April 29, 1958 A. P. MILLER 2,832,354

APPARATUS FOR PROVIDING VENTS IN CIGARETTES AND THE LIKE

Filed Feb. 16, 1956

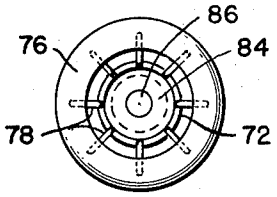


FIG. 2.

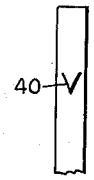


FIG. 3

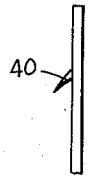


FIG. 4

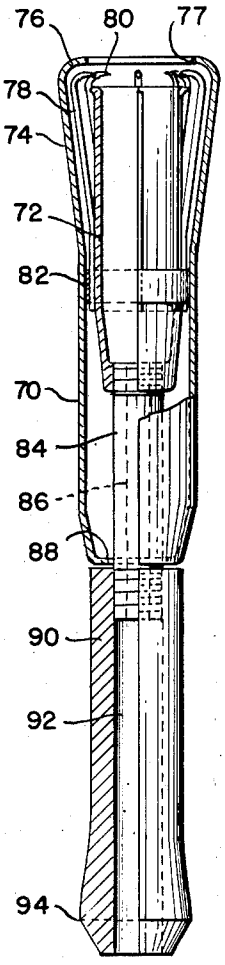


FIG. 1

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United States Patent Office 2,832,354 Patented Apr. 29, 1958

2,832,354

APPARATUS FOR PROVIDING VENTS IN CIGARETTES AND THE LIKE

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Application February 16, 1956, Serial No. 566,015

5 Claims. (Cl. 131—254)

This invention relates to apparatus for providing vents in cigarettes, cigars and the like and, more particularly, to providing an array of openings extending around the circumference of a cigarette, cigar or the like in the vicinity of the end thereof adjacent to the lips of the smoker through which air may be drawn when the cigarette or cigar or the like is being smoked. This application is a continuation in part of my copending application Serial No. 487,496 filed February 11, 1955, now abandoned.

In my copending patent application Serial No. 453,254, filed August 31, 1954, now abandoned, there is disclosed a cigarette construction embodying a circumferential arrangement of vents lying substantially on a radial plane and extending through the cigarette wrapper in the region thereof adjacent to the end held by the smoker. The application sets forth in considerable detail the benefits and advantages derived from this construction including the advantages resulting from restoring to the air drawn into the mouth of the smoker at least a substantial portion of the oxygen which has been consumed by the combustion of the tobacco and the wrapper, and cooling the smoke passing into the smoker's mouth and also cooling the smoke before it passes into a filter if a filter is employed.

It is the object of the present invention to provide the simple apparatus of a type which may be conveniently carried in a smoker's pocket or in a woman's purse or in association with a package of cigarettes by means of which a circumferential array of vents may be provided in a cigarette or the like by the smoker prior to his smoking it.

It is a further object of the invention to provide in one form thereof a cigarette or cigar holder comprising means for providing vents in a cigarette or cigar held by and smoked in the holder.

These and other objects of the invention will become apparent from the following description when read in conjunction with the accompanying drawing in which:

Figure 1 is an elevation partly in section showing a cigarette holder embodying the invention;

Figure 2 is a top view of the apparatus shown in Figure 1;

Figure 3 is a fragmentary showing of a modified form of a portion of the apparatus shown in Figures 1 and 2; and

Figure 4 is a side view of the apparatus shown in Figure 3.

In Figures 1 and 2, there is shown a cigarette holder incorporating the invention and including a retaining sleeve or barrel **70** having a flared upper end **74** terminating in an inturned portion **76** having a bore therethrough of sufficient diameter to permit the passage of a cigarette. A receiver **72** is positioned within the retainer **70** and an annular array of spring members **78** are positioned around the receiver and are provided with their upper ends extending above or beyond the end of the receiver **72** and terminating in inwardly turned pointed end portions **80** adapted to pass through the wrapper of a cigarette. The lower end portions of the springs **78**, as viewed in Figure 10, are held in position against the receiver **72** by means of a band **82** extending circumferentially of the receiver. The band and the spring members may be soldered in position to the receiver or affixed thereon by other conventional means. The outside diameter of the band **82** is chosen to provide a sliding fit in the inside of the retainer **70**.

The lower end portion of the receiver **72** is provided with a threaded bore adapted to receive the upper end of the tube **84** having an internal bore **86**. The lowermost end of the retainer **70** is provided with an inwardly turned flange **88** having a bore therethrough of a sufficient diameter to permit the passage of the tube **84**. The lowermost end of the tube **84** is threaded into a bit **90** provided with a passage **92** and having its lowermost end **94** formed to be conveniently engaged to the lips of a smoker.

It will be evident that the cigarette positioned in the receiver **72** may be held and smoked as in any conventional cigarette holder, however, motion of the retainer **70** longitudinally of the holder downwardly as viewed in Figure 1 will serve to cam inwardly the uppermost ends of the spring members **78** and drive the points **80** into the cigarette. Upon reverse or upward motion of the retainer **70** the spring ends will move out of the bores in the cigarette thus providing unobstructed openings therein for the passage of air into the cigarette while the cigarette is being smoked in the holder. The holder may be disassembled for cleaning to the extent of removing the receiver **72** and the spring members attached thereto out of the bore **77** in the turned-in upper end of the retainer which is of sufficient diameter to pass the receiver and spring assembly. It will be evident that this may be accomplished by unscrewing the bit **90** from the lowermost end of the tube **84** and pressing the tube upwardly in the retainer **70**. The turned-in end portions of the spring members **78** will be cammed inwardly by the wall of the bore **77** as the receiver **72** is pressed upwardly in the retainer **70**.

In the arrangement shown in Figures 1 and 2 the projections **80** are substantially conical. In the arrangement shown in Figures 3 and 4 the projections are modified in the form of pointed triangular blades **40**. The advantage in this type of blade is that instead of piercing an open hole to provide a vent the blade will displace a flap of the wrapper of the smoking article such as, for example, the paper on a cigarette. This displaced flap will then act somewhat in the manner of the valve member through which there will be admitted a small amount of air when the pressure differences across the flap are small such as will occur when the smoker is puffing gently and when the pressure differences are relatively high such as when a smoker is puffing more vigorously, the wrapper valve flap will be displaced and a greater amount of air will be drawn into the cigarette or cigar.

From the foregoing it will be evident that the invention provides a simple and practical means for producing an annular array of vents in the wrapper of a cigarette and that the various formations of the points **80** and various other modifications may be made to the embodiments of the invention disclosed herein without departing from the scope of the invention as set forth in the following claims.

What is claimed is:

1. A holder for a cigarette or like article comprising, a retainer, a receiver movable within said retainer and adapted to receive at least a portion of an article, means supporting an array of spaced projecting elements arranged externally of an article positioned within said receiver, said elements being normally positioned to per-

mit the passage of an article into and out of said receiver, means acting in response to movement of said receiver within said retainer for moving said elements inwardly and into an article positioned within said receiver to produce perforations in the wrapper of the article, and means extending from said receiver and outwardly of said retainer by which said receiver and retainer may be held and having a bore communicating with said receiver through which an article positioned in said receiver may be smoked.

2. A holder for a cigarette or like article comprising, a retainer, a receiver movable within said retainer and adapted to receive at least a portion of an article, means supporting an array of spaced projecting elements arranged externally of an article positioned within said receiver, said elements being normally positioned to permit the passage of an article into and out of said receiver, means acting in response to movement of said receiver within said retainer for moving said elements inwardly and into an article positioned within said receiver to produce perforations in the wrapper of the article, and means extending from said receiver and outwardly of said retainer by which said receiver and retainer may be held and having a bore communicating with said receiver through which an article positioned in said receiver may be smoked, said elements being formed to produce V-shaped cuts in the wrapper of an article.

3. A holder for a cigarette or like article comprising, a retainer, an elongated receiver movable within said retainer and adapted to receive through one longitudinal end at least a portion of an article, means supporting an array of spaced projecting elements arranged externally of an article positioned within said receiver, said elements being normally positioned to permit the passage of an article into and out of said receiver, means acting in response to movement of said receiver within said retainer for moving said elements inwardly and into an article positioned within said receiver to produce perforations in the wrapper of the article, and means extending from the other longitudinal end of said receiver and outwardly of said retainer by which said receiver and retainer may be held and having a bore communicating with said receiver through which an article positioned in said receiver may be smoked.

4. A holder for a cigarette or like article comprising,

a retainer, a receiver movable within said retainer and adapted to receive at least a portion of an article, means supporting an array of spaced projecting elements arranged externally of an article positioned within said receiver and supported from said receiver, said elements being normally positioned to permit the passage of an article into and out of said receiver, means acting in response to movement of said receiver within said retainer for moving said elements inwardly and into an article positioned within said receiver to produce perforations in the wrapper of the article, and means extending from said receiver and outwardly of said retainer by which said receiver and retainer may be held and having a bore communicating with said receiver through which an article positioned in said receiver may be smoked.

5. Apparatus for providing vents in a cigarette or like article comprising a retainer, an elongated receiver movable within said retainer and adapted to receive through one longitudinal end at least a portion of an article, means supporting an array of spaced projecting elements arranged externally of an article positioned within said receiver, said elements being normally positioned to permit the passage of an article into and out of said receiver, means acting in response to movement of said receiver within said retainer for moving said elements inwardly and into an article positioned within said receiver to produce perforations in the wrapper of an article, and the other longitudinal end of said receiver being provided with means for the removable attachment of a bit through which an article positioned in said receiver may be smoked.

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