

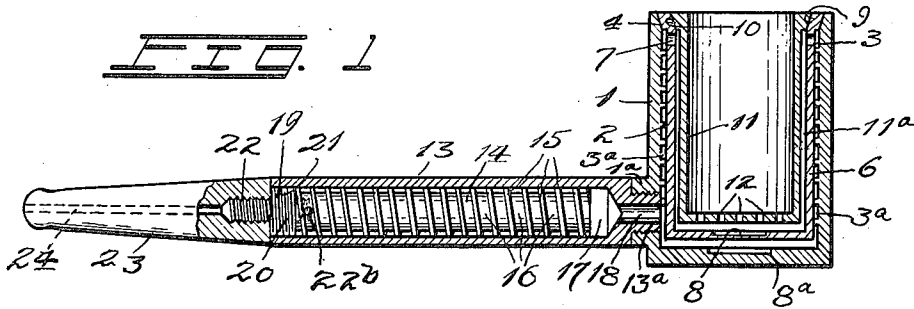
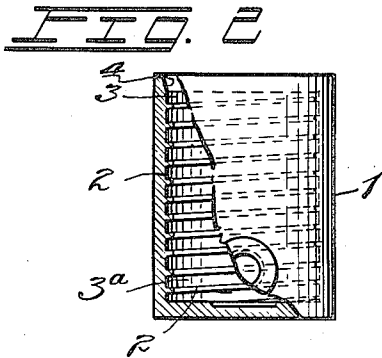
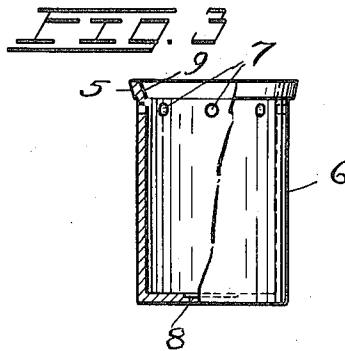
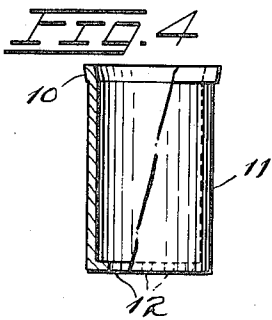
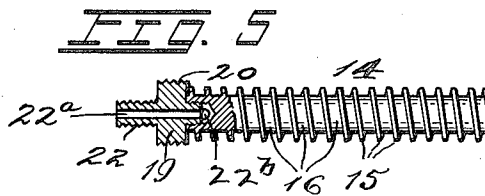
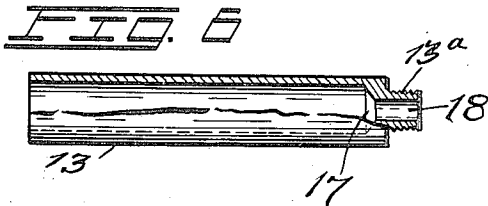
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1,462,905

J. B. FROST

SMOKING PIPE

Filed April 16, 1921



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UNITED STATES PATENT OFFICE.

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SMOKING PIPE.

Application filed April 16, 1921. Serial No. 461,911.

To all whom it may concern:

Be it known that I, JOHN B. FROST, a citizen of the United States, residing at Buckley, in the county of Pierce and State of Washington, have invented certain new and useful Improvements in Smoking Pipes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to pipes for tobacco, and particularly to pipes with means for separating the nicotine and other condensable vapors from the smoke before the smoke reaches the mouth of the smoker.

The objects of the invention are to provide a smoking pipe with a plurality of bowls, with connection from the inner bowl to the mouth piece at the end of the stem, the connection to be through a small coiled passageway in the stem of suitable length to cause the vapors to condense and be separated from the smoke during its travel therethrough.

A further object is to provide a smoking pipe with a plurality of telescoping bowls with spaces between the bowls and openings through the bowls into the spaces, and a passageway leading from the outer space to the mouthpiece of the pipe, together with suitable cavities at the bases of the bowls for collecting the nicotine from the smoke.

A further object is to provide a light and easily carried small smoking pipe with means therein for separating the nicotine from the smoke as it passes from the burning tobacco to the mouth of the smoker, so that as the smoke is drawn into the mouth it will be practically free from nicotine.

40 One sheet of drawings accompanies this specification as part thereof, in which like reference characters indicate similar parts throughout, and in which,—

Figure 1 is a side elevation of the pipe partly in section;

Fig. 2 is a detail in section of the outer bowl;

Fig. 3 is a detail in section of a secondary bowl;

50 Fig. 4 is a detail in section of the interior bowl;

Fig. 5 is a detail of the stem core with helical passageway, and

Fig. 6 is a detail partly in section of the pipe stem with core removed.

As illustrated, reference character 1 indi-

cates the outer shell or bowl of the smoking pipe used in the smoking of tobacco. The interior of the bowl is provided with a helical flange 2 extending from a circular groove 3 near the mouth of the bowl to the bottom thereof, the helical space 3^a formed by the flange constituting a passageway from the groove 3 to the cupped base 8^a.

The mouth of the bowl 1 is beveled as at 65 4 to form a tight union with a flange 5 of similar shape on the secondary bowl 6, which is placed within the bowl 1 with the outside of the bowl 6 fitting against the inner face of flange 2, so that the outer wall of secondary 70 bowl 6 forms the inner wall of the passageway 3^a, while a series of holes 7 in the upper portion of the bowl 6 register with the groove 3 when the bowls are telescoped. In the base of the bowl 6 is a suitable depres- 75 sion 8.

The inner edge of the mouth of the bowl 6 is also beveled as at 9 to form a tight union with a flange 10 of similar taper on the upper portion of the interior bowl 11, the 80 latter being provided with a series of small holes 12 through the bottom portion. The outer diameter of the bowl 11 is, however, less than the inner diameter of the secondary bowl 6, so that when bowl 11 is telescoped 85 into bowl 6 and the faces 9 and 10 adjoin each other, there remains a space around that portion of bowl 11 shown as 11^a.

The stem 13 of the pipe has a large bore into which is placed a core 14 provided with 90 a helical flange 15, thus providing helical groove 16 extending longitudinally of the core. The core, however, does not extend entirely to the inner end of the stem but terminates at a suitable distance to leave a 95 small cavity 17 into which opens a passageway 18 from the groove or helical space 3^a between the outer and secondary bowls. The stem is provided with a threaded end 1^c which fits into a boss or extension 1^a of the 100 bowl 1.

A connecting cap or plug 19 with thread 20 is screwed into similarly threaded outer end 21 of the stem and holds the core in position, while a passageway 22^a leads through 105 the cap to the outer end of the helical passageway 16 by way of a transverse passageway 22^b adjacent the end of the core. Any suitable mouthpiece 23 is screwed onto the outer end 22 of the cap 19. A passageway 110 24 through mouthpiece 23 registers with the passageway 22^a, completing the continuous

passageway or outlet from the inner bowl 11 through the holes 12 in the base of the bowl 11, up around the bowl 11 and through the holes 7 near the top of secondary bowl 6, thence into the groove space 3 and down through the helical passageway 3^a in outer bowl 1 to the passageway 18 in stem 13 through space 17 and on around the core 14 through the helical passageway 16 through passageway 22^b and outlet way 22^a and through the mouthpiece outlet 24 to the mouth of the smoker, which may without difficulty be made to total a distance of approximately five feet in a pipe of the dimensions in common use by smokers without this invention.

As the tobacco is burned in the bowl 11, the suction from the mouth of the smoker draws the smoke through the passageways described, and as the smoke moves there-through the nicotine and other vapors therefrom are deposited along the walls of the passageways, leaving the escaping smoke purified, cooled and pleasant. The heaviest portions of the nicotine are deposited within the space 11^a around the inner bowl and in the cavity 8 in the base of bowl 6, and the next heaviest portions are left in the passageway or groove 3^a and base cavity 8^a within the walls of the outer bowl 1, and the remainder is deposited along the passageway through the stem to the mouthpiece, thus the smoke is delivered to the smoker's mouth in a substantially dry, cool and cleansed condition, while at the same time the tobacco in the bowl remains dryer and burns freely and clearly without the forma-

tion of the objectionable wet, non-inflammable "heel."

The parts of the pipe are readily separated and easily cleaned, so that the pipe is easily kept fresh and wholesome.

The pipe may be constructed from any of the light clays, such as meerschaum, or from light metal, preferably aluminum, and instead of the passageways being formed by grooves, a tubular wire may be used, but I prefer the method first described as more easily cleaned. The shape of the pipe and parts may be varied to suit the user. Also, it will be apparent that pipes previously constructed of ordinary type may be improved by having additional bowls inserted as herein described and the helical passageways provided by boring out the stems and inserting a spiral core.

Claim—

In a pipe for smoking tobacco and the like a plurality of telescoping bowls the innermost bowl adapted to contain the burning tobacco being spaced from the next adjacent bowl throughout except for a supporting annular rim and the outermost bowl being spaced from the next adjacent inner bowl by a helical flange defining a helical passage, said helical passage communicating with the space adjoining the innermost bowl adjacent the supporting annular rim and said latter space communicating with the cavity of the innermost bowl by passages formed in the latter's bottom.

In testimony whereof I affix my signature.

JOHN B. FROST.