Aug. 6, 1940. H. T. BLUM 2,210,198

SMOKING PIPE

Filed March 6, 1939

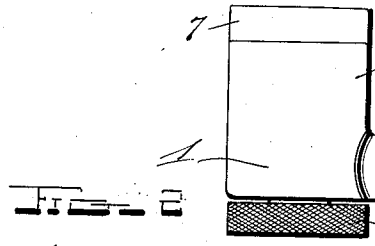


FIG. 2

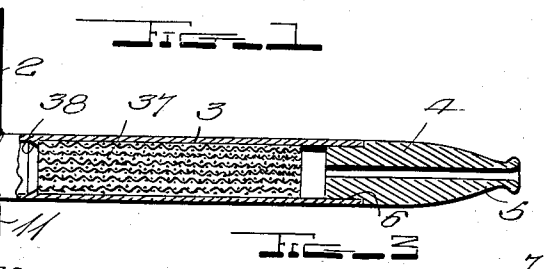


FIG. 3

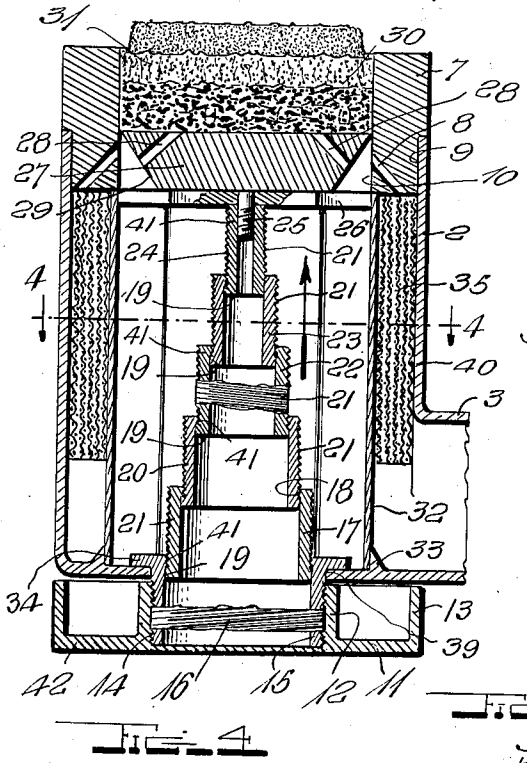


FIG. 4

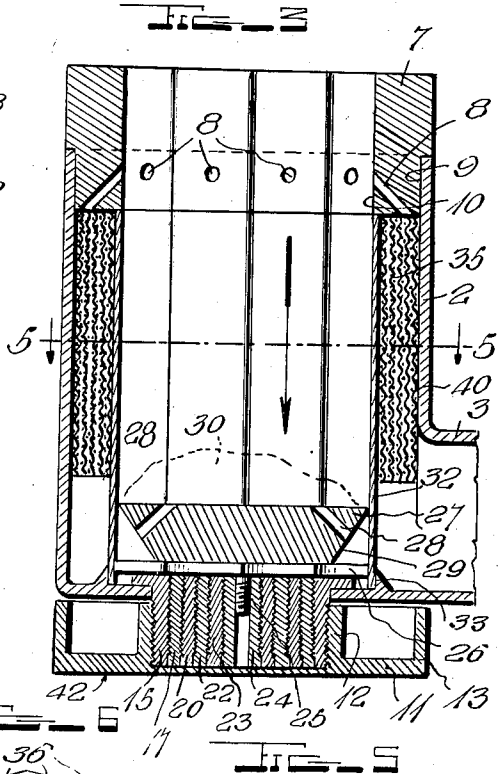
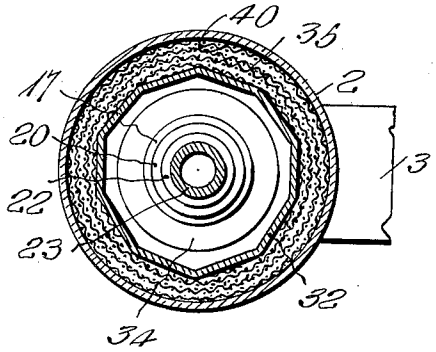
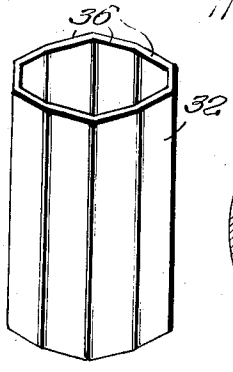


FIG. 5





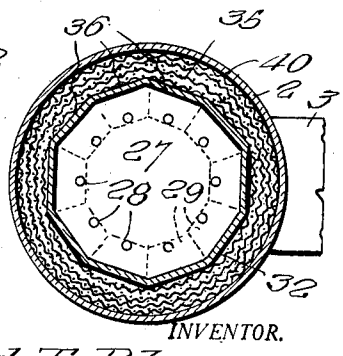


FIG. 6

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SMOKING PIPE

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3 Claims. (Cl. 131—181)

The present invention relates to smoking pipe structures and more especially to pipe structures providing an arrangement for producing a cool, dry and controlled smoke.

An object of the present invention is to provide a filter for removing oils and tars from tobacco smoke and which can be readily and easily cleansed for reuse thereof.

A further object of the present invention is to provide a pipe structure which is economical to manufacture, yet permits the firing of tobacco therein to be controlled as desired, and provides a smoke which is relatively cool, dry and free from objectionable ingredients such as oils and tars.

Another important object of the present invention is to provide a pipe structure having an arrangement for controlling the firing of tobacco therein, yet which permits filters used therein to be removed and replaced simply and quickly.

And a further object of the present invention is to provide a pipe structure having means for removing moisture from the tobacco smoke, which does not leave any dampness within the firing section of the structure and permits the entire tobacco therein to be consumed.

From the accompanying drawing and the description thereon, further objects will be in part pointed out and in part obvious.

In the drawing:

Fig. 1 is a side view of the smoking pipe comprising the present invention, part of which is shown in elevation and the remainder being a cross section thereof showing the interior.

Fig. 2 is an enlarged detail cross sectional view of the bowl portion of the pipe shown in Fig. 1 with the tobacco supporting members in their extended position with burning tobacco represented thereon and showing broken away portions of two of the telescopic sections showing the angle of the threads thereon.

Fig. 3 is an enlarged detail cross sectional view of the bowl portion of the present invention with the tobacco supporting means in their nestled position.

Fig. 4 is a top cross sectional view taken in the direction of the arrows on line 4—4 of Fig. 2.

Fig. 5 is a top cross sectional view taken in the direction of the arrows on line 5—5 of Fig. 3, and

Fig. 6 is a side perspective view of a decagonal tube which forms a part of the present pipe structure.

Referring now more particularly to the accompanying drawing wherein like reference characters designate like members, reference character 1 indicates a tubular member which forms a pipe bowl member 2 having a pipe stem 3 formed with and connected to the base portion thereof. The interior of tubular member 1 has the configuration thereof formed similar to the exterior and the entire member is formed from a lightweight metal or may be molded from a plastic composition.

A mouthpiece 4 having a longitudinal opening 5 extending therethrough has stepped portion 6 thereof inserted within the open end of stem 3 and the exterior surface shaped to combine with stem 3 for forming a stem and mouthpiece of the usual appearance for such members. Slidably inserted within the open end of bowl portion 2 of the tubular member 1 is a stepped portion 9 of tubular ring 7, which ring is formed from a moisture-absorbing and heat-insulating material, as for example meerschaum, and which ring 7 has a centrally located bore 10. Said bore 10 is shaped having a number of equal walls which form a regular decagon when viewed from the top or bottom thereof. The periphery of ring 7 is formed circular and is of a diameter equal to the diameter of bowl portion 2, in order that said periphery of ring 7 extends contiguous from the periphery of bowl portion 2 to simulate therewith the usual bowl portion of a smoking pipe. Further, said ring 7 has a series of openings 8 formed extending from the bore 10 thereof through to its bottom face. The interior base of bowl portion 2 has a vertically extending decagonally shaped flange 33 formed therewith for receiving in a close fit the lower end of a metallic tube 32 having a decagonal cross-sectional configuration, which tube 32 is of sufficient length to extend from within flange 33 upward to contact with the bottom of ring 7. The bore of tube 32 is similar to and in line with bore 10 of ring 7. The ten walls 36 which give tube 32 its decagonal shape form with the interior of bowl portion 2 a passageway 40, which passageway is closed at its upper end by ring 7 but is in connection with the bore 10 of ring 7 by means of openings 8.

Formed through the tubular member 1 at a point centrally located within flange 33 is an opening 39. Positioned within and extending from opening 39 is a flanged tubular section 15 having righthand threads 16 formed upon the periphery thereof and lefthand threads 41 formed at the upper portion of its bore. The flange 34 of section 15 contacts the inner face of tubular member 1 and thereby prevents section 15 from

moving outwardly therefrom. A second tubular section 17 having lefthand threads 21 formed upon a periphery thereof in threaded engagement with threads 41 of section 15 is sized and shaped to be entirely received within the bore of section 15. The lower peripheral portion of section 17 has a blank portion 19 formed therewith and which blank portion 19 prevents the section 17 from being unscrewed from within section 15 more than is desirable. Similar to section 17 are sections 20, 22, 23 and 24, all of which have lefthand peripheral threads 21 and blank portions 19. Said sections further have interior threads 41 formed at the upper portion of their bore and peripheral threads 21 of sections 20, 22, 23 and 24 are respectively in threaded engagement with interior threads 41 of sections 17, 20, 22 and 23. Sections 17, 20, 22, 23 and 24 have a length equal to the length of the bore of section 15 and by screwing one within the other, will nestle within section 15, as shown in Fig. 3. A plate 26 having an edge thereof shaped similar to and being substantially of a diameter equal to the bore of decagonal tube 32 is connected to tubular section 24 by a threaded rod 25, which is in threaded engagement with threads 41 formed within the bore of section 24. This connection positions plate 26 in such a manner that it extends completely across tube 32 in a horizontal position and is in sliding contact therewith.

Enclosing the tubular sections within section 15 is a knurled knob 11 formed having a peripheral vertical flange 13 and a tubular flange 12. Said flange 12 has threads 14 formed within the bore thereof, which threads are in engagement with righthand threads 16 of section 15. Peripheral flange 13 is of a circumference and diameter equal to the circumference of bowl portion 2 for carrying out therewith the appearance of a bowl portion extending below the stem 3 and knob 11 may be formed from a material similar to the lightweight metal or plastic composition forming tubular member 1. The bottom face 42 of knob 11 is formed flat in order to permit the pipe structure to be supported thereby upon any flat, level surface whenever this is desirable.

Carried by plate 26 is a moisture-absorbing button 27 shaped from meerschaum or like materials, which is formed having the edge thereof tapered and comprising a series of walls 29. Said walls 29 cause the upper face of button 27 to form a decagon similar to the decagon formed by the bore 10 of ring 7 as well as the bore of tubular member 32. The diameter of the upper face of button 27 is sufficient to cause the top edge thereof to slidably contact bore 10 and the bore of tubular member 32. Extending from the upper face of button 27 through to each wall 29 thereof is an opening 28.

Positioned within passageway 40, as best shown in Figs. 4 and 5, is a filter 35. Said filter 35 is shown as a tubular screen having a circular periphery and a decagonally shaped bore in order that the same may completely fill passageway 40 between tubular member 32 and bowl portion 2. The filter screen is formed from aluminum threads interwoven sufficiently close to cause the smoke passing therethrough to thoroughly contact many surfaces presented by the aluminum threads and yet permit said smoke to readily pass therefrom through to stem 3. Within stem 3 is a second filter 37 also formed of aluminum thread interwoven in a manner similar to filter 35, having a cylindrical shape and completely filling the bore of tubular member 3. Said filter 37 is arrested from moving within the bore of stem 3 more than a given distance by means of a circular flange 38 formed with the bore of said stem 3.

The filters 35 and 37 may also comprise aluminum wool, spun aluminum or aluminum thread in a closely matted condition and given a tubular form for being readily inserted within passageway 40 or a cylindrical form for being mounted within the bore of stem 3.

In assembling the members comprising the pipe structure, section 17 is screwed to within section 15 and likewise, sections 20, 22, 23 and 24 are respectively screwed into sections 17, 20, 22 and 23, all of which insertions are made from the bottom portion of the receiving section inwardly until all of the sections are nestled, as shown in Fig. 3. Plate 26, by means of projection 25, is connected to section 24 and the telescopic sections, together with this plate, are placed within the base of bowl portion 2 by inserting section 15 through opening 39 thereof until this motion is arrested by flanges 34. At this time, knob 11 is screwed onto section 15 by a righthand rotation until the inner bottom face thereof contacts the bottom edge of section 15. Decagonal tube 32 is then positioned within bowl portion 2 and flanges 33, which flanges 33 prevent the rotation of said tube 32 and thereby, plate 26, which is in longitudinal sliding contact with the bore of said tube 32. Filter 35 is then slid into position between tube 32 and the interior of bowl portion 2 to completely fill passageway 40. Meerschaum button 27 can then be slid longitudinally of tube 32 until it is positioned upon plate 26 and the stepped portion 9 of tubular ring 7 is then positioned within bowl portion 2 contacting the top edge of tube 32 for retaining the same in position and at the same time, closing passageway 40 at the upper portion thereof.

Filter 37 is inserted within the open end of stem portion 3 until arrested by flange 38, at which time the stepped portion 6 of mouthpiece 4 is inserted within the open end of stem 3 and is supported thereby.

A smoker using this pipe construction can place within tube 32 and bore 10 tobacco 30 until the same is supported by the button 27 and fills the space thereabove up to and a little above the openings 8 of ring 7. Upon igniting the tobacco and the smoker drawing through mouthpiece 4, clinkers 31 will result. By rotating knob 11, telescopic sections 17, 20, 22, 23 and 24 will be caused to rotate and ascend, due to their threaded inter-engagement and the smoker, by moving the tobacco 3 upwardly in this manner, can adjust the position of the clinkers 31 relative to the top of the ring 7, thereby controlling the amount of oxygen fed to the burning tobacco until the smoker determines at which height within or above the ring 7 the clinkers 31 should be positioned to suit his particular taste. As the tobacco is consumed, the knob 11 is rotated in order that the plate 26, button 27 and tobacco 30 will be progressively advanced upwardly so that the clinkers 31 may at all times be kept at the predetermined position. Due to the slidable contact of plate 26 with tube 32, the same is not permitted to rotate and therefore, sections 15, 17, 20, 22 and 23 will rotate upon the rotation of knob 11, but due to the non-rotatable condition of section 24, due to its connection to plate 26, these aforementioned sections will gradually unscrew one from the other until blank portions 19 contact threads 41, at which time the unscrew-

ing motion will be stopped and the telescopic sections in their extended position, as shown in Fig. 2, with plate **26** at the top of tubular member **32** and button **27** with the top thereof positioned above openings **8**. With openings **8** closed from the tobacco **30**, the smoke will be drawn through openings **28** and thence through openings **8**. Ring **7**, being of a moisture-absorbing nature, will dehydrate the smoke passing therethrough and, likewise, button **27** will also absorb the moisture passing through passageways **28** and in this manner, tobacco **30** may be consumed completely down to the top face of button **27**.

Button **27** and ring **7** are also of a heat-insulating nature and thereby prevent the heat from clinkers **31** from being conducted to either tubular member **1**, plate **26** or tube **32** and as the smoke comes from opening **8** to within passageway **40**, it will contact these cool and heat-conductive members, whereupon, it will also be cooled.

Filter **35** being formed of fine aluminum threads, aluminum wool or spun aluminum, by closing passageway **40**, causes all of the smoke from openings **8** to be drawn therethrough. The smoke will contact this mass of fine aluminum and the moisture depositing heavy oils and tars therein will, of its own accord, adhere to the aluminum and the purified smoke will pass therefrom. The smoke from passageway **40** will then be drawn to within the aluminum filter **37** within stem **3** and any tars or oils which may have escaped through filter **35** will adhere to the aluminum of filter **37**. Both filters **35** and **37**, being of a lightweight metallic nature, are therefore also of a highly heat-conductive nature and being in direct contact with tubular member **1**, they will readily conduct the heat from and thereby cool the smoke passing therethrough.

After the pipe has been used for a time, filters **35** and **37** will become contaminated with the oils and tars they have removed from the smoke passing therethrough. Therefore, by removing ring **7** and mouthpiece **4**, both of these filters may be readily removed, that is, filter **35** from passageway **40** and filter **37** from the bore of stem **3**. These filters may be positioned within a container having therein a known liquid solvent such as, for example, carbon-disulphide, ether or carbon-tetrachloride and the heavy oils and tars thereon will be readily dissolved thereby without in any manner affecting the aluminum of the filter. After a period sufficient for the complete dissolving and removal of the oils and tars, filter **35** may be replaced within passageway **40** and ring **7** slid back into position and, likewise, filter **37** repositioned within the bore of stem **3** and mouthpiece **4** replaced. Then the pipe can be further used and the filters will function as when new.

When the pipe is not in operation, knob **11** may be given a lefthand rotation and the telescopic sections will return to their nestled position. Due to the protection of button **27**, tube **32** and plate **26** will at all times remain free from moisture and tacky substance and due to the firing of the tobacco within the ring **7**, these members **26** and **32** do not at any time need to be removed for cleaning and there will be no contaminations upon the interior wall of tube **32** preventing the efficient longitudinal movement of plate **26** and button **27**.

The present invention, as shown and described herein, is capable of considerable modification but such modifications as come within the scope of the accompanying claims, I deem to be entirely within the scope of my invention.

I claim:

1. A smoking pipe bowl assembly comprising a tubular member forming a pipe bowl and stem extending therefrom, a tube positioned within and spaced from said bowl forming a passageway therebetween, an opening formed in the side of said bowl and connected to said passageway, 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 moisture-absorbing tobacco support extending across and slidably mounted longitudinally of the bore of said tube, said tobacco support having openings extending therethrough and means for progressively advancing said support longitudinally of the bore of said tube and said ring to a point thereof wherein said support openings are in communication with said ring openings.

2. A smoking pipe bowl assembly comprising a pipe bowl with stem, a tube having a rectilinear cross-sectional configuration positioned within and spaced from said bowl forming a passageway therebetween, an opening formed in the side of said bowl connecting said passageway to the outside of said bowl, a tubular ring detachably connected to the open end of said bowl and closing an end of said passageway, the bore of said ring having a cross-sectional configuration similar to and in line with the bore of said tube, means formed with said bowl and arranged for contacting the periphery of said tube and preventing the rotation thereof, said ring having openings formed therethrough connecting said bore thereof with said passageway, a moisture-absorbing tobacco support, a plate having the periphery thereof shaped similarly to the cross-sectional configuration of the bore of said tube and carrying said tobacco support thereon, said plate being slidably mounted longitudinally of and extending across the bore of said tube and telescopic sections in threaded inter-engagement connected at one end to said plate for progressively raising the same.

3. An improvement in smoking pipe bowl assemblies comprising a pipe bowl with stem, a passageway formed within the side wall of said bowl, a plurality of openings formed extending from the upper portion of the bore of said bowl to said passageway, a member formed from a moisture-absorbing material, means for raising and lowering said member longitudinally of the bore of said bowl, said member having openings formed therethrough from the upper face to the lower side portions thereof and a portion of the side portions of said member forming a duct therearound with the bore of said bowl.

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