

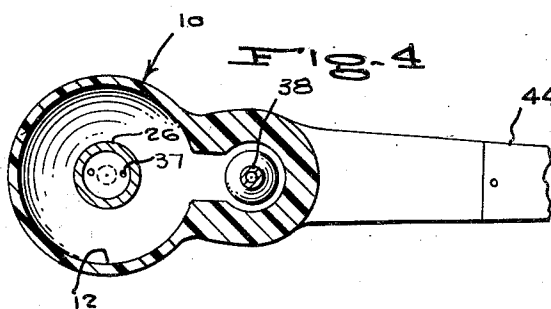
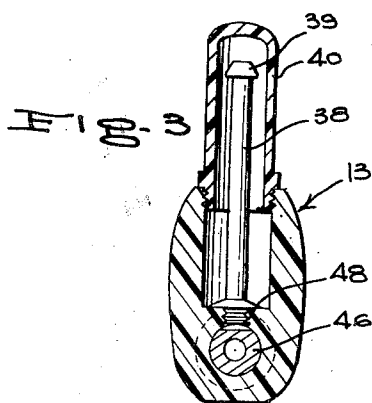
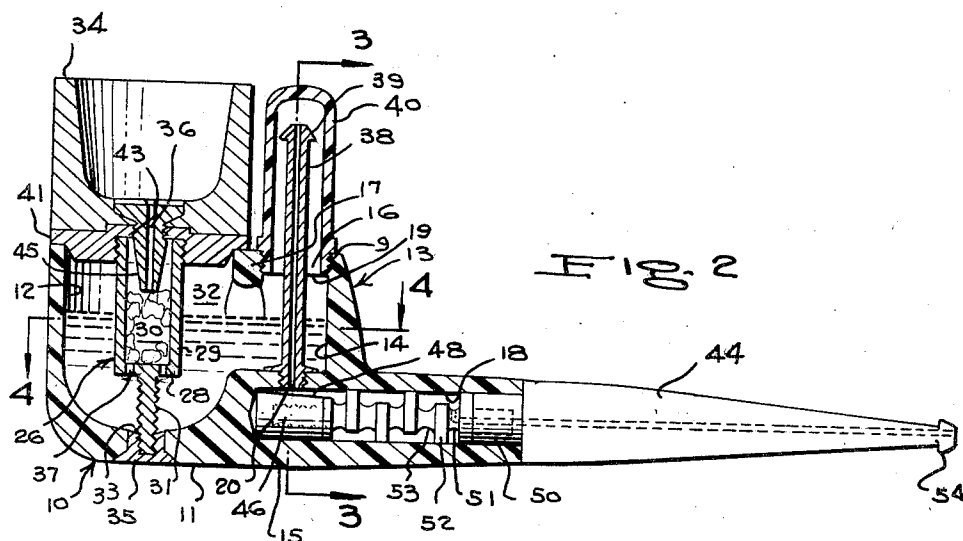
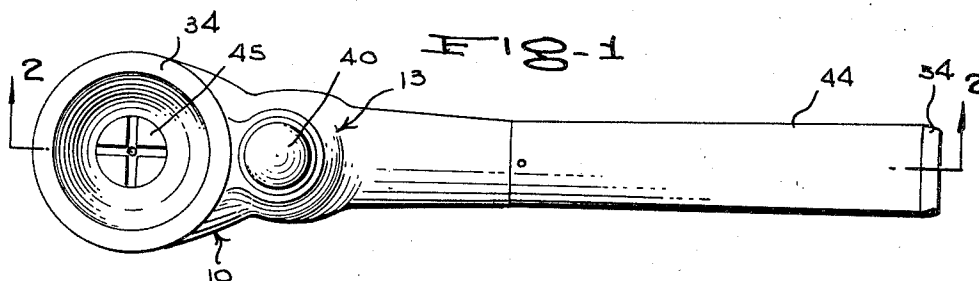
Sept. 24, 1957

WENSAN WANG

2,807,268

SMOKING PIPE

Filed Oct. 17, 1956



INVENTOR.
WENSAN WANG
BY

McMorrow, Berman & Davidson
ATTORNEYS

1

2,807,268

SMOKING PIPE

Wensan Wang, Tokyo, Japan

Application October 17, 1956, Serial No. 616,502

4 Claims. (Cl. 131—207)

This invention relates to a smoking pipe of the water reservoir type.

In my prior application, Serial No. 511,543, May 27, 1955, there is disclosed and claimed a smoking pipe of the water reservoir type which comprises an upstanding body having an open top, an upstanding casing positioned in tandem relation with respect to the body and having a side portion in communication with the interior of said body, an overhanging ledge portion positioned on the top of said casing, there being an opening extending through said ledge, said casing adjacent the bottom having a pipestem recess formed therein, an upstanding conduit positioned within said casing and extending through said ledge opening and having the lower end in communication with said pipestem recess and having the portion adjacent the upper end exteriorly of and above said ledge, said conduit being of a size smaller than the ledge opening and forming with the wall of the ledge opening an annular passage for the egress of smoke, a condensing cap surrounding and closely spaced from the upper end portion of said conduit and supported on said ledge, a tobacco receiving bowl positioned above and over the open top of said body and operatively connected to said body, said cap extending upwardly from said ledge to a height equal to that of the bowl, and a vertically disposed smoke discharge tube positioned within said body and having the upper end in communication with said bowl.

By the present invention, the pipe of the prior application, Serial No. 511,543, is enhanced in structure and operation by the substitution of an adsorption and smoke-treating assembly for the smoke discharge tube in the pipe of the aforesaid application, the inclusion of separation and deflecting means on the portion of the conduit housed by the condensing cap, and the provision of valve means on the pipestem which cooperates with the lower end of the conduit.

On the accompanying drawings:

Figure 1 is a plan view of the smoking pipe according to the present invention,

Figure 2 is a sectional view taken on the line 2—2 of Figure 1,

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

Figure 4 is a sectional view taken on the line 4—4 of Figure 2.

Referring to the drawings, the smoking pipe of the present invention comprises an upstanding body 10 including an open top and a closed bottom 11 and having a bore 12 extending inwardly from the open top to said bottom. An upstanding casing 13 having a bottom 15 enclosed on one side, as indicated by the numeral 14, and open on the other side, as indicated by the numeral 9, is positioned in tandem relation with respect to the body 10 with the open side 9 in communication with the bore 12 intermediate the open top and closed bottom 11 of the body 10 and forming with said body 10 a water reservoir 32. An overhanging ledge 17 extends over the top of the casing 13 from its closed side 14 to its open

2

side 9, the ledge 17 having an opening 16 extending there-through. The closed side 14 of the casing 13 is provided with a pipestem receiving recess 18 which extends therein and communicates with the reservoir 32 and a port 20 extending vertically from the recess 18 into the reservoir 32, the port 20 being in axial alignment with the ledge opening 16.

An upstanding conduit 38 is positioned within the reservoir 32 and extends through the ledge opening 16 and has the lower end connected in communication with the port 20 and has the portion adjacent the upper end exteriorly of and above the ledge 17. The conduit 38 is of a size smaller than the opening 16 in the ledge 17 and forms with the wall of the opening an annular passage 19 for the egress of smoke from the reservoir 32. An inverted U-shaped condensing cap 40 extending upwardly from the ledge 17 to a height equal to the bowl 34, surrounds and is closely spaced from the upper end portion of the conduit 38 and has the bight spaced from the upper end of the conduit 38 and the legs spaced from the conduit 38 and supported on the ledge 17. An outwardly flaring skirt 39 is positioned exteriorly of and extends about the upper end portion of the conduit 38.

A tobacco receiving pipe bowl 34 is positioned over the open top thereof of the body 10 and is operatively connected to the body 10 by means of a bowl bottom 41. A receptacle 26, including a bottom 28 and an upstanding wall 29 extending around the perimeter of the bottom 28, is positioned within the body 10 and has the part of the wall 29 adjacent the top supported in the bowl 34 with the bottom 28 spaced above the bottom 11 of the body 10. The receptacle 26 holds a charge of adsorbent material 30, such as silica gel or like adsorbent material.

Means embodying a shank 31 carried by the receptacle bottom 28 is detachably and threadedly connected in a threaded bore 33 provided in a plug 35 seated in the body bottom 11 and fixedly secures the receptacle bottom 28 in spaced relation with respect to the bottom 11. An aperture 37 extends through the receptacle bottom 28 connecting in communication the interior of the receptacle 26 with the interior of the body 10 and permits the smoke entering the receptacle 26 to enter the water reservoir 32.

The bottom 41 of the pipe bowl 34 is interposed between the open top of the body 10 and the bowl 34 and has an axial opening 43 extending therethrough, the lower end of the opening being enlarged and the wall there-around being threadedly engaged to the threaded upper end portion of the wall 29 of the receptacle 26 for support of the latter.

A vertically disposed hollow stem 45 having a passage 36 therethrough extends through the bottom of the bowl 34 through the opening 43 and has its upper end in communication with the interior of the pipe bowl 34. The lower end of the stem 45 extends to a point adjacent to and spaced below the top of the receptacle wall 29. The outer wall of the stem 45 is of frusto-conical shape and is spaced from the wall 29 of the receptacle 26 and provides a surface for the condensation of tobacco tars and vapors produced by the burning tobacco. The inner wall of the stem 45 also provides a surface for the condensation of such tars or vapors. A pipestem 44 is mounted in the pipestem receiving recess 18 for rotation about the longitudinal axis thereof and has at one end a cylinder 46 provided with a flat surface 48 extending longitudinally thereof for establishing communication between the interior of the pipestem 44 and the lower end of the conduit 38.

The portion of the pipestem 44 between the cylinder 46 and the plug portion 50 of the pipestem 44 which secures it in the pipestem receiving recess 18 is of reduced diameter, as at 51, and provided with a plurality of spaced fins 52 therealong. Each fin 52 has a cut-away portion,

3

as at 53. The fins 52 are arranged so that the cut-away portions 53 are alternately on one side and the other of the pipestem reduced portion 51 and provides a tortuous passage for further cooling, condensing, and collecting further tars contained in the smoke received from the port 20.

In use, it will be evident that upon filling the tobacco receiving pipe bowl 34 with the tobacco to be smoked, and igniting it, smoke may be drawn through the passage 36 in the stem 45 and into the interior of the receptacle 26 from whence it will pass downwardly over the adsorbent material 30 and through the apertures 37 in the receptacle bottom 28 into the water reservoir 32 which will contain water by which the smoke is washed. The smoke leaving the reservoir 32 passes upwardly through the passage 19 and thence downwardly through the conduit 38 and port 20 into the pipestem receiving recess 18. With the flat surface 48 on the cylinder 46 registering with the port 20, it will be evident that the smoke will be drawn through the interior of the pipestem 44 and through a bit 54 on the end of the pipestem 44 and into the mouth of the smoker. Any moisture or water vapors which may be carried by the smoke as it passes upwardly through the annular passage 19 is caused to partly condense upon the exterior wall of the conduit 38 and roll back into the reservoir 32 with the remaining water contacting the skirt 39 being caused by such contact to flow back into the reservoir. Thus, the skirt 39 has the function of effectively preventing the entrance of any water into the conduit 38, but permits the smoke to freely pass into the conduit 38.

The cylinder 46 acts as a valve to close the port 20 when it is turned to a position in which the flat surface 48 is no longer in registry with the port 20. This permits the smoking pipe of the present invention to be carried with a charge of water in the water reservoir 32 without chance of spilling the same through the pipestem 44.

The adsorbent material 30 contained within the receptacle 26 and the water contained within the water reservoir 32 serve to remove from the smoke drawn through the bit 54 a major portion of the undesirable tobacco tars and vapors commonly present in tobacco smoke and generally irritating to the smoker.

It is to be noted that the receptacle 26 and the stem 45 together form a trap for preventing water from the reservoir flowing back into tobacco bowl 34 when the pipe is not in use or is carried in an inverted position in the pocket of the user.

What is claimed is:

1. In a smoking pipe, an upstanding hollow body having an open top, an upstanding casing positioned in tandem relation with respect to said body and having a side portion in communication with the interior of said body, an overhanging ledge positioned on top of said casing, there being an opening extending through said ledge, said casing adjacent the bottom having a pipestem receiving recess extending therein, an upstanding conduit positioned within said casing and extending through said ledge opening and having the lower end in communication with said pipestem recess and having the portion adjacent the upper end exteriorly of and above said ledge, said conduit being of a size smaller than the ledge opening and forming with the wall of said ledge opening an annular passage for the egress of smoke, a condensing cap surrounding and closely spaced from the upper end portion of said conduit and supported on said ledge, and a tobacco receiving bowl positioned above and supported upon the open top of said body, said cap extending upwardly from said ledge to a height equal to that of the bowl, the improvement consisting of a receptacle including a bottom and an upstanding wall extending about the perimeter of the bottom positioned within said body and having the part of the wall adjacent the top thereof supported in said bowl and having the bottom spaced above the bottom of said body, said receptacle being adapted to receive a charge of adsorbent

4

material, means fixedly securing said receptacle bottom in spaced relation to said body bottom, there being an aperture extending through said receptacle bottom and in communication with the interior of said body, and a vertically disposed hollow stem extending through the bottom of said bowl into said receptacle and having the upper end in communication with the interior of said tobacco bowl and having the lower end adjacent to and spaced below the top of the receptacle wall, the portion of said stem which extends into said receptacle being spaced from said receptacle wall.

2. In a smoking pipe, an upstanding hollow body having an open top, an upstanding casing positioned in tandem relation with respect to said body and having a side portion in communication with the interior of said body, an overhanging ledge positioned on top of said casing, there being an opening extending through said ledge, said casing adjacent the bottom having a pipestem receiving recess extending therein, an upstanding conduit positioned within said casing and extending through said ledge opening and having the lower end in communication with said pipestem recess and having the portion adjacent the upper end exteriorly of and above said ledge, said conduit being of a size smaller than the ledge opening and forming with the wall of said ledge opening an annular passage for the egress of smoke, a condensing cap surrounding and closely spaced from the upper end portion of said conduit and supported on said ledge, and a tobacco receiving bowl positioned above and supported upon the open top of said body, said cap extending upwardly from said ledge to a height equal to that of the bowl, the improvement consisting of a receptacle including a bottom and an upstanding wall extending about the perimeter of the bottom positioned within said body and having a part of the wall adjacent the top thereof supported in said bowl and having the bottom spaced above the bottom of said body, said receptacle being adapted to receive a charge of adsorbent material, means embodying a shank carried by said receptacle bottom and detachably connected to said body bottom fixedly securing said receptacle bottom in spaced relation to said body bottom, there being an aperture extending through said receptacle bottom and in communication with the interior of said body, and a vertically disposed hollow stem extending through the bottom of said bowl into said receptacle and having the upper end in communication with the interior of said tobacco bowl and having the lower end adjacent to and spaced below the top of the receptacle wall, the portion of said stem which extends into said receptacle being spaced from said receptacle wall and being of frusto-conical shape.

3. In a smoking pipe, an upstanding hollow body having an open top, an upstanding casing positioned in tandem relation with respect to said body and having a side portion in communication with the interior of said body, an overhanging ledge positioned on top of said casing, there being an opening extending through said ledge, said casing adjacent the bottom having a pipestem receiving recess extending therein, an upstanding conduit positioned within said casing and extending through said ledge opening and having the lower end in communication with said pipestem recess and having the portion adjacent the upper end exteriorly of and above said ledge, said conduit being of a size smaller than the ledge opening and forming with the wall of said ledge opening an annular passage for the egress of smoke, a condensing cap surrounding and closely spaced from the upper end portion of said conduit and supported on said ledge, and a tobacco receiving bowl positioned above and supported upon the open top of said body, said cap extending upwardly from said ledge to a height equal to that of the bowl, the improvement consisting of a pipestem mounted in the pipestem receiving recess for rotation about the longitudinal axis thereof, said pipestem having at one end a cylinder provided with a flat surface extending longitudinally thereof for establishing communication be-

5

tween the interior of the pipestem and the lower end of said conduit.

4. In a smoking pipe, an upstanding hollow body having an open top, an upstanding casing positioned in tandem relation with respect to said body and having a side portion in communication with the interior of said body, an overhanging ledge positioned on top of said casing, there being an opening extending through said ledge, said casing adjacent the bottom having a pipestem receiving recess extending therein, an upstanding conduit positioned within said casing and extending through said ledge opening and having the lower end in communication with said pipestem recess and having the portion adjacent the upper end exteriorly of and above said ledge, said conduit being of a size smaller than the ledge opening and forming with the wall of said ledge opening an annular passage for the egress of smoke, a condensing cap

6

surrounding and closely spaced from the upper end portion of said conduit and supported on said ledge, and a tobacco receiving bowl positioned above and supported upon the open top of said body, said cap extending upwardly from said ledge to a height equal to that of the bowl, the improvement consisting of an outwardly flaring skirt exteriorly of and extending about the upper end portion of said conduit.

References Cited in the file of this patent

UNITED STATES PATENTS

1,513,147	Zahariadis	Oct. 28, 1924
1,696,372	Wright	Dec. 25, 1928
2,631,591	Mariani	Mar. 17, 1953
2,690,753	Jackson	Oct. 5, 1954

FOREIGN PATENTS

20,729	Great Britain	Oct. 16, 1901
--------	---------------	---------------