Aug. 23, 1966 M. J. DOPPELT 3,267,941

SMOKING DEVICE

Filed Feb. 14, 1964

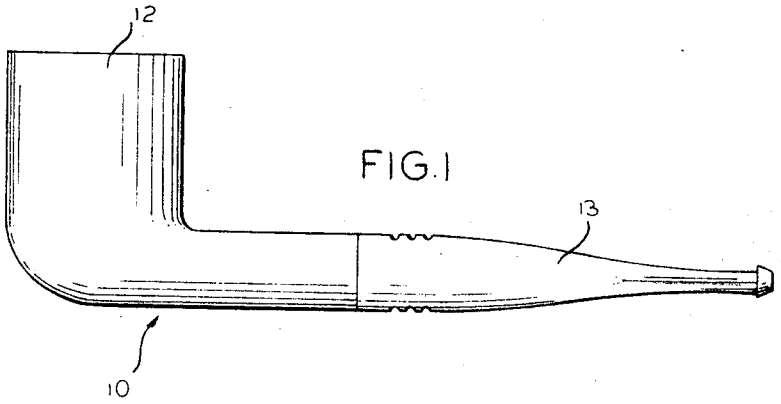


FIG. 1

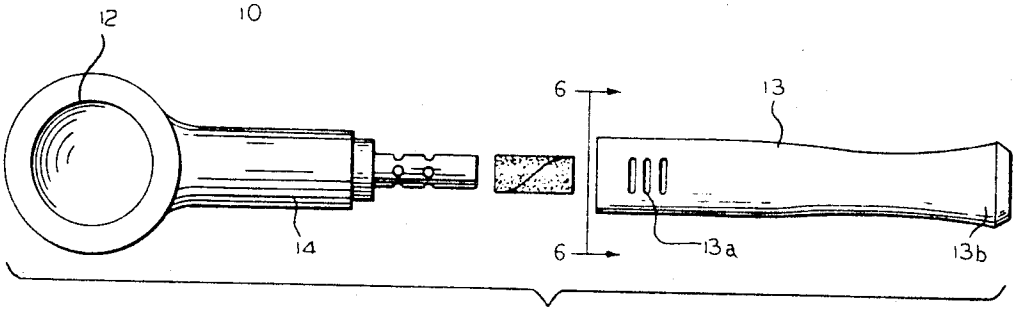


FIG. 2

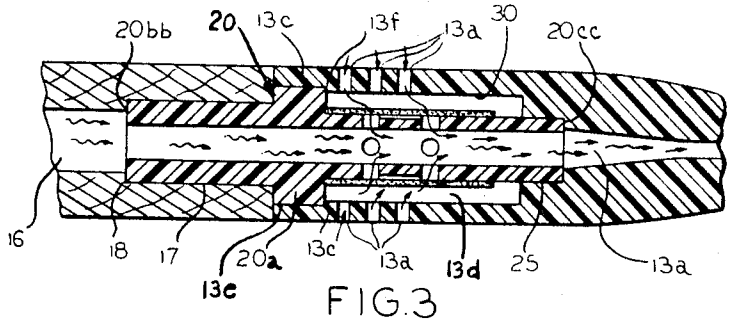


FIG. 3

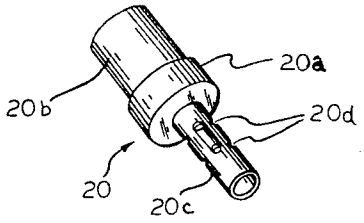


FIG. 4

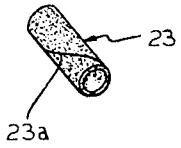


FIG. 5



FIG. 6

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United States Patent Office 3,267,941 Patented August 23, 1966

3,267,941

SMOKING DEVICE

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Filed Feb. 14, 1964, Ser. No. 344,851
4 Claims. (Cl. 131—198)

This invention relates generally to smoking devices and more particularly to an improved pipe which utilizes a principle disclosed in an earlier patented device of mine taught in U.S. Patent No. 2,440,396.

In my earlier patent I taught a smoking device wherein a porous moisture absorbing sleeve was disposed over a perforated air chamber so that air was caused to mix with warm smoke when the smoking device was used. The consequences of this mixing operation were that when the air and warm smoke were mixed, condensation would immediately form and it was absorbed by the moisture absorbing sleeve to effectuate what could be termed a dry smoking operation. Also, when the moisture was absorbed on the sleeves, evaporation took place and caused the pipe to be cooled thereby effectuating a cooler smoking operation.

Although my prior smoking device was successful in accomplishing the above objectives, the biggest disadvantage therewith resided in the fact that the porous moisture absorbing sleeve was disposed on the outside of the smoking device and as the smoker utilized the smoking device the sleeve became tarnished and gave the smoking device an ugly appearance. Still further, the smoking device, although resembling an ordinary pipe or cigarette holder, gave the appearance of a contraption due to the sleeve being disposed on the outside thereof and consequently their marketability was limited because of these drawbacks in appearance. In an earlier device the perforated air chamber was of greater diameter than the tubular extension received in the stem bore and acted as an expansion chamber causing cooling of the smoke.

I have provided a new and improved smoking device which cures the disadvantages which were inherent in my prior smoking devices by making a smoking device which utilizes the principles of my prior device while concealing the porous moisture absorbing sleeves so that the appearance of the smoking device is such that it cannot be differentiated from a normal smoking device. Further, controlled cooling of the smoke is accomplished without the necessity of providing an expansion chamber which, due to size limitations in conventionally shaped pipes, would not be feasible.

It is therefore an object of this invention to provide a smoking device which permits a cool smoking operation to thereby make smoking more pleasant.

It is further an object of this invention to provide a smoking device which has a structure that enables air to mingle with warm smoke prior to leaving the bit of the mouthpiece of the smoking device whereby condensation takes place therein.

It is still further an object of this invention to provide a smoking device which accomplishes the above objectives while having the appearance of an ordinary smoking device.

Other and further objects of this invention will become more readily apparent when reading the description herein along with the claims and drawing wherein:

FIGURE 1 is a side elevational view of a pipe embodying my invention,

FIGURE 2 is a top view of FIGURE 1 showing said pipe disassembled.

FIGURE 3 is an enlarged fragmentary half sectional view of FIGURE 1 illustrating the cross section of my pipe when it is assembled, said view omitting the tobacco receiving means and the bit of mouthpiece of said pipe,

FIGURE 4 is a perspective view of the novel air chamber assembled in said pipe and illustrated in FIGURE 3,

FIGURE 5 is a perspective view of the porous moisture absorbing paper sleeve which is slipped over the perforated tubular portion of the air chamber as illustrated in FIGURE 3, and

FIGURE 6 is a view taken on a plane passing through the line 6—6 looking in the direction of the arrows illustrated in FIGURE 2.

Referring to the drawings wherein like characters of reference identify corresponding parts throughout, FIGURE 1 illustrates my smoking device as a pipe **10** having tobacco receiving means such as a bowl **12** associated with a mouthpiece **13**, said pipe having the outward appearance of a normal pipe. The bowl **12** has a bored stem **14** extending therefrom with a counter-bore **17** formed at the end thereof which defines a retaining shoulder **18** in the pipe stem as illustrated in FIGURE 3.

A hollow tubular member **20** having a cylindrical hub portion **20***a*, projecting circumferentially therefrom at a point intermediate its ends, is assembled with the pipe stem as illustrated in FIGURE 3. A non-perforated hollow tubular portion **20***b* extends from one side of the cylindrical hub portion **20***a* to be received in the counter-bore **17** of the pipe stem **14** when assembled. The non-perforated tubular hollow portion **20***b* is sized in circumference with respect to the counter-bore **17** to form a secure and substantially air tight fit between the circumference of said non-perforated tubular hollow portion **20***b* and the counter-bore **17**. The length of said non-perforated tubular hollow portion is sized so that its outer end **20***bb* rests against the retaining shoulder **18** formed by the counter-bore **17** when the pipe is assembled.

A perforated tubular hollow portion **20***c* extends from the other side of the hub portion **20***a*. The perforated tubular hollow portion **20***c* has a plurality of air intake perforations **20***d* formed therein as illustrated in FIGURES 2, 3 and 4. A porous moisture absorbing sleeve **23** illustrated in FIGURE 5 is placed in direct contact with the perforated hollow tubular portion **20***c* by slipping it over said perforations in the position illustrated in FIGURE 3 so that the air intake perforations **20***d* are covered by the porous moisture absorbing paper sleeve **23**. The portion **20***c* being in contact with the hot smoke passing therethrough as well as in intimate contact with the sleeve **23** transmits the heat directly to the sleeve with little loss. This transfer of heat results in increased evaporation of moisture from the sleeve.

The porous moisture absorbing paper sleeve **23** is smaller than the one taught in my prior patent and consequently it is constructed differently although still being shaped the same. The sleeve has a spiral rib seam **23***a* running through it where the paper has been fastened together to form the sleeve. This construction is advantageous in that the smaller construction required by the structure herein taught needs a rib for rigidity so that the sleeve can be slipped on and off the porous tubular hollow portion **20***c* of the air chamber **20**.

The mouthpiece **13** has a bore **13***d* which is of varying diameter and it extends therethrough to enable smoke and air to flow through it. A bit portion **13***b* is formed at one end of the mouthpiece **13** to be received in the mouth of a smoker. The mouthpiece has a cylindrical opening **13***e* at the other end thereof which is counter-bored to form a hub retaining wall **13***c*, said hub retaining wall being sized and shaped to form a substantially air tight fit with the cylindrical hub portion **20***a*, when slipped over the cylindrical hub portion in its assembled position as illustrated in FIGURE 3. Said other end of the mouthpiece which has the counter-bore therein rests against the stem **14** of the pipe and the shoulder

13*f* of the hub retaining wall is pressed against said other end of the cylindrical hub portion when the pipe is assembled operably. Also, the mouthpiece has a plurality of louvers 13*a* formed therein and disposed proximately with respect to the perforated hollow tubular portion 20*c* of the air chamber when the air chamber is assembled with the bored stem 14 as illustrated in FIGURES 1 and 3. It will be noticed that a hollow portion exists between the inner portion of the mouthpiece where the louvers are disposed and the porous moisture absorbing sleeve 23 when the pipe is in its assembled position. This void enables the air which flows through the louvers to circulate over the entire porous moisture absorbing sleeve 23 in order to cool off the pipe by evaporation after liquid has formed on the sleeve.

Referring to FIGURE 3 once again it will also be seen that the mouthpiece 13 has a tubular member retaining means 25 formed intermediate its ends on the inside thereof to have a substantially air tight fit with the outer end 20*cc* of the perforated hollow portion 20*c* when the pipe is in its assembled position. Therefore, when the pipe is operable it will be seen that the pipe stem 14, the tubular member 20 and the mouthpiece form a continual communication with the bores thereof to enable a smoker to draw on the mouthpiece and cause warm smoke to flow from the tobacco retaining bowl to the bit of the mouthpiece. When the smoke and warm air are drawn in this manner, the construction of my pipe is such that the air is caused to mix with the smoke by being drawn through the louvers of the mouthpiece and said porous moisture absorbing sleeve.

It will therefore be seen that I have provided a smoking device preferably embodied as a pipe which enables me to accomplish the objectives herein stated without disturbing the appearance of the pipe.

Although I have illustrated my invention specifically, I do not intend to be limited in this respect. For instance, I contemplate my invention to include any type of tobacco receiving device associated with a louvered mouthpiece that conceals and cooperates with a perforated tubular hollow portion in the manner that I have defined. For instance, the air chamber would not need to have a hub portion or non-perforated tubular portion. It could consist of a perforated tubular portion alone which was associated with any type of tobacco receiving means and which cooperated with a louvered mouthpiece as herein taught. Therefore, my invention would be practiced even though the specific air chamber described were not used. Also, it is not necessary to have the specific type of porous moisture absorbing sleeve that I have described even though my invention works best with it.

Having now particularly described and ascertained the nature of my said invention and the manner in which it is to be performed, I declare what I claim is:

1. A smoking device comprising:
a tobacco receiving bowl;
a hollow mouthpiece including a bit portion, said mouthpiece having a plurality of air intake openings therein;
a hollow tubular member extending from said bowl and received within said mouthpiece, said tubular member having a perforated sleeve-receiving portion spaced from the internal wall of said mouthpiece, said tubular member providing a passageway for smoke from said bowl to said bit portion; and
a porous moisture absorbing sleeve means slidably mounted on and in intimate engagement with the perforated sleeve receiving portion of said tubular member, the air intake openings of said mouthpiece and the perforations on the sleeve receiving portion being in proximity and cooperating with said porous sleeve to cause air from the atmosphere to mix with the warm smoke being drawn from said bowl as the smoker creates a vacuum at said bit portion of the mouthpiece, the heat from said smoke being transferred through said sleeve receiving portion to said sleeve causing evaporation of moisture therefrom.

2. A smoking device as defined in claim 1 and further including a bored stem extending from said bowl, said hollow tubular member extending therefrom.

3. A smoking device as defined in claim 2 wherein said tubular member is provided with a hub portion, the forward end of said mouthpiece being in tight fitting relationship with said hub portion.

4. A smoking device as defined in claim 2 wherein the rearward end of said tubular member is in tight fitting relationship within the interior of said mouthpiece.

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