Oct. 17, 1944. B. R. WRIGHT 2,360,628

SMOKER'S ARTICLE

Filed June 15, 1943

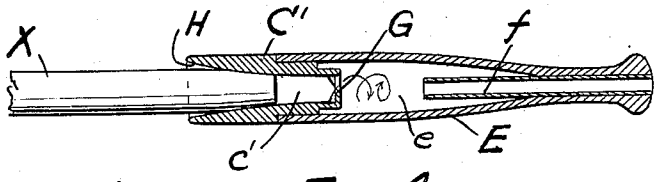

FIG. 4.

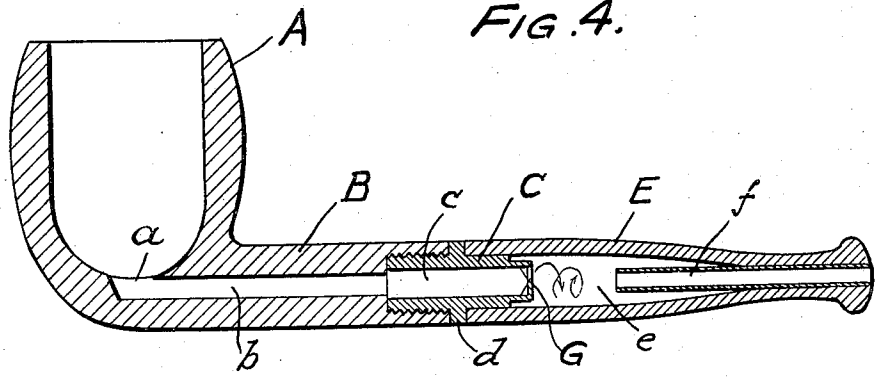

FIG. 1.

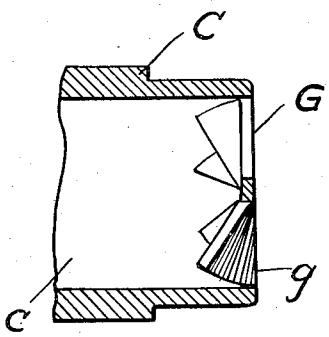

FIG. 2.

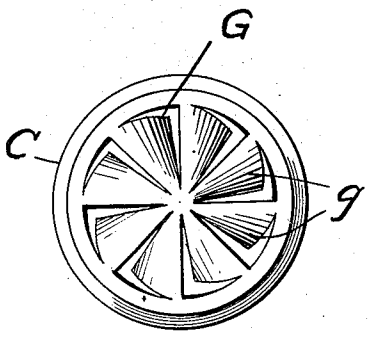

FIG. 3.

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SMOKER'S ARTICLE

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5 Claims. (Cl. 131—211)

This invention relates to an improvement in a smoker's article.

Broadly according to this invention means are provided in combination with a tobacco pipe, a cigarette or cigar holder, or the like, whereby smoke drawn from the bowl of the pipe is, at a point in its passage through the stem, given a whirling motion which effects the removal from the smoke of tars and other injurious matter from the tobacco which condense in the smoke as it cools.

More specifically, according to this invention a chamber or pocket is formed in the passage through the stem of a tobacco pipe, cigarette or cigar holder, or the like, and a fixed centrifugal device is positioned at the entrance to the pocket. Smoke drawn from the burning tobacco will be drawn into the pocket through the fixed centrifugal device, which will cause the smoke to enter the pocket with a whirling motion. Due to cooling of the smoke after leaving the burning tobacco, the smoke passing into the pocket through the centrifugal device will carry minute particles of condensate, comprising tars and other injurious matters from the tobacco, which, together with further condensate formed by cooling in the pocket, will, under the centrifugal effect of the whirling motion imparted to the smoke and by impact with the wall of the pocket, collect on the wall of and remain in the pocket, while the smoke, relieved of such condensate, will pass on to the mouth of the smoker.

Having now indicated in a general way the nature and purpose of this invention, I will now proceed with description of a preferred embodiment thereof with reference to the accompanying drawing in which:

Figure 1 is a longitudinal sectional view of a tobacco pipe embodying this invention.

Figure 2 is a fragmentary sectional view showing a detail of construction.

Figure 3 is an end view of the subject of Figure 2.

Figure 4 is a longitudinal view of a cigarette holder embodying this invention.

Referring to Figures 1–3, A indicates the bowl of a tobacco pipe, which may be of any desired size and shape and may be formed of any desired material adaptable for the purpose, as, for example, brier, meerschaum, plastic, etc.

Formed integral with the bowl A is a stem B provided with a passage *b* which communicates with the bottom or lower portion of the bowl A through an opening *a*.

The end of the stem B is recessed and internally threaded to receive a fitting C formed of any suitable material, as metal, plastic, or the like, but preferably of a high heat conductive material, as, for example, aluminum, provided with a passage *c*, somewhat larger than the passage *b* in the stem, and with an annular flange *d*.

The fitting C is threaded from one end to the flange *d* for engagement with the stem B and is smooth from its other end to receive an extension of the stem B or a so-called bit E.

The interior of the bit E adjacent to the fitting C is cut out to form an enlarged chamber or pocket *e* into which the passage *c* in fitting C opens and from the interior of which leads a tube *f* which extends through the end of the bit. It will be noted that the tube *f* extends well into the pocket *e* so that its end is clear of the walls thereof and that the end of the tube is substantially centrally located with respect to the wall of the pocket.

The end of the fitting C adjacent to the pocket E carries a fixed centrifugal device, as, for example, a radial tuyère G, comprising a series of radially extending blades *g* closely related and lying at an angle of preferably about 45°. The blades *g* form narrow passages between them and their angularity serves to impart a whirling motion to smoke drawn between them.

The blades *g* may be formed and given desired angularity in any convenient manner, as, for example, by cutting and bending a thin plate formed integral with or secured to the end of the fitting C, as will be apparent from an inspection of Figures 2 and 3 of the drawing. The blades may be bent inward, as shown, or they may be bent outward.

It will be apparent, now, it is believed, that when the pipe described is in use smoke from tobacco burning in the upper part of the bowl will be drawn down in the bowl, into passage *b* in stem B, through the passage *c* in fitting C, through the tuyère G and into pocket *e* in the bit E. From the interior of chamber *e* the smoke will be drawn into the smoker's mouth.

Now it will be further apparent that the smoke in its passage through the lower part of the bowl, through stem B and fitting C and in pocket *e* is cooled, which causes tars and other noxious ingredients of the tobacco, vaporized in the burning of the tobacco, to condense and to be present in the smoke in the form of fine particles.

The smoke, on being drawn through the tuyère G, is given a whirling motion and consequently whirls in the pocket *e*. The centrifugal effect of the whirling motion in the pocket *e* and impact

against the wall of the pocket *e* causes the condensed tars, etc. carried by the smoke, as it enters pocket *e* and as condensation occurs in pocket *e*, to be thrown out and to adhere to the wall of the pocket.

Smoke freed from the condensed tars, etc. is withdrawn from the interior of pocket *e* to the mouth of the smoker through tube *f*, the end of which in pocket *e* is clear of the walls thereof and located centrally with respect thereto so that the centrifugal effect of the whirling smoke carries the condensed tars, etc. away from the open end of the tube.

As will be obvious, the pipe according to this invention may be readily taken apart for periodic cleaning of its component parts, including the pocket *e*.

Referring now to Figure 4, the passage *c'* in fitting C is enlarged at one end H for the reception of a cigarette X as shown. The smoke from the burning end of the cigarette, cooled in passage through the length of the cigarette and through passage *c'* and consequently carrying condensed tars, and the like, passes through the centrifugal device or tuyère G and enters pocket *e*, in stem E, with a whirling motion imparted by tuyère G. The whirling of the smoke in pocket *e* throws the condensed tars and the like on to the walls of the pocket from which the smoke freed from condensate is drawn through tube *f*, into the mouth of the smoker.

Obviously the end H of fitting C' may be enlarged for the reception of a cigar.

It will be understood that it is not contemplated that this invention, as defined in the appended claims, shall be limited by the above description of a preferred embodiment, since those skilled in the art will appreciate that various modifications in detail may be made without departing from the invention.

What I claim and desire to protect by Letters Patent is:

1. A smoker's article comprising means for the reception of tobacco to be smoked, a stem extending from said means and having a passage therethrough, an enlarged pocket formed in said passage through said stem and a fixed centrifugal device positioned at the opening of said passage into said pocket for the passage therethrough of smoke drawn from the tobacco to impart a whirling motion to smoke in said pocket.

2. A smoker's article comprising means for the reception of tobacco to be smoked, a stem extending from said means and having a passage therethrough, an enlarged pocket formed in said passage through said stem and a fixed centrifugal device, comprising a plurality of radially extending blades lying at an angle of about 45° and forming narrow passages between them, positioned at the opening of said passage into said pocket for the passage therethrough of smoke drawn from the tobacco to impart a whirling motion to smoke in said pocket.

3. A smoker's article comprising means for the reception of tobacco to be smoked, a stem section extending from said means and having a passage therethrough, a second stem section having an enlarged pocket formed adjacent one of its ends and a passage extending from said pocket through its other end, a fitting forming a connection for said stem sections and having a passage therethrough and a fixed centrifugal device carried by said fitting at its end opening into said pocket and adapted to impart a whirling motion in said pocket to smoke drawn from the tobacco.

4. A smoker's article comprising means for the reception of tobacco to be smoked, a stem section extending from said means and having a passage therethrough, a second stem section having an enlarged pocket formed adjacent one of its ends and a passage formed by a tube extending from a point within said pocket and spaced from the walls thereof through its other end, a fitting forming a connection for said stem sections and having a passage therethrough and a fixed centrifugal device carried by said fitting at its end opening into said pocket and adapted to impart a whirling motion in said pocket to smoke drawn from the tobacco.

5. A smoker's article comprising means for the reception of tobacco to be smoked, a stem extending from said means and having a passage therethrough, an enlarged pocket formed in said passage through said stem, a section of said passage being enlarged from the point of discharge into said pocket toward said means for the reception of tobacco to be smoked, and a fixed centrifugal device positioned at the opening of said enlarged section of said passage into said pocket for the passage therethrough of smoke drawn from the tobacco to impart a whirling motion to smoke in said pocket.

BRUCE R. WRIGHT.