


Fig. 9.

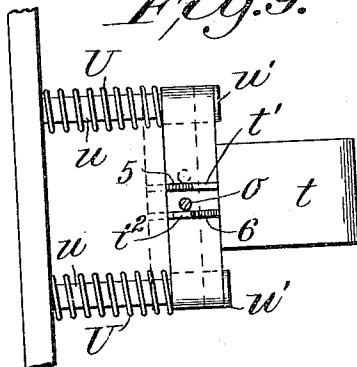


Fig. 10.

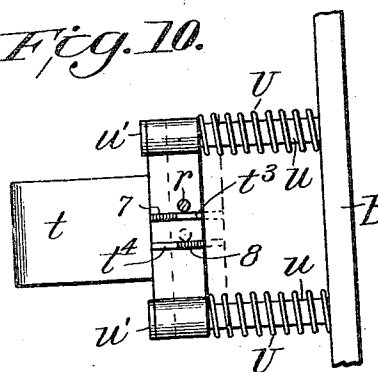


Fig. 11.

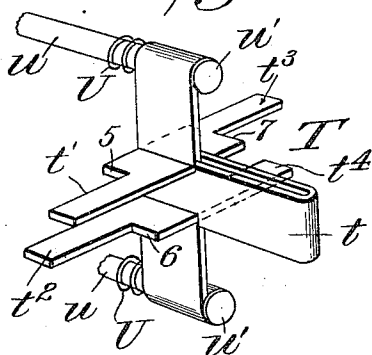
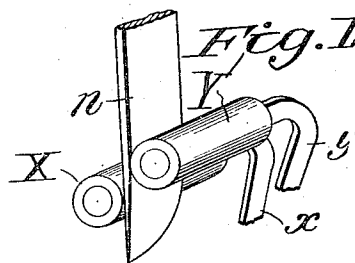


Fig. 12.



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# UNITED STATES PATENT OFFICE.

GEORGE A. CASPERS AND ABRAHAM LIEBERMAN, OF NEW YORK, N. Y.

## HYGIENIC CIGAR-CUTTER.

1,124,590.

Specification of Letters Patent.

Patented Jan. 12, 1915.

Application filed December 9, 1913. Serial No. 805,609.

To all whom it may concern:

Be it known that we, GEORGE A. CASPERS and ABRAHAM LIEBERMAN, citizens of the United States, residing at New York, in the county and State of New York, have invented a new and useful Hygienic Cigar-Cutter, of which the following is a full, clear, and exact specification.

This invention relates to cigar cutters, that is, devices for cutting off the tips or finished ends of cigars.

It has been discovered that mouth diseases are conveyed by cigar cutters owing to the fact that men will often put a cigar in the mouth while paying for same and then insert the wet, saliva saturated or coated end into the cigar cutter. In this way, the cigar cutter becomes infected, so that subsequent users, no matter whether the ends of their cigars are wet or dry when inserted into the cutter, will contract the disease from germs deposited on their cigars from the cutter during the operation of removing the ends of said cigars.

The principal object of our present invention is to provide a thoroughly hygienic cigar cutter, thereby avoiding or overcoming the objection to prior forms of such cutters as just explained.

Further objects will become apparent as the description proceeds.

We overcome the disease transmitting propensity by so constructing the cutter and arranging it with relation to an antiseptic bath that said cutter will be caused to pass through said bath after each cutting operation and before it can be used again.

The invention will first be hereinafter described in connection with the accompanying drawings, which constitute a part of this specification, and then more specifically defined in the claims at the end of the description.

In the accompanying drawings, wherein similar reference characters are used to designate corresponding parts throughout the several views:—Figure 1 is a perspective view of a cigar cutter constructed in accordance with our invention. Fig. 2 is a transverse central vertical sectional view of the device. Fig. 3 is a sectional view taken on the line III—III of Fig. 2. Fig. 4 is an under plan view of the operating mechanism of the cutter. Fig. 5 is a rear elevation of the multiple armed holder. Fig. 6 is an edge view of the same, showing one

of the resilient leaves pressed out of the plane of the holder as is done for releasing the mechanism. Fig. 7 is a detailed view of the springs for turning the holder and cutting blade. Fig. 8 is an enlarged detailed plan view of the releasing device and associated parts. Fig. 9 is a detailed right hand side view of said releasing device, the pressed in position of said device being shown in dotted lines. Fig. 10 is a detailed left hand side view of the releasing device with the pressed in position thereof shown in dotted lines. Fig. 11 is a detailed perspective view of said releasing device, and Fig. 12 is a detailed perspective view of one of the pairs of wiping rolls which are arranged above the antiseptic bath.

The mechanism of the device is preferably mounted in a suitable casing A which may be made of glass with a metal frame and supported on feet *a*. The front *a'* of the casing may be inclined, as illustrated, in order to facilitate the introduction of the ends of cigars into the generally oval shaped opening or slot *a<sup>2</sup>* therein. The back of the casing may be in the form of a door *a<sup>3</sup>* which may be opened to obtain access to the winding shafts of the operating mechanism presently described. In the bottom of the casing, which may be made of wood or metal, another door or sliding panel *a<sup>4</sup>* is provided for the removal of the cut cigar ends as will be hereinafter explained.

The operating mechanism of the device is mounted on two parallel plates B and C suitably connected together by posts D and supported upon brackets E reaching up from the bottom of the casing, said brackets having inclined portions *e*, Fig. 2, to which the rear plate C is attached, whereby said plates are disposed on an incline parallel with the front *a'* of the casing. Mounted on the front face of the rear plate C are two spring motors F and G, Figs. 1, 2, 4 and 7, adapted to turn in opposite directions when wound up. The left hand motor viewed from the front is provided with a spring *f* which is twice as strong as the spring *g* of the right hand motor, because for the reason presently explained said left hand motor F must turn twice as many revolutions after each winding as the right hand motor G.

The motors F and G are directly attached or connected to shafts H and K, respectively, carrying gears *h* and *k* located be-

tween the two plates B and C, and having their rear ends  $h'$  and  $k'$  formed for engagement by a winding key (not shown). In the front plate B, which is preferably made in skeleton form, as shown, there are journaled two shafts L and M arranged parallel to the shafts H and K and carrying gears  $l$  and  $m$  meshing respectively with the gears  $h$  and  $k$  on the motor shafts. On the front end of the left hand shaft L is fixed a knife N having two oppositely extending blades  $n$ ,  $n$ , and spaced some distance back of the knife on the said shaft is rigidly mounted a two armed stop O having oppositely extending stop pins  $o$ ,  $o$ , said pins being arranged at right angles to the blades of the knife.

On the front end of the right hand shaft M is fixed a four armed holder P which is arranged in a plane slightly in front of the knife and the arms of which holder are disposed equidistant or 90° apart. Also mounted on the shaft M, some distance behind the holder, is a stop R having four pins  $r$  arranged directly behind the arms of the holder. It will be noted that the stop pins  $r$  are in a plane slightly in advance of the stop pins  $o$ , and that the stop R is of much shorter diameter than the stop O, so that while adjacent pins  $o$  and  $r$  do not overlap, both of them are arranged behind the arm of the holder which is in operative position, see particularly Figs. 3, 4 and 9.

Each arm of the holder P has a resilient leaf  $p$  at its end, said leaves being rendered resilient by the spring strips S which connect them to the holder on the rear surface thereof. The resilient leaves  $p$  are, therefore, adapted to yield rearwardly when pressure is exerted thereon from the front, and to spring back into normal position in the plane of the holder when said pressure is removed. Each resilient leaf is provided with a plurality of, preferably three, openings  $p'$  for receiving the ends of cigars of different sizes. For this purpose, these openings are of different sizes and preferably have conical portions  $p^2$  at the front of the leaves, as best shown in Fig. 2. When each arm of the holder is in operative position, its leaf  $p$  is disposed with its three openings  $p'$  in alinement with the oval slot  $a^2$  in the front of the casing, so that the end of a cigar may be passed through said slot into any one of said openings according to the size of the cigar.

It will be noted that the knife turns clockwise and the holder anti-clockwise. The four armed device carrying the resilient leaves is termed a "holder" because its function is to hold the end of the cigar while the tip thereof is being cut off as will presently appear. The shafts L and M are normally held against turning under the influence of the spring motors by a stop and re-

lease device, or what may be called by the shorter term "releasing device" T best illustrated in Figs. 4, 8, 9, 10 and 11.

The releasing device is mounted to slide in a plane at right angles to the plates B and C against springs U coiled around guide posts  $u$  and normally holding said device at the limit of its forward movement against the heads  $u'$  of the guide posts. Said releasing device has a portion  $t$  extending forwardly to a point near the rear surface of the resilient leaf of the holder which is in operative position. Said releasing device is further provided with two pairs of oppositely extending wings  $t'$  and  $t^2$  on the left hand side, and  $t^3$  and  $t^4$  on the right hand side. The wings  $t'$  and  $t^2$  are arranged directly above one another and are provided with cut away portions 5 and 6 respectively at opposite edges, that is to say, the rear edge of the wing  $t'$  is cut away at 5, while the front edge of the wing  $t^2$  is cut away at 6, so that the uncut portion of each of these wings is in direct line with the cut away portion of the other in the plane of movement of the stop pins  $o$ . The wings  $t^3$  and  $t^4$  on the right hand side of the releasing device have cut away portions 7 and 8 arranged with respect to one another in a similar manner as the cut away portions of the wings  $t'$  and  $t^2$  just described, except that the cut away portion 7 of the upper wing  $t^3$  is on the front edge thereof and the cut away portion 8 of the lower wing  $t^4$  is on the rear edge thereof, just opposite from the arrangement of the cut away portions of the wings  $t'$  and  $t^2$ .

As clearly illustrated in Figs. 8 to 11 inclusive, when the leaf  $p$  is pressed in, as by pushing slightly on the cigar after its end has been placed in the proper opening in said leaf, it will engage the projection  $t$  of the releasing device and through it press said releasing device rearward against the action of the springs U to the position indicated in dotted lines in Figs. 9 and 10. It will be noted that before this inward or rearward movement of the releasing device one of the stop pins  $o$  is in engagement with the lower left hand wing  $t^2$  and one of the stop pins  $r$  is in engagement with the upper right hand wing  $t^3$ . Now, when this movement takes place, the stop pin  $o$  will be released from said wing  $t^2$  by the removal of said wing from below said pin, whereupon the spring motor F will turn the knife N a half revolution so that its upper blade will sweep past the holder and cut off the end of the cigar which is projecting through the opening in the resilient leaf and be arrested in the lowered position by the other stop pin  $o$  coming in contact with the upper wing  $t'$ , as shown in dotted lines in Fig. 9. During this inward or rearward movement of the releasing device, the stop  $r$  which was in

engagement with the upper right hand wing  $t^3$  will simply drop down onto the lower right hand wing  $t^4$ , as shown in dotted lines in Fig. 10.

5 When the cigar is removed from the cutter after the cutting operation, the resilient leaf of the holder and the releasing device will automatically return to their normal positions under the influence of the springs 10 S and U. This return or forward movement of the releasing device will remove the lower right hand wing  $t^4$  from below the stop pin  $r$ , permitting the spring motor G to turn the holder a quarter revolution, that is, 15 until the next pin  $r$  comes in contact with the upper right hand wing  $t^3$ . At the same time, the upper left hand wing  $t'$  is removed from below the stop pin  $o$ , permitting said pin to drop onto the lower left hand wing 20  $t^2$  where it is ready to release the cutting blade upon the next operation of the device by the introduction of another cigar. It will thus be seen that one of the resilient leaves of the holder will always be in position to receive the end of a cigar while one of the blades cuts off its end, and yet the same leaf or blade is not used twice in succession. The reason for using a spring of twice the strength or force in the motor F 25 as that in the motor G will now be apparent, for the shaft of said motor F turns a half revolution to each quarter revolution of the shaft of the motor G.

In order to make the device hygienic, the 35 blades of the cutting knife and the resilient leaves of the holder are designed to pass through an antiseptic bath after each cutting operation and before they can be used again. This antiseptic bath is arranged in the lower front portion of the casing, a tank 40 or vessel W being provided for that purpose, as illustrated in Figs. 1, 2 and 3. The blades and resilient leaves of the holder are immersed in the bath immediately after each 45 cutting operation and remain therein until the next operation, so that there is ample time for them to be hygienically cleansed between successive operations.

50 Arranged above the bath and supported in any suitable manner, as by the bracket arms  $x$  and  $y$ , are a pair of wiping rolls X and Y at each end of the tank W and in position to engage the opposite faces of the blades and resilient leaves, respectively, as 55 they are raised from the bath. The rolls of each pair are placed out of line, rather than directly opposite one another in order to accomplish the wiping or drying of the blades and resilient leaves more completely and without producing any clamping action 60 upon the same which would tend to impede their proper movement. The tank W is preferably covered with a rubber or other suitable covering  $w$  which is provided with slots  $w'$  for the passage of the blades and

resilient leaves of the holder. This covering will prevent the liquid contents of the tank from splashing out when the device is in operation. The bracket arms  $x$  and  $y$  may be resilient in order to hold the rolls 70 firmly against the opposite faces of the blades and resilient leaves of the holder.

In the space between the two plates B and C and below the resilient leaves of the holder when in operative position, there is arranged 75 a receptacle or chute where the cut off ends of the cigars may fall and collect. The cigar ends thus collected in the receptacle or chute Z may be removed by opening the door or sliding panel  $a^4$  in the bottom of the 80 casing.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent of the United States is:—

1. In a cigar cutter, the combination with 85 a cutting blade, of an antiseptic bath through which said blade is designed to pass between successive cutting operations, and a pair of wipers adapted to engage the opposite faces of the blade after it comes from the bath, 90 said wipers being arranged out of alinement with one another, one being farther removed from the bath than the other, for the purpose specified.

2. In a cigar cutter, the combination with 95 a holder and a cutting blade, of an antiseptic bath through which both the holder and blade are designed to pass between successive cutting operations.

3. In a cigar cutter, the combination with 100 a rotary holder and a rotary cutting blade, of an antiseptic bath through which the holder and blade are both designed to pass between successive cutting operations.

4. In a cigar cutter, the combination with 105 a holder and a cutting blade, of means to move said holder and blade, an antiseptic bath through which both the holder and blade are designed to pass between successive cutting operations, and means for arresting 110 the holder during the cutting movement of the blade.

5. In a cigar cutter, the combination with a holder and a cutting blade, of means to move said holder and blade, an antiseptic 115 bath through which both the holder and blade are designed to pass between successive cutting operations, and means for arresting the holder during the cutting movement of the blade and for subsequently arresting the 120 blade during movement of the holder.

6. In a cigar cutter, the combination with a movable holder and a movable cutting blade, of means for imparting a predetermined movement to each of them when they 125 are released, and means to alternately release one of them while arresting the other.

7. In a cigar cutter, the combination with a movable holder and a movable cutting blade, of means for imparting a predeter- 130

mined movement to each of them when they are released, and means to alternately release one of them while arresting the other, the blade having a greater movement than the holder, whereby said blade will pass the holder at each cutting operation.

8. In a cigar cutter, the combination with a movable holder and a movable cutting blade, of means for imparting a predetermined movement to each of them when they are released, and means to alternately release one of them while arresting the other, the arrested positions of said holder and blade being out of register with each other whereby the blade will pass the holder while the latter is arrested.

9. In a cigar cutter, the combination with a rotary holder and a rotary cutting blade, of means to turn them in opposite directions when released, and means to alternately release one of them while arresting the other.

10. In a cigar cutter, the combination with a rotary shaft, of a plurality of radially extending holders mounted on said shaft, means for turning said shaft when released, means to release the shaft and arrest the same as each successive holder comes into position for a cutting operation, and a cutting blade movable past said holders when in operative position.

11. In a cigar cutter, the combination with a rotary shaft, of a plurality of radially extending holders mounted on said shaft, means for turning said shaft when released, means to release the shaft and arrest the same as each successive holder comes into position for a cutting operation, a cutting blade movable past said holders when in operative position, and an antiseptic bath through which the holders and blade are designed to be passed after each cutting operation and before each is used again.

12. In a cigar cutter, the combination with a rotary shaft, of a plurality of radially extending holders mounted on said shaft, a second rotary shaft, a plurality of radially extending cutting blades mounted on said second shaft, means for turning said shafts when released, and means to alternately release one of the shafts while the other is arrested, whereby the blades may be passed by the holders when the latter are in operative position.

13. In a cigar cutter, the combination with a rotatable holder having an opening therein to receive the end of a cigar to be cut, of a cutting blade rotatable in a plane parallel to that of the holder, and means for alternately moving said holder and blade, whereby the blade is permitted to move past the holder while the latter is held against movement.

14. In a cigar cutter, the combination with a casing having a plurality of openings of different sizes to accommodate different

sizes of cigars, of a movable holder within the casing and having a plurality of openings of different sizes corresponding to the openings in the casing and adapted to be arranged in alinement therewith, a blade adapted to move across all the openings in the holder, and means for moving said blade while the holder is held against movement.

15. In a cigar cutter, the combination with a rotary holder having a resilient leaf adapted to yield in a direction parallel to the axis of rotation of the holder and provided with an opening through which the end of a cigar may be inserted, of a movable cutting blade, means for moving said blade when released, means actuated by pressure on said resilient leaf of the holder for releasing said blade, means for rotating the holder when released, and means for releasing said holder when the cigar is removed from the opening therein.

16. In a cigar cutter, the combination with a rotary shaft, of a plurality of radially extending holders mounted on said shaft, resilient leaves on the ends of said holders, each of said leaves having an opening through which the end of a cigar may be inserted, a movable cutting blade adapted to travel in a path adjacent to said leaves when in operative position, means for turning said shaft and moving the blade when they are released, and means actuated by pressure on the resilient leaf which is in operative position for releasing the blade while the holder remains in operative position, said last named means serving to release the holder when the pressure is removed from said resilient leaf.

17. In a cigar cutter, the combination with a rotary shaft, of a plurality of radially extending holders mounted on said shaft, resilient leaves on the ends of said holders, each of said leaves having an opening through which the end of a cigar may be inserted, a movable cutting blade adapted to travel in a path adjacent to said leaves when in operative position, means for turning said shaft and moving the blade when they are released, means actuated by pressure on the resilient leaf which is in operative position for releasing the blade while the holder remains in operative position, said last named means serving to release the holder when the pressure is removed from said resilient leaf, and an antiseptic bath through which said leaves are designed to pass after each cutting operation and before they can be used again.

18. In a cigar cutter, the combination with a movable holder having a resilient leaf provided with an opening through which the end of a cigar may be inserted with its tip projecting beyond the rear surface of said leaf, of a movable cutter blade adapted to travel in a path slightly in rear

of said leaf, means for moving said blade when released, and means actuated by pressure on the resilient leaf exerted by a longitudinal thrust of the cigar for releasing the blade, said thrust at the same time bringing the rearwardly projecting end of the cigar into the path of the blade.

19. In a cigar cutter, the combination with two shafts driven in opposite directions, of a knife and a stop on one of said shafts, a holder and a stop on the other shaft, a releasing device having pairs of staggered wings extending in opposite directions into the paths of said stops, the arrangement of the staggered wings on one side of the releasing device being the reverse of the arrangement of the staggered wings on the other side of said releasing device, and one of the stops being in engagement with the upper wing of one pair and the other stop being in engagement with the lower wing of the other pair in the normal position of the device, said releasing device being capable of movement for releasing one of the stops and transferring the other stop from the wing normally engaged thereby to the other wing of the same pair.

20. In a cigar cutter, the combination with two shafts driven in opposite directions, of a knife and a stop on one shaft, a holder and a stop on the other shaft, a reciprocating spring pressed releasing device having two pairs of oppositely extending wings, the wings of each pair being staggered, one of the stops being in engagement with the upper wing of one pair and the other stop being in engagement with the lower wing of the other pair in the normal position of the device, means actuated by the introduction of a cigar into the device for moving said releasing device to release one of the stops and transfer the other stop from the wing normally engaged thereby to the other wing of the same pair, the return movement of said releasing device to normal position after the cigar is removed operating to release the stop which was transferred from one wing to the other on the previous movement and to transfer the first named stop from one wing to the other of its pair of wings.

21. In a cigar cutter, the combination with two shafts driven in opposite directions, of a knife and a stop on one shaft, a holder and a stop on the other shaft, a reciprocating spring pressed releasing device having two pairs of oppositely extending wings, the wings of each pair being staggered, one of the stops being in engagement with the upper wing of one pair and

the other stop being in engagement with the lower wing of the other pair in the normal position of the device, a resilient leaf on the holder arranged in operative relation with said releasing device and having an opening to receive the end of a cigar, whereby pressure on the cigar when in said opening will move said releasing device to release one of the stops and transfer the other stop from the wing normally engaged thereby to the other wing of the same pair.

22. In a cigar cutter, the combination with two shafts driven in opposite directions, of a knife and a stop on one shaft, a holder and a stop on the other shaft, a reciprocating spring pressed releasing device having two pairs of oppositely extending wings, the wings of each pair being staggered, one of the stops being in engagement with the upper wing of one pair and the other stop being in engagement with the lower wing of the other pair in the normal position of the device, a resilient leaf on the holder arranged in operative relation with said releasing device and having an opening to receive the end of a cigar, whereby pressure on the cigar when in said opening will move said releasing device to release one of the stops and transfer the other stop from the wing normally engaged thereby to the other wing of the same pair, the return movement of said releasing device to normal position after the cigar is removed from the holder operating to release the stop which was transferred from one wing to the other on the previous movement and to transfer the first named stop from one wing to the other of its pair of wings.

23. In a cigar cutter, the combination with a movable blade, of an antiseptic bath through which said blade is designed to pass between successive operations of the cutter, a pair of rolls in the path of the blade as it comes from the bath, said rolls being adapted to engage the opposite faces of the blade for drying the same, and resilient bracket arms supporting said rolls and on which the latter are adapted to turn, whereby they exert a yielding pressure on said blade.

In testimony whereof we have signed our names to this specification in the presence of two attesting witnesses.

GEORGE A. CASPERS.  
ABRAHAM LIEBERMAN.

Witnesses:

SAMUEL JACKSON,  
PHILIP LENN.