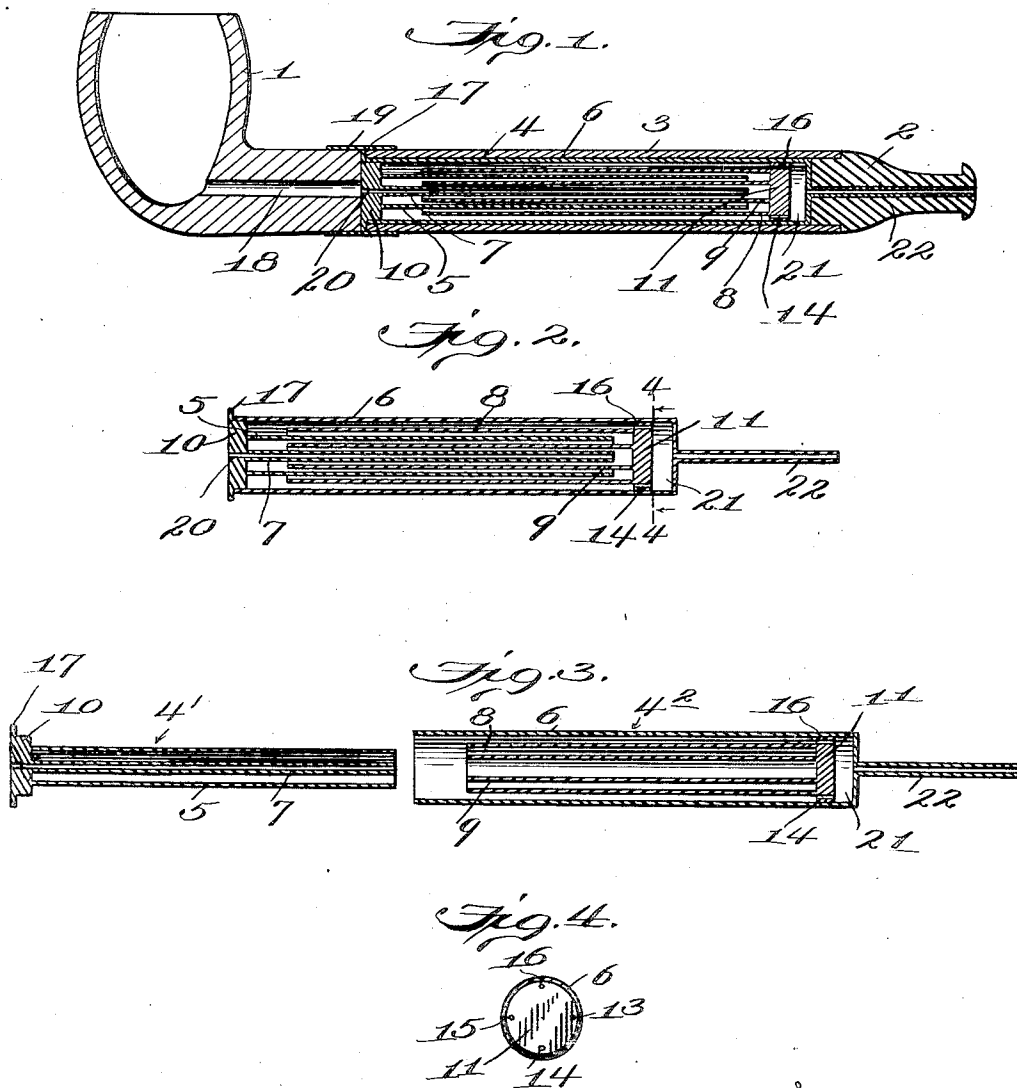


H. M. BROWNE.
TOBACCO PIPE STEM.
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1,102,865.

Patented July 7, 1914.



Witnesses:
[Signature]
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UNITED STATES PATENT OFFICE.

HUGH M. BROWNE, OF CHEYNEY, PENNSYLVANIA.

TOBACCO-PIPE STEM.

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Specification of Letters Patent.

Patented July 7, 1914.

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To all whom it may concern:

Be it known that I, HUGH M. BROWNE, a citizen of the United States of America, residing at Cheyney, in the county of Delaware and State of Pennsylvania, have invented certain new and useful Improvements in Tobacco-Pipe Stems, of which the following is a specification.

The main objects of this invention are to provide a tobacco pipe stem consisting of an outer and an inner member, the latter being composed of a nest of tubes; to provide a tobacco-pipe stem having improved means for securing a long draft of the smoke through a short stem; to provide a tobacco-pipe stem having improved means for separating the nicotine from the smoke; to provide a tobacco-pipe stem having improved means for preventing the deposit of nicotine upon the walls of the outer stem member or stem proper; to provide a tobacco-pipe stem having improved means for securing easy and cheap renewal of the parts upon which nicotine is deposited, thus securing a clean and sanitary condition without resort to the cleaning necessary for other pipe stems; and to provide a tobacco-pipe stem having an improved means for preserving in use inner stem member which may be employed in connection with valuable stems, to preserve the latter for use indefinitely.

With these and other objects in view, the invention consists of the novel construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in accompanying drawings in which—

Figure 1 is a longitudinal sectional view of a tobacco-pipe equipped with a stem embodying the said invention; Fig. 2 is a longitudinal sectional view of the inner stem member, showing the two parts thereof in closed position; Fig. 3 is a view similar to Fig. 2, but showing the aforementioned parts separated from each other; and Fig. 4 is a transverse section on line 4—4, Fig. 2.

Referring more particularly to said drawing, 1 indicates the bowl and 2 the mouth-piece of the pipe. These are, in the main, of conventional type and, hence, require no extended description. The stem of the pipe, on the other hand, embodies the most important feature of my invention and consists, as shown, of an outer member, or stem proper 3 and an inner member 4. The outer

member 3 is in the form of a hollow, tubular shell which may be made of any desired material and in any suitable length, its diameter at its front end being such as to enable it to frictionally fit within the usual metal band 19 on the neck of the bowl.

The inner stem member 4 is itself preferably composed of two separable parts, 4' and 4², which are adapted to telescope together and which consist, each, of a plurality of concentric, nested tubes. In the construction depicted, the inner part 4' comprises a pair of tubes 5 and 7 arranged in spaced, concentric relation and connected at one end to a cap 10, while the outer part 4² comprises three similarly-arranged tubes 6, 8 and 9, connected, at the opposite end from the first-named tubes, to a cap 11. The cap 10 is formed with a continuous, peripheral flange 17 which is formed upon its front edge, the remainder of the cap being adapted to fit in the front end of the outermost tube 6 of the outer part 4², so that the flange thus acts as a stop to limit the inward movement of part 4' into part 4². Where the width of the said flange is sufficiently great, as in the illustrated embodiment, it may extend, in the same way, across the front end of the outer stem member 3, thereby serving both to fix the position of the inner member 4 as a whole with reference to the former member, and to prevent the entrance of smoke between the members 3 and 4. In addition to this flange, cap 10 is formed with a central opening 20 which registers with the bore of tube 5 and, also, with the smoke duct 18 leading from the bowl, while cap 11 is formed with four openings 13, 14, 15 and 16, (Fig. 4), which provide communication between the chamber 21 in the rear of said collar and the annular space or chamber between the tubes 6 and 8, the former tube extending a slight distance behind this cap and being then reduced or attenuated to produce the said chamber 21 and the nipple 22 connected thereto, which nipple is designed for insertion in the bore of mouth-piece 2. The tube 6 also extends beyond the front ends of the inner tubes 8 and 9, as shown in Figs. 2 and 3.

When the two parts 4' and 4² of the inner stem member 4 are interfitted in the manner indicated in Fig. 3, the tube 7 of the part 4' will project into the annular space or chamber produced between the tubes 8 and 9 of the part 4², and will, in consequence, act as

a partition for such space or chamber, while the other tube 7 of the first-named part will project into the interior of the innermost tube 9. Owing, however, to the relative lengths of the outermost tube 6 and the two inner tubes 8 and 9, the free front ends of the said tubes 8 and 9 will terminate short of cap 10, and the free rear ends of the tubes 5 and 7 will, in like manner, terminate short of cap 11, thus providing communication, alternately at opposite ends between the successive annular spaces or chambers produced between adjacent tube walls. Accordingly, when the pipe is lighted, the smoke will pass through duct 18 and opening 20 into and through the innermost tube 5, from the rear end of which it will escape and be drawn into and through the next space or chamber in order, which is produced between tubes 5 and 9. It then passes, in the reverse direction, through this space or chamber, escapes at the front end thereof, and again reverses its direction, this time passing rearwardly through the space or chamber produced between tubes 9 and 7. It then escapes at the rear end of the latter space or chamber, reverses its direction, and flows forwardly through the space or chamber produced between tubes 7 and 8. It then escapes at the front end of the last-named space or chamber and flows into and through the outermost space or chamber, which is produced between tubes 8 and 6, and from this space or chamber it flows through the openings 13, 14, 15 and 16 in cap 11 into the chamber 21 at the rear thereof, whence it finally passes through nipple 22 into and through the bore of the mouth-piece 2. In consequence of this arrangement, it will be noted that the smoke travels through a tortuous path which is of very considerable length as compared with the length of the stem of the pipe. During its travel, the smoke is cooled to an extent sufficient to condense the nicotine contained therein, which is deposited on the walls of the tubes and on the caps 10 and 11, and after a certain quantity has thus

collected, (which may be readily ascertained by inspection), the entire inner member may be discarded and replaced by a fresh one. In this connection, it may be stated that the two parts of the inner member may be constructed of any desired material possessing the requisite lightness and capable of being cheaply manufactured, so that the cost to the user of renewing these parts is low. By the use of the particular inner stem described, the deposits of nicotine are confined entirely to that member and cannot penetrate to the outer member 3, since the passage of smoke into and through the space between members 3 and 4 is prevented by the extension of flange 17 across the front end of member 3, the latter member, therefore, being always kept in a clean state. Finally, it is to be observed that the stem is designed for removal as an entirety, or bodily, from the bowl neck, thus permitting cleaning of duct 18.

I claim;

A tobacco pipe having a bodily removable stem comprising a tubular outer member, and an inner member which is removably fitted in the bore of said outer member and which is provided with front and rear caps and behind the second-named cap with a closed end having a nipple leading therefrom, said caps having inlet and outlet apertures, respectively, for the smoke and the front cap having a continuous, peripheral flange which projects across the front edge of the outer stem member to prevent the entrance of smoke between said outer member and the inner member, and a mouth-piece removably connected to the rear end of the said outer member and having its front end abutting against the closed rear end of the said inner member and its bore receiving the said nipple.

In testimony whereof I have affixed my signature in presence of two witnesses.

HUGH M. BROWNE.

Witnesses:

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