(No Model.) 3 Sheets—Sheet 1.

H. F. NEHR.

COMBINED ADVERTISING DEVICE AND CIGAR CUTTER.

No. 563,875. Patented July 14, 1896.

Fig. 1.

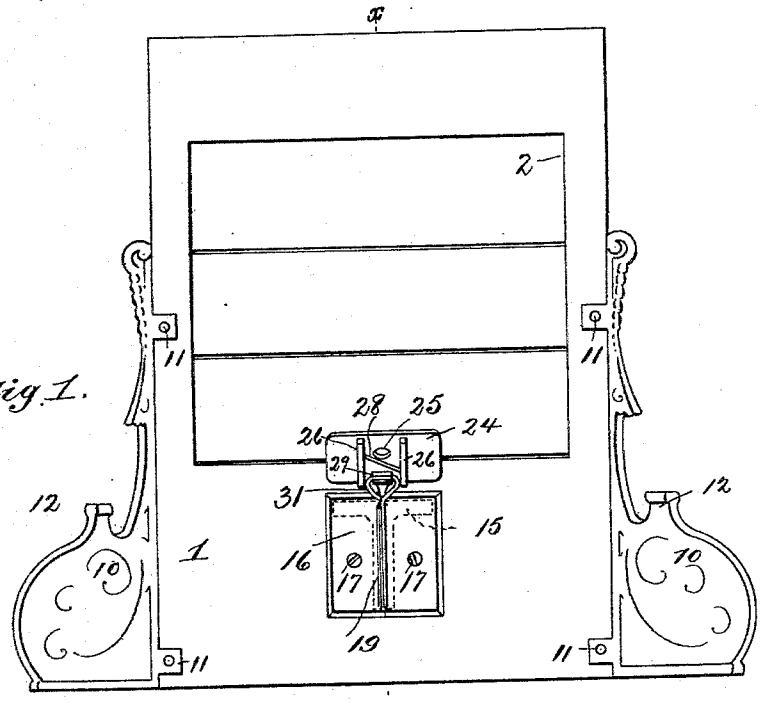
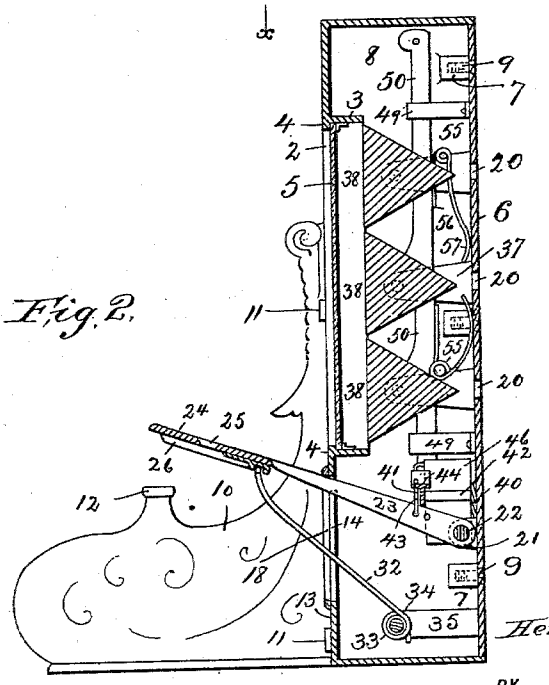


Fig. 2.



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(No Model.) 3 Sheets—Sheet 2.

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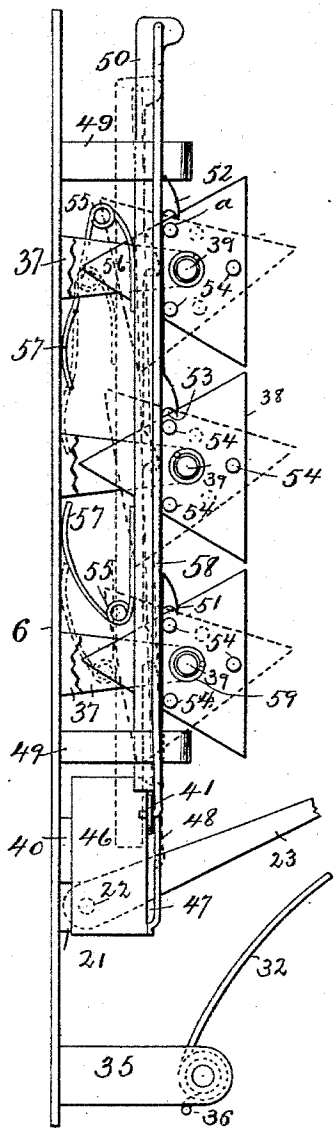

Fig. 3.

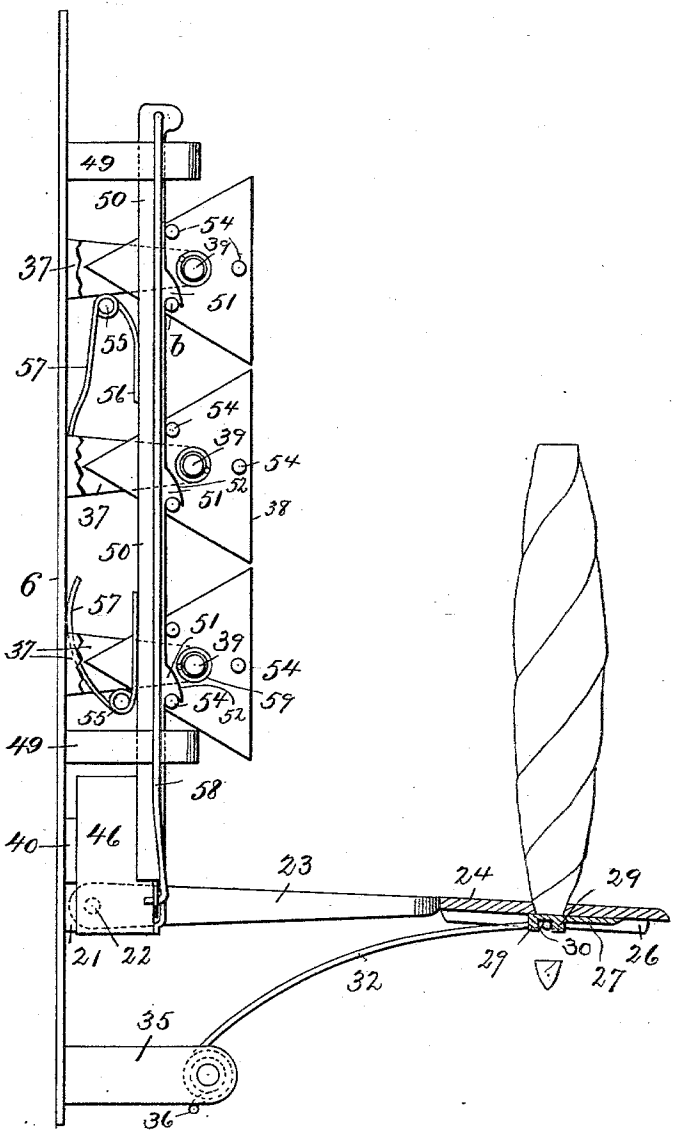

Fig. 4.

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(No Model.) 3 Sheets—Sheet 3.

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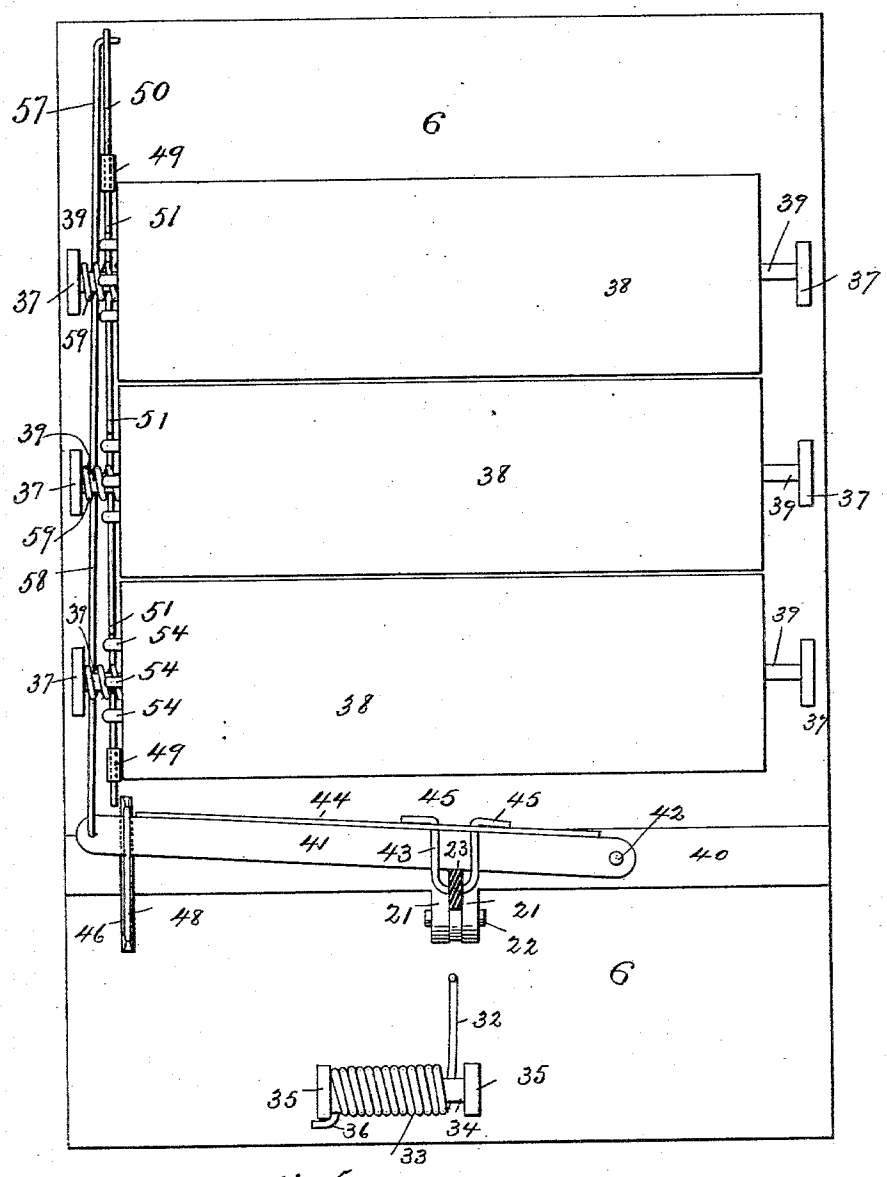

Fig. 5.

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UNITED STATES PATENT OFFICE.

HERMAN F. NEHR, OF SHELTON, CONNECTICUT, ASSIGNOR TO LOUIS HAAS, OF NEW YORK, N. Y.

COMBINED ADVERTISING DEVICE AND CIGAR-CUTTER.

SPECIFICATION forming part of Letters Patent No. 563,875, dated July 14, 1896.

Application filed February 17, 1896. Serial No. 579,621. (No model.)

To all whom it may concern:

Be it known that I, HERMAN F. NEHR, a citizen of the United States, residing at Shelton, county of Fairfield, and State of Connecticut, have invented a certain new and useful Combined Advertising Device and Cigar-Cutter, of which the following is a specification.

My invention has for its object to provide a device for use in cigar-stores wherein means are provided for severing the ends of cigars and a simultaneous automatic display of advertising matter by a device which is operated through the instrumentality and coincidently with the device which severs the end of the cigar.

My invention consists, primarily, as to the cigar-cutter, of a primary or operating lever having an aperture through which the tip of a cigar may be inserted, combined with a secondary lever, in this case specifically a spring, the secondary lever or spring operating or cutting-blade, which moves in a guideway formed beneath the plate of the primary lever, so as to sever the tip of the cigar projecting through the aperture in the plate of said lever, the downward movement of the lever due to the pressure brought thereon, while cutting the cigar-tip, acting against the spring or secondary lever, which spring raises the primary lever to its original position and retracts the cutting-blade after such pressure has been removed.

My invention also consists in the combination, with such primary lever and a spring for bringing the lever back to its former position, of a series of revoluble blocks or rollers, which may be provided with advertising inscriptions in any suitable way, and connections between the primary lever and the revoluble blocks whereby said blocks are automatically revolved to display the advertising thereon, such device embodying a construction wherein either of the revoluble blocks can be independently rotated, and a detent is provided to restrain the inadvertent rotation of either of the blocks.

My invention further consists in the construction and combination of parts, including the construction of the case inclosing the advertising device and supporting the cigar-cutter, all as hereinafter described, and further pointed out in the claims.

In the drawings forming part of this specification, Figure 1 is a front elevation of the combined cigar-cutter and advertising device; Fig. 2, a sectional elevation approximately on the line x x, Fig. 1; Fig. 3, a front elevation, enlarged, of a portion of the primary lever and its coacting spring and the revoluble blocks, the dotted lines representing the innermost position assumed by the floating pawl-bar during the rotation of the blocks and the downward movement of the primary lever, said view being on an enlarged scale; Fig. 4, a like view illustrating the lowermost position of the floating pawl-bar and the primary lever, which occurs at the time when the cutting-blade has moved its complete throw, and which also illustrates the furthermost projection of the floating pawl-bar by its coacting springs; and Fig. 5, a front elevation, on a like scale, of Fig. 3.

Similar numerals of reference indicate corresponding parts throughout the several views.

I shall first describe the case, which I have specially designed for the support of the cigar-cutter and the inclosing of the advertising device, which comprises, substantially, a rectangular box 1, having a front opening 2, through which the advertising is displayed, and from the edges of the opening 2 extend inwardly and continuous with said opening 2 a flange 3, formed a little above the edge of the opening, so as to leave a shoulder 4, (see Fig. 2,) against which a plate of glass 5 is held in any desired way.

The rear 6 of the case is a flat metal plate, which fits snugly within the top, bottom, and sides of the case, (shown in Fig. 2,) and which forms a support for the operative mechanism hereinafter described, lugs 7 being formed on the side walls 8 of the case, which are tapped and threaded to enable the back plate 6 to be secured in place in the case by screws 9, as shown in dotted lines, Fig. 2.

From the outer corners of the case extend L-shaped brackets 10, which are provided with integral lugs 11, by means of which the brackets are secured to the case and which gives it a firm support to resist the tendency of the case to move forward during the operation of cutting a cigar, the bottom of the brackets being flush with the bottom of the

case, and on the lower arms of the case are formed lugs 12, designed to support a lamp-bracket or the like.

The front 13, Fig. 2, of the case is provided with a central and perpendicularly-disposed slot 14, located below the aperture 2, the upper portion of the slot merging into another slot 15, (shown in dotted lines,) extending longitudinally of the casing, and which forms, with the slot 14, a T-shaped opening in the front of the casing.

Over both slots lie two separable plates 16, fastened to the front of the case, as shown in Fig. 1, by the screws 17 or otherwise, each plate having a recess 18 formed in its side adjacent the slot 14, each recess forming, when both plates are in position, as shown in Fig. 1, an exterior slot or opening 19.

I have given the foregoing description of the casing for the reason that it bears, as will be hereinafter seen, a certain coöperative relationship to the movable parts contained therein other than a mere container for said mechanism, the rear of the case being provided with apertures 20 for a purpose hereinafter described.

I shall now proceed to describe the mechanism for severing the tip end of the cigar, irrespective of the combination of such mechanism with the advertising mechanism.

On the inner face of the back plate 6 and in line with the slots 14 19 in the front 13 of the case are formed two outwardly-extending lugs or ears 21, between which extends a pin 22, which forms the fulcrum for an outwardly-extending lever 23, which projects through the slots 14 19, and which lever has on its outer end, and preferably formed integrally with, a plate 24, in which is formed an opening 25, and at each side of the opening and extending longitudinally of the lever are ribs 26, which together form a guideway for a knife-blade 27, having an inclined cutting edge 28, as shown most clearly in Fig. 1, the blade 27 having a bifurcated lug 29 in the channel 30, (see Fig. 4,) in which lies the looped end 31 of a flexible arm 32, preferably made of spring-wire, the other end of which is formed into a coiled spring 33, secured upon a rod 34, which rod in turn extends between two outwardly-extending lugs 35, formed on the inner face of the back 6, (see Fig. 5,) the extreme end of the spring being bent, as at 36, to enable it to engage one of the lugs 35 to restrain the coil of the spring from turning in the usual way.

The lever 23 is what I have previously designated as the "primary lever," and the arm 32 as the "secondary lever." The arm or extension 32 of the spring 33 is so termed because it forms a connection between the cutting-blade and a fixed pivot, such as the bar 34, for it is obvious that if a spring were located elsewhere and directly secured to the lever 23 to lift it a connection could be made by a rigid arm, fulcrumed on the bar 34, to move the blade 27 forwardly in its guideway coincident with the downward movement of the lever 23; but I prefer the present construction, for it not only provides means for moving the cutting-blade coincident with the downward movement of the lever 23, but performs as well the dual function of raising the lever 23 and retracting the cutting-blade, as well as offering a resilient resistance of the downward movement of the lever 23 during the cutting of the cigar, to do which it is only necessary to insert the tip of a cigar in the aperture 25, pressing with the fingers on the front plate 24, which vibrates the free end of said lever downwardly against the stress of the spring 33 and its arm 32, which, being flexible, acts as a spring to keep the blade 27 in contact with the under surface of the plate 24, but which is rigid enough to move the cutting-blade across the aperture 25 forwardly coincident with the downward movement of the lever 23, the elasticity of the arm enabling the blade to move downwardly with the blade 24 and to rise upwardly with it, the spring action keeping the blade in contact with the under side of the blade 24.

The groove 30 in the lug 29 on the under side of the blade 27 forms means whereby the loop 31 of the arm 32 can be readily disengaged and the blade taken out for repairs, &c., the loop bearing against either of the lugs 29 during its forward or rearward movement.

I will now describe the advertising device, which includes the revoluble blocks and the means for operating them.

Upon brackets 37, extending inwardly from the back 6, are rotatively supported three triangular blocks 38, preferably formed of wood and having pins 39 extending centrally therefrom, which enter the brackets 37, which latter form bearing for said pins. Upon the faces of these blocks is printed or otherwise produced advertising matter of any particular nature desired, the object in this case being to form as many faces to each block and to give the block such a shape or configuration in cross-section as to enable the greatest diameter of each block to pass that of the one adjacent without contact, and at the same time such configuration must allow of one face of each of the blocks to be brought into vertical alinement one with the other without undue separation between them. Such results I have been enabled to obtain by forming the blocks triangular in cross-section, as shown. This allows of their simultaneous rotation, their apices to pass each other without contact, enabling each one of the surfaces of each of the blocks to be alternately brought into perpendicular alinement, at the same time providing a plurality of faces to each block upon which suitable advertising or other matter can be produced in any desired way, either having a complete idea on each face of each block, or a portion of an idea produced on each block, the entire scheme of the advertisement being completed when each individual face of each block is brought into perpendicular aline-

ment, as shown in Figs. 3 and 4 particularly. I do not limit myself in this regard to the revoluble blocks having a triangular cross-section, as it is apparent that the before-described arrangement can be accomplished by giving the blocks other configurations in cross-section. Neither do I limit myself to a configuration of the blocks whereby their greatest diameter can pass each other without contact, for it is apparent that the axes of the blocks can be any distance apart, as desired, and the intervening space filled up as desired. Neither do I limit myself to any number of revoluble blocks; but I prefer the construction herein shown and described, as it provides a reasonable number of surfaces or faces, which I have found to work well in actual practice.

Upon a rib 40, running across the inside of the back 6, is fulcrumed a lever 41 by a pin 42, the lever 41 extending transversely of the lever 23, which latter lever is connected to the lever 41 adjacent to the fulcrum 42 by means of a U-shaped strap or yoke 43, the ends of the yoke passing through holes in a rib 44 on the upper portion of the lever 41 and bent down to secure the yoke in place, as shown at 45.

Adjacent the free end of the lever 41 and to the rib 40 is secured an outwardly-extending block 46, and on the front of the block is a slot 47, formed, in this case, by bending a piece of wire 48 and securing its ends to the front of the block, (shown more clearly in Fig. 3;) but it is apparent that the slot can be formed by cutting it in the body of the block.

Extending inwardly from the back 6 and secured thereto are two yoke-shaped guide-plates 49, the outer ends of which are closed, as shown in Fig. 5, through which passes a floating pawl-bar 50, provided on its front edge with saw-like teeth 51. There are three teeth in this instance corresponding to the number of revoluble blocks, the lower portion of the teeth being bill-shaped, as shown at 52, Fig. 3, the upper projecting portion of the teeth being rounded and extending downwardly, as shown at 53.

The bar 50 is what I have previously designated as the "floating pawl-bar," and it is so termed by reason of the fact that it carries the teeth 51, which act in a measure like pawls, and has no fixed fulcral point, but is movably supported, so as to have a combined movement embracing six distinct steps, as will be hereinafter described.

Extending outwardly from the ends of the blocks 38 adjacent the bar 50 and crossing the perpendicular plane thereof, as shown in Fig. 5, are pins 54. There are three of these pins on each block, their axes being located centrally of each of the bases of the blocks, which pins are adapted to be contacted with the bill portion of the teeth 51 on the downward stroke of the lever 23, and to be passed by the rounded surface 53 of the teeth on the upward return stroke of said lever, the bar 50 being moved by said lever in the manner hereinafter described and simultaneously with it.

The object of locating the pins 54 between the apices of the triangular blocks instead of at the apices is that I thereby reduce the distance between the centers of the pins 39 and the operative positions of the teeth 51, and at the end of the stroke of the lever 23 one face of each of the blocks has been brought into perpendicular alinement, whereas if the pins were at the apices of the blocks the longitudinal edge of the block would be presented instead of the face thereof, and, further, when the parts are in a position at rest two of each of the pins will be in perpendicular alinement and the bar 50 will be impinged against these two pins on each block to prevent the inadvertent rotation of the blocks, the bar 50 being constantly pressed forward by means of two springs 55, one arm, 56, of which is fixedly attached to the inner edge of the bar 50, the other arm, 57, being slightly rounded and adapted to play up and down on the inner face of the back 6. These springs have the tendency to constantly push the bar 50 forward against the perpendicularly-alined pins 54 to keep the front faces of the blocks 38 alined and to prevent inadvertent rotation, as shown in Fig. 4, at the same time allowing the bar 50 to be moved up and down, as hereinafter described.

As before stated, the free end of the lever 41 extends through the slot 47, formed in the back 46, and to the extreme end of said lever is pivotally secured the lower end of a connecting-rod 58, the upper end of which is secured pivotally to the upper end of the bar 50, the lower end of the bar 50 being unconnected. The rod 58 puts the pawl-bar in operative communication, through the lever 41, with the primary lever 23, and enables the blocks 38 to be rotated synchronously with the clipping of the cigar, as before described.

By reference to Fig. 3 it will be seen that with the parts at rest, the spring-arm 32 with the coöperation of the spring 33 maintains the primary lever 23 at the angle, at which each position, in said view and also at Figs. 2 and 5, the lever 41 contacts with the top of the lever 23, which vibrates it until its free end strikes the top end of the groove 47, lifting the pawl-bar 50 through the connecting-rod 58, bringing the teeth 53 above the top pin 54 on each of the blocks, carrying the springs 55 upwardly with the pawl-bar, which latter springs keep the edge of said bar in contact with two of the alined pins 54 on each of the blocks, which not only limits the forward movement of the pawl-bar, but keeps and preserves the faces of the blocks 38 in perpendicular alinement and prevents their inadvertent rotation.

With the parts in the position as illustrated in Figs. 1, 2, and 3 downward movement of the primary lever 23 will cause a correspond-

ing vibration in the lever 41 and, through the connecting-rod 58, move the pawl-bar and its attached springs 55 downwardly until the bill portion of the teeth 52 strike the top pins 54 on each of the blocks.

A continuation of the downward movement of the pawl-bar rotates each of the blocks on the pins 39, the pins 54 riding over the edge of the pawl-bar 50, moving it inward against the stress of the springs 55, as illustrated by dotted lines in Fig. 3, a continuation of this movement bringing the pin 54 (marked *a* for illustrative purposes) down to the position of the pin marked *b*, Fig. 4, for the same purpose, the blocks having been rotated so as to bring the next succeeding face of each block into alinement, the free end of the lever 41 having contacted with the end of the slot 47, as shown in Fig. 4, which acts as a stop to limit the downward motion of the pawl-bar, thus preventing an undue rotation of the blocks 38, the parts being then substantially in the position shown in Fig. 4, where the inner pins 54 have come into vertical alinement and enabled the springs 55 to force the pawl-bar forwardly against the pins 54 for the purpose before stated, the downward movement of the lever 23 having brought the knife-blade 27 into place to clip the end of the cigar, all as before described. The release of pressure on the plate 24 allows the spring 33 and its arm 32 to vibrate the end of the lever upwardly, imparting a corresponding movement to the end of the lever 41, lifting the pawl-bar 50 by the rod 58 until the rounded surface 53 of the teeth 51 strikes against one of the pins 54 above it, where it imparts a slight rotation to the blocks, moving them into a position indicated in dotted lines in Fig. 3, the curved surface of the teeth forcing the upper pin outwardly, which brings the lower pin forcibly against the edge of the bar 50, moving it slightly inward against the stress of the spring 55 until it is so far clear of the upper pin that it can pass it, when, rearward pressure being removed from the bar 50, the springs 55 force the edge of the bar against both of the pins on each block, and the parts then assume the positions of rest illustrated in Fig. 3.

It will be noted that the pawl-bar has passed through an evolution involving six motions—one downwardly, then inwardly against the stress of the springs 55, then outwardly under the stress of said springs, thence upwardly in its position of foremost projection, thence inwardly against the stress of the springs, and finally outward again under the stress of the springs. This movement I believe to be entirely new in an apparatus of this kind.

In order to keep the blocks 38 from inadvertently moving and to make their rotation steady, I interpose coil-springs 59 between the ends of the blocks and the brackets 37 adjacent the pins 39, the blocks 38 being fast on the pins 39, so that a firm bearing for the springs is had.

To remove the mechanism from the case, it is only necessary to remove the screws 9, which will free the plate 6, the cross-slot 15 in the case-front enabling the plate 24 of the arm 23 to be passed therethrough after the plate 16 has been removed. The mechanism can be returned to the case and fixed in position in the reverse way.

It is apparent that many changes and modifications in the construction of my apparatus can be made without departing from the spirit of my invention.

I claim—

1. The combination with the primary lever, an apertured plate thereon, of a knife-blade movable past said aperture, a secondary lever detachably connected to said knife-blade, and a fixed fulcrum for the other end of said secondary lever independent of the fulcrum of the primary lever, substantially as described.

2. The combination with the primary lever fulcrumed at one end and having apertured plate on the other end, a knife-blade movable in a guideway beneath said plate, and a secondary lever detachably secured to one end of said knife-blade and fulcrumed at its other end independent of the fulcrum of the primary lever, substantially as described.

3. The combination with the primary lever fulcrumed at one end, and having an apertured plate at its free end, a guideway formed on the side of said plate, a knife-blade movable in said guideway, a spring supported independently of the fulcrum of the primary lever having a flexible arm detachably connected with said knife-blade, substantially as described.

4. The combination with the back plate 6 of the lever 23 fulcrumed to said back plate and having a transversely-disposed and apertured plate 24 on its forward end, ribs 26 formed on the under side of said plate 24 on each side of said aperture, a coil-spring secured upon the plate 6 independent of the fulcrum of the lever 23, having a flexible continuation extending under the plate 24, and a knife-blade held under the plate 24 between ribs 26 by the end of said arm to which said plate is detachably secured, substantially as described.

5. The combination with the lever 23, the plate 24, the spring 33 and its arm 32, the arm having a loop 31 formed on its end and a knife-blade having the bifurcated lugs 29 engaging said loop, substantially as described.

6. In an advertising device, the combination with a series of revoluble blocks, a primary lever, means for cutting a cigar-tip combined with said lever, and connections between said primary lever and said blocks, whereby the latter are rotated coincidently with the operation of said cutting mechanism, substantially as described.

7. The combination in a device of the class described, with a fulcrumed primary lever, a series of revoluble blocks, a floating pawl-bar, a connection between said bar and said primary lever, teeth on said pawl-bar, and pins

on the ends of the block for engagement with said teeth, substantially as described.

8. The combination with the primary lever, of a series of revoluble blocks, a floating pawl-bar having teeth on one of its edges, a spring at its rear, connections between the floating pawl-bar and the primary lever, and pins on the ends of said blocks arranged to be contacted by the teeth of the pawl-bar, and to form a detent therewith, substantially as described.

9. The combination with the primary lever, of a series of revoluble blocks, a floating pawl-bar, a spring coacting with said pawl-bar, connections between the primary lever and the floating pawl-bar and between said bar and said blocks, whereby a downward, rearward and forward motion is given to said pawl-bar on the downward movement of the primary lever, and an upward, rearward and forward motion given to said pawl-bar on the upward movement of said lever, substantially as described.

10. The combination with the primary lever, a spring coacting therewith, a transverse lever connected with said primary lever, a series of revoluble blocks having pins on their ends, a floating pawl-bar carrying teeth adapted to coact with said pins, a rod connecting said transverse lever with the top of said pawl-bar, and springs coacting with the said pawl-bar, substantially as described.

11. The combination with the primary lever and a coacting spring, a transversely-disposed lever connected with said primary lever, a stop limiting the vibration of said transverse lever in both directions, a series of revoluble blocks, pins on the ends of said blocks, a floating pawl-bar movably connected at its top with the end of said transverse lever, and springs coacting with said pawl-bar to maintain its parallelism with said pins when perpendicularly alined, substantially as described.

12. The combination with the back plate 6, of the outwardly-extending lever 23 fulcrumed thereto, the transversely-extending lever 41 fulcrumed at one end to the back plate 6 and extending transversely over said primary lever, a connection between the levers 23 41, the triangular-shaped blocks 38 having outwardly-extending pins 54 at their ends located between the apices of said blocks, the floating pawl-bar 50 having the teeth 51 adapted to engage with and ride over said pins, a rod 58 connecting the upper end of the pawl-bar with the free end of the lever 41, said pawl-bar having suitable restraining-guides, and springs 55 carried by the pawl-bar and engaging the back plate 6, substantially as described.

13. The combination with the back plate 6, of the outwardly-extending lever 23, fulcrumed thereto, the transversely-extending lever 41 pivoted at one side of the lever 23 connected therewith, and crossing the top of said lever, a block 46 secured to the plate 6 having a slot 47 in which the free end of the lever 41 moves, the triangular blocks 38 rotatively mounted upon the back 6, the triangularly-disposed pins 54 extending from the end of said blocks to the floating pawl-bar 50, the rod 58 connecting the top of the floating pawl-bar with the end of the lever 41, teeth on the pawl-bar, and springs 55 secured to the pawl-bar and movably engaging the back plate 6, the ends of the slot 47 acting as stops to limit the vibration of the lever 41 in either direction, substantially as described.

14. In a device of the kind described, the combination with the blocks 38 rotatively supported upon the back 6, the outwardly-extending pins 54, the floating pawl-bar carrying teeth adapted to coact with said pins, means for operating said pawl-bar, and a spring adapted to press the edge of said pawl-bar against said pins to form a detent to restrain the inadvertent rotation of said blocks, substantially as described.

15. The combination with the blocks 38 rotatively supported upon the back 6, the outwardly-extending pins 54 arranged upon the ends of said blocks, their axes forming apices of a triangle, a pawl-bar carrying teeth on one edge, a spring coacting with the pawl-bar to maintain two of said teeth in vertical alinement and restrain the rotation of the blocks, the teeth on the pawl-bar being adapted to engage one of said pins to rotate said blocks and to ride over said pins on the return movement of said bar, substantially as described.

16. The combination with a device of the class described, of the blocks 38 rotatively supported upon the back 6, the primary lever, a floating pawl-bar operated by the said primary lever, and having teeth on one edge thereof, a plurality of pins extending from the end of each of the blocks, teeth on said pawl-bar for coöperation of said set of pins, the pawl-bar forming alternately means for rotating said blocks and a detent coöperating with said pins, substantially as described.

17. The combination with the back plate 6, carrying the lever 23 having a flat plate 24 on its end, the front plate of the case having a T-shaped opening, comprising the slots 14 15 formed therein, said lever projecting through the front of said case, the transverse slot permitting said plate to be drawn through the slot 15 upon the removal of the back plate 6, the slot 14 allowing the vibration of the lever 23 and restraining lateral movement thereof.

Signed at Shelton, county of Fairfield, State of Connecticut, this 13th day of February, 1896.

HERMAN F. NEHR.

Witnesses:
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PHIL. NOESSEL.