April 11, 1967 J. R. GRASSO 3,313,308

HOLDER FOR CIGARETTES AND THE LIKE

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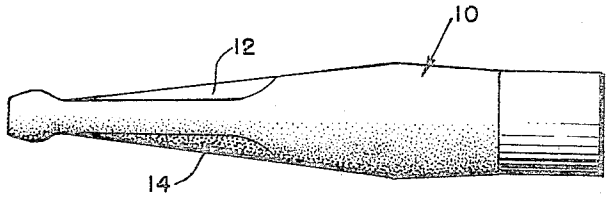

Fig. 1

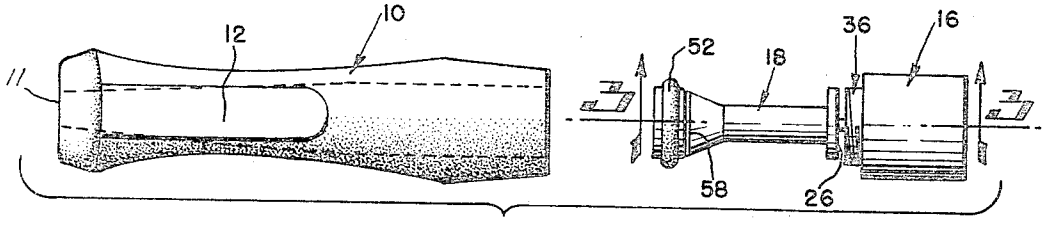

Fig. 2

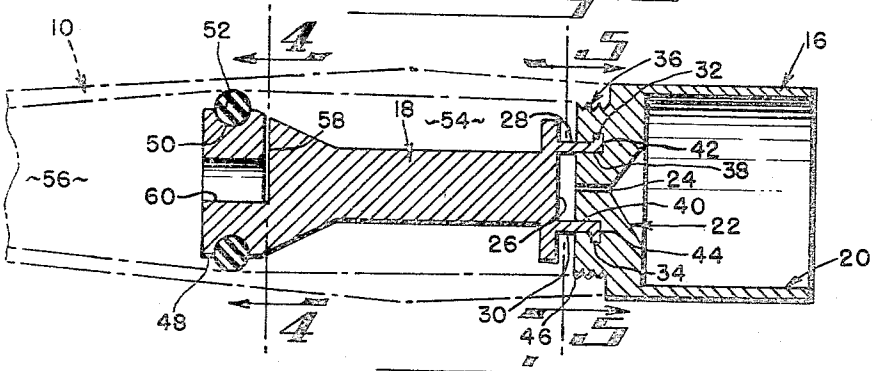

Fig. 3

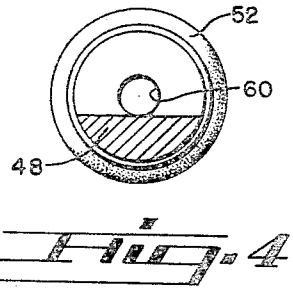

Fig. 4

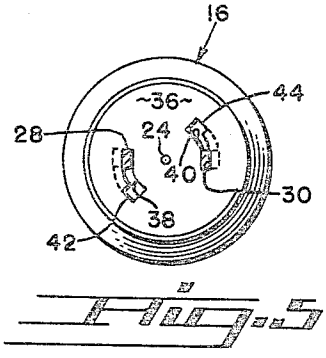

Fig. 5

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This invention relates to a smoker's article and, more particularly, to an improved construction of a holder for cigarettes and the like.

The smoking of tobacco is recognized by various authorities as injurious to the delicate membranes of the nose, throat, and lungs of smokers. Notwithstanding the foregoing, the smoking of tobacco is widespread.

The damage is due to the smoke entering the mouth, throat, and lungs of the smoker. Cigarette smoke is a heterogeneous mixture of gases, uncondensed vapors, and liquid particulate material. For purposes of investigating chemical composition and biological properties, cigarette smoke is separated into a particulate phase and a gas phase.

All of the particulate phase of cigarette smoke as well as the condensable components of the gas phase of cigarette smoke are contained in a yellow-brown condensate, which is known as tobacco tar. The amount of tar of the smoke of one cigarette varies in accordance with the burning and condensing conditions, the length of the cigarette, the use of a filter, porosity of paper, content of tobacco tar, and the weight and kind of tobacco.

It is desirable to reduce the dangers from tobacco tar without completely eliminating the effects which the smoker desires, from the tobacco. Otherwise the smoker will not utilize the safety device.

The present invention satisfactorily solves the foregoing problem while still producing the desirable effect of removing most of the tar from the tobacco smoke. The present invention comprises a two-piece member with a circular baffle wall to permit easy cleaning of the baffle wall and to allow the tars to fall more easily from the baffle wall after impinging thereagainst as the cigarette smoke exits from the passage.

Accordingly, an object of this invention is to provide a cigarette holder in which the tars, collected from tobacco smoke flowing through the holder, may be easily removed from the holder.

Another object of this invention is to provide a cigarette holder that effectively removes most of the tars of tobacco smoke.

Other objects, uses, and advantages of this invention are apparent upon a reading of this description, which proceeds with reference to the drawing forming part thereof and wherein:

FIGURE 1 is a side elevational view of the mouthpiece portion of the cigarette holder of the present invention.

FIGURE 2 is a top plan view of the complete cigarette holder of the present invention in a partially disassembled relationship.

FIGURE 3 is a sectional view of the holder portion of the present invention and taken along the line 3—3 of FIGURE 2 and showing the mouthpiece in assembled relationship with the holder portion.

FIGURE 4 is a sectional view, partly in elevation, taken along the line 4—4 of FIGURE 3.

FIGURE 5 is an elevational view, partly in section, taken along the line 5—5 of FIGURE 3 and showing details of the connection between two components of the cigarette holder of the present invention.

Referring to the drawing and particularly FIGURE 1, these is shown a hollow mouthpiece 10, which forms part of the cigarette holder of the present invention. The

mouthpiece 10 is preferably made of a plastic material although any other suitable material may be employed if desired. The mouthpiece has an upper grasping portion 12 and a lower grasping portion 14 to premit gripping of the cigarette holder of the present invention in the mouth of a smoker.

As shown in FIGURES 2 and 3, the holder portion of the present invention includes a cylindrical holding member 16 and a cylindrical dividing member 18, which is removably connected to the holding member 16. The holding member 16 has a large receptacle 20 at one end into which a cigarette or the like may be fitted.

The holding member 16 has a passage 22 extending from the rear of the receptacle 20 to the exterior of the holding member 16 on the end remote from the receptacle 20. The portion of the passage 22 adjacent to the receptacle 20 converges toward a second portion 24, which is of very small diameter in comparison with the large end of the convergent portion of the passage 22.

The member 18 has an enlarged circular baffle wall 26 forming an end thereof. The wall 26 is spaced slightly rearwardly of the end of the portion 24 of the passage 22 when the member 18 is connected to the holding member 16 and in alignment with the portion 24 of the passage 22.

The member 18 is secured to the holding member 16 by a bayonet connection including a pair of legs 28 and 30 extending from diametrically opposed portions of the baffle wall 26. The legs 28 and 30 have lugs 32 and 34, respectively, on the ends thereof.

The holding member 16 has a reduced cylindrical portion 36 on the end, which is remote from the opening of the receptacle 20. The reduced portion 36 of the member 16 has a pair of arcuate slots 38 and 40 extending inwardly from its end face. A pair of slots 42 and 44 is disposed at substantially right angles to the slots 38 and 40, respectively (see FIGURE 3). The slots 42 and 44 extend to the end face of the reduced portion 36 only at one end of the slots 38 and 40 (see FIGURE 5).

The slots 38 and 40 are substantially the same width as the width of the legs 28 and 30. Communication of the slots 42 and 44 with the exterior of the end face of the reduced portion 36 at one end of the slots 38 and 40, respectively, permits the lugs 32 and 34, respectively, to be inserted therein. A clockwise rotation (as viewed in FIGURE 5) of the member 18 results in locking the dividing member 18 to the holding member 16.

The reduced portion 36 has threads 46 thereon for cooperation with threads on one end of the interior of the mouthpiece 10. As shown in FIGURE 3, the threaded arrangement results in the mouthpiece 10 being secured to the holding member 16 to form a unitary cigarette holder with the member 18 disposed within the interior of the mouthpiece 10.

The member 18 has a substantially constant circular cross section for a distance rearward of the baffle wall 26, which is of large diameter, and then has a divergent portion to form an enlarged cylindrical end 48 having an annular groove 50 in its periphery. A resilient O-ring 52, which is preferably formed of rubber, is disposed within the annular groove 50 by sliding it over the enlarged end 48.

As shown in FIGURE 3, the resilient ring 50 engages the inner wall of the hollow mouthpiece 10 to form two chambers 54 and 56 within the mouthpiece 10. The chamber 54 is formed between the ring 52 and the reduced portion 36 of the holding member 16 while the chamber 56 is formed between the ring 52 and the end of the mouthpiece 10 wherein there is an opening 11 to permit the user of the cigarette holder to apply suction to the chamber 56.

Communication between the chambers 54 and 56 is accomplished through a slot 58 extending downwardly through the divergent portion of the member 18. The enlarged end 48 has a passage 60 of circular cross section extending therethrough for communication with the slot 58, which preferably extends to the bottom of the passage 60 (see FIGURE 4).

Considering the use of the present invention, the holding member 16 and the dividing member 18 are easily connected together by the bayonet connection. The mouthpiece 10 is then telescoped over the member 18 and threadedly connected to the holding member 16.

A cigarette is then disposed within the receptacle 20 and lit. As the smoker creates suction through the opening 11 in the end of the mouthpiece 10 when he grips the mouthpiece 10 within his mouth by the grasping portions 12 and 14, the chamber 56, the passage 60, the slot 58, the chamber 54, and the passage 22, smoke is drawn to the mouth of the smoker.

As cigarette smoke passes through the passage 22, which has the convergent portion and then the very narrow portion 24, a venturi effect is created whereby the speed of the smoke is accelerated greatly. As smoke exits from the narrow portion 24 of the passage 22, it impinges against the baffle wall 26 and flows outwardly at substantially right angles to the longitudinal axis of the narrow portion 24 of the passage 22 into the chamber 54.

Most of the tobacco tar, which impinges against the baffle wall 26 as it is removed from the smoke by the smoke changing its direction of flow, tends to fall by gravity into the chamber 54. Because of the substantially complete absence of obstruction around the wall 26 except for the two diametrically disposed legs 28 and 30, the tobacco tar will not build up as rapidly on the baffle wall 26 as it would if there were an obstruction preventing the tar from dropping by gravity into the chamber 54 around a large portion thereof.

The smoke passes from the chamber 54 through the slot 58 and the passage 60 into the chamber 56. The circuitous path of the smoke through the slot 58 and the passage 60 aids in reducing the temperature of the smoke because of the increased time required to reach the mouth of the smoker. The smoke exits from the chamber 56 through the opening 11 in the mouthpiece 10 into the mouth of the smoker.

The mouthpiece 10 is preferably formed of a transparent material although it could be opaque. If the mouthpiece 10 is transparent, the smoker may visibly observe when the tar begins to accumulate in the chamber 54 and on the baffle wall 26 because all of the tar will not fall by gravity from the baffle wall 26. If the mouthpiece 10 is opaque, the smoker quickly learns the number of cigarettes, which he can smoke, before it is necessary to clean the holder of the present invention.

In order to clean the holder of the present invention, it is only necessary to unthread the mouthpiece 10 from the holding member 16 and then remove the mouthpiece 10 from telescoping engagement with the member 18. The mouthpiece 10 may then be cleaned on the interior to remove the tars collected therein.

The dividing member 18 may be easily disconnected from the holding member 16 by turning the member 18 counter-clockwise (as viewed in FIGURE 5) so that the legs 28 and 30 may be disconnected from engagement with the reduced portion 36 of the holding member 16. The baffle wall 26 may then be easily cleaned.

Likewise, the narrow portion 24 of the passage 22 also may be cleaned by insertion of a pin or the like to remove any particles of tobacco collected therein.

After the components of the present invention have been cleaned, they may be easily assembled in the reversible order. That is, the dividing member 18 is connected to the holding member 16 and the mouthpiece 10 is then telescoped over the member 18 and threadedly connected to the reduced portion 36 of the holding member 16.

An advantage of this invention is that the various portions of the cigarette holder may be easily cleaned. Another advantage of this invention is that the period for cleaning may be extended in comparison with present cigarette holders for removing tar from tobacco smoke.

For purposes of exemplification, a particular embodiment of the invention has been shown and described according to the best present understanding thereof. However, it will be apparent that changes and modifications in the arrangement and construction of the parts thereof may be resorted to without departing from the spirit and scope of the invention.

What is claimed is:

1. A holder for cigarettes and the like comprising a holding member, said holding member having a receptacle for a cigarette and the like at one end thereof, said holding member having a reduced threaded portion at its other end, a dividing member, said dividing member having a baffle wall disposed adjacent one end thereof, means for removably connecting said dividing member to said holding member, a cover member having one end interiorly threaded for cooperation with said threaded reduced portion of said holding member to attach said cover member to said holding member, said cover member enclosing said dividing member, said means removably connecting said dividing member to said holding member comprising a transverse wall on said holding member, said transverse wall having apertures opening toward the downstream end thereof, said apertures defined by walls providing slots having an enlargement at one end thereof, and extending arcuately from said enlargement, said baffle wall having means engaging said slots and enlargements to provide a bayonet type joint for supporting said baffle to dispose its edge portions inwardly spaced from the walls of said cover member, said dividing member having means at its other end cooperating with the inner wall of said cover member to form a first chamber and a second chamber within said cover member, said holding member having a passage connecting said receptacle with said first chamber, said dividing member having means therein to provide communication between said first chamber and said second chamber, said cover member having an opening in its end to provide communication from the second chamber to the exterior of said cover member whereby when said cover member is disposed in the mouth of a smoker and suction is exerted through said opening in the end of said cover member tobacco smoke will flow through said passage, said first chamber, said communicating means in said dividing member, and said second chamber to the mouth of the smoker, said baffle wall being disposed to divert the smoke from said passage in said holding member at substantially right angles to the longitudinal axis of said passage whereby particles in the smoke impinge against said baffle wall and are removed from the smoke.

2. The combination of claim 1, wherein said means on said baffle wall engaging said slots and enlargements comprises L-shaped lugs.

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