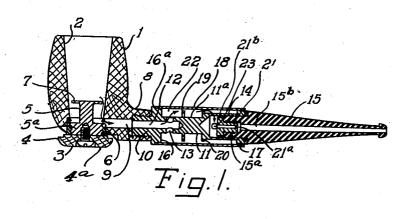
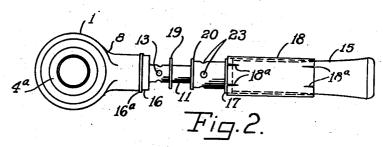
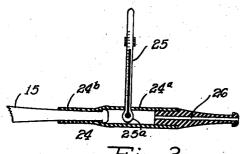
SMOKER'S PIPE

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INVENTOR M. S. DUNKELBERGER

Robl + Roblattorneys

## UNITED STATES PATENT OFFICE

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## SMOKER'S PIPE

Milton S. Dunkelberger, Dayton, Ohio, assignor to The American Display Company, Dayton, Ohio, a corporation of Ohio

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2 Claims. (Cl. 131-210)

smoker's pipe of the type generally employed in connection with the smoking of tobacco, and has for a particular object the provision of means for enabling the cleaning of the interior of the pipe 5 stem without taking the pipe apart, or without disconnecting the stem from the bowl and which object may be accomplished without discontinuing the smoking process, if desired.

is somewhat incidental to the first-mentioned object, is to so construct the stem portion of the pipe as to utilize the aforesaid means to dissipate the heat from the smoke drawn through the pipe

Another object of the invention is the provision of means for trapping and dissipation of moisture incident to the process of smoking tobacco in a pipe of the type described whereby to minimize the tendency of such moisture to pass to the 20 nates the bowl of a smoker's pipe, having a chammouth end of the pipe stem.

Another object of the invention is the provision of adjustable draft means in the pipe stem.

A further object of the invention is the probowl to facilitate cleaning thereof.

A still further object of the invention is to provide testing means for use in connection with a pipe of the type described to test the coolness of the smoke passing through the pipe stem.

In carrying my invention into practice, I provide a pipe stem having a divided passage or one which is non-continuous in the same longitudinal plane at a point intermediate its ends, whereby the smoke passing from the pipe bowl therethrough is caused to follow a somewhat circuitous path at said intermediate portion of the stem. Means are provided at such intermediate portion of the stem which are movable to different positions in one of which the same are operable to 40 provide the outer casing of a superchamber into which smoke is caused to pass from the aforesaid interior non-continuous passage to be cooled by said means during the process of smoking, and in another of which positions said means are operable to render the said interior non-continuous passage accessible for cleaning without disassembly of the pipe elements and without discontinuing the process of smoking.

Means are also provided at the aforesaid intermediate portion of said stem for compelling practically all of the smoke passing through the superchamber to be exposed to the casing protrap moisture carried by the smoke and in con-

This invention relates to improvements in a junction with trap means provided in the bowl of the pipe serves to prevent any substantial amount of moisture from passing to the mouth end of the pipe stem.

> Further cobjects, advantages and features of novelty of my invention will appear more fully as the description thereof progresses in conjunction with the accompanying drawing in which:

Figure 1 is a vertical sectional view of a smok-Another principal object of the invention, which 10 cer's pipe embodying the improvements of my invention.

> Figure 2 is a bottom plan view showing the sleeve or superchamber casing positioned for facilitating access to the interior of the pipe stem.

:Figure 3 is a view, partly in section, showing the testing device of my invention applied to a smoker's pipe of the type described.

Now referring to the drawing for a detailed description of the invention, the numeral I desigber 2 in which is adapted to be contained the tobacco, and 3 generally designates a removable false bottom for said bowl, comprising a base 4 preferably of briar or like material, similar to vision of a removable false bottom for the pipe 25 that of which the bowl is made, and a stem portion 5 preferably of Duralumin or other suitable

> The enlarged portion 5a of the stem is threaded for cooperation with a threaded bushing 6 30 pressed into the wall of the chamber 2. The stem 5 is also provided with an annular flanged portion. 7 of slightly less diameter than the adjacent portion of the bowl chamber 2. This flanged portion 7 functions as a shelf for supporting the 35 tobacco when packed into the chamber 2, and while the edges of the flanged portion 7 are somewhat spaced from the adjacent wall of the chamber 2, to permit the passage of smoke thereby. said flanged portion is nevertheless of sufficiently large diameter to prevent any substantial amount of tobacco from passing below the same.

The base of the bowl Lis provided with a stem portion 8 provided with a passage 9 therethrough, the outer end of which is threaded for cooperation with the threaded inner end 10 of an intermediate stem member or connecting unit, generally designated 11, formed of duralumin or other suitable metal. This intermediate stem member II is provided with a passage 12, the inner end of which registers with the passage 9 and the outer end of which is formed with radial openings 13. The outer portion 14 of the stem member il comprises a socket into which the inner end 15a of the mouthpiece 15 is fitted, the wided therefor. This latter means also serves to 55 mouthpiece when so assembled forming a part of the stem portion of the pipe.

The stem member II is provided at, or near, either end with collar portions 16 and 17 upon which is slidably fitted a sleeve 18, which, when positioned as shown in Figure 1, tightly engages the circumferential edges of said collar portions 16 and 17 and whose inner edge when in such position engages the annular shoulder 16a of the collar 16, for limiting the inward movement of

The stem portion II is also provided interme- 10 diate its ends with baffle means comprising the annular flanges 19 and 20 which serve to trap moisture and to direct the course of travel of the smoke through the stem in a manner to be hereinafter described.

The annular flanges and the collar portions cooperate to form peripherally disposed annular

channels forming smoke compartments.

At the inner end of the mouthpiece 15 there is provided a threaded bushing 21 cooperating 20 with a correspondingly interiorly threaded portion of the passage 15b of said mouthpiece. The bushing 21 has a passage 21a therethrough which is of less diameter than the passage 15b of the mouthpiece. In practice, a plurality of bushings 25 21, having passages 21a of different diameters, may be provided for alternative use to suit the whim of a smoker who may desire to have a pipe which draws more or less freely, depending upon the size of the passage 21a of the bushing em- 30 ployed.

When the sleeve 18 is positioned as shown in Figure 1, it provides a casing for a superchamber 22 surrounding a portion of the stem member 11. The socket portion 14 of said stem member 35 is provided with radial openings 23 at a point adjacent the inner end of the mouthpiece 15, through which openings 23 smoke from the superchamber may pass to the passage 15b of said mouthpiece through a bushing 21, if such be em-

ployed.

The inner end of the mouthpiece 15 will extend into the socket portion 14 a distance sufficient to provide adequate space between the inner end of said mouthpiece and the openings 23 in said socket, whereby to permit of adjustment of the bushing 21 toward and away from said openings 23 by turning the head 21b of said bushing. Thus, the said bushing may be employed to act as a damper for regulating the draft through the mouthpiece 15 by adjustment of the head 21b of said bushing toward and away from the openings 23, since the diameter of the head 21b is substantially the same as, or slightly less than, the inner diameter of the socket portion 14. Hence, if the bushing 21 is unscrewed a few turns so as to move the head 21b to a position opposite the openings 23, the draft through said openings will be dampened, and, likewise, when the bushing 21 is screwed into the mouthpiece so that the head 21b abuts the inner edge thereof, the draft through said openings will be correspondingly increased.

In operation, the sleeve 18 will be positioned as shown in Figure 1 and the chamber 2 of the bowl I will be loaded with a quantity of tobacco packed therein against the flange portion 7 which serves to support the tobacco so packed in said

As above stated, the space between the circumferential edge of the flange 7 and the adjacent inner wall of the chamber 2 is sufficient to permit smoke from the lighted tobacco to be drawn downwardly and through the passage 9, while at the same time preventing any substantial amount 75 rubber tubing 24 and auxiliary mouthpiece 26.

of tobacco from falling below the supporting surface of the flange 7.

As a smoker draws upon the mouthpiece 15, the smoke from the lighted tobacco will pass from the passage 9 through the passage 12 out through the openings 13 into the superchamber 22, and by reason of the inter-position of the flanges 19 and 20 substantially all of the smoke will be caused to impinge the inner surface of the sleeve 18 as said smoke passes toward and through the openings 23 of the socket portion 14, and thence through the passage 21a of the bushing 21, and through the passage 15b of the mouthpiece 15

into the mouth of the smoker.

In the process of smoking the pipe embodying the improvements of my invention, moisture condensed out of the tobacco will be trapped upon the upper surface of the flange 1. By reason of the fact that said flange is made of metal and becomes hot during the process of smoking, moisture so trapped will be dissipated by the heated metal, and consequently will not get into the passage 9, or if carried into said passage in the form of vapor will subsequently condense in, and adhere to, the walls of the passages 9 and 12 and the inner wall of the sleeve 18, or said moisture will condense upon the trapping flanges 19 and 20, or the intermediate portion 11a of the stem II so that very little, if any, moisture will pass into the mouthpiece 15 to interfere with the enjoyment of the smoker using said pipe.

If, during the process of smoking, and without interrupting said process, or disassembling the pipe, it is desired to clean the stem member II, or remove accumulated moisture therefrom, it is only necessary to slide the sleeve 18 to the position shown in Figure 2 to afford ready access to

said stem member for this purpose.

It will readily be apparent that when the sleeve 40 member 18 is positioned, as shown in Figure 2, it is a very simple matter to clean the exterior of the stem member !! employing a cloth for that purpose and to run a pipe cleaner into the passages 12 and 9 through the openings 13, or 45 even to run the pipe cleaner through the openings 23 without necessitating removal of the pipe from the mouth of the smoker, if desired.

When it is desired to clean the bowl I of the pipe the false bottom 3 may be readily unscrewed 50 to remove the same for facilitation of such oper-

ation as will be apparent.

As seen in Figure 3, I have provided a pipe testing device which may be readily attached to the mouthpiece of the pipe of a type herein referred to. Said testing device comprises a length of rubber tubing, generally indicated at 24, the portion 24a of which may be of somewhat more rigid construction than the inner portion 24b which is preferably more resilient to enable the same to be fitted over the mouthpiece 15 of a pipe as shown. A thermometer 25, which has had its tubular portion inserted through a suitable opening in the portion 24a of the tube 24, has its bulb portion 25a positioned interiorly of said tube portion 24a and is more or less firmly supported thereby. An auxiliary mouthpiece 26, which may be of a construction similar to the regular mouthpiece 15 of the pipe, is provided for insertion in the outer end of the tube portion 24a. In use, a smoker may readily test the coolness of the smoke which passes through the mouthpiece 15 of his pipe by noting the height of the column of mercury in the thermometer 25 as the smoker draws the smoke from said mouthpiece 15 through the 2,362,891

It will be noted that the bottom surface 4a of the base portion 4 of the removable false bottom 3 is preferably made flat so that the pipe is supported with the bowl 1 in an upright position as shown in Figure 1 when placed upon a flat surface, such as a table top or the like.

When a pipe constructed as herein disclosed is being smoked, substantially all of the smoke drawn through the stem is caused to impinge the inner surface of the metal sleeve 18. This 10 result is effected by reason of the interposition of the flanges 19 and 20 which are of a diameter only slightly less than that of the said inner wall of the sleeve. The smoke is compelled to impinge the inner surface of the sleeve in order to pass 15 through the small space provided between said sleeve and the edges of said flanges. Because of the extended area of this impingement of the smoke with the sleeve, a marked cooling of the smoke drawn through the stem results, since the 20 sleeve is made of heat conducting material which enables the heat of the smoke to be conducted out of the stem and hence dissipated.

Besides their function just mentioned, the flanges 19 and 20, and, in fact, the entire intermediate portion of the stem, function as filter means to entrap moisture and juices from the tobacco and also to entrap saliva passing from the smoker's mouth.

The sleeve 18 is preferably provided with longitudinal slits 18a at its ends to permit a slight crimping of the ends of the sleeve to enable the same to fit more tightly over the collar portions 16 and 17 when the sleeve is in the closed position of Figure 1. Preferably, also, the diameter of the sleeve 18 is gradually diminished from its leftward toward its rightward end having reference to Figures 1 and 2 so that the said leftward end of the sleeve will pass over the collar portion 17 loosely when moved toward and from the position of Figure 2 and both ends of the sleeve will fit snugly on their respective collar portions 16 and 17 when the sleeve is in the position of Figure 1.

Having thus described my invention, what I 45 claim as new and desire to secure by Letters Patent of the United States is:

1. In a smoking device of the class described including a bowl terminating in a stub stem-like

portion, said bowl being provided with a tobacco chamber and a passage from the chamber through the stem-like portion, said stem-like portion terminating in a socket portion, and a mouthpiece provided with a longitudinal passage, the combination including a connecting unit having one end provided with a cylindrical portion engaging the socket in the stem-like portion, said connecting unit being provided with a plurality of peripherally disposed annular channels, two of which are separated by a washer-like baffle portion, and a sleeve overlying the connecting unit so as to form a covering for the channels to form smoke cooling chambers, the ends of the connecting unit being provided with passages, one of which registers with the passage in the stemlike portion, the other communicating with the passage in the mouthpiece, said passages extending into and from separate smoke cooling chambers so as to cause the smoke to flow through a tortuous path in passing from the bowl to the mouthpiece.

2. In a smoking device of the class described including a bowl terminating in a stub stem-like portion, said bowl being provided with a tobacco chamber and a passage from the chamber through the stem-like portion, said stem-like portion terminating in a socket portion, and a mouthpiece provided with a longitudinal passage, the combination including a connecting unit having one end seated in the socket in the stem-like portion, said connecting unit having a plurality of peripherally disposed annular channels separated by baffle-like portions, a sleeve overlying the channels, said sleeve having an internal diameter larger than the diameter of the baffle-like portions so as to provide a series of smoke cooling compartments connected by passages located between the margins of the baffle-like portions and the sleeve, the ends of the connecting unit being provided with smoke passages communicating with adjacent smoke cooling compartments, the mouthpiece being connected to the connecting unit by a socket arrangement so as to cause the smoke flowing from the tobacco compartment through the mouthpiece to flow through a tortuous path tending to cool the same. MILTON S. DUNKELBERGER.