

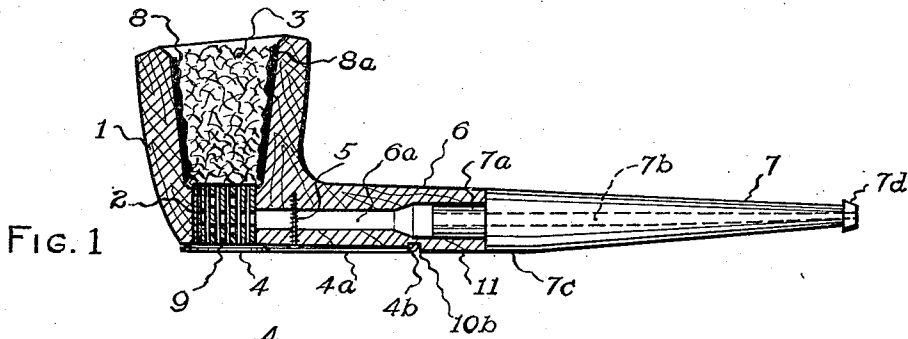
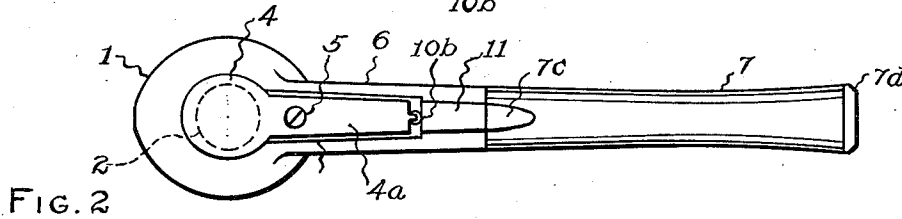
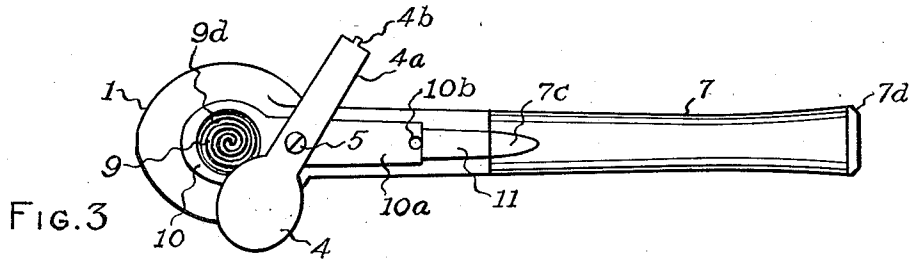
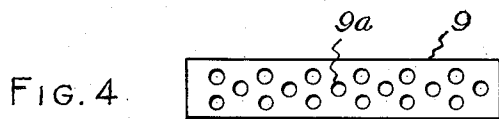
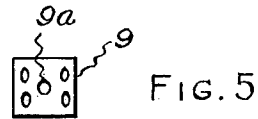
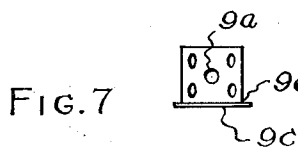
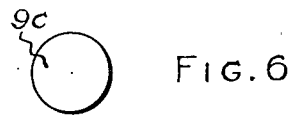
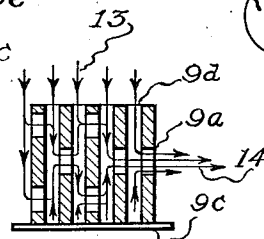
Jan. 18, 1938.

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2,105,539

TOBACCO PIPE

Filed Nov. 20, 1936



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2,105,539

TOBACCO PIPE

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Application November 20, 1936, Serial No. 111,930

11 Claims. (Cl. 131-12)

This invention relates to tobacco-pipes, and particularly to improvements for readily maintaining a clean smooth-smoking pipe, without the necessity of periodically handling several separate tar-covered parts, for cleaning tar from narrow ducts and small surfaces of these parts, and especially for preventing the transmission of tar through the smoking-stem, and collection therein.

or ducts of non-absorbent material, or in direct contact with the tobacco, are unsatisfactory for the objects desired. An important feature of this invention is the provision of an absorbent member in direct contact with the tobacco, and having a multiplicity of predetermined indirect passages through the absorbent material, external to the structure of the absorbent material.

10 An object of this invention is to provide a tobacco-pipe which neither transmits nor collects tobacco-tar within the smoking-stem, and eliminates the undesirable necessity of cleaning tobacco-tar from any narrow ducts or from a multiplicity of collecting surfaces; also to provide a pipe having a free draft, in which all tobacco-tar is collected and concentrated in a single absorbing member which is quickly removable by a cleanly operation, not requiring the handling of several separate tar-coated parts, nor subject to binding caused by cold viscous tobacco-tar adhering to separate parts and preventing the easy separation of such parts.

25 Another object of this invention is to provide a tobacco-pipe in which tobacco-tar and saliva are readily absorbed without obstructing the free passage of smoke from the tobacco through the smoking-stem for an extended period, and in which periodic renewal of the absorbent member is accomplished by a clean, simple and expeditious operation, eliminating the necessity of any additional cleaning, either of a soggy mass of tobacco and tar from the tobacco-bowl or of a residue of tar from any smoke-transmission conduits.

30 These objects, and others, will be better understood by reference to certain well known facts concerning structures previously disclosed, and to the following specification.

40 It is well known that small ducts or orifices in non-absorbent materials in direct contact with tobacco at the bottom of a charge of tobacco, are quickly clogged with tobacco-tar, and vitiate the utility of any filter member farther down-stream in the path of transmission from the tobacco to the smoker's mouth. Also, absorbent or fibrous meshes such as cotton, for example, which do not have a definitely provided group of passages from the tobacco to the down-stream extremity of the mesh, external to the structure of the mesh, are intrinsically poor for maintaining a satisfactory draft through the pipe, and further, such passages as exist between the fibres of the material itself are subject to large variation by the varying degrees of packing. For these reasons, such meshes disposed either under one or more orifices

5 With reference to other locations for a filter, hitherto disclosed, it is well known that filters of fibrous meshes or other forms placed for example, in the smoke-transmission conduit between the mouth-piece and the tobacco-bowl, do not eliminate the collection of tar at the junction of the smoke-transmission conduit and the tobacco-bowl, and the duct at this junction must nevertheless be separately cleaned, in addition to renewal of the filter. Both the renewal of such filters and the additional cleaning required, usually necessitate the handling of several separate parts not permanently attached to the pipe, and these separate parts must first be detached, frequently with much difficulty because of the binding action between parts of cold viscous tar which has accumulated.

25 An important feature of this invention is the simple and effective means for eliminating the necessity of directly handling detached tar-coated parts, and for attaining a bind-proof seal.

30 Having pointed out certain facts with reference to tobacco-pipes heretofore described, and some features of my invention, these features and others are better understood by reference to the drawing, in which Fig. 1 shows a side-view of an assembly of the tobacco-pipe, with a central-section of the tobacco-bowl member, and filter member within the base; Fig. 2 shows a plan view of the bottom of the tobacco-pipe, with further details of the pivoted member and means for securely fastening the pivoted member in its normal position; Fig. 3 shows another plan view of the bottom of the tobacco-pipe, with the pivoted member displaced, and the spiral convolutions of the filter member; Fig. 4 shows a perforated strip of absorbent material, and Fig. 5 shows the same strip when rolled up into a group of spiral convolutions, as seen in a side view; Fig. 6 shows a gasket member for sealing the bottom of the hole through the bottom of the tobacco-bowl member, and for fastening to the perforated strip to space the spiral convolutions; Fig. 7 shows the filter member as a unit, in side view, and Fig. 8 illustrates in diagram form some of the transmission paths through the filter member, and the principle of the filter member.

Referring to Figs. 1, 2, and 3, at 1 is shown a tobacco-bowl member, and at 2 a hole through the bottom of said member. Opening into the side wall of the hole 2 is the smoke-transmission conduit 6a within the extension of the tobacco-bowl member. The smoking-stem 7 fits into the extension 6 at 7a, in a manner well understood, and terminates in the mouth-piece 7d, the conduit 7b being continuous through 7, from the smoke-transmission conduit 6a to and through the mouth-piece 7d. At 8 is shown the side-walls of the tobacco-bowl, formed by a layer of carbon deposited within the bore 8a of the tobacco-bowl member. The filter member or absorbent member 9 fits into the bottom of the hole 2, and the upper part of the member 9 is in direct contact with the tobacco 3 within the bore 8a, and forms a bottom for said bore. Pivotaly attached at 5 is the pivoted member 4a, having an enlargement 4, and a projection 4b which has a small curvature away from the plane of 4a for the purpose of engaging the indentation 10b. The under-wall of the extension 6 of the tobacco-bowl member has a plane surface 10a with an enlargement 10 in the same plane surface, and symmetrically mounted thereon approximately coplanar with the surfaces 10 and 10a is the pivoted member 4a. This member is preferably of metal, but it will be obvious that other materials can be used. At 11 and 7c are other plane surfaces in the same plane with each other, and so disposed with reference to the pivoted member 4a that when the pivoted member is in its normal position symmetrically covering the hole 2, the underside of 4a is approximately in the same plane with 11 and 7c, so as to form an adequate surface upon which the tobacco-pipe can be rested with sufficient stability to prevent upsetting.

Referring further to the drawing, particularly Figs. 3 to 8, inclusive, a strip of liquid-absorbent material such as blotting-paper, for example, is shown at 9, having a multiplicity of perforations such as 9a. At 9c is shown a gasket member, preferably also of liquid-absorbent material, for example blotting-paper, of sufficiently larger diameter than the hole 2 so that when tightly pressed against the surface 10, over the bottom of the hole 2, by the enlargement 4, the hole will be sealed sufficiently tight to permit a satisfactory draft to be attained through the tobacco 3. The absorbent material is formed into a group of spiral convolutions, with spaces between the walls of the convolutions, as shown at 9d. A preferred form of filter member is shown in Fig. 7, in which the gasket member 9c is securely fastened to the spiral convolutions by water-proof cement, as illustrated at 9e. In this form, the convolutions are maintained at a fixed spacing at the gasket member, and the gasket member and strip 9 form a complete filter-unit for insertion at the bottom of the tobacco-bowl member.

The principle of operation of the filter is illustrated in further detail, in diagram form, in Fig. 8. One of the holes 9a, is so located in the strip 9, that it can be readily made to register with the smoke-transmission conduit 6a, when the filter is inserted in the hole 2. Certain paths of smoke and suspended liquid from the tobacco, through the filter, are illustrated by the arrows 13, emerging from the filter and entering the smoke-transmission conduit, as illustrated at 14. In numerous paths, the fluid must traverse a course having many curvatures before emerging, and the freedom of flow permitted between the

walls of the filter is sufficient to deposit the heavier tar against the walls of the filter and toward the bottom of the filter. The upper part of the filter, as illustrated at 9d, is in direct contact with the tobacco, and capable of absorbing relatively large quantities of tar before substantially reducing the draft through the tobacco-pipe. When there are indications of a reduced draft through the filter, the filter is renewed by using the lever-end of the pivoted member 4a, which is readily disengaged from the indentation 10b, and displaced to uncover the filter. In ejecting the used filter, the pipe can be held by the smoking-stem 7 over an ash-receiver, and the used filter readily pushed out through the bottom of the tobacco-bowl member by means of a match-stick. By inserting a new filter, as described, and returning the pivoted member 4a to its normal position, the tobacco-pipe is again in condition for a smooth, clean smoking operation. Because of the flat-surface form of contact between the member 4 and surface 10, and intervening gasket member, binding does not occur between these parts from tar. This form of filter has been found to maintain a clean smoking-stem and smoke-transmission conduit even when used to the extent of a substantial reduction of draft, beyond the indicated life of the filter, and to readily absorb saliva from the smoke-transmission conduit.

While I have shown and described a specific form of my invention, it will be evident that changes can be made in the construction and arrangement of parts without departing from the spirit of my invention, as further set forth in the appended claims, and I do not therefore limit myself to the form or arrangement shown.

What is claimed is:

1. In a tobacco-pipe having a tobacco-bowl member and a smoke-transmission conduit opening into said member, a hole through the bottom of said member, a liquid-absorbing material in said hole in direct contact with the tobacco and extending across said conduit, provided with a multiplicity of predetermined indirect passages interconnecting the tobacco-bowl of said member and said conduit, said passages being independent of inherent openings in said liquid-absorbing material; a pivoted member pivotaly attached to said tobacco-bowl member for normally sealing said hole, said pivoted member having a plane surface upon which the pipe can be rested in an upright position and providing a permanently attached means for readily unsealing said hole, a gasket between said pivoted member and the tobacco-bowl member, and means for securely fastening said pivoted member in its normal position.

2. In a tobacco-pipe having a tobacco-bowl member and a smoke-transmission conduit opening into said member, a hole through the bottom of said member, a pivoted member pivotaly attached to the tobacco-bowl member for normally sealing said hole, said pivoted member having a plane surface upon which the pipe can be rested in an upright position and providing a permanently attached means for readily unsealing said hole, a gasket between said pivoted member and the tobacco-bowl member, and means for securely fastening said pivoted member in its normal position.

3. In a tobacco-pipe having a tobacco-bowl member and a smoke-transmission conduit opening into said member, a hole through the bottom of said member, a liquid-absorbing material in

said hole in direct contact with the tobacco, provided with a plurality of indirect passages interconnecting the tobacco-bowl and said conduit independent of inherent small openings throughout said liquid-absorbing material, a pivoted member pivotally attached to the tobacco-bowl member for normally sealing said hole, said pivoted member having a plane surface at the bottom of the tobacco-bowl member upon which the pipe can be rested, and providing a permanently attached means for readily unsealing said hole, and a gasket between said pivoted member and the tobacco-bowl member.

4. The combination with a tobacco-pipe having a tobacco-bowl member and a smoke-transmission conduit opening into said member, of a hole through the bottom of said member, a structure of liquid-absorbing material in said hole in direct contact with the tobacco and having a multiplicity of predetermined indirect passages interconnecting the tobacco-bowl of said member with said conduit independent of inherent small openings throughout said liquid-absorbing material, a pivoted member pivotally attached to the tobacco-bowl member for normally sealing said hole, said pivoted member having a plane surface at the bottom of the tobacco-bowl member upon which the pipe can be rested, and providing a permanently attached means for readily unsealing said hole, and means for securely fastening said pivoted member in its normal position.

5. In combination, in a tobacco-pipe having a tobacco-bowl member and a smoke-transmission conduit opening into said member, a hole through the bottom of said member, a pivoted member pivotally attached to the tobacco-bowl member for normally sealing said hole, said pivoted member having a plane surface at the bottom of the tobacco-bowl member upon which the pipe can be rested, and providing a permanently attached means for readily unsealing said hole, and a gasket between said pivoted member and the tobacco-bowl member.

6. The combination with a tobacco-pipe having a tobacco-bowl member, a smoke-transmission conduit opening into said member, and a hole through the bottom of said member, of a pivoted member pivotally attached to the tobacco-bowl member for normally sealing said hole, said pivoted member having a plane surface at the bottom of the tobacco-bowl member upon which the pipe can be rested, and providing a permanently attached means for readily unsealing said hole, and means for securely fastening said pivoted member in its normal position.

7. The combination with a tobacco-pipe having a tobacco-bowl member, a smoke-transmission conduit opening into said member, and a hole through the bottom of said member, of a structure of liquid-absorbing material in said hole in direct contact with the tobacco, having a multiplicity of predetermined indirect passages interconnecting the tobacco-bowl of said member with said conduit, said passages being separate from inherent openings of said liquid-absorbing mate-

rial, and a pivoted member pivotally attached to the tobacco-bowl member for normally sealing said hole, said pivoted member having a plane surface at the bottom of the tobacco-bowl member upon which the pipe can be permanently rested, and providing a permanently attached means for readily unsealing said hole.

8. The combination with a tobacco-pipe having a tobacco-bowl member, a smoke-transmission conduit opening into said member and a hole through the bottom of said member, of a pivoted member pivotally attached to the tobacco-bowl member, for normally sealing said hole, said pivoted member having a plane surface at the bottom of the tobacco-bowl member upon which the pipe can be permanently rested, and providing a permanently attached means for readily unsealing said hole.

9. The combination with a tobacco-pipe having a tobacco-bowl member, a hole through the bottom of said member and a smoke-transmission conduit opening into the side of said hole, of a filter element for insertion into said hole from the bottom of said hole, said filter element comprising a liquid-absorbing material for directly contacting the tobacco in said member and extending across the said opening of the conduit into the side of said hole, and having a multiplicity of predetermined indirect passages leading from the tobacco to said conduit independent of inherent openings of said liquid-absorbing material, and a gasket member for sealing the bottom of said hole.

10. The combination with a tobacco-pipe having a tobacco-bowl member, a hole through the bottom of said member and a smoke-transmission conduit with an opening into said hole, of a filter member for insertion into said hole from the bottom of said hole, said filter member comprising a perforated strip of liquid-absorbent material formed into a spiral with spaces between the convolutions of the spiral, for direct contact with the tobacco in said member and extending across said opening, and providing a multiplicity of free paths between the liquid-absorbent walls of said strip leading from the tobacco to said opening, and a gasket member secured to said strip, for spacing the spiral convolutions and for sealing the bottom of said hole.

11. The combination with a tobacco-pipe having a tobacco-bowl member, a hole through the bottom of said member, a smoke-transmission conduit opening into said hole, and means for covering and uncovering the bottom of said hole, of a filter-unit for insertion into said hole from the bottom of said hole, for concentrically fitting said hole, and for directly contacting the tobacco and extending across the opening of said conduit into said hole, said filter-unit comprising a structure of liquid-absorbing material having a multiplicity of indirect passages leading from the tobacco to said conduit, independent of inherent small openings throughout said liquid-absorbing material.