May 6, 1924. 1,493,236

W. BIRCHALL

SMOKING PIPE

Filed May 2, 1923

Fig. 1.

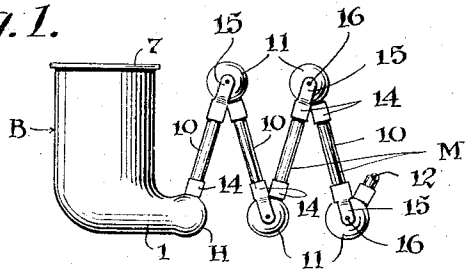
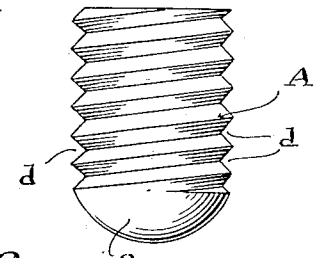


Fig. 4.



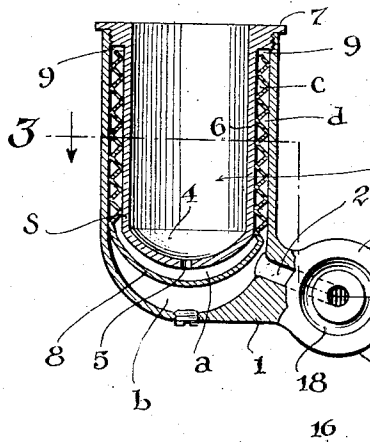


Fig. 2.

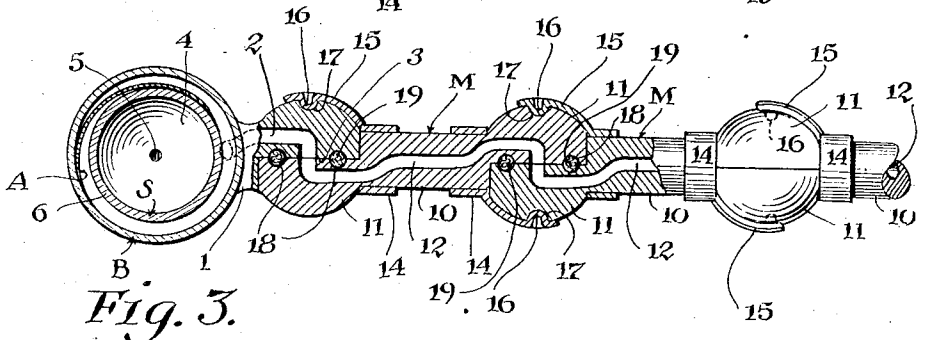
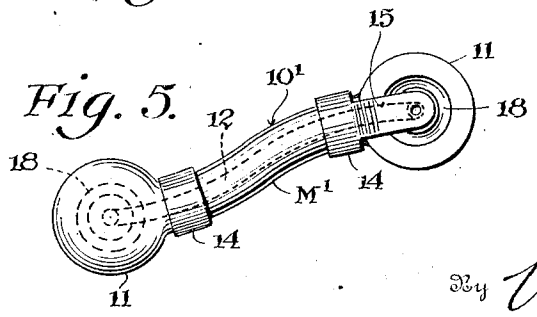


Fig. 3.

Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM BIRCHALL, OF ASHTON-UNDER-LYNE, ENGLAND.

SMOKING PIPE.

Application filed May 2, 1923. Serial No. 636,124.

To all whom it may concern:

Be it known that I, WILLIAM BIRCHALL, a subject of the King of England, residing at Ashton-under-Lyne, Lancashire, England, have invented certain new and useful Improvements in Smoking Pipes, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to certain improvements in smoking pipes and it is an object of the invention to provide a device of this character having novel and improved means whereby nicotine is prevented from passing through the pipe into the mouth.

It is also an object of the invention to provide a novel and improved device of this general character wherein the smoke drawn from the bowl is caused to travel in a tortuous path before entering the stem whereby the smoke upon entering the mouth is substantially pure.

It is also an object of the invention to provide a pipe with a novel and improved stem of a character whereby the stem may be lengthened or shortened as desired and also formed or flexed into a desired shape.

Furthermore it is an object of the invention to provide a pipe embodying a novel and improved stem consisting of a plurality of separable sections and wherein said sections are provided with means whereby the same may be readily and conveniently assembled with respect to adjacent sections.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved smoking pipe whereby certain important advantages are attained and the device rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings wherein:—

Figure 1 is an elevational view illustrating a pipe constructed in accordance with an embodiment of my invention, the associated stem being in fragment;

Figure 2 is an enlarged fragmentary view partly in section and partly in elevation of my improved pipe as herein disclosed;

Figure 3 is a sectional view taken substantially on the line 3—3 of Figure 2;

Figure 4 is an elevational view of the shell as herein disclosed;

Figure 5 is an elevational view illustrating a modified form of stem section.

As disclosed in the accompanying drawings, B denotes the bowl of the pipe provided at its lower portion with a stem section 1 having its outer portion formed in a substantially semi-spherical head H and through which is disposed a smoke opening or passage 2 in communication with the lower portion of the bowl and opening at the axial center of the flat face 3 of the stem section 1.

Extending within the bowl B is a sleeve S, said sleeve having its lower end closed, said closed end or wall 4 being provided in its central part with a restricted opening 5. The sleeve S when applied terminates a desired distance above the bottom of the bowl B and the side walls 6 of said sleeve are spaced from the side walls of the bowl. The upper or open end portion of the sleeve S is defined by an outstanding flange 7 which, as herein disclosed has threaded engagement with the upper portion of the bowl B whereby the sleeve S is effectively maintained in assembled relation with respect to the bowl B.

Fitting between the side walls of the sleeve S and the bowl B is a shell A having its inner or inserted end closed by the head 8 underlying the inserted or closed end 4 of the sleeve S and spaced therefrom and also spaced from the bottom of the bowl whereby are provided the spaced compartments *a* and *b*. The restricted opening 5 communicates with the upper compartment *a* and the opening or passage 2 is in communication with the lower compartment *b*. The side wall of the shell A is provided at its opposite sides with the spiral grooves or channels *c* and *d*, the inner groove *c* leading from the compartment *a* and the outer groove *d* communicating with the lower compartment *b*, both of said grooves being open at the top of the shell A. When the sleeve S is applied the upper end thereof is spaced as at 9 from the flange 7.

In practice the tobacco is packed in a conventional manner within the sleeve S and when suction is created through the opening or passage 2 the smoke is drawn within the compartment *a* through the re-

stricted opening 5 and then passes upwardly through the spiral path afforded by the inner groove *c* and then downwardly through the spiral path afforded by the outer groove *d* to the lower compartment *b* and from said compartment *b* through the opening or passage 2.

As herein disclosed the stem for the pipe comprises a plurality of separable sections or members M, said members or sections being of duplicate construction and for which reason a detailed description of one is believed to be sufficient for the purposes of disclosure.

Each of the members or sections M comprises an elongated body 10 provided at its opposite ends with the substantially semi-spherical heads 11, said heads having their flat faces substantially coplanar and reversely arranged with respect to the axis of the body 10. Disposed through the body 10 is a bore 12 which is extended within each of the heads 11 and is open at the axial center of the flat face of said head so that when the head 11 of one section overlies or laps the head 11 of a section immediately adjacent thereto the bores of said sections will be in continuity so that a free and unobstructed passage of smoke is obtained.

Slidably mounted upon the opposite end portions of the body 10 of each of the members or sections M are the sleeves or collars 14 from the outer end of each of which extends an arcuate resilient arm or clip 15 adapted to overlie the head 11 of an adjacent section or member M. Each of the clips has pressed or otherwise provided an inwardly disposed protuberance or lug 16 which seats within a socket or recess 17 provided at the central portion of the convex or outer face of said head 11. By this means the adjacent sections or members M are effectively maintained in assembled relation yet permitting the same to be folded or adjusted one with respect to the other to extend or shorten the distance between the bowl and the mouth piece or to compact the stem in a manner to facilitate the placing of the pipe in its entirety within a case or pocket. This construction of the stem also permits the same to be arranged in a straight form or in other designs. By having the sections or members M readily applied or removed, certain of said sections or members may be entirely removed to shorten the stem or added to lengthen the same. The flat face of each of the heads 11 is provided with an annular groove 18 concentric to the open end of the bore 12, said annular groove registering with a similar annular groove in the head 11 associated therewith. In these registering grooves is adapted to be arranged a packing 19 such as cork or the like to effect a hermetical seal between the overlying or lapping heads 11.

In Figure 5, I illustrate a stem section or member M′ wherein the body 10′ is disposed on a predetermined curvature. This form of member or section M′ may be used when preferred.

The smoke opening or passage 2 is herein disclosed as having a predetermined rise. This arrangement is employed to permit the use of the small drain plug 20 in the bottom of the bowl B.

In applying the stem to the pipe it is to be understood that the head 11 of one of the sections is operatively engaged with the head H in the same manner as hereinbefore set forth with respect to the heads 11 of adjacent sections or members M.

The mouth piece (not shown) may be as desired but preferably engaged with the outer end section or member M in the same manner in which the inner section or member M is attached to the head H.

From the foregoing description it is thought to be obvious that a smoking pipe constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice except as hereinafter claimed.

I claim:—

1. A pipe stem consisting of a plurality of sections, each of said sections comprising an elongated body member having substantially semi-spherical heads at the opposite end portions thereof, said heads being arranged at opposite sides of the sections with the flat faces of the heads substantially coplanar, said body having a bore extending therethrough and continued within the heads and terminating at substantially the axial centers of the flat faces of the heads, the head of one section overlying the head of an adjacent section, and means for maintaining said heads in overlying relation.

2. A pipe stem consisting of a plurality of sections, each of said sections comprising an elongated body member having substantially semi-spherical heads at the opposite end portions thereof, said heads being arranged at opposite sides of the sections with the flat faces of the heads substantially coplanar, said body having a bore extending therethrough and continued within the heads and terminating at substantially the axial centers of the flat faces of the heads, the head of one section overlying the head of an adjacent section, and resilient means carried by each of the sections for coaction with the

heads of adjacent sections for maintaining said sections in assembled relation.

3. A pipe stem consisting of a plurality of sections, each of said sections comprising an elongated body member having substantially semi-spherical heads at the opposite end portions thereof, said heads being arranged at opposite sides of the sections with the flat faces of the heads substantially coplanar, said body having a bore extending therethrough and continued within the heads and terminating at substantially the axial centers of the flat faces of the heads, the head of one section overlying the head of an adjacent section, spring arms arranged at the opposite end portions of the body and overlying the convex faces of the heads of adjacent sections, the central portions of said heads being provided with recesses, said spring arms having protuberances fitting within said recesses.

4. In combination with a bowl of a pipe, a stem having one end portion pivotally connected with the bowl, said stem comprising pivotally connected sections, each of said sections having bores therethrough in communication with the bores of adjacent sections, means for maintaining said sections in assembled relation, the bowl being provided with a smoke passage in communication with a section of the stem engaged with the bowl.

In testimony whereof I hereunto affix my signature.

WILLIAM BIRCHALL.