Sept. 10, 1946. W. EHRHARDT 2,407,484

TOBACCO PIPE JUICE ABSORBER

Filed June 27, 1944

Fig.1

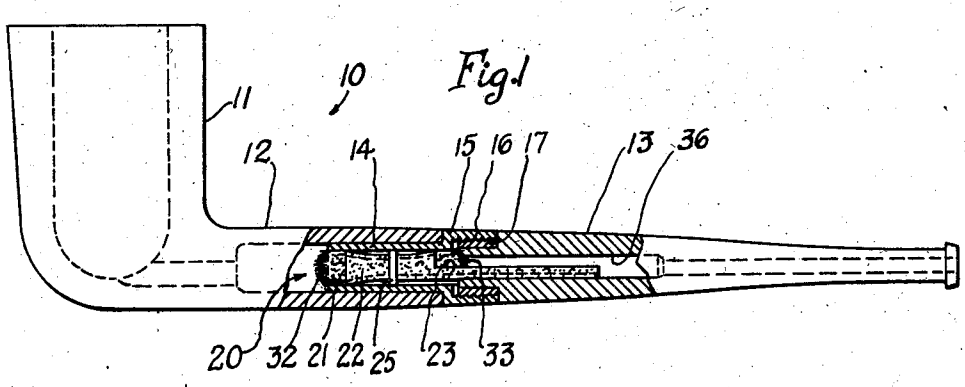


Fig.2

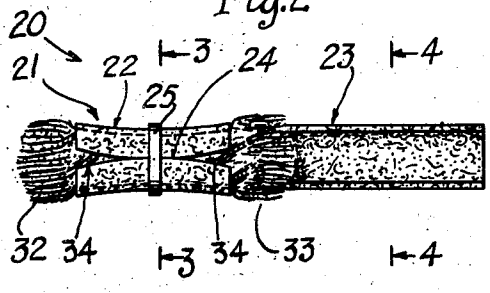


Fig.3

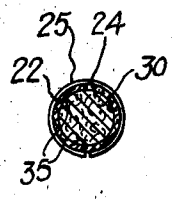


Fig.4

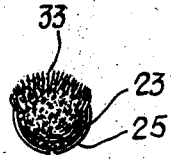
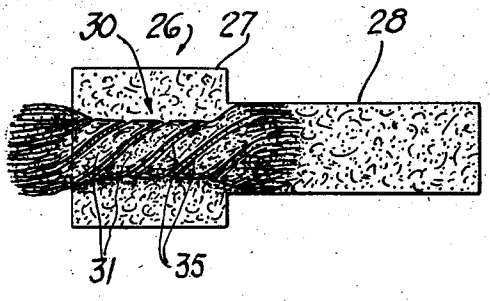


Fig.5



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TOBACCO PIPE JUICE ABSORBER

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Application June 27, 1944, Serial No. 542,362

2 Claims. (Cl. 131—202)

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This invention relates to smoking appliances, such as tobacco pipes. Its utility is best exemplified in a tobacco pipe, because the tobacco juice therein detracts from the comfort and pleasure of the smoker and has offered problems that have long perplexed the art.

One object of the invention is to provide a simple, discardable device of improved inexpensive construction for absorbing the tobacco juice.

Another object of the invention is the provision of a device of the nature set forth having improved means comprising a smoke filtering and juice absorbing portion and a safety portion for absorption of any excess of juice without retarding the free flow of smoke.

Another object of the invention is to furnish a device of the type mentioned having a tubular juice absorber and a core of fibrous, permeable material.

Another object of the invention is to construct a device of the class alluded to having improved means comprising a juice absorber of stepped formation, the larger portion of which substantially fills the cross section of the pipe stem to also filter the smoke, and the smaller portion of which permits free flow of the filtered smoke and lies in contact with a wall of the stem to absorb any excess of juice.

Another object of the invention is to provide a device of the character described having improved means of elongated form adapted to fit a pipe stem and having spaced, fibrous tufts or heads with the intermediate portion serving for easy insertion and removal of the device.

Another object of the invention is the provision of a device of the nature set forth comprising an improved means including an absorbent member having portions of different sizes.

Another object of the invention is to furnish improved means having a tubular element and a core element therefor one of which is more absorbent to tobacco juice than the other and both cooperating to filter the smoke.

Other objects and advantages of the invention will become apparent as the specification proceeds.

With the aforesaid objects in view, the invention comprises the novel features, combinations and arrangements of parts hereinafter described in their preferred embodiments, pointed out in the subjoined claims, and illustrated in the annexed drawing, wherein like parts are designated by the same reference characters throughout the several views.

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In the drawing:

Figure 1 is a view in side elevation with parts in section showing a tobacco pipe according to the invention.

Fig. 2 is an enlarged top plan view of an attachment embodying the invention.

Figs. 3 and 4 are sectional views taken on lines 3—3 and 4—4 respectively, of Fig. 2, and

Fig. 5 is a plan view of a blank for the attachment with the core thereon in position for assembling.

Referring in detail to the drawing, 10 denotes a device such as a tobacco pipe embodying the invention. The same may include a pipe bowl 11 having an integral stem portion 12 to which is detachably connected in any suitable manner a mouthpiece stem portion 13. Preferably a metallic sleeve or lining 14 is press fitted into the stem portion 12, and is provided with an enlarged collar-like member 15 having an internal thread 16. The adjacent end of the mouthpiece stem portion is externally undercut to tightly receive a collar 17 threaded to screw into the member 15. These metallic elements 14 and 17 are provided to permit the use of a large bore in the stem portions 12, 13 and to afford adequate strength at the joint. However, these elements are merely illustrative, and are no part of the invention, since any screw joint, or a simple frictional slide fit may be used, as well known in the art.

Removably fitted in the stem portions 12, 13 is an attachment 20 embodying the invention. The same comprises a tubular means 21, which is preferably of stepped formation, since one section 22 is substantially all round, and the other section 23 is substantially half round and constitutes a channel. Desirably also, the section 22 is split as shown at 24, being thus secured in any suitable manner, a simple means consisting of a split ring 25 formed of a piece of wire bent and pinched around the same. This ring is located centrally of the section 22.

The construction of the means 21 may be further understood from the blank 26 which comprises a generally square section 27 and a relatively long oblong section 28 narrower than the former, these sections being centrally alined with each other. The blank is folded or curved about its longitudinal axis so that section 26 forms the tubular part 22 and section 28 forms the channel or half round part or projection 23.

The member 21 consists of a highly absorbent sheet material of any suitable character. For example, a paper composition, such as blotter paper is satisfactory and cheap, while possessing

sufficient stiffness for easy handling in inserting the device **20** into a pipe stem and in removing and discarding the device. Also the material possesses some softness for easy accommodation to the bore of the pipe and any variations or irregularities therein.

Within the tubular part **22** is a core **30** of fibrous or permeable material which may consist of a porous composition, wadding or cord. The latter has afforded the most satisfactory results especially when made of a series of wick-like soft cords **31**, for example as shown in U. S. Pat. No. 1,239,589, issued Sept. 11, 1917, to R. W. Graves, with the cords slightly twisted together as at **35** to produce the wick or core **30**. In practice such core is cut into small pieces of the required length, a piece being placed on the blank **26** as shown in Fig. 5, and the blank is rolled up and secured by the ring clip **25**. The arrangement is such that end portions **32**, **33** of the core **30** protrude from opposite ends of the tubular section **22**, these end portions being spread open or loosened to form tuft-like heads, and as further shown by British Patent No. 221,395 of 1924 to William J. Pitt.

In the device **20**, the tubular section **22** thus includes a core **30** which affords body and support for the blotter paper sheathing, the latter yielding somewhat at its ends where the split **24** provides openings **34**, under the pressure of the core, the latter being free to form the tuft-like heads **32**, **33**.

The core **30** may be highly absorbent to tobacco juice, which will travel rapidly along its fibers by capillary action. Thus the core will have the capacity of absorbing a large amount of juice. Further it will act at least in part as a smoke filter, this function being efficiently realized by the enlarged tuft-like heads **32**, **33**.

When the device **20** is assembled in the stem of a pipe, as shown in Fig. 1, the tubular section **22** is located mainly in the stem portion **12**, and the half-round section **23** is located mainly in the mouth stem portion **13**. The ring clip **25** slides in easily, the enlarged end portions of the core fitting in the stem. The tuft-like heads **32**, **33** snugly fill the sleeve **14** and the entrance of the stem **13**. Preferably, the section **23** lies at the bottom of the smoke passage.

In operation the tuft-like heads **32**, **33** serve as successive filters for the smoke, the former

when the smoke carries a good deal of vapor, the latter when the smoke has been partially dried. The tobacco juice is rapidly absorbed by the blotter paper at the tubular section **22**, and by the core **30**. Any excess of moisture is absorbed by the blotter paper section **23**. As the latter is cut away in part, being only half round, it will not obstruct the flow of smoke through the passage **36** of the mouth stem **13**, this passage being generally somewhat smaller than that in the companion stem portion **12**. In any event resistance to the flow of smoke is kept within reasonable limits, and yet the excess of moisture is eliminated. Thus the comfort and pleasure of the smoker are increased, and injurious effects upon his health avoided.

I claim:

1. A device having a body adapted to fit in a tobacco pipe stem, including an elongated member of moisture absorbent material having portions of different widths folded lengthwise to provide two portions of which one constitutes a split tube and the other a channel, a central clip around the split tube maintaining the member folded, and a core of fibrous, moisture absorbent material in the split tube, said core having end portions projecting from the ends of the split tube and adapted to form filter heads, one of the latter heads lying partially in the channel portion with the latter channel portion projecting beyond the head that partially lies therein.

2. A tobacco pipe having a pipe bowl stem portion and a mouthpiece stem portion, a body in said bowl and mouthpiece stem portions for filtering smoke and for absorbing juice, the body comprising an elongated one piece member of moisture absorbent material longitudinally folded to provide a split tube portion and an arcuate channel portion, a relatively porous core of fibrous moisture absorbent material in the split tube portion and having end portions projecting from the split tube portion, a clip centrally about the latter to hold the member folded and to cause the core to be retained, the channel portion projecting beyond the core and the length of the arc of the channel portion being substantially smaller than the circumference of the split tube portion, and the channel portion projecting into a relatively narrow part of the mouthpiece stem portion in which it lies at the bottom.

WILLIAM EHRHARDT.