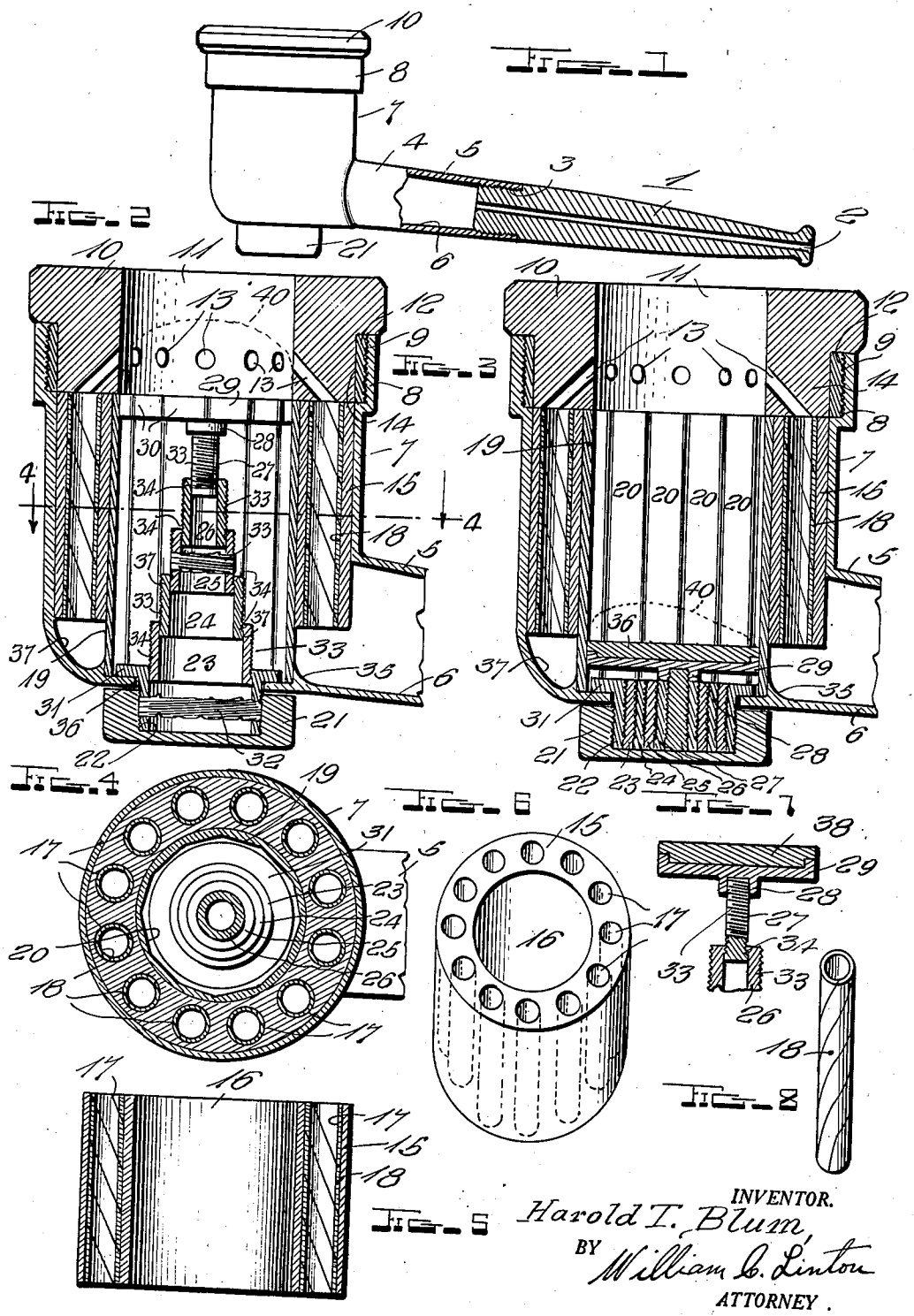
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SMOKING PIPE

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SMOKING PIPE

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The invention hereinafter described is an improvement in smoking pipe structures provided with an arrangement for controlling the firing of tobacco therein and cooling, drying and removing undesirable ingredients from the smoke produced thereby.

The present invention is a continuation in part of the invention shown and described in my copending application Serial No. 260,176, filed March 6, 1939.

It is an object of the present invention to provide a pipe structure having incorporated therein a combination of members whereby the firing of tobacco can be controlled to produce a smoke suiting the taste of the user of the pipe and which smoke is cooled and has moistures, tars, heavy oils and like distasteful ingredients removed therefrom before reaching said user.

Another important object of the present invention is to provide an economically produced and serviceable filter for pipe structures which can be quickly and simply conditioned for reuse from time to time as is found desirable.

A further object of the present invention is to provide a pipe structure which is economical to produce and which can be readily assembled and disassembled for cleansing or like attention, yet provides a controlled smoke of a relatively cool and dry character.

In the accompanying drawing and the following description thereon, further objects of the present invention will be in part obvious from an examination thereof and in part pointed out therein.

In the accompanying drawing:

Fig. 1 is a side elevation of the pipe structure comprising the present invention with a portion in cross section.

Fig. 2 is an enlarged detail side cross sectional view of the bowl portion of the pipe shown in Fig. 1 and having the elevating members thereof in their open or extended position.

Fig. 3 is a side detail cross sectional view similar to Fig. 2 but with the elevating members in their closed or nestled position.

Fig. 4 is a top cross sectional view taken on line 4—4 of Fig. 2.

Fig. 5 is an enlarged side cross sectional view of a filtering device forming a part of the present pipe structure.

Fig. 6 is a side perspective view of a filter body.

Fig. 7 is an enlarged cross sectional detail view of the tobacco supporting members and their connection to the elevating members, a broken away portion only of which is shown, and

Fig. 8 is an enlarged side elevational view of a filter cartridge.

Referring now more particularly to the accompanying drawing wherein like reference characters designate like members, reference character 1 indicates a mouth-piece having a bore 2 extending longitudinally thereof and having one end portion 3 thereof stepped and threaded upon its periphery for being inserted within and connected to the interior 6 of stem portion 5, said interior 6 being threaded for engagement with the threads of said portion 3 and mouthpiece 1 having the configuration thereof shaped and sized to extend contiguous with and from stem portion 5. Said stem portion 5 is a part of a tubular member 4 made from a lightweight metal such as, for example, aluminum and which has the remaining part 7 thereof shaped to resemble the bowl portion of the usual smoking pipe. The open end of bowl 7 is enlarged as at 8 and this enlarged portion 8 is threaded upon its interior face.

A firing ring 10, having a centrally located bore 11, has the lower portion 14 thereof stepped. Said burning ring 10 is preferably formed from meerschaum and is molded to and within a metallic ring 12, which ring is to be connected to and extends around the periphery of the portion 14 of the burning ring. Said ring 12 is threaded upon its periphery for ready engagement with the threads 9 of said enlarged portion 8. Ring 12 can thereby be screwed within enlarged portion 8 and burning ring 10 retained upon the open end of bowl portion 7. Said burning ring 10 has a series of openings 13 formed therein extending from bore 11 downwardly towards the bottom face of ring 10.

Positioned within bowl portion 7 is a tubular member 19 having its inner face forming a series of walls 20 which have a cross sectional configuration of a dodecagon. Said walls 20 are in line with the bore 11 of burning ring 10 and are retained in this position by said tubular member 19 being positioned within an annular flange 35 formed with the bottom interior face of bowl portion 7. Said tubular member 19 is formed of a lightweight metal as, by example, aluminum.

Positioned within and completely enclosing the space between said tubular member 19 and the interior side face of bowl portion 7 is a cylindrical filter body 15 formed from a lightweight metal and having a central bore 16 extending therethrough. Said bore 16 has said tubular member 19 positioned therein and is in contact with the periphery thereof. Likewise, the periphery of the

filter body 15 is in contact with the interior side face of bowl portion 7 and due to the frictional engagement of said members, filter body 15 and tubular member 19 are prevented from rotating. Formed through filter body 15 in a longitudinal direction thereof is an annular series of bores 17, each of which is in line with the bottom end of openings 13 of said burning ring 10 and thereby connects the interior 6 of tubular member 4 with said bore 11 of burning ring 10.

Inserted within each of said bores 17 and frictionally retained therein by contact with the side walls of said bores are paper cartridges 18. Said cartridges 18 are formed of wound absorbent paper and shaped for being readily inserted within a bore 17. Said filter body 15 may also be formed from brier-wood or meerschaum and the absorbent filter cartridge 18 may or may not be used, depending upon the desirability thereof, as found by experience when the filter body is formed from either of these materials.

Formed through the bottom of bowl portion 7 at a point centrally located within said annular flange 35 is an opening 36. Said opening 36 has a tubular member 22 extending therethrough and said member 22 is formed with an annular flange 31 extending substantially perpendicular from an end portion thereof. Said flange 31 contacts the interior face of bowl 7 around the opening 36 and with the remaining portion of member 22, closes said opening 36. Said tubular member 22 is one of a series of telescopic sections 22, 23, 24, 25, 26 and 27, which tubular sections have lefthand threads 34 formed upon the upper face of the bore thereof. Sections 23, 24, 25, 26 and 27 each have lefthand threads 33 formed upon their periphery for engagement with the threads 34 of the next larger section. In this manner, section 23 is in threaded engagement with the bore of section 22 and likewise, section 24 engages the bore of section 23, section 25 with section 24, section 26 with section 25 and section 27 with section 26. The lower peripheral portion of sections 23, 24, 25, 26 and 27 are formed blank as at 37 to prevent the sections from being completely unscrewed one from the other through their upper open end while, however, each section may be unscrewed from the bore of its next larger section for disconnecting the same when desired, by giving the smaller section a continued lefthand rotation. The periphery of section 22 has righthand threads 32 formed thereon and a cap 21 having a threaded interior face can, by giving the same a righthand rotation, be screwed onto said section 22 and coact with flange 31 for retaining section 22 rotatably within opening 36 and, at the same time, cap 21 closes the bottom open end of the bore of section 22.

Slidably mounted longitudinally of tubular member 19 and extending laterally across the bore thereof is a plate 29 having the edge thereof forming a series of walls 30. Each of said walls 30 is sized, shaped and positioned to slidably contact one of said walls 20 of tubular member 19. Said plate 29 is preferably formed from a piece of metal and has molded thereto a meerschaum cap 38, which cap 38 completely covers the upper face of plate 29. Plate 29 has further formed therewith a cylindrical projection 28, the bore of which is threaded for engaging with the threads 33 of telescopic section 27 whereby the plate 29 is connected to said series of telescopic sections.

Telescopic sections 22, 23, 24, 25, 26 and 27 are assembled by inserting each section through the lower end of the bore of the next larger section until the threads 33 of the smaller section engage the threads 34 of the bore of the larger section. The sections are of equal length in order that when in their closed position, they will completely nestle one within the other, as shown in Fig. 3 of the drawing. Section 27 is screwed into plate 29 by rotating the same and the telescopic sections together with plate 29 are positioned through the open end of bowl 7 and through opening 36 thereof until stopped by annular flange 31. Cap 21 is then screwed onto section 22 by a righthand rotation thereof and thereby closes the lower end of all of the telescopic sections and thereby prevents any of the sections from being removed through the bottom open end of the bore of any of the sections until the cap 21 is again removed from section 22. Tubular member 19 is inserted within bowl 7 and positioned within flange 35 of said bowl 7, thereby encasing plate 29 therein and permitting the same to be longitudinally slidable but, at the same time, preventing the rotation of plate 29 due to the contact of the side walls 30 of plate 29 engaging the interior side walls 20 of tubular member 19.

After inserting a filter cartridge 18 within each of the longitudinal bores 17 of filter body 15 until positioned as substantially shown in Fig. 5 of the drawing, said filter body 15 is inserted within bowl portion 7. Tubular member 19 is thereby inserted within bore 16 of filter body 15 and rotation thereof prevented by the frictional engagement of these members while, at the same time, retaining tubular member 19 in its vertical position. Smoking ring 10 is then attached to bowl 7 by the threaded engagement of ring 12 and enlarged portion 8 of bowl 7 until the ring 10 contacts tubular member 19 for further locking the same in position and, at the same time, presenting each of openings 13 of the burning ring 10 to one of the bores 17 of filter body 15. Burning ring 10, at the same time, contacts filter body 15, forcing the same downwardly until the lower end of filter body 15 is stopped by engaging the curved inner face 37 of bowl 7. That is, a portion of filter body 15 is restrained from further downward movement by the curved portion 37 and tubular member 19. In this manner, a space is provided within the interior 6 of tubular member 4 below the bottom face of filter body 15.

By rotating cap 21 to the right, telescopic sections 22, 23, 24, 25, 26 and 27 are caused to unscrew one from the other due to plate 29 restraining the rotation of section 27 and the unscrewing of these sections causes the same to extend upwardly until they are completely opened, as shown in Fig. 2. Conversely, by giving cap 21 a lefthand rotation, the telescopic sections will screw one within the other until they are nestled, as shown in Fig. 3 of the drawing. With the telescopic sections in their nestled position, meerschaum cap 38 is positioned within the lower portion of tubular member 19 and at this time, tobacco 40 is placed within tubular member 19 upon said cap 38 until the tobacco is at a point above openings 13 and within burning ring 10. The user of this pipe at that time, by applying a flame to the tobacco 40 and drawing through longitudinal opening 2 of mouthpiece 1, ignites the tobacco. By rotating cap 21 and thereby slightly elevating cap 38, the tobacco is moved upward nearer the top open end of bore 11 of ring 10 and by so adjusting the po-

sition of the burning tobacco, the amount of oxygen fed thereto through bore 11 can be controlled. It is a mere matter of experience for the user of the pipe to determine the point at which he wishes the burning tobacco to be positioned in order to suit his particular taste. The smoke from the burning tobacco is drawn through openings 13 of meerschaum burning ring 10 and the meerschaum will absorb considerable moisture therefrom. The smoke then passes downwardly through filter cartridges 18 positioned within bore 17 and the heavy oils, tars and further moisture will be removed therefrom due to the absorbent action of the cartridges 18. Filter body 15 and tubular member 4 being formed of a lightweight metal, will readily conduct heat from the tobacco smoke as it passes by and contacts these members and the smoke is thereby readily cooled. The burning ring 10 having the burning tobacco confined therein and being of a heat insulating material will not conduct the heat to the tubular member 4 and filter casing 15 and, therefore, these members will remain relatively cool.

As the tobacco is consumed, cap 21 is rotated from time to time for progressively advancing plate 29 upwardly through tubular member 19 and thereby retains the burning portion of the tobacco 40 at the predetermined desirable position. Plate 29 having meerschaum cap 38 thereon is prevented thereby from becoming gummed, due to the deposits of oils and tars from the burning tobacco being absorbed by the meerschaum cap 38 and, therefore, tubular member 19 is similarly protected and remains free from contaminating substances that would possibly prevent plate 29 from readily sliding longitudinally thereof. Further, the tobacco upon the cap 38 can be moved upwardly until positioned as shown in Fig. 2 of the drawing and thereby consumed down to the last portion thereof.

When the user of said pipe finds it desirable, burning ring 10 can be readily removed from bowl 7 and filter body 15 slid upwardly and removed from the interior of bowl 7. Filter cartridges 18 can at that time be removed from bore 17, discarded and replaced by new cartridges 18 and the filter casing returned to its position within bowl 7 and burning ring 10 also replaced upon the bowl, at which time the pipe is ready for further use. Filter body 15 with cartridges 18 therein not only filters undesirable ingredients from the smoke passing through bore 17, but also cools the same by readily conducting the heat therefrom. Further, the filter body can be used indefinitely simply by replacing the cartridges 18 with new cartridges from time to time.

When filter body 15 is formed from brier-wood or meerschaum, the cartridges 18 can be used therewith but due to the absorbing qualities of these materials, the cartridges 18 are not a necessity. However, inasmuch as the taste of smokers vary, some smokers may find the filter cartridges 18 desirable even when a filter body of brier-wood or meerschaum is used, whereas, others may not require the additional filtering of the absorbent paper of the cartridges.

It is obvious that the foregoing described device can be readily modified or have members thereof varied but any such changes or modifications as come within the scope of the appended claims, I deem to be part of the present invention.

I claim:

1. A smoking pipe bowl assembly comprising a pipe bowl member with stem, an absorbent body positioned within said bowl member having a centrally located bore, said body having an annular series of openings formed therethrough, means for progressively raising and lowering tobacco within said bore, a ring detachably connected to the open end of said bowl member and said ring having openings formed therethrough each of which connects the bore of said ring with one of the openings of said absorbent body.

2. A smoking pipe bowl assembly comprising a pipe bowl with stem extending therefrom, an absorbent body positioned within said bowl and having a centrally located bore, said body having an annular series of openings formed therethrough, smoke filtering means positioned within each of said openings, means for progressively raising and lowering tobacco within said bore, a ring detachably connected to the open end of said bowl member and said ring having openings formed therethrough each connecting the bore thereof with said stem by way of one of said body openings.

3. A smoking pipe bowl assembly comprising a pipe bowl member, a stem connected to said bowl member, a filter body formed from an absorbent material positioned within said bowl member and having a centrally located bore, said filter body having openings formed therethrough, means for progressively raising and lowering tobacco within said bore, a tubular ring formed from an absorbent material detachably connected to the open end of said bowl and said ring having openings formed therethrough connecting the bore thereof with said stem by way of said filter body openings.

4. A smoking pipe bowl assembly comprising a tubular member formed from a lightweight metal, said tubular member forming a pipe bowl and tube extending therefrom, a filter body formed from a lightweight metal being positioned within said bowl portion and having a centrally located bore, said filter body having a plurality of openings formed therethrough, a plurality of filter cartridges each positioned within one of said body openings, means for progressively raising and lowering tobacco within said bore, a tubular ring formed from an absorbent and heat insulating material being detachably connected to the open end of said bowl and said ring having openings formed therethrough connecting the bore thereof with said tube by way of said filter cartridges.

5. A smoking pipe bowl assembly comprising a pipe bowl with stem extending therefrom, a tube positioned within and having a portion thereof spaced from said bowl forming a passageway therebetween, a tubular ring detachably connected to the open end of said bowl and closing an end of said passageway, said ring having openings formed therethrough connecting the bore thereof with said passageway, a filter body positioned within said passageway and having a series of openings formed therethrough, each of which is connected to one of said ring openings, filtering material positioned within each of said filter body openings and means for progressively raising and lowering tobacco within said tube and said ring bore.

6. A smoking pipe bowl assembly comprising a pipe bowl with stem extending therefrom, a tube positioned within and having the side walls thereof spaced from the side walls of said bowl

forming a passageway therebetween, the bore of said tube having a rectilinear cross sectional configuration, a filter body formed from an absorbing material mounted within and filling said passageway, a series of openings formed through said filter body, a ring formed from a moisture absorbing material mounted upon said bowl member, said ring having openings formed therethrough connecting the bore thereof with said filter body openings, a plate having a periphery thereof shaped similar to the cross sectional configuration of said tube and being slidably mounted longitudinally of and extending across the bore of said tube and telescopic screw members in threaded engagement with one another connected to said plate for progressively advancing the same longitudinally through the bore of said tube upon the rotation of one of said telescopic members.

7. A smoking pipe comprising a pipe bowl with stem extending therefrom, a tube positioned within and having a greater portion thereof spaced from said pipe bowl, a plate extending across and slidably mounted longitudinally of the bore of said tube, a cap formed from meerschaum molded to the top face of said plate, means for progressively raising and lowering said plate longitudinally of said tube, a metallic ring threadedly engaging the upper interior face of said bowl, a ring formed from meerschaum molded to and within said metallic ring and having openings formed therein connecting the bore thereof with the passageway between said tube and said bowl, and a filter body positioned within said passageway having openings formed therethrough.

8. A smoking pipe comprising a pipe bowl with stem extending therefrom, a tube positioned within and spaced from the side interior wall of said pipe bowl, a plate extending across and slidably mounted longitudinally of the bore of said tube, said tube and plate being shaped to preclude relative rotation, a threaded member connected to said plate, rotatable means in threaded engagement with said threaded member for raising and lowering said plate longitudinally of said tube, a tubular filter body mounted upon the periphery of said tube and frictionally engaging the walls of said passageway between said tube and said bowl, said filter body having openings formed therethrough and a ring detachably connected to the open end of said bowl and having openings formed therethrough connecting the bore thereof with the openings of said filter body.

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