

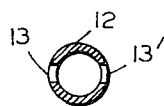
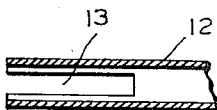
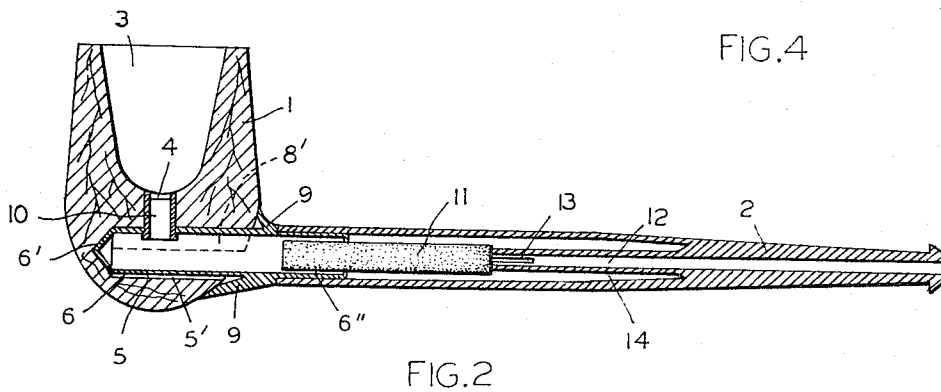
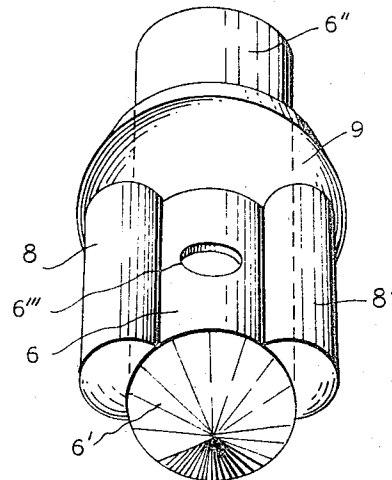
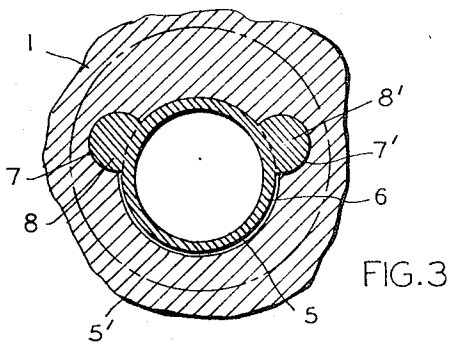
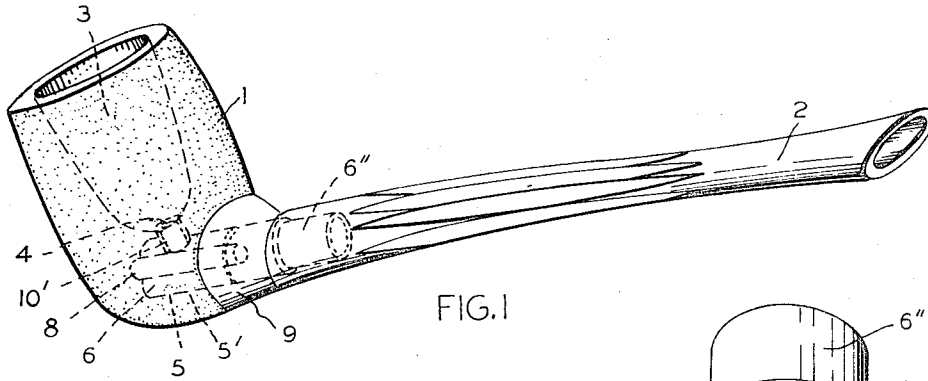
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3,419,016

SMOKING PIPES

Filed Nov. 14, 1966



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3,419,016

SMOKING PIPES

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## ABSTRACT OF THE DISCLOSURE

A pipe having a bowl and a stem connected to the bowl. The bowl has a smoke channel at the bottom thereof extending parallel to the longitudinal axis of the bowl and a hole extending at right angles to the channel. A smoke-guiding, elongated sleeve is positioned in the hole and is connected to the stem. The stem is provided with a smoke channel. An axially directed groove is provided in the wall of the hole and an axially directed guide and support member is on said sleeve to be inserted into said axially directed groove.

This invention relates to an improvement in smoking pipes.

An object of the invention is first to reduce the amount of material used, such as briar root or similar costly material, second to eliminate the flow of oil formed while the pipe is smoked, and third to facilitate cleaning of the pipe.

A further object is to make a stable connection between the bowl end of the pipe and the stem and to give the pipe an attractive shape.

A further object is to provide a smoking pipe which comprises a bowl and a pipe stem connected to the bowl, with a smoke-channel passing from the bottom of the bowl and opening out into a hole located preferably at right angles to said channel with a smoke-guiding elongated sleeve therein connected to the stem which is provided with one or more channels intended for the smoke.

A still further object is to provide a construction wherein at least two axially directed grooves are disposed in the wall of the hole and the sleeve at one outer face is formed or provided with at least two axially directed guide and support members which are arranged in, or capable of being inserted into, the axially-directed grooves.

A still further object is to make the cross-sectional area of the hole somewhat larger than the cross-sectional area of the sleeve and the grooves plus the guide and support members are so situated that the sleeve is caused to partially abut the wall of the hole and partially be free of the same.

A further object of the invention is to arrange the axially directed groove and guide and support members in a plane above an imaginary axial center line passing through the hole and sleeve respectively, in addition to which the portion of the sleeve between the guide and support members, in this upper plane, is arranged to abut the wall of the hole whereas the portion of the sleeve in the lower plane does not abut or brace against the wall of said hole.

With the above and other objects in view which will become apparent from the detailed description below, a preferred embodiment of the invention is shown in the drawings in which:

FIG. 1 is a perspective view of a smoking pipe wherein the invention is mounted.

FIG. 2 is a longitudinal sectional view through the pipe of FIG. 1.

FIG. 3 shows on an enlarged scale, a cross-section through the bowl.

FIG. 4 shows on the same scale, a perspective view of the sleeve with its guide and support members.

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FIG. 5 shows, in longitudinal section, a portion of the smoke-channel of the stem, at its end portion, and

FIG. 6 is a cross-sectional view of FIG. 5.

In the figures, 1 indicates the bowl of the pipe which may be made of briar root or similar wood. The stem 2 of the pipe is suitably produced of synthetic plastic or some other suitable material. The bowl 1 is provided in conventional manner with a bowl opening 3 for the tobacco, a smoke channel 4 at the bottom of the bowl opening into a hole 5 located at right angles to the channel. A sleeve 6 projects outwardly from the bowl 1 and is arranged in hole 5 and the stem 2 is mounted on the sleeve 6.

In the wall of the hole 5 are arranged two grooves 7, 7' extending in the longitudinal direction of the hole and parallel in a plane over the axial center line of the hole 5. These grooves 7, 7' are suitably not drilled until the hole 5 has been made. The outer face of the sleeve 6, suitably made of synthetic plastic or similar material, is provided with two axially directed ears 8, 8' which form guide and support members. The outer face of the sleeve 6 is also provided with an annular collar 9, the outer edge of which collar is adapted to abut the outer face of the bowl 1 of the pipe. The ears 8, 8' are so positioned that they pass into the grooves 7, 7' when the sleeve 6 is inserted in the hole 5.

The cross-sectional area of the sleeve 6 is somewhat less than the cross-sectional area of the hole 5, in addition to which the ears 8, 8' are positioned in such a way that the upper portion of sleeve 6 abuts the wall of the hole 5, whereas its lower portion is out of direct contact with the wall of the hole 5. The ears 8, 8' thus serve as support members for relieving pressure which would otherwise arise in the material in the bottom portion of the bowl 1 of the pipe, as for instance when the material in the bowl of the pipe contracts or expands, and against the stem 2 of the pipe with respect to the bowl 1. Between the lower portion of the sleeve 6 and the hole 5 there is formed a gap which enables the material of the sleeve to contract or expand without causing cracking in the wooden material of the bowl 1.

The wooden material at the bottom portion of the bowl 1, and the hole 5, is relatively thin and consequently cannot stand up to high stress loads. If the wooden material at the bottom portion of the bowl is subjected to stresses cracks will immediately appear, causing a portion of the wooden material to disintegrate. This disadvantage is completely eliminated with the arrangement according to the invention, since the ears 8, 8' relieve all the pressure against the wooden material, where it is weakest. The described relieving effect is also achieved when smoking pipes are made of other material, for instance, synthetic plastic or the like.

One end of the sleeve 6 is designed with a bottom 6', which prevents oil or the like, arriving from the bowl from penetrating from between the hole 5 and the outer face of the sleeve 6. Arranged on the upper portion of the wall of the sleeve 6 is a bushing 10 extending up into the smoke channel 4. There is a certain amount of friction between the walls of the channel and the bushing. The bushing 10 serves as a locking member for holding the sleeve 6 in a fixed, stationary position in the hole 5 so that the outer edge of the annular collar 9 constantly lies in abutment and braces against the outer face of the bowl 1, giving rise to an external counter-pressure which acts against the thinner portion of the material of the bottom portion of the pipe thereby absorbing possible stress loads in the material, arising when the pipe is subjected to harsh treatment. The bushing 10 may be inserted downwardly in the bowl 3, through the smoke channel 4 and into the sleeve 6, after which it may

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be swaged below the hole 6'' in the wall of the sleeve as shown in FIGS. 2 and 4.

The synthetic plastic material of the sleeve 6 is suitably so smooth that the outer edge of the collar 9 resiliently abuts the bowl 1, thus forming a sealing abutment, and a neat joint. The collar 9 is arranged at a distance from the open end of the sleeve 6 so that the end portion forms a bushing 6'' on which the stem 2 is capable of being displaced and removed. An elongated filter 11 is partly, frictionally inserted in the open end of the sleeve so that one end abuts an inner smoke channel 12 formed in the stem 2. The end portion of the smoke channel 12 is provided with one or more slots 13, 13' which are either vertically and/or horizontally directed as shown in FIGS. 2, 5 and 6. The combination of the inner smoke channel 12 and the slots 13, 13' prevent oil, tar or the like absorbed by the filter 11 from penetrating the inner smoke channel 12 and being drawn into the mouth of the smoker, since such impurities pass through the slots 13, 13' and into a gap 14 surrounding the smoke channel 12, in addition to which the filter is relieved from the suction effect if it should abut the inner end of the smoke channel 12.

The combination of the grooves 7, 7' and guide and support members 8, 8' is the most essential characteristic of the invention and this arrangement can be advantageously adapted in all types of smoking pipes, whether or not the sleeve forms a portion of the stem or whether or not it is rigidly arranged in the same, and whether or not the stem is displaceably or rigidly arranged on the pipe.

The invention also permits bowl blanks, which are substantially angularly shaped and which to a large extent possess faults in the form of cracks or the like, to be used for producing the bowl, since the stem portion proper of the blanks can be removed. Neither need new blanks be angular in shape, thus saving large quantities of material.

Thus the sleeve 6 and collar 9 may be made individually, the sleeve 6 being of a rigid material and the collar of a relatively soft material. The grooves 7 and 7' and the guide and support members 8 and 8' may naturally be greater than two in number and also be of a different shape.

What I claim is.

1. A pipe, comprising an upright bowl, a stem connected to said bowl, said bowl having a smoke channel at the bottom thereof extending parallel to the longitudinal axis of the bowl and an elongated hole extending at right angles to said channel into which said channel opens, a smoke-guiding, elongated sleeve in said hole connected to said stem, said stem being provided with a smoke channel, there being an axially directed groove in the

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wall defining said hole and an axially directed guide and support member on said sleeve in said axially directed groove whereby said sleeve is maintained in a fixed relative position to said hole.

2. A pipe as set forth in claim 1 wherein a plurality of grooves are provided and a plurality of guide and support members cooperate with said grooves to maintain said sleeve in a fixed relative position to said hole.

3. A pipe as set forth in claim 2 wherein the cross-sectional area of said hole is larger than the cross-sectional area of said sleeve and said grooves and guide and support members are so positioned that a portion of said sleeve abuts the wall defining said hole and a portion of said sleeve is spaced from the wall of said hole.

4. A pipe as set forth in claim 2 wherein said grooves and said guide and support members are positioned in a plane over the axial center line of said hole and said sleeve so that the portion of said sleeve between said guide and support members abuts the wall of said hole and the portion of said sleeve in the lower portion thereof is spaced from the wall of said hole.

5. A pipe as set forth in claim 1 wherein the end of said sleeve in said hole is closed.

6. A pipe as set forth in claim 1 wherein a bushing is fixed to said sleeve extending into said smoke channel to hold said sleeve from rotating.

7. A pipe as set forth in claim 1 wherein a collar is provided upon said sleeve to abut the outside surface of said bowl.

8. A pipe as set forth in claim 7 wherein said collar is made of resilient material to resiliently abut the outside surface of said bowl.

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