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H. G. SPRINKEL

2,189,684

SMOKE COOLING DEVICE

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Fig. 1.

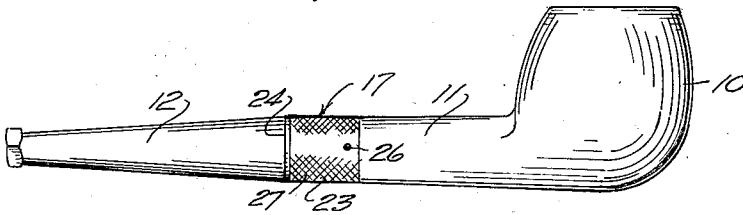


Fig. 2.

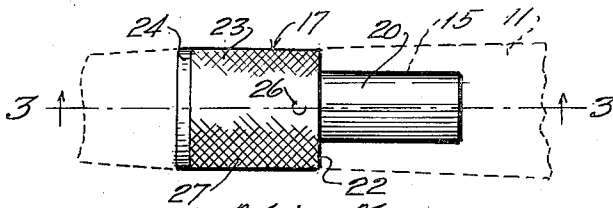


Fig. 3.

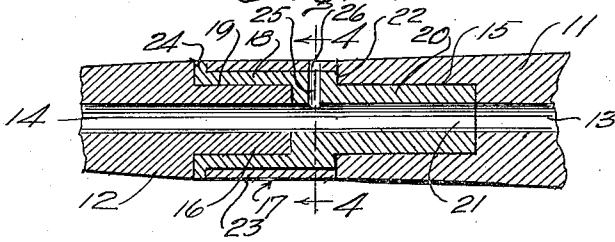


Fig. 4.

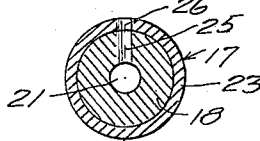
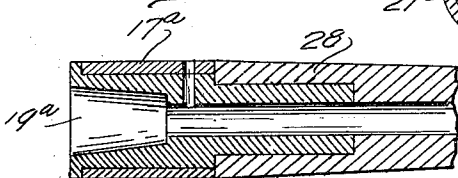


Fig. 5.



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UNITED STATES PATENT OFFICE

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SMOKE COOLING DEVICE

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Application November 5, 1938, Serial No. 239,136

2 Claims. (Cl. 131—225)

This invention relates to smoking pipes or similar smoking devices and more particularly to an attachment for a smoking device for cooling the smoke drawn through the device.

5 An object of this invention is to provide a device which may be interposed in a smoking pipe between the stem and the mouthpiece of the pipe and which is so constructed that air may be readily drawn through the mouthpiece
10 of the device for mixing with the smoke passing through the bore of the mouthpiece.

A further object of this invention is to provide a device of this kind which may be used with conventional pipes, cigar or cigarette holders
15 without altering the present construction of such devices and which may at will provide a cooling draft of air through the mouthpiece.

A still further object of this invention is to provide a device of this kind which will be of an
20 ornamental character as well as an article of utility.

A further object of this invention is to provide devices of this kind which may be manufactured at a relatively small cost so that it will not
25 unduly increase the cost of the smoking devices and which may be sold as a new article of manufacture for use with conventional smoking devices at present available.

To the above objects essentially and to others
30 which may hereinafter appear, the invention consists of the novel construction, combination and arrangement of parts as will be more specifically referred to and as illustrated in the accompanying drawing wherein is shown embodiments
35 of the invention, but it is to be understood that changes, variations and modifications may be resorted to which fall within the scope of the invention as claimed.

In the drawing:

40 Figure 1 is a detail side elevation of a pipe having a device constructed according to an embodiment of this invention combined therewith.

Figure 2 is an enlarged fragmentary side elevation of the device in applied position on the
45 pipe.

Figure 3 is a sectional view taken on the line 3—3 of Figure 2.

Figure 4 is a sectional view taken on the line 4—4 of Figure 3, and

50 Figure 5 is a fragmentary side elevation of the device used with a cigar or cigarette holder.

Referring to the drawing, the numeral 10 designates generally the bowl of a pipe provided with a stem 11 and a mouthpiece 12. The stem
55 11 of the pipe is provided with a bore 13 com-

municating with the bottom portion of the bowl 10, and the mouthpiece 12 is provided with a bore 14 adapted to communicate at its forward end with the rear end of the bore 13.

The stem 11 is provided at its rear portion with a socket or enlarged bore 15 opening through the rear end of the stem 11 in which a cylindrical stud or extension 16 carried by the mouthpiece 12 is adapted to frictionally engage. At the junction of the extension 16 with the body of the mouthpiece the latter is formed with a peripheral shoulder.

At the present time the smoke which is drawn through the bowl 10, the bore 13 and the bore 14 is not mixed with any air except such air
15 as is drawn through the upper open end of the bowl 10, and the smoke is therefore relatively hot and by reason of its temperature a considerable quantity of material accumulates in the bore 13 and in the bore 14 which is condensed and forms
20 a relatively viscous fluid.

In order to provide a means whereby the pipe comprising the bowl 10, the stem 11 and the mouthpiece 12 may be provided with a smoke-cooling means without changing the present
25 parts of the pipe, I have provided an insertible member generally designated as 17 which is adapted to be inserted between the mouthpiece 12 and the rear portion of the stem 11. The smoke cooling member 17 is formed of a one-piece body having a rear portion 18 and a forward portion 20. The rear end of the latter merges into the forward end of portion 18. The said portions are of circular contour in cross section and with the portion 18 of greater outer diameter than the portion 20. The said portions are disposed coaxially. At the junction of the portions 18, 20 the member 17 is formed intermediate its ends with an annular shoulder 22
30 for abutting the outer end of the stem 11. Preferably the portions 18, 20 will be of the same length and are so shown whereby the shoulder 22 will be disposed centrally of the member 17.

The portion 18 has formed therein for a part of its length a lengthwise extending socket 19 which
45 opens at the rear end of such portion for receiving the extension 16 of the mouthpiece 12. The portion 18 is disposed in encompassing relation with respect to the extension 12. The portion 20 is extended into the socket 15 of the stem 11. 50 The member 17 axially thereof is formed with a bore 21 which at its rear end opens into the socket 19 through the base wall of the latter. The bore 21 extends from the said base wall to the outer end of the said portion 20. 55

A sleeve or cylindrical air controlling member 23 is rotatably carried by the body 18. The body 18 at its rear end is provided with a flange or rib 24 against which the rear end of the sleeve 23 is adapted to abut. The exterior diameter of the sleeve 23 is substantially equal to the diameter of the flange 24 which is also substantially equal to the largest diameter of the stem 12.

The sleeve 23 terminates at its forward end substantially coplanar with the shoulder 22 so that when the device is in applied position the forward end of the sleeve 23 will frictionally contact with the rear end of the stem 11. In this manner the stem 11 will frictionally hold the sleeve 23 against rotation.

The said portion or body 18 forwardly of socket 19 and rearwardly of the shoulder 22 is provided with a vent or air opening 25 and the sleeve 23 is also provided with an opening 26 which is adapted to be placed in registry with the opening 25 so that air may pass through the openings 26 and 25 and then enter the bore 21. Preferably the exterior surface of the sleeve 23 is serrated or knurled as at 27 so that the rotation of the sleeve or air controlling member 23 may be readily effected.

In Figure 5 there is disclosed a cigar or cigarette holder 28 with which the air cooling member 17^a is adapted to be combined. The air cooling member 17^a is substantially identical in every detail with the air cooling member 17 with the possible exception that the socket 19^a thereof is tapered and of a size sufficient to readily receive the end of a cigar or a cigarette. In other respects the air cooling member 17^a is identical with the air cooling member 17.

In the use of the device where the device is combined with a pipe as shown in Figures 1 to 4 the reduced portion 20 is inserted in the bore 15 which is conventionally provided in the stem 10 for the reduced extension 16 of the mouthpiece 12. The extension 16 of the mouthpiece 12 is then inserted in the larger or rear bore 19 of the body 18 and if it is desired to admit air into the bore 21 coactive with the drawing of smoke through the bore 13 and the bore 14 the air controlling sleeve 23 is rotated to a point where the hole 26 is in substantial registry with the hole 25. If the amount of air being drawn through the holes 25 and 26 is too great, the amount of air being drawn therethrough may be cut down by moving the sleeve 23 to a position where the hole 26 is not in complete registry with the hole 25.

The device herein disclosed may be constructed out of relatively light material or if desired may be constructed out of composite material so that the device may be made of a color simulating the color of either the stem 11 or the mouthpiece 12.

I claim:

1. In a smoke cooling device for smoker's appliances, a one-piece body formed of a rear portion and a forward portion, said portions being of different outer diameters, said body being formed

with a peripheral shoulder at the junction of said portions, said rear portion being provided in a part of the length thereof with a socket having its mouth at the rear end of such portion, said body being formed with an axial bore of uniform diameter, said bore opening at its rear end into said socket through the base wall of the latter and at its forward end at the forward end of said forward portion, said body being formed with an air vent opening at its outer end at the outer periphery of said body and arranged between the base wall of said socket and said shoulder, said vent being disposed at right angles to and opening at its inner end into said bore, said rear portion being provided at the rear end of its outer periphery with an annular rib, and a sleeve revolubly mounted on said rear portion having one end abutting said rib and provided with an opening for controlling communication of the vent with the atmosphere.

2. In a smoker's appliance, a mouth piece having a bore throughout, a forwardly disposed reduced extension and a peripheral shoulder, a stem having a socket in its rear terminal part and a bore opening into and extending forwardly from said socket, a one-piece body interposed between said mouthpiece and stem and formed of rear and forward portions of different outer diameters and with said outer diameters being less than the diameter of the forward end of the mouthpiece and the rear end of the stem, said rear portion being formed with an annular rib on the rear end of its outer periphery and with a rearwardly opening lengthwise socket for a part of its length, said socket encompassing said extension, said forward portion being arranged in the socket of said stem, the junction of said portions of said body forming the latter with a peripheral shoulder abutting the rear end of said stem, the rear end of said rear portion and said rib abutting the shoulder on the mouthpiece, said body being provided with an axial bore extending from the base of its socket to the forward end of its forward portion arranged between the bores of the mouth piece and stem, said bores being of uniform diameter, the forward end of the bore of the mouthpiece registering with the rear end of the bore in said body, the rear end of the bore in the stem registering with the forward end of the bore in said body, said rear portion being formed with an air vent opening at its outer end at the outer periphery of said body and disposed between the base wall of the socket in said rear portion and the said shoulder on said body, said vent being arranged at right angles to and opening at its inner end into the bore of said body, and a revoluble sleeve mounted on said rear portion between said rib and rear end of the stem and provided with an opening for controlling communication between said vent and the atmosphere, said sleeve frictionally engaging with the rear end of said stem.

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