Nov. 12, 1935. C. E. McDONALD 2,020,898

TOBACCO PIPE

Filed Sept. 1, 1934

Fig. 1.

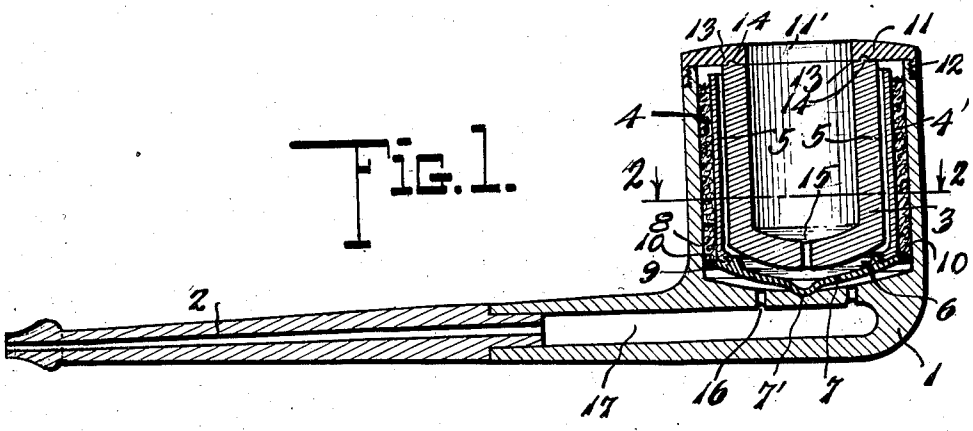


Fig. 2.

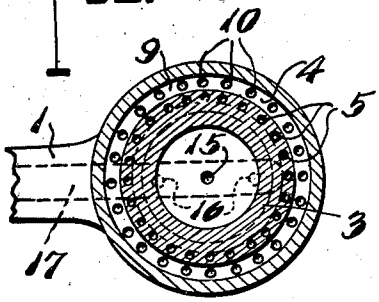


Fig. 3.

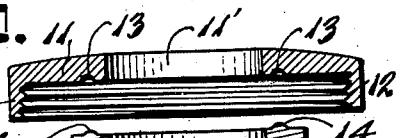


Fig. 4.

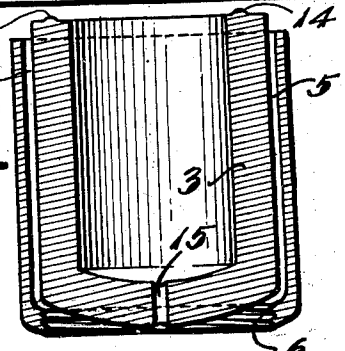


Fig. 6.

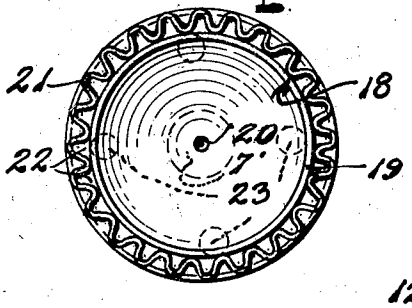


Fig. 5.

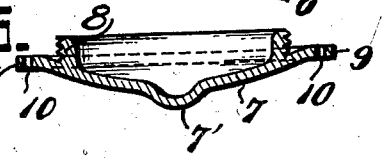
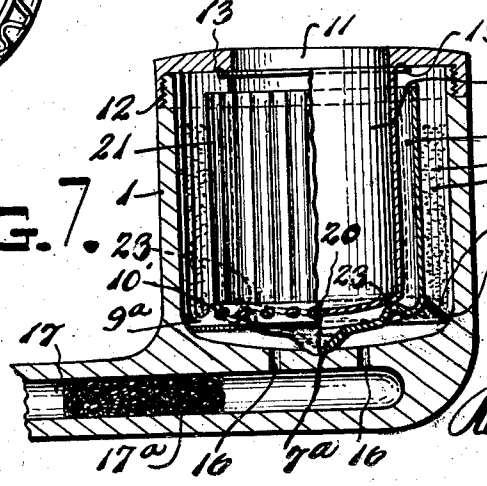


Fig. 7.



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TOBACCO PIPE

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Application September 1, 1934, Serial No. 742,466

3 Claims. (Cl. 131—12)

The present invention relates to improvements in tobacco pipes and it has for its primary object the provision of a construction by means of which nicotine, tobacco particles and other deleterious products may be prevented from reaching the mouth of the smoker.

A further objective is to provide an arrangement of parts such that the smoke from the tobacco is required to pass through a tortuous path from the combustion or tobacco chamber and through a filter chamber before reaching the stem of the pipe and in so doing said smoke is superheated to deprive it of much of its moisture and nicotine and is more or less flavored to give it the desired aroma and tobacco taste.

Another object in view is to provide a construction of parts which may be readily assembled into unit form and disassembled to permit of cleansing and replacement, particularly of the filter material.

Other and further objects and advantages of the invention will be hereinafter set forth and the novel features thereof defined by the appended claims.

In the drawing—

Fig. 1 is a longitudinal sectional view of a pipe constructed in accordance with my invention;

Fig. 2 is a horizontal section taken about on the plane indicated by the line 2—2 of Fig. 1;

Fig. 3 is a sectional view of the cap member for the pipe body;

Fig. 4 is a sectional view of the tobacco bowl or container;

Fig. 5 is a sectional view of the bottom closure cap for the tobacco bowl;

Fig. 6 is a top plan view of a modified form of tobacco bowl; and

Fig. 7 is a view partly in elevation and partly in section of the bowl shown in Fig. 6, disposed in the pipe body in operative position.

Like reference characters designate corresponding parts in the several figures of the drawing.

Referring to the drawing and specifically describing the invention, 1 designates the hollow body portion of the pipe which outwardly is of the usual form and provided with the conventional stem 2. Within the body is mounted the tobacco container or bowl 3 of a substantially smaller diameter than the body aforesaid so as to leave an annular space 4 which forms the filtering chamber, as hereinbefore referred to. This tobacco bowl has formed therein an annular series of vertical bores or passages 5 which communicate at their lower ends with the cavity 6 beneath the bowl which cavity is closed by means of a cap or plate 7, shown clearly in Fig. 5 to be concave in form and provided with an annular flange 8 threaded exteriorly to screw into the bottom of the tobacco bowl 3.

The closure plate 7 if further formed with a peripheral flange extension 9 which has a diameter corresponding to the interior diameter of the body 1, so as to act as a closure for the chamber 4 at its bottom, except for the small openings 10 arranged around the same. This flange 9 centers the tobacco bowl 3 within the body, supports the filtering means and the bowl and acts to prevent any particles carried by the smoke or which tend to move through the chamber 4 under the influence of the suction, from entering the stem passage. For the purpose of supporting the bowl 3 in spaced relation to the bottom of the body, the plate 7 is formed with a protuberance 7' to coact therewith.

The bowl 3 is held in place within the body 1 by the cap member 11, the peripheral flange 12 of which is threaded to coact with the top of the body. Said cap is formed with a central opening coinciding with the interior diameter of the bowl and preferably on its under surface with a small annular groove 13 to receive and seat the cooperating rib 14 on the rim of the bowl, thereby effectively sealing the annular chamber 4 at its top.

The bowl 3 has an opening 15 through its bottom at the center which establishes communication with the cavity 6 and the bottom of the body is provided with a plurality of openings 16 to establish communication with the passage through the stem.

The bowl 3 is further cut away at its top sufficiently to open the passages 5 into the annular chamber 4 when the cap member 11 is in place, as clearly shown in Fig. 1 which also clearly shows the manner in which the several parts described are assembled within the chamber of the body 1.

It is to be understood that any suitable filtering material 4', such as gauze, cotton, asbestos, briarwood cuttings or shavings, or the like, may be placed in the filtering chamber 4 surrounding the tobacco bowl, but I preferably employ the natural product tobacco itself for this filter. This obviously retains the flavor of the smoke while filtering the nicotine therefrom. However, I do not wish to be restricted to any particular filtering material, numerous types of which are known and usable. Preferably this filtering material is flavored with honey or similar sweetening substance before it is introduced into the filtering chamber.

In the use of the pipe, tobacco is first placed in the tobacco bowl 3. When it is lighted the smoke when drawn will pass downwardly through the opening 15 into the cavity 6, then upwardly through the numerous passages 5, outwardly into the annular filtering chamber 4, through the filtering material therein, downwardly again, then through the openings 10 in the plate 7 and the openings 16 into the bore 17, finally issuing from the stem passage. In its movement up the passages 5 the smoke is superheated and much, if not all, the liquid is dried up or evaporated. Then in its passage downwardly through the filtering material, it is further subjected to the heat of the outer wall of the bowl 3 and takes up the tobacco or filter flavor. A cool, dry and sweetly flavored smoke having the desired aroma is thus obtained, all particles or slugs being checked by the filtering material and the apertured flange extension 9.

It is further to be understood that the body and bowl of the pipe may be made of any suitable material, briar, meerschaum, phenol condensation products, metal or the like, either in whole or in part. As showing a modification in this respect, reference will now be made to Figs. 6 and 7 wherein the tobacco bowl is composed of the inner metal receptacle 18, having a sealing or gasket flange 19 about its top and one or more openings 20 at the bottom, and an outer receptacle 21 formed of corrugated metal to provide a series of passages 22 which correspond to the passages 5 in the preferred form shown in Fig. 1. The inner receptacle slides tightly into the outer, while lugs 23 stamped up from the bottom of the outer receptacle hold the receptacles spaced at the bottom, and the outer protuberance 7*a* supports the holder at the base as in the preferred form.

In this construction, I preferably supply a metal ring 9*a* separate from the receptacles which ring is slipped into the body so as to rest at its bottom edge on the bottom of said body, the top edge snugly receiving the wall of the outer receptacle 21, as shown in Fig. 7. This ring supports the filter material in the chamber 4 and has perforations 10′ therethrough to permit smoke to pass into the stem.

As shown in Fig. 7 also, a filter 17*a* of gauze or other material is disposed in the stem passage 17 and I desire it to be understood that both filters referred to may be used or one of the same may be dispensed with, as desired.

The top of the outer receptacle terminates short of the top of the inner and therefore smoke may pass from the passages 22 into the filtering chamber surrounding the bowl. A better transfer of heat is obtained by such a construction while affording the same tortuous passage for the smoke through the pipe.

While the specific details of construction have been herein shown and described, the invention is not confined thereto as alterations may be made without departing from the spirit thereof as defined by the appended claims.

I claim:

1. A tobacco pipe of the class described comprising a hollow body of conventional form and having openings in the base thereof to communicate with the stem passage, a tobacco bowl arranged in said body composed of an inner tobacco holding receptacle and an outer metallic container having its vertical walls bent to form corrugations extending in a vertical direction parallel to the axis of the bowl to provide a plurality of smoke passages and its bottom formed with upwardly extending protuberances to support the lower end of the inner receptacle, said bowl being sustained in spaced relation to the inner wall of the body, and a closure cap for holding the bowl in said body and closing the top of the annular space about the bowl, whereby the smoke is caused to follow a tortuous passage downwardly of the inside of the bowl, upwardly at the outside of the tobacco holding receptacle and downwardly of the annular space.

2. A tobacco pipe of the class described comprising a hollow body of conventional form, a tobacco bowl arranged in said body and composed of an inner tobacco holding receptacle and an outer metallic container having its vertical walls formed with corrugations extending in a vertical direction parallel to the axis of the bowl to provide a plurality of smoke passages, one of said last mentioned members having its bottom formed with protuberances to sustain the tobacco holding receptacle in spaced relation to the metallic container at the bottom, said bowl being sustained in spaced relation to the inner wall of the body to form an annular chamber, whereby the smoke is caused to follow a tortuous passage downwardly of the inside of the bowl, upwardly at the outside of the tobacco holding receptacle and downwardly of the annular chamber, out a ring member surounding the bowl at the base of the annular chamber, and a closure cap for holding the bowl in said body and closing the top of the annular chamber.

3. A tobacco holding unit for smoking pipes comprising an inner metallic receptacle adapted to receive and hold the tobacco, said receptacle having openings in the base thereof, and an outer metallic receptacle having its vertical walls formed with corrugations extending in a vertical direction parallel to the axis of the unit, said corrugations forming a plurality of smoke passages, said outer receptacle having upwardly extending protuberances for sustaining the inner receptacle in spaced relation to the outer receptacle at the bottom, and said outer receptacle having a projection extending outwardly for supporting the unit in spaced relation to the bottom of the smoking pipe, and an annular ring member extending about the bottom of the unit for centralizing the unit with respect to the smoking pipe.

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