July 7, 1942. W. I. BALLENTINE 2,288,879

BLOW OUT AND VENTILATING SMOKER'S PIPE

Filed March 1, 1941

Fig. 1

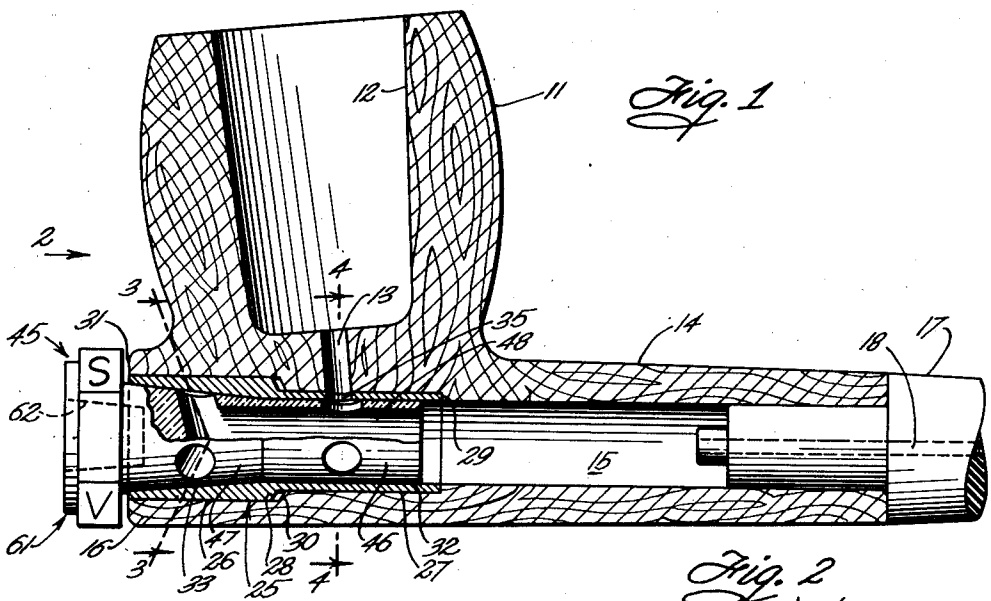


Fig. 2

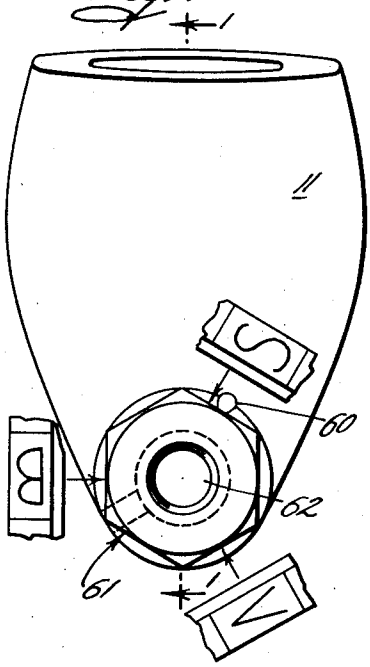


Fig. 3

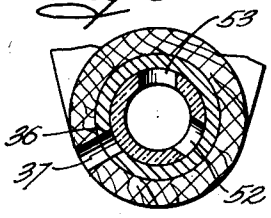


Fig. 4

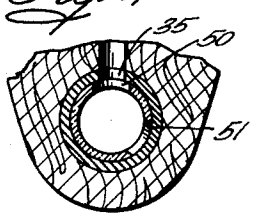


Fig. 5

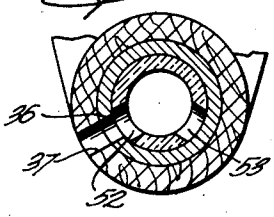


Fig. 6

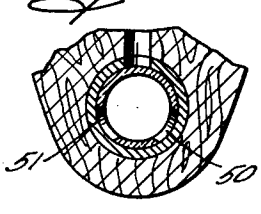


Fig. 7

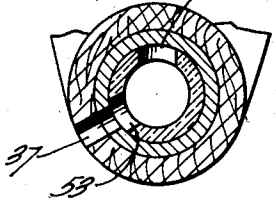
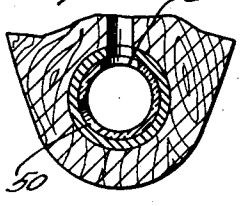


Fig. 8



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BLOWOUT AND VENTILATING SMOKER'S PIPE

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Application March 1, 1941, Serial No. 381,295

2 Claims. (Cl. 131—215)

In smoker's pipes and other appliances for smoking of tobacco many attempts have been made to develop a pipe which may be readily cleaned out, that is, the stems or passages through which the smoke passes may be readily cleaned and some of these require removal of a mouthpiece connection to allow swabbing out of moisture collecting and condensing in the smoke passage. In most of these constructions of the pipe it is not possible to remove the moisture by blowing through the smoke passage, nor can a satisfactory passage be presented for use of a cleaning out swab such as a conventional pipe cleaner.

An object and feature of my invention is the construction of a pipe including a somewhat conventional bowl with a tubular stem for the smoke passage and a conventional mouthpiece with a smoke duct with means by which the smoke duct from the bowl to the stem may be blocked and at the same time a vent port may be opened so that the smoker may blow through the pipe stem and blow out the condensed moisture or the liquids from the tobacco or saliva. In this connection as the smoke duct from the bowl to the stem is closed a further characteristic of my invention is that the remaining tobacco, the ashes or slug in the bottom of the bowl may be readily knocked or scraped out of the bowl without any danger of moisture entering the bowl from the smoke passage. Another object and feature of my invention is providing for ventilation, that is, the circulation of air, through the complete smoke passages of the pipe and the bowl after it has been cleansed out and when put aside after smoking. When the bowl is hot from the consumed tobacco, this heat starts a natural air circulation through ventilation ports, the mouthpiece and the bowl. This has the action of drying the pipe stem and other parts through which the fresh air circulates. Therefore, another main characteristic of my invention is providing for air ventilation to dry the pipe stem and the bowl.

In carrying out these objects, as above mentioned, I may use a somewhat conventional bowl with a pipe stem, except that the stem extends beyond the bowl, the smoke duct from the bowl leading to the stem. A conventional mouthpiece is connected to one end of the stem and in the stem extension and below the bowl I fit a rotatable valve, this being preferably hollow. A vent port leads through the stem extension beyond on the opposite side of the bowl from the mouthpiece. The valve has a pair of ports positioned to communicate with this vent and there are also the second pair of ports positioned to align with the smoke duct from the bowl to the stem. These ports are so positioned that in one location of the valve, the port connecting with the bowl is open for passage of smoke through the mouthpiece only. In another position this port is closed and the vent port is open thus allowing blowing through the mouthpiece, the stem and the stem extension to discharge moisture collected in the pipe stem. In this position the bowl may readily be cleaned out by knocking out the slug or "heel" without moisture entering the bowl. In a third position of the valve the port communicating with the bowl and the pipe stem is open and also the port leading to the vent port or opening is likewise open, thus providing for ventilation and air circulation through the valve, the pipe stem and the bowl, this circulation being readily established when the pipe is cleaned out and the bowl is hot after smoking. It is desirable to leave the pipe after smoking with the ports in the ventilating and air circulation position as this facilitates the drying of the stem.

My invention is illustrated in connection with the accompanying drawing, in which:

Fig. 1 is a longitudinal section through a pipe taken on the line 1—1 of Fig. 2 in the direction of the arrows, the rotary valve being illustrated in elevation partly broken away and the mouthpiece in elevation partly broken.

Fig. 2 is an end elevation taken in the direction of the arrow 2 of Fig. 1 showing in dotted lines the position of the vent port.

Fig. 3 is an irregular section on the line 3—3 of Fig. 1 in the direction of the arrows with the vent ports of the valve in the smoking position.

Fig. 4 is a section on the line 4—4 of Fig. 1 in the direction of the arrows with the smoke ports of the valve in the smoking position.

Fig. 5 is a section similar to Fig. 3 with the valve turned and the vent ports in position for blowing out the pipe stem.

Fig. 6 is a section similar to Fig. 4 with the smoke ports closed for blowing out the pipe stem.

Fig. 7 is a section similar to Fig. 3 with the vent ports positioned for ventilation, that is, air circulation, through the pipe.

Fig. 8 is a section similar to Fig. 4 with the valve positioned having a port aligning with the smoke duct of the bowl for ventilation and air circulation.

In my invention I illustrate a pipe bowl 11. This has the bowl recess 12 for packing the tobacco with a smoke duct 13 leading through the bottom. Preferably formed integral with the

bowl is the pipe stem 14. This has a large diameter passage 15 therethrough for smoke. Certain of the novel features of my invention include an extension of the stem 16 on the side of the bowl from the stem portion 14 and located below the bowl. The bowl, the stem and the stem extension are preferably made integral and usually of briar or suitable composition. It is to be understood however that this portion of the pipe may be of an assembled nature having the stem, the bowl and the stem extension as separate elements if so desired. The mouthpiece 17 is illustrated as broken away. This has a smoke duct 18 therethrough and may be attached to the stem in any conventional manner.

In my invention I employ a bushing assembly 25 fitted in a recess in the stem and the stem extension below the bowl. This bushing has the characteristics of an enlarged cylindrical portion 26, a reduced diameter cylindrical portion 27, these being connected by a bevel shoulder 28. The bushing is designed to fit against a shoulder 29 formed at the base of the recess and in the stem beyond the smoke duct 13. There is preferably a second bevel shoulder 30 positioned spaced from the shoulder 28 as it is not desired to have these shoulders come in contact but the bushing is properly fitted in place when engaging the shoulder 29. The outside of the bushing preferably terminates in a line with the end 31 of the stem extension. The inside of the bushing is characterized by a cylindrical section or surface 32 on the reduced portion 27, this extending past the shoulder 28 and then a coned tapered section 33 to the outer end of the stem. This bushing is inserted in position in the recess of the stem to have a perforation 35 in alignment with the smoke duct 13, this perforation being for the purpose of passing smoke or for air ventilation and circulation as hereunder described. There is a second perforation 36 in the bushing in alignment with a vent opening 37 through the stem extension. This opening slopes downwardly as regards the axis of the bowl and also slopes in a forward direction as regards a transverse plane through the bowl. The bushing is made of suitable material and when once fitted forms a tight connection with the recess in the stem and is not intended to be removed. It is of course obvious that the bushing may be omitted if desired as this merely forms a stationary structure of a valve assembly to provide a connection to the smoke duct 13 and a connection to the vent opening 37.

A rotatable valve plug designated hereunder as a valve is identified by the numeral 45. This has a cylindrical inner portion 46 fitted in the internal cylinder 32 of the bushing and a tapered section 47, this conforming to the conical taper 33 of the bushing. The plug is hollow as indicated at 48 in the cylindrical part and a portion of the distance of the cone section. The cylindrical section has two ports, port 50 for the passage of smoke and port 51 for air venting. These are the same size and as their center lines are in a diametrical plane align with the smoke duct 13 from the bowl recess 12. These ports take the various positions shown in Figs. 4, 6 and 8 when the valve plug is rotated. The conical part of the plug has two ports designated as vent ports, a first port 52 is for blowing out the condensed moisture and saliva from the stem of the pipe and the second port 53 is for air ventilation and circulation. These ports occupy the three different positions shown in Figs. 3, 5 and 7.

The stem extension of the pipe has an indexing insert 60 which may be formed of colored material fitted in a slight recess in such extension close to the bowl. The head 61 of the valve plug has indicia hereunder described which when registered with the index 60 determine the location of the various ports in regard to the smoke duct 13 and the vent opening 37. In order to make the plug light and disseminate heat it has a cored out recess 62. This plug may be made of metal or of plastic, is held in place by the friction of the tapered section and the friction of the cylindrical section, but may be removed and then when the mouthpiece is also removed, it leaves a clear passage through the stem and the stem extension. These parts may then be thoroughly cleaned out with the usual swab.

In the manner of using a pipe and positioning the valve ports, the action is substantially as follows: when it is desired to smoke the pipe, the valve plug is turned to the first position shown in Figs. 3 and 4. In this case only the smoke port 50 is aligned with any passage and this being with the duct 13 and of course with the perforation 35 in the bushing, the air draft created by suction on the mouthpiece draws the smoke through duct 13, the aperture 35, the port 50, through the hollow portion 48 of the plug, the hollow smoke passage 15 of the stem 14 and thence through the smoke duct 18 in the mouthpiece. In this position it will be noted that the ports 52 and 53 in the cone section for blowing out the pipe and for venting respectively are out of registry with any opening or port. When it is desired to blow out the pipe and to knock out the heel of tobacco from the bowl, the valve plug is turned to its second position indicated in Figs. 5 and 6. In this location the port 52 in the tapered section aligns with the vent opening 37 and with the aperture 36 of the bushing. The port 53 is in a closed valve position as to the bushing. The ports 50 and 51 are in a closed valve position as shown in Fig. 6 registering against the inside surface of the bushing, thus the smoke duct 13 and the aperture 35 in the bushing are closed. The smoker may then blow through the mouthpiece and any saliva or moisture from the tobacco or other free flowing liquid in the pipe stem and the hollow portion of the valve plug is blown lengthwise of the stem and in a downward and outward direction through the port 52 of the plug, the aperture 36 of the bushing and the opening 37 in the stem extension. This will clean out a great deal of the moisture from the pipe. Presuming the smoker has finished his smoke and desires to put the pipe away, he may turn the pipe upside down and knock the heel of tobacco or the ashes out of the bowl. In this action as the smoke duct 13 is closed, there is no chance of any moisture passing from the interior of the stem to the bowl of the pipe. The bowl may also of course be cleaned out by a cleaning instrument without any of the ashes or unburnt tobacco passing through the smoke duct 13 into the stem of the pipe. When it is desired to put the pipe away after smoking, for purposes of ventilation, the valve plug is turned to its third position which aligns the port 53 in the tapered part of the plug with the vent opening 37 in the stem extension. The port 52 in this tapered part of a plug is in a closed valve position as to the bushing. This third position aligns a vent port 51 in the cylindrical portion of the plug with the smoke duct 13 and hence with the smoke aper-

ture 35. The smoke port 50 is brought into a closed valve position. This seating of the valve gives open passages for air circulation and ventilation from the stem extension by means of the vent port 37 to the hollow part of the plug, the smoke duct 13 to the bowl. There is also the connection through the smoke duct of the mouthpiece, the stem portion 15 and the duct 13. If the valve is turned to this ventilating position immediately after smoking while the bowl is hot, the differential temperatures of the air cause a natural draft which slowly causes the passage of a considerable volume of air through the various ports and passages of the pipe and particularly into and through the hollow stem 15. This air circulation has the action of drying the pipe by evaporating and carrying with it any moisture so that after the pipe has been blown out and ventilated, it is in clean and dry condition for again smoking.

For convenience of indexing, the head 61 is provided with a finger grip hexagonal and portion having indexing or identifying letters such as S denoting the smoking position, B the blow out position and V, the ventilating position for air circulation. When any of these letters are aligned with the indexing insert 60 the valve will be in the correct position desired such as for smoking, for blowing out the moisture or for ventilating. In Fig. 2 the identifying letters are indicated as projections. Two of these are shown partly in elevation on Fig. 1.

Various changes may be made in the details of the construction without departing from the spirit or scope of the invention as defined by the appended claims.

I claim:

1. A smoker's pipe having a bowl, a stem with a smoke passage, a duct extending upwardly from the stem to the bowl, the stem having a connection for a mouthpiece at one end and having a vent extending downwardly spaced longitudinally from the duct remote from the mouthpiece end, a rotatable valve plug fitted in the stem at the end remote from the mouthpiece end and having a hollow portion with a first and second port spaced circumferentially and alignable with the duct, a third port spaced longitudinally from the first and second ports to register with the vent whereby when the ports fully register with the respective duct and vent the first port forms a smoke connection to the mouthpiece with the vent closed and on rotation of the plug the second port forms with the smoke duct and the third port a connection with the vent for air circulation through the bowl.

2. A smoker's pipe having a bowl with a stem having a smoke passage, a smoke duct extending upwardly from the stem to the bowl, the stem having a connection at one end for a mouthpiece, a vent spaced longitudinally from the duct and extending downwardly from the smoke passage at the portion of such passage remote from the mouthpiece end, a rotatable plug fitted in the end of the smoke passage remote from the mouthpiece end and having a hollow portion with a first and second port spaced circumferentially for aligning with the smoke duct and a third and a fourth port positioned longitudinally from the first and second ports and also spaced circumferentially to align with the vent, the said ports when fully registering with their respective ducts and vents providing a smoke connection through the first port to the mouthpiece with the vent closed and in the second position with the third port registering with the vent and the smoke duct closed a blow out connection from the mouthpiece through the vent and with the second port registering with the smoke duct and the fourth port with the vent forming an air ventilation connection through the vent, a portion of the plug and through the smoke duct and the bowl.

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