Sept. 20, 1932. L. L. MARTIN 1,877,925

TOBACCO PIPE

Filed Jan. 10, 1931

Fig. 1.

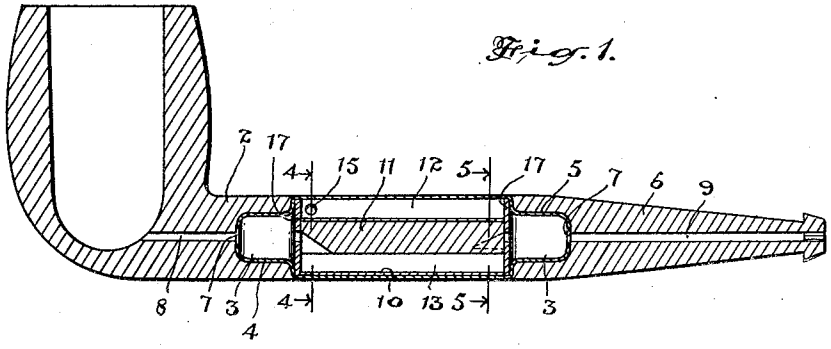
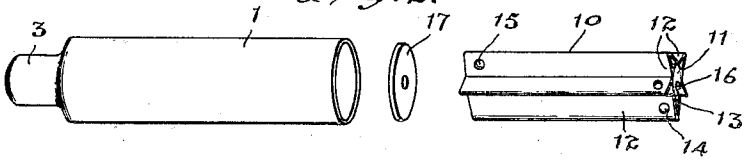


Fig. 2.



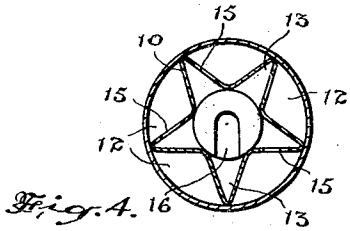


Fig. 4.

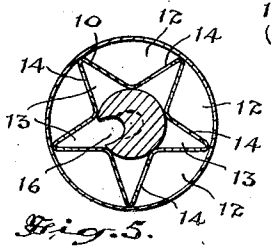


Fig. 5.

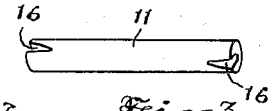


Fig. 3.

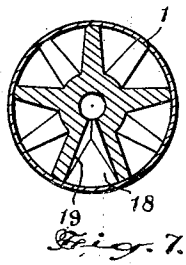


Fig. 7.

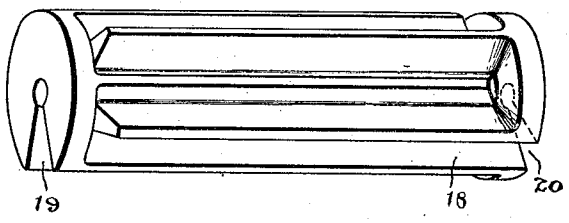


Fig. 6.

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UNITED STATES PATENT OFFICE

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TOBACCO PIPE

Application filed January 10, 1931. Serial No. 507,886.

The principal objects of the invention are, to provide a pipe in which the smoke will be effectively cooled and cleansed before reaching the mouth of the smoker, and to devise a simple and cheaply manufactured form of attachment adapted to be inserted between the pipe bowl and the mouth piece which may be discarded at will and readily replaced by a new one.

The principal features of the invention consist in the novel construction of a tubular member adapted to be inserted into the pipe stem and of a member enclosed within said tubular member and forming an elongated circuitous passage for the smoke.

In the drawing, Figure 1 is a longitudinal mid-sectional view of a tobacco pipe showing the application of my invention thereto.

Figure 2 is a perspective detail of the insert member showing the inner portion thereof ready to be inserted.

Figure 3 is a perspective detail of the core of the insert member.

Figure 4 is an enlarged transverse section through the line 4—4 of Figure 1.

Figure 5 is an enlarged transverse section on the line 5—5 of Figure 1.

Figure 6 is an enlarged perspective detail of a modified form of core for the insert member.

Figure 7 is an enlarged transverse sectional view through the core member and showing the tubular casing enclosing the same.

Numerous forms of devices have been proposed to provide in a tobacco pipe an elongated smoke passage which would be effective in cooling the smoke and condensing liquid elements carried thereby from the tobacco bowl, and the purpose of this invention is to provide a simplified structure which while being very efficient will be so inexpensive that it may be readily discarded when it becomes foul.

The device as herein shown consists of a tubular member 1 which is preferably of a diameter corresponding with the diameter of the stem 2 of the pipe.

The ends 3 of the tubular member 1 are reduced in diameter and are adapted to fit into the cylindrical recess 4 in the pipe stem 2 and the recess 5 in the mouthpiece 6. These ends are a push fit so that the device may be instantly removed when desired and further as there is no particular position required in the location of the device a simple insert fit is all that is required.

The reduced ends 3 are preferably constricted at their extremities and there is a central opening 7 which registers with the passage 8 in the stem 2 and 9 in the mouthpiece.

Within the cylindrical centre portion of the member 1 is enclosed a longitudinally corrugated tube 10.

The apexes of the corrugations engage the inner surface of the member 1 and a cylindrical core 11 preferably formed of a length of wood is inserted into the member 10 to engage the inward apexes of the corrugations.

A plurality of longitudinal channels 12 are formed between the corrugated member 10 and the member 1 and a plurality of longitudinal channels 13 are formed between the member 10 and the core 11 and the corrugations of the member 10 are perforated alternately at opposite ends by holes 14 and 15 to form communicating passages between the channels 12 and 13. These holes being alternately arranged at the opposite ends, provide passageways for the smoke, directing same throughout the length of the inside and outside passages.

The core 11 is formed with notches 16 at the ends and washers 17 arranged at each end of the core and member 10 close the ends of the channels 12 and 13 but permit the passage of air and smoke to the notches 16.

It will be seen that smoke drawn from the bowl of the pipe through the stem passage

8 passes through the central opening in the washer 17 at the end of the member 1 secured in the stem 2 and it is directed by the notch 16 into one of the longitudinal channels 13. It travels the full length of the channel 13 and finds egress at the opposite end through one of the holes 14 and then follows the channel 12 throughout its length, passes through the hole 15 and at the opposite end of the member 10 into the next adjacent inner channel 13.

This back and forth travel continues until finally it finds egress through the notch 16 at the opposite end of the core, passing into the passage 9 in the mouthpiece.

It will be readily appreciated that smoke travelling through a long zig zag passage such as described will become cooled to a remarkable extent and particularly so because of the nature of the tubular member 1 which is preferably formed of thin metal such as aluminum which has a quality of rapid conduction of heat which is quickly dissipated from the outer surface which is in contact with the air.

In Figures 6 and 7 there is shown a modified core structure for the tubular member 1 in the form of a piece of wood which is profiled longitudinally with a groove 18 commencing at the notch 19 at one end and terminating in the notch 20 at the other end after zig zagging from end to end back and forth around the periphery.

A device such as described is very simple in its construction and can be manufactured at an extremely low cost so that a smoker may readily afford to discard the entire device and replace it with a fresh one quite frequently.

The diameter of the tubular member may be made to suit the ordinary diameters of pipe stems so that the pipe will not be unsightly or unusual in its appearance. Further the device may be made in several lengths enabling the user to choose a desired length in accordance with his regard for appearance of the pipe or convenience or for an ultimate cool smoking effect, that is to say, the longer the device used, the longer the smoke passage.

What I claim as my invention is:—

1. In a tobacco pipe, a tubular member adapted to be inserted in the pipe stem and having a core formed with longitudinal channels communicating alternately at opposite ends and forming a continuous passage, the terminal ends of which open through the ends of the core, said tubular member having its ends reduced to confine and seal said core permanently therein.

2. In a tobacco pipe, a metallic tubular member having integral reduced ends adapted to be inserted into recesses formed in the pipe stem and mouthpiece respectively and forming an air-tight and fluid-tight connection, and a core enclosed between said reduced ends and having a longitudinal zig zag channel directing the flow of smoke back and forth therein, said channel being sealed throughout its length but open at opposite ends within the tubular member.

3. In a tobacco pipe, a cooling unit for insertion between the bowl stem and mouth piece thereof, comprising in combination a core member presenting a circuitous passage opening at the respective ends of the core, and a thin metallic tubular casing snugly encircling said core and having its ends swedged inwardly to confine said core permanently therein and form reduced tubular formations to interfit with said bowl stem and mouth piece respectively.

4. In a tobacco pipe, a tubular member adapted to be inserted in the pipe stem and having a core formed with longitudinal channels communicating alternately at opposite ends and forming a continuous passage, the terminal ends of which open through the ends of the core, sealing washers abutting the respective ends of said core, said tubular member having its ends swedged inwardly to hold said sealing washers in sealing relation to the ends of said core and tubular member.

5. In a tobacco pipe a metal tube having a pair of reduced cylindrical ends, a longitudinally corrugated metal sleeve enclosed between the reduced ends of the aforesaid tube, and means for directing the flow of smoke alternately from one end of said sleeve to the other to flow back and forth progressively through the channels formed by the corrugations of said inner member.

6. In a tobacco pipe a thin metal tube having reduced ends adapted to fit into the pipe stem and mouthpiece respectively, a longitudinally corrugated tube enclosed within said tubular member, a central core arranged in said longitudinally corrugated member, the corrugated walls of said corrugated member having holes formed therein at alternately opposite ends to direct the smoke alternately through the passages formed between the corrugated member and the outer casing and the corrugated member and the core.

7. In a tobacco pipe a thin metal tube having reduced ends adapted to fit respectively into the bowl stem and mouthpiece, a longitudinally corrugated tube fitted between the reduced ends of said tube and having holes cut through the corrugations thereof and alternating at opposite ends, and a core fitting within the longitudinally corrugated tube and engaging the inner apexes of the corrugations, whereby a circuitous passage is formed said core having notches in the ends to lead the smoke respectively to and from the opposite ends of the circuitous passage formed by the corrugations.

8. In a tobacco pipe, a cooling unit for insertion between the bowl stem and mouth piece, comprising in combination a tubular

member having reduced ends to interfit respectively with the bowl stem and mouth piece, a longitudinally corrugated sleeve fitting snugly within said tubular member, a core piece fitting snugly within said corrugated sleeve, and means connecting the passages formed by said interfitting tubular sleeve and core members to form a circuitous passage.

LOUIS L. MARTIN.