May 27, 1941. M. EGUCHI 2,243,091

SMOKER'S ARTICLE

Filed March 13, 1940

Fig. 1.

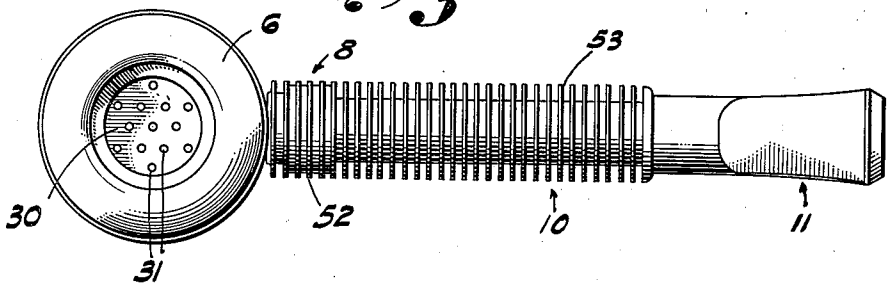


Fig. 2.

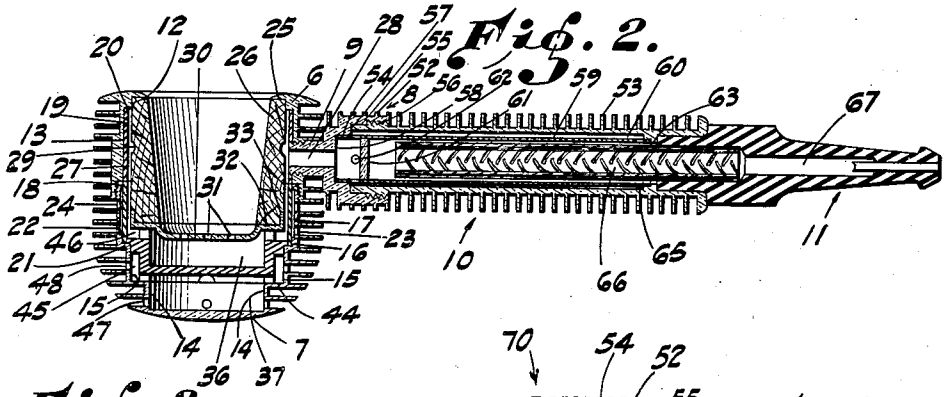


Fig. 3.

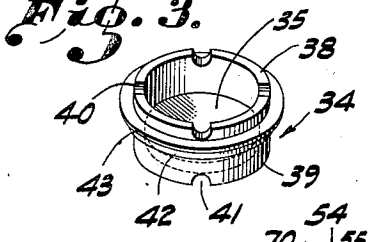


Fig. 4.

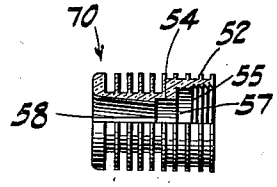
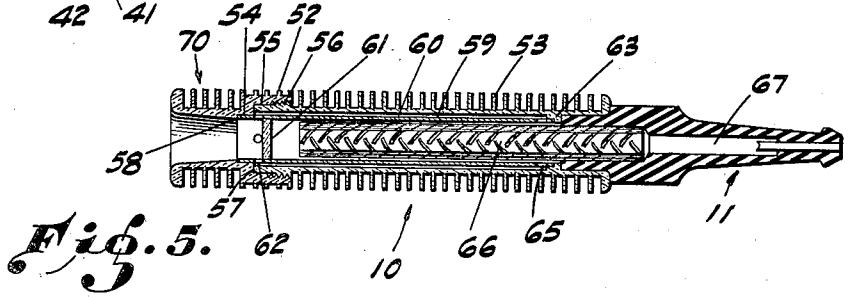


Fig. 5.



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SMOKER'S ARTICLE

Mitsuo Eguchi, Los Angeles, Calif.

Application March 13, 1940, Serial No. 323,745

4 Claims. (Cl. 131—196)

My invention relates to improvements in smoking devices and particularly to a bowl and stem which, when held in the mouth, will not have a tendency to tilt sideways.

One of the important objects of the invention is to provide a pipe which may be held in the mouth and smoked with the jaws in a relaxed condition, thereby eliminating jaw ache due to gripping the bit between the teeth to prevent the pipe from turning and then spilling.

Another object of the invention is to provide a combination tobacco compartment and bowl housing which is chambered in such a manner as to provide more effectively a circulation of air to cool the bowl and smoke.

A further object of the invention resides in providing an improved stem wherethrough the smoke from the bowl is caused to traverse a redoubled path in order to more effectively treat the indrawn smoke from a cooling standpoint.

A still further object of the invention is to provide a bowl housing, the sump portion of which is detachable in a downward direction and wherein the residue is segregated from the smoke which is later drawn into the mouth.

Yet a further object of the invention is to provide an improved insulated bowl whereby the heat from the burning tobacco is more readily dissipated and radiated and a much cooler smoke is provided for the individual's taste.

Still further objects reside in the provision of a more sanitary smoker's article, readily disassembled for cleaning purposes, more healthful, and unusually attractive and appealing as a man's smoking article.

Still other objects, features, and advantages of invention will hereinafter appear.

In the drawing wherein is shown a preferred embodiment of the invention as now reduced to practice and being sold in the trade.

Fig. 1 is a plan view,

Fig. 2 is a longitudinal mid-section,

Fig. 3 is a perspective view of one of the bowl parts,

Fig. 4 is a view partly in side elevation and partly in longitudinal mid-section of an auxiliary tip attachment for the pipe stem when used as a cigarette holder, and

Fig. 5 is a longitudinal mid-section of the combined pipe stem and tip or cigarette holder.

Referring in detail to the drawing, the invention comprises in general an upper and outer bowl housing 6, a lower and outer bowl housing 7 unscrewable downwardly (as viewed in Fig. 2) from said upper bowl 6, a pipe and stem union 8 having a reduced threaded end portion 9 screwed into said upper bowl at a point adjacent its mouth, and a pipe stem 10, including a bit 11, screwed into said union.

Bowl 6 has stepped interior annular concentric walls 12 and 13 of different diameters. Bowl 7 has stepped interior annular concentric walls 14, 15, 16, 17, and 18 of different diameters. The diameter of annular walls 16 and 18 of bowl 7 are the same as the diameter of annular wall 13 of bowl 6.

Where the steps occasioned by the junction of one annular wall of one diameter with that of an annular wall of a different diameter, there are formed horizontal ring-like shelves or ledges in each bowl.

Into the space occasioned by the increase in diameter of the annular wall 13 over that of annular wall 12 and corresponding diameters 16 and 18 of bowl 7 is fitted in a friction tight manner a composite cylindrical sleeve 19. Sleeve 19 extends from ledge 20 to shelf 21, and in so doing its outer periphery contacts wall 13, 18, and 16.

Since annular wall 17 is of a greater diameter than that of walls 16 and 18, which are of like diameters, there is formed between the outer wall of the sleeve 19 and wall 17 an annular air space 22 with which communicates a plurality of oppositely disposed holes 23 adjacent the bottom of said space and apertures 24 adjacent the top thereof. This arrangement of air space and vent holes for the entrainment and egress of air provides a circulation of air into and from the upper portion of the lower bowl 7.

Bowl 6 has at its mouth an annular inwardly directed flange 25 against which abuts with exact nicety the upper edge portion of a cylindrical briar bowl insert 26. Said briar bowl has an outside diameter equal to the diameter of the annular wall 12 and in assembling is projected upwardly through the bottom opening of bowl 6 into a workable fit therein.

However, the outside diameter of the insert 26 is less than the inner diameter of the sleeve 19, hence throughout the length of the insert there occurs an annular air space 27 which is augmented at a point adjacent the opening 28 in the union 8 by forming in the outer wall of the insert 26 a circumferential groove 29.

The bowl insert 26 is provided with an internal, frusto-conically shaped hollow space, the smaller end of the hollow space being at the bottom and to the lower end and forming a bottom closure

therefor is applied a saucer-like receptacle 30 which is provided with a plurality of apertures 31. The bowl insert 26 rests upon a horizontal ring flange 32 from which vertically extends an annular flange 33 fitted into a circumferential groove in the outer wall of said insert, with the outer face of the vertical flange flush with that face of the insert.

Directly beneath the briar insert 26 I mount an auxiliary bowl 34, see Fig. 3, having a horizontal cross wall 35 positioned about midway between the receptacle 30 and the bottom wall of the bowl 7 so as to provide two separate chambers 36 and 37. The bowl 34 is provided with an upper annular flange 38 and a like lower flange 39. In the outer edge portion of the flange 38 I provide slots 40, and in the outer edge portion of the flange 39 I provide slots 41. Bowl 34 is also provided with a horizontal circumferential flange 42, a portion of which is extended to form a circular lip 43, the bottom portion of which rests upon the shelf 21, and the outer edge portion of which abuts the sleeve 19.

The inner diameters of the auxiliary bowl receptacle and those of the annular flanges 38 and 39 are preferably constructed the same and are equal to the diameter of the annular wall 14. Being constructed in this manner the lower edge of the flange 39 is adapted to rest fully upon the shelf 44, and the upper edge of the flange 38 is adapted to come directly beneath the circular flange 32, so that when the lower bowl is screwed onto the upper bowl the top edge of the briar insert is urged into a close fit with the inwardly directed flange 25.

The thickness of the flanges 38 and 39 as well as a part of the wall which forms the receptacle of the bowl 34 are such that their outer walls fall well within the space provided by the annular wall 15 and the inner diameter of the sleeve 19 so that there is provided an annular space 45 communicating with the chamber 37 through the medium of slots 41 and an annular space 46 communicating with space 27 and chamber 36, through the medium of slots 40.

Bowl 7 is provided with diametrically opposite apertures 47 through which outside air is entrained into chamber 37, and there are diametrically opposite apertures 48 farther up in the wall of the bowl 7 through which this entrained air egresses after passing through slots 41 into the space 45.

In this manner, the principle of thermo-syphon cooling may be said to be employed for cooling the adjacent portion of bowl 7 as has been already mentioned.

The reduced axial end portion 9 of the union 8, wherein is formed the passage 23, is externally threaded and screwed into a tapped hole formed both in the side of the bowl 6 and the sleeve 19.

The opposite end of the union 8 is enlarged to an outside diameter equal to that of the stem 10 in order that the cooling fins 52 of the union may aline with the cooling fins 53 of the stem.

Into the larger end of the union 8 are formed a plurality of stepped annular concentric walls 54 and 55 which increase in diameter as they approach the open end of the union, and a portion of the annular wall 55 adjacent the end of the union is threaded in order to engage with the threads 56 which are formed on the pipe stem adjacent its bowl end. The steps occasioned by the difference in diameter of the internal walls 54 and 55, and the difference in diameter of the wall 54 with wall 9 form stops 57 and 58 against which I abut the ends of the pipe stem 53 and the end of the cooling sleeve 59 respectively.

The difference in diameter between the annular walls 54 and 55 are such that when the ends of the sleeve 59 and stem 10 are fitted therein in a friction-tight manner, there is formed an annular space 60 between the external wall of the sleeve and the internal diameter of the stem.

Into the bowl end of the sleeve is fitted a baffle 61, and in the sleeve adjacent the baffle are a plurality of holes 62 through which smoke passes from the bowl to the annular space 60. The space 60 extends to an internal annular rib 63 adjacent the inner end of the pipe stem against which rib the inner end of the bit 11 abuts. At this point, said space 60 stops short of the mouthpiece end of the cooling sleeve. At the mouth end of the cooling sleeve are formed holes 65 in the periphery where the smoke again enters the cooling sleeve and is directed to a point adjacent the baffle 61 where it enters the mouth of the filter 66, through which it is conducted to the passage 67 in the bit and thence into the mouth of the smoker.

The circuiting of the smoke through the holes 62 adjacent the baffle 61 into the space 60, thence through the hole 65 and back again to the baffle 61 where it enters the filter 66, causes the smoke to give off an appreciable amount of its heat due to the radiation afforded by the fins, thereby producing an inviting and cooling smoke for the taste of the smoker. If a warmer smoke is desired, the cooling sleeve may be abolished entirely, relying alone on the thermo-syphon cooling of the pipe's bowl to cool the smoke sufficiently to make it agreeable for the smoker.

In Fig. 4, it will be noted the bowl end of the union has been modified to make it adaptable as a cigarette attachment 70 for supporting a cigarette, the remaining structure remaining the same so as to make the pipe stem and cooling sleeve interchangeable therewith to form a complete cigarette holder as shown in Fig. 5.

What I claim is:

1. A pipe comprising an upper and outer bowl housing, a lower and outer bowl housing including an inwardly directed annular shelf screwed onto said upper and outer bowl housing, a sleeve mounted in a friction tight manner in said upper and outer bowl housing, said sleeve extending part way into said lower and outer bowl housing and having its lower end in a closed relation therewith, there being an annular space between the outer wall of said sleeve and the inner wall of said lower and outer bowl housing, and there being vertically spaced apertures in the wall of said lower and outer bowl housing communicating with said annular space, an auxiliary bowl receptacle detachably mounted upon said shelf, a tobacco receptacle detachably mounted in said upper and outer bowl housing and resting upon said auxiliary bowl receptacle, there being an annular space between said tobacco receptacle and said sleeve, there being apertures in the bottom of said tobacco receptacle through which residue falls into said auxiliary receptacle, there being openings in said auxiliary bowl receptacle placing the chamber thereof and the annular space between said sleeve and said tobacco receptacle in communication with each other, and a stem having an opening communicating with the latter said annular space.

2. A pipe comprising an upper and outer bowl housing, a lower and outer bowl housing in-

cluding an inwardly directed annular shelf screwed onto said upper and outer bowl housing, a sleeve mounted in a friction tight manner in said upper and outer bowl housing, said sleeve extending part way into said lower and outer bowl housing and having its lower end in a closed relation therewith, there being an annular space between the outer wall of said sleeve and the inner wall of said lower and outer bowl housing, and there being vertically spaced apertures in the wall of said lower and outer bowl housing communicating with said annular space, an auxiliary bowl receptacle having an apertured annular side wall detachably mounted upon said shelf, a tobacco receptacle detachably mounted in said upper and outer bowl housing and resting upon said auxiliary bowl receptacle, there being a space beneath said auxiliary bowl receptacle and between the outer portion of its said annular side wall and the inner wall of said lower and outer bowl housing adjacent said shelf, there being apertures in the wall of said lower and outer bowl housing communicating with the space both at the bottom and sides of said auxilary receptacle, there being an annular space between said tobacco receptacle and said sleeve, there being apertures in the bottom of said tobacco receptacle through which residue falls into said auxiliary receptacle, there being openings in said auxiliary bowl receptacle placing the chamber thereof and the annular space between said sleeve and said tobacco receptacle in communication with each other, and a stem screwed into said upper and outer bowl housing adjacent the mouth of said pipe and having an opening communicating with the latter said annular space.

3. A pipe comprising an upper and outer bowl housing, a lower and outer bowl housing, including an inwardly directed annular shelf, screwed onto said upper and outer bowl housing, an auxiliary bowl receptacle having an apertured annular side wall detachably mounted upon said shelf, a tobacco receptacle detachably mounted in said upper and outer bowl housing and resting upon said auxiliary bowl receptacle, there being a space beneath said auxiliary bowl receptacle and between the outer portion of its said annular side wall and the inner wall of said lower and outer bowl housing adjacent said shelf, there being apertures in the wall of said lower and outer bowl housing communicating with the space both at the bottom and sides of said auxiliary receptacle, there being an annular space surrounding said tobacco receptacle, there being apertures in the bottom of said tobacco receptacle through which residue falls into said auxiliary receptacle, and there being openings in said auxiliary bowl receptacle placing the chamber thereof and the annular space surrounding said tobacco receptacle in communication, and a stem screwed into said upper and outer bowl housing adjacent the mouth of said pipe and having an opening communicating with the latter said annular space.

4. A pipe comprising an upper and outer bowl housing, a lower and outer bowl housing, including an inwardly directed annular shelf, fastened to said upper and outer bowl housing, an auxiliary bowl receptacle having an apertured annular side wall detachably mounted upon said shelf, a tobacco receptacle detachably mounted in said upper and outer bowl housing and resting upon said auxiliary bowl receptacle, there being a space beneath said auxiliary bowl receptacle and between the outer portion of its said annular side wall and the inner wall of said lower and outer bowl housing adjacent said shelf, there being apertures in the wall of said lower and outer bowl housing communicating with the space both at the bottom and sides of said auxiliary receptacle, there being an annular space surrounding said tobacco receptacle, there being apertures in the bottom of said tobacco receptacle through which residue falls into said auxiliary receptacle, and there being openings in said auxiliary bowl receptacle placing the chamber thereof and the annular space surrounding said tobacco receptacle in communication, and a stem secured to said upper and outer bowl housing adjacent the mouth of said pipe and having an opening communicating with the latter said annular space.

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