R. A. HOFFMANN.

ASH PROTECTOR AND CUTTER, ADAPTABLE TO CIGARS AND CIGARETTES.

APPLICATION FILED MAY 6, 1919.

1,394,622. **Patented Oct. 25, 1921.**

Fig. 1.

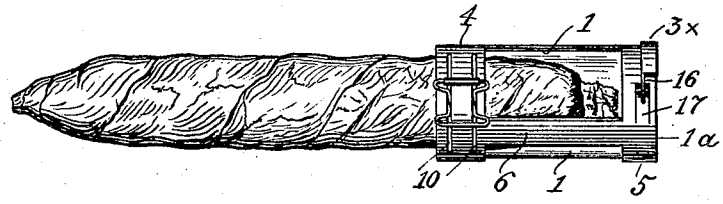


Fig. 2.

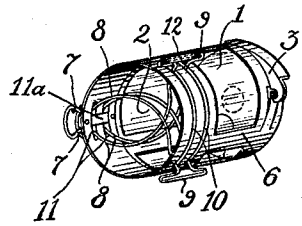
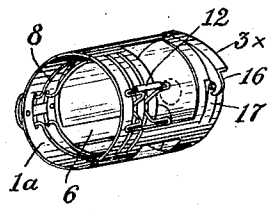


Fig. 3.



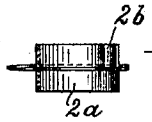


Fig. 4.

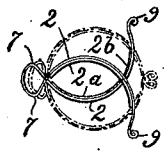


Fig. 5.

Fig. 6.

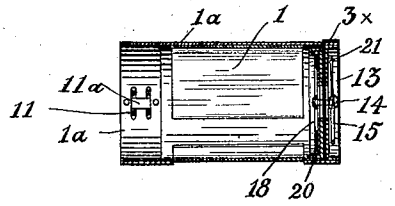


Fig. 7.

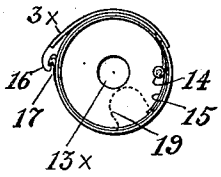


Fig. 8.

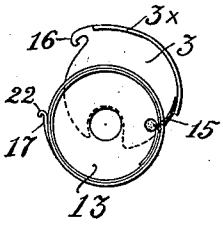


Fig. 9.

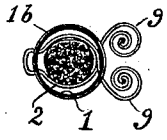
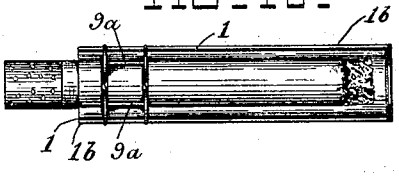


Fig. 10.



WITNESS

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ASH-PROTECTOR AND CUTTER ADAPTABLE TO CIGARS AND CIGARETTES.

1,394,622. Specification of Letters Patent. Patented Oct. 25, 1921.

Application filed May 6, 1919. Serial No. 295,119.

To all whom it may concern:

Be it known that I, RICHARD A. HOFFMANN, a citizen of the United States, residing at New York city, in the county of Richmond and State of New York, have invented a new and useful Ash-Protector and Cutter Adaptable to Cigars and Cigarettes, of which the following is a specification.

My invention relates to a class of articles which form attachments for use with a cigar or cigarette when the same is being smoked or whenever it has to be put safely away unextinguished if it is desired to interrupt smoking.

One object of my invention is to provide a simple device of this character which will effectively prevent the accidental scattering of ashes and minimize the danger of fire from live cinders flying off the butt end of cigars or cigarettes, but will not interfere with the proper smoking of the same.

Another object of my invention is to provide a fireproof protecting cover which while being impervious to ashes or sparks will permit an unimpeded inspection of the burning end of the cigar or cigarette.

Another object of my invention is to provide proper means to attach said cover to the smoking goods which may insure a delicate and self-adjusting grip upon the wrapper of the cigar or upon the cigarette paper without danger of tearing the same and still take a positive hold on them in such a manner that the burning end is kept free from contact with any parts that may either by abstraction of heat cause imperfect burning or charring of the wrapper or by conduction of heat inconvenience the holding hand.

Another object of my invention is to provide this ash protector with means to cut off the tip end of the smoking goods in all cases where they require previous trimming. These objects I obtain by the novel mechanism and arrangement of parts hereinafter fully described and shown in the accompanying drawing, in which,

Figure 1, is a side view of a cigar with my improved ash protector and cutter attachment. Fig. 2, is a perspective view of the appliance showing more in detail the construction of the gripping spring when detached from the cigar. Fig. 3, illustrates the position this gripper assumes when its handles are compressed before the insertion of the cigar into the ash protector. Figs. 4 and 5, show the embodiment of the gripper principle in an equivalent construction. Fig. 4 representing a top view and Fig. 5 a side view of the gripper spring, the expanded position of the spring loop being indicated by broken lines. Fig. 6 is a longitudinal section through the ash protector and cutter. Fig. 7, is an end view of the cutter when closed, Fig. 8, an end view of the cutter when opened. Figs. 9 and 10, illustrate the adaptation of my invention to cigarettes, the cutter in this case being omitted, Fig. 9 showing the front view from the tip end, and Fig. 10 the side view.

At the same time Fig. 9 and Fig. 10 suggest some variations of the described features of the invention which I consider covered by my claims.

The essential body of the ash protector consists of the cylinder 1, open at the tip end and made of any suitable transparent or translucent material which is fireproof, viz., not inflammable, and a bad heat conductor, as for instance mica, translucent horn, bakelite or even glass. The butt end of this cylinder is closed except that a small opening 13^x, Fig. 7, is provided to eventually fit around that portion of the cigar tip to be trimmed off by the cutter, in which case however the hole will also be kept closed afterward during the act of smoking, the necessary air being admitted from the tip end through the clearance between the cylinder wall 1 and the gripper 2.

If it is feasible and the nature of the transparent and non-conducting material chosen permits of such a manufacture the whole cylinder, mantle and bottom, may be made all of one piece, continuous and self-containing, as will be more fully explained later. If not, as for instance in the case of sheet mica, then the transparent cylinder must be incased in an auxiliary cage-like frame, indicated by numeral 1^a, (Fig. 1 and Fig. 6), which then instead of the transparent body must be made to serve as the support for the gripper 2 and the cutter 3.

This frame may be made of metal (aluminum, German silver, etc.,) or some other suitable material, preferably non-conducting, which permits the attachment of the remaining parts to be described later, (for instance ebonite, hardwood, etc.)

This auxiliary frame as shown by 1^a consists in the main of two tubular rings, a

rear ring 4 and a front ring 5, connected by two or more braces or side staves 6 and closed at the butt end by a bottom plate 13 (Figs. 6 and 8). The whole structure forms a cage-like drum in which the transparent cylinder may be fastened in any convenient way or if formed by a sheet may be held in place by its own resilience only.

As may be seen by this description the main body of my ash protector differs radically from former attempts and inventions of this class of articles in that whereas the majority of them consist of a cylindrical body, reticulated, screened or otherwise pierced, sidewise or at the butt end, to admit the air necessary for combustion, my ash protector is impervious save from the rear or tip end which is depended upon to admit the draft for combustion, and the inspection of the butt end is afforded by the light-transmitting quality of a portion or the whole of the protecting receptacle.

Experiment has shown me that cigar ash when disintegrated or jarred will sift through screening of the finest mesh that practically would come into consideration as it compares in degree of fineness with polishing powders and is even used as such.

As for the admission and feed of air my protector acts similar to a lamp chimney insuring also a more uniform and intense combustion than would be the case without such contrivance.

At the same time the cold air passing at every draft over the inserted length of the cigar toward the butt end together with non-conductivity of the inside of the cylinder prevents an uncomfortable heating of the ash protector.

Of the remaining parts the gripper 2 consists of a separate compressive spring forming one or more loops which act like tweezers. To state it more in detail the spring, formed of a wire or band, from its principal point of stress, indicated by 7, diverges into two approximately semicircular arms 8 which after meeting again and crossing each other terminate into handles 9 which may have any convenient shape. These handles as well as the part from which the aforesaid arms branch out are passed through opposite narrow slots which form guides for them and are cut into the frame 1^a or into the transparent cylinder 1 (Fig. 10) as the case may require.

To prevent the spring from slipping out of the slot where it has the greatest tendency to straighten out inwardly on account of its maximum stress, that is, on the part indicated by 7, Figs. 2 and 5, the receptive slot must either be kept narrow enough lengthwise (see Fig. 5) or be provided with a little traversing tie (see 11^a, Fig. 2).

When the handles of the spring are compressed by hand as assumed in Fig. 3 the loop formed by the two arms will widen out to receive the inserted cigar or cigarette. Upon releasing the handles the latter go apart again and the arms can follow their tendency to narrow down or close the loop (see Fig. 2) and consequently will grip the inserted cigar firmly between them.

To insure a wide bearing surface upon the roll of tobacco and to keep the cylinder body as nearly concentric and parallel as possible to the axis of the cigar or cigarette the spring as shown in Fig. 2, made of one length of wire, is bent in the form of a double loop—like a Siamese-twin spring, as it were,—the two ends of the wire being united by a little socket or collar pinched firmly around them, as shown by 12. This is a preferred arrangement. It is understood however that various other embodiments of the main idea can be used to attain the same effect. For instance a single loop spring, round or square in section, may be substituted, equipped with wide enough bearing surfaces, as suggested by Figs. 4 and 5. These bearing surfaces or belts, 2^a, which may be integral with the spring or be attached parts, can both be notched out, (2^b), in such a manner as to secure enough clearance to each other when the spring is released, as Fig. 5 implies. Another possible modification would be a multiplicity of fine springs forming a series of parallel loops close together, the handle shanks straddling each other and the handles united in two opposite bars, the whole combination acting like a single spring with a broad bearing surface.

The essential parts of the cutter arrangement consist of the end plate or bolster 13, the knife 3, the hinge or pivot 14, and the trigger device, comprising the hinge spring 15, the clasp 16 and the catch 17.

The bolster 13 is a flat circular disk closing the butt end of the ash cylinder and provided with a small orifice, 13^x, into which the tip of the cigar to be trimmed can be inserted. This disk forms the stationary butt end of the cylinder and may be attached to the mantle by any practical means, a convenient way being suggested in Fig. 6, where this disk is shown as a dished plate 13, rabbeted with its flanged rim 13^a into the end of the housing 1^a.

The knife 3 consists of an approximately circular plate—preferably a thin steel blade,—hinged near its edge on a pivot or loose rivet 14 which also keeps it sheathed between the bolster 13 and the corresponding bottom lining 20 of the transparent and non-conducting cylinder 1. This bottom lining may otherwise be attached to the rest of the drum in any suitable way as aforesaid, a practicable construction being suggested in Fig. 6 by inserting it into another dished plate 20, similar to 13, but with the flange

turned inwardly, and keeping the bottom lining 20 in place by a resilient split wire ring 18.

The shank of pivot 14 also carries a double-arm spring 15 which can be made of a resilient short wire loop thrusting one of its ends against the inside of the dished flange of bolster 13 and the other end against a flanged rim 3^x of the knife 3 or any protruding and supporting parts of either bolster or knife instead. The flanged rim 3^x also serves as a finger rest for pressing down the opened knife when cutting off the cigar tip.

For the knife blade as well as for the hinge spring 15 slots must be provided, viz: a narrow semicircular slot in the upper half of the mantle 1^a to guide the knife and a small short slot 21, cut through the mantle and, if necessary, also through the dished flange of the bolster 13 for the operative end of spring 15.

The knife on its cutting edge can advantageously be notched out as shown by 19 in such a form that when the knife is opened by releasing the spring 15 this notch uncovers the orifice 13^x; when the knife is pressed down by the finger against the elasticity of the hinge spring the knife shuts the aperture again, cutting off the inserted cigar tip at the same time, the edge of the notched part being of course sufficiently sharp-ground. The ash protector in this way forms a proper and immediate receptacle for the cut-off waste end of the cigar, while the aperture 13^x can be utilized for lighting and relighting the tobacco without removing the ash protector, the flame reaching the butt end through the temporarily opened orifice by the suction induced through the tip end.

The locking device for the knife at rest consists of the clasp 16 and the catch 17.

The catch 17, shown sidewise in Fig. 1 and endwise in Figs. 7 and 8, is a lipped cutout of the front part of the frame or drum, coherent and integral with the drum, protruding tangentially outward by force of its resilience and on its free edge tilted over to form a catch or barb 22.

The clasp 16 is a small hook, integral with and protuberant from the circumference of the knife, fitting around and clasping the barbed end of the catch 17 when the knife is closed as shown by Fig. 7. By pressing with the thumb a little upon the catch 17 just below the barb 22 the catch is pressed inward, clasp 16 is released and the spring 15 opens the cutter. This combination constitutes a trigger device.

Figs. 9 and 10 show an adaptation of my invention to cigarettes. As the cutter device in this case could be omitted, the butt end can be permanently closed. Also, owing to the greater requirements of lightness for an ash protector in this case it is desirable to choose such material for the transparent or translucent non-conducting cylinder that it can be made of one piece, for instance, bakelite, all parts otherwise necessitated by the cutter being omitted. Or for the outer frame 1^a as shown in the case of cigars a solid and continuous transparent or translucent thin shell 1^b which need not be necessarily fireproof, as for instance amber, celluloid, etc., may be substituted, the whole inner cylinder 1 in this case being made of sheet mica which is both transparent and fireproof.

As the length of the ash cylinder is optional it may be made long enough to include nearly the whole cigarette leaving only the tip end free and rendering a readjustment of the ash protector while smoking superfluous.

The shape of the gripper handles being also optional they may be wound in the form of two pairs of spirals 9, Fig. 9, stayed in their respective centers by a connecting brace 9^a, Fig. 10, thus forming a double handle by which the ash protector including the cigarette can be held without interfering with the resilient force of the gripper, the pressure of the fingers in this case being applied in the axial direction of the braces 9^a.

I claim,

1. An ash protector, comprising a receptacle, adapted to surround a portion of a cigar or cigarette, substantially closed except at the tip end, leaving an air passage to the lighted end, and constructed of light-transmitting material to provide a visual control of the lighted end, and means to attach and hold in place the receptacle upon the cigar or cigarette.

2. The combination with a cigar ash protector and a device for attaching said protector to the cigar of a cutter to trim the cigar tip, said cutter forming an operative part of the protector, which itself serves as recipient for the cut-off cigar tip, and means for operating this cutter.

3. The combination with an ash and spark protector for cigars or cigarettes; of an elastic, self contained wire loop, loosely supported by the receptive end of said protector, and clamping said cigar or cigarette by inherent force of compression, and means to temporarily counteract the compressive tendency of the wire loop, substantially as described and for the purpose set forth.

4. A cigar ash and waste receptacle, adapted to surround a cigar, comprising an outer frame of a cage-like form, lined with transparent or translucent fireproof material, a cutter for trimming the cigar, and means to attach said receptacle to the cigar.

5. An ash protector for cigars or cigarettes, comprising a receptacle, pierced or

filigreed, the openings thus formed being covered by light-transmitting material, closing thereby the receptacle around the lighted end, but providing a visual control of the latter, and means to attach said receptacle to the tobacco-roll.

6. An ash protector for cigars or cigarettes, comprising a cylinder, provided with slots facing each other, a compressed spring, loosely supported and held by these slots, the spring forming a resilient loop inside the cylinder for clamping the cigar or cigarette, with free and movable ends crossing each other and terminating into handles outside the cylinder for actuating said spring.

7. An ash protector for cigars, comprising a thimble-shaped drum, provided with a window of transparent fireproof material in the mantle of the drum and an opening in the bottom for lighting the cigar, a compressive loop spring, supported by the drum, and adapted to clamp the cigar, a plate, sharp-ground at a portion of its edge, so as to form a trimming knife, and adapted to move over the opening in the bottom, so as to uncover or cover the opening again, substantially for the purpose set forth.

8. In an ash protector for cigars, a cylinder, provided with a perforated bottom, means to attach the cylinder to the cigar, a disk, revolubly mounted on the bottom, adapted to move over the same so as to close or open the perforation therein, forming thereby a shearing device for trimming the cigar tip.

9. The combination with an ash and spark protector for cigars, of a cutter comprising a knife, supported by the protector and adapted to move over a cutting orifice in the protector, the knife being provided with a sharp-ground cutout coöperating with said cutting orifice, and a spring-actuated device to normally keep the knife closed or to open it when the spring is acted upon, substantially as described and for the purpose set forth.

10. An ash protector for cigars or cigarettes, comprising a skeleton frame, inclosing a translucent or transparent container of fire-resisting material, a continuous compressive spring, supported by the skeleton frame and forming a loop, gripping the tobacco wrapper, the ends of said loop being provided with diverging handles forming levers by which the compressive spring can be opened, when manual pressure is applied.

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

RICHARD A. HOFFMANN.

Witnesses:
EDWARD FISH,
EDWIN H. SEGAL.