Dec. 8, 1925. 1,564,858

H. W. KLOPPMAN

SMOKING PIPE

Filed April 1, 1925

Fig. 1.

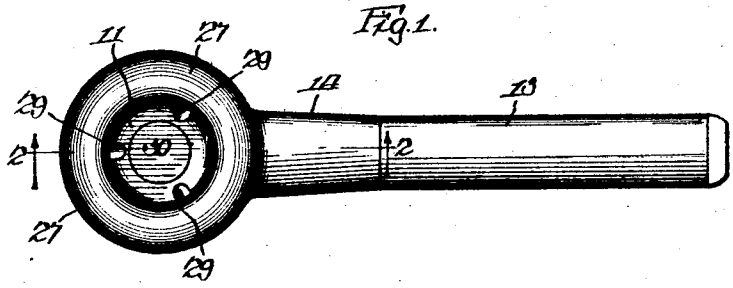


Fig. 2.

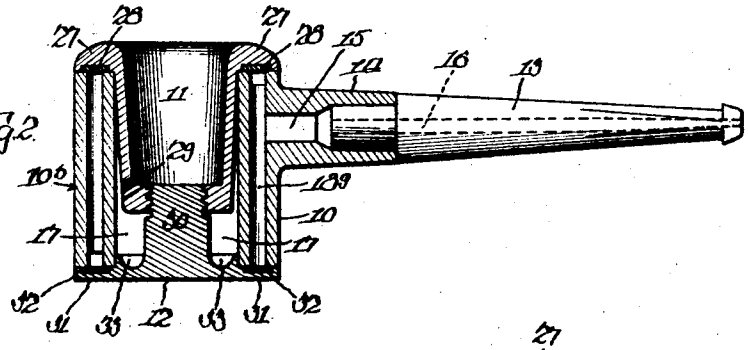


Fig. 3.

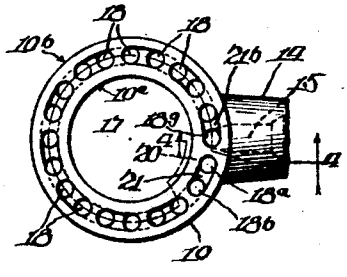


Fig. 5.

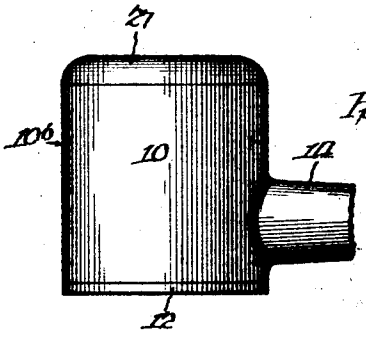
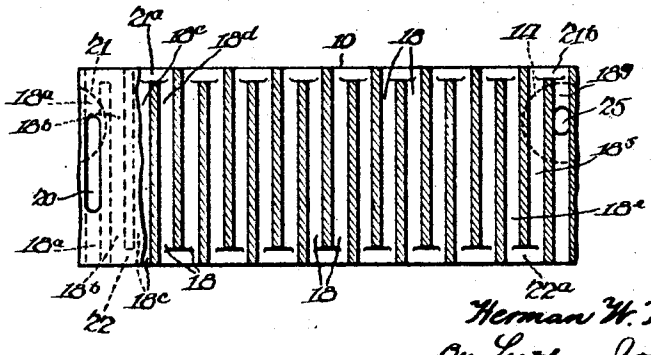


Fig. 4.



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UNITED STATES PATENT OFFICE.

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SMOKING PIPE.

Application filed April 1, 1925. Serial No. 19,809.

To all whom it may concern:

Be it known that I, HERMAN W. KLOPPMAN, a citizen of the United States, residing at Chicago, Cook County, Illinois, have invented certain new and useful Improvements in Smoking Pipes, of which the following is a specification, reference being had to the accompany drawings, forming a part hereof.

These improvements relate to pipes for smoking tobacco. The chief object is to provide a pipe of ordinary size having the advantages of a substantially long stem, for instances, the advantage of a relatively cool draught at the mouthpiece and the deposit of a materially large portion of the tarry and other products of combustion on internal walls of the pipe structure whereby the smoke entering the mouth is singularly clean and free of objectionable matter. It is an object to provide a pipe having such advantages and according to which the various internal pipe surfaces may be easily cleaned and maintained sanitary and in condition to provide what the smoker in well-known figurative language would term a "sweet smoke." It is an object also to provide a pipe according to which various parts may be readily assembled and dissociated from each other from time to time in an easy and simple way. An important object is to provide a pipe having advantages as mentioned and in a form notably easy of manufacture.

In the drawings, Figure 1 shows my improved pipe in a highly advantageous form in top view; Fig. 2 is a medial vertical section on the line 2—2 of Fig. 1; Fig. 3 is a fragmentary top view with the bowl and bottom closure removed; Fig. 4 is a vertical sectional view through the walls of the casing as indicated by the line 4—4 of Fig. 3, the section being on a circular line midway between the outer and inner surfaces of the casing wall and the section being laid out flat, showing clearly the sinuous and continuous character of the relatively long channel for smoke within the casing walls; and Fig. 5 is a fragmentary side view similar to the sectional view of Fig. 2 but showing the removable top and bottom members inverted with respect to their relative positions in Fig. 2.

In smoking pipes the head or body as a whole containing the fire pot is usually termed the bowl. According to such nomenclature the bowl in the present instance comprises the casing 10, the fire pot 11, and the bottom closure 12. The mouthpiece 13 is shown as extending frictionally into an opening in a stem-like projection 14 integral with the bowl. The shank or stem 14 is bored at 15 to provide a hollow interior or smoke channel, and the mouthpiece 13 has the usual channel 16. In the accompanying claims the stem therein designated may be considered the shank part 14 or the shank and mouthpiece combined, or, in instances where the mouthpiece may be inserted directly into the bowl, the mouthpiece alone would constitute the stem.

The casing 10, together with the integral shank part 14, may be of any suitable wood, composition, or other material, and may be formed according to well-known manufacturing methods and means. In the drawings the casing is shown as a cylindrical body having a cylindrical hollow interior 17 open at both ends. The accompanying drawings are scaled from one of my pipes and therefore show suitable proportions, although the present invention may be embodied in pipes of various shapes and proportions of parts.

It will be noted that within the walls of the casing 10, and between the inner wall 10^a and the outer wall 10^b thereof, I provide a considerable number of longitudinal channels 18 side by side, in parallel arrangement with each other, and coming one after the other from one end of the casing to the other.

From the dotted lines in Fig. 3 and from the full lines in Fig. 4 it will be noted that an elongated opening 20 is made in the casing wall leading from the hollow interior 17 to that one of the channels marked 18^a which is immediately adjacent to a channel in line with the stem and on the line 4 of Fig. 3. From Figs. 3 and 4 it will also be noted that between the adjacent channels 18^a and 18^b, and at the top as shown in these figures, a recess 21 is formed placing the channels 18^a and 18^b in communication with each other. From Fig. 4 it will be seen that between the channel 18^b and the channel 18^c, and at the bottom as shown in that figure, there is provided a recess 22 placing the channels 18^b and 18^c in communication with each other. Also that between the channels 18^c and 18^d, and at the top as shown in Fig. 4, there is a recess 21^a placing these channels in communication with each other. In the same manner the channels 18 adjacent

to each other are placed in communication with each other at one end or the other of the casing whereby these channels are in series and provide, when the top and bottom closures are applied, a sinuous and continuous channel for smoke leading from the hollow interior 17 up and down and advancing until the exit opening 25 is reached leading into the hollow interior of the stem.

Tracing the smoke channel at its latter end it will be noted from Fig. 4 that between the channels 18^e and 18^f there is a recess 22^a, and that between the channel 18^f and 18^g there is a top recess 21^b, and that the discharge opening 25 is in the recess 18^g.

The fire pot 11 is shown as having an annular flange-like extension 27 overlying the normally upper end of the casing walls 10, the flange being recessed to accommodate a gasket 28, which may be of fibre or of any other suitable material. The fire pot and flange 27 are preferably made integral with each other, and may be of wood or any other suitable material. Several openings 29 place the interior of the fire pot in communication with the hollow interior 17.

The bottom closure 12 is provided with an upstanding central projection 30 having its free end in screw-threaded engagement with the fire pot 11. It has also an annular part 31 overlying the bottom walls of the casing, and a gasket 32 therein cooperates in maintaining a tight fit at this joint. The annular trough 33 collects tarry deposits and condensed water vapor arising from combustion in the fire pot and cooperates to prevent oozing at the gasket 32 should the joint not be maintained tight by the user.

The fire pot is spaced from the inner surface of the casing walls to a materially large extent, the outer walls of the fire pot preferably tapering to provide clearance except at the top where the fit is sufficiently close to center the fire pot with the casing. This clearance or spacing provides a heat insulating medium between the fire pot and the casing and the transmission of heat to the casing by conduction is therefore greatly reduced. Heat from the fire pot is conducted principally to the flange 27 and to the projection 30, and such conducted heat is dissipated to a large extent into the open air.

The smoke first passes into the hollow interior 17 where a preliminary cooling and the deposit of carbon, tars and water vapor takes place. It then passes into the long winding channel described, and thence to the mouthpiece. The winding channel illustrated is about thirty five inches long and its cubic capacity is such that a single draught at the mouthpiece does not nearly exhaust its air-and-smoke contents at a given time. Ordinarily some smoke present in the bowl at a given time does not reach the mouthpiece until the third, fourth or fifth draught thereafter. The smoke in the sinuous channel is therefore quiescent between draughts, and is frequently at rest for considerable periods, affording the heavier particles opportunity to settle out and the smoke to cool—the cooling arising from the fact that at all times heat units in the casing are being lost to the outer air through the large outer radiating surface of the bowl.

Fig. 5 shows that the respective positions of the fire pot and the bottom closure 12 may be reversed. The user may at times prefer the "underslung" arrangement as shown in Fig. 2 and at other times the one shown in Fig. 5. The entrance opening 20 (Fig. 4) being elongated, a substantially large opening is provided from the chamber 17 in either position of the fire pot.

It is apparent that unusual conditions exist for cleaning all of the inner surfaces of the bowl. With the top and bottom closures removed the ordinary long, slender and fuzzy pipe-stem cleaner may be passed through the channel 18.

I contemplate as being included in the present invention such changes, modifications and departures from what is herein specifically illustrated and described as fall within the scope of the appended claims.

I claim:

1. A smoking pipe comprising walls forming a casing having a hollow interior, a fire pot readily insertible into and removable from one end of said casing, the fire pot being spaced to a materially great extent from the casing walls, annular means associated with the fire pot and overlying one end of the casing walls, a readily removable closure for the other end of the casing, said closure including annular means overlying the end of the casing walls at said other end, a hollow stem extending from the casing, the casing walls having therein and between the inner and outer surfaces thereof a plurality of longitudinal channels side by side and terminating respectively at the opposite ends of the casing, the casing being recessed between adjacent ends of certain of said channels to place such certain channel ends in communication with each other, the annular means overlying the respective ends of the casing walls cooperating thereto, the construction being such as to place said longitudinal channels in series and thus to provide a relatively long and sinuous channel for smoke, said channel being at one end in communication with the hollow interior of the fire pot and at its other end in communication with the hollow interior of the stem.

2. A smoking pipe comprising walls

forming a tubular casing, a hollow stem extending therefrom, a readily removable closure at each end of the casing and overlying the respective end walls thereof, one of said closures including a fire pot extending into the hollow interior of the casing with a materially large part of the fire pot spaced from the inner walls of the casing, the walls of the casing having therein and between the inner and outer surfaces thereof a plurality of longitudinal channels side by side and connected in series to provide a relatively long and sinuous channel for smoke, said channel being in communication at one end with the hollow interior of the stem and at its other end with the hollow interior of the casing, the fire pot being also in communication with the hollow interior of the casing, the fire pot having a threaded hole in the bottom thereof, said other closure having a threaded stem adapted to engage said threaded opening and hold both closures in their respective operative positions.

3. A smoking pipe comprising walls forming a casing having a hollow interior, a fire pot readily insertible into and removable from one end of said casing and opening thereinto, a readily removable closure for the end of said casing opposite the end into which the fire pot is insertible, cooperative interengaging means carried by said closure and by said fire pot for simultaneously holding the fire pot and the closure in their respective operative positions, a hollow stem extending from the casing, the casing walls having a passageway leading from the hollow interior of the casing to the hollow interior of the stem.

4. A smoking pipe comprising walls forming a casing having a hollow interior, a fire pot readily insertible into and removable from one end of said casing and opening thereinto, a readily removable closure for the end of said casing opposite the end into which the fire pot is insertible, cooperative interengaging means carried by said closure and by said fire pot for simultaneously holding the fire pot and the closure in their respective operative positions, a hollow stem extending from the casing, the casing walls having a relatively long and sinuous passageway leading from the hollow interior of the casing to the hollow interior of the stem.

5. A smoking pipe comprising walls forming a casing having a hollow interior, a fire pot readily insertible into and removable from one end of said casing and opening thereinto, a readily removable closure for the end of said casing opposite the end into which the fire pot is insertible, cooperative interengaging means carried by said closure and by said fire pot for simultaneously holding the fire pot and the closure in their respective operative positions, a hollow stem extending from the casing, the casing walls having a plurality of longitudinal channels side by side and connected in series and forming a passageway leading from the hollow interior of the casing to the hollow interior of the stem.

6. A smoking pipe comprising walls forming a casing having a hollow interior, a fire pot readily insertible into and removable from either end of said casing, the fire pot having an opening for communication with the hollow interior of the casing, a readily removable closure for either end of said casing, cooperative interengaging means carried by said closure and by said fire pot for simultaneously holding the fire pot and the closure in their respective operative positions at opposite ends of the casing, a hollow stem extending from the casing, the casing walls having a passageway leading from the hollow interior of the casing to the hollow interior of the stem.

HERMAN W. KLOPPMAN.