TOBACCO SMOKING DEVICE
Filed July 12, 1956
This invention relates to tobacco smoking devices, and its general purpose is to provide means for obtaining a continuously cool, clean and dry smoke. While the invention is subject to wide application, it is of special advantage in pipes, cigarette and cigar holders, and the like. Common faults of conventional tobacco smoking devices are a hot smoke, dry throat, nicotinic and other deposits, and smoke that it wet with tobacco juice. Now, I have devised novel and improved means for eliminating these various annoyances so as to make tobacco smoking a desirable and harmless pleasure. I employ means whereby smoke, passed from a smoking device to the person is cool, clean and dry.

I provide a clean and dry smoke by filtering means of a novel nature; I provide a cool smoke by novel draft means whereby cooling air is adapted to mix with the smoke.

A further feature of the invention is certain novel means whereby the temperature of the smoke issuing from a tobacco smoking device may be regulated from hot to cool, as desired. Accordingly, an object of this invention is to provide means in tobacco smoking devices for obtaining a cool, dry and clean smoke. Another object of the invention is to provide in a tobacco smoking device practical means for efficiently filtering the smoke of moisture, tobacco juices, and deposits; and to provide other practical and efficient means, adjustable for obtaining as desired a smoke of desired temperature.

A further object of the invention is to obtain the foregoing benefits in a practical manner, without weighty or cumbersome devices.

The invention further lies in the particular structure and arrangement of its component parts, as well as in their cooperative association with one another to effect the results intended herein.

The foregoing and other objects and advantages of this invention will appear more fully hereinafter from a consideration of the detailed description which follows, taken together with the accompanying drawings wherein an embodiment of the invention is illustrated. It is to be expressly understood, however, that the drawings are for purposes of illustration and description, and are not to be construed as defining the limits of the invention. In the drawings:

Fig. 1 is an elevational view, partly in section, showing a pipe wherein the invention is embodied;
Fig. 2 is a view of the pipe without the adjusting sleeve;
Fig. 3 is a view of the sleeve apart from the pipe;
Fig. 4 is a view of the sleeve rolled out flat; and
Fig. 5 is a view of the stem rolled out flat.

There is shown in the drawings a pipe having a bowl 1 for burning tobacco. To the bowl is attached one end of a cylindrical tubular stem 2 having a passage 3 there-through for channeling smoke from the bowl to a mouth-piece 4 fitted onto the opposite end of the stem. The stem may be attached to the bowl in any suitable manner. Here, the end 5 of the stem is fitted into a complementary bore 6 in a thickened base of the bowl. The smoke passage 3 of the stem opens through a radial port 10 which communicates through a hole 13 in a partition wall 20 above to a burning chamber 30 of the bowl. A short metal sleeve on the stem provides a radial flange 8 which abuts the outer face of the bowl about the opening 6.

A clean-out opening having a removable plug 9 is formed in the wall of the bowl directly opposite to and in axial alignment with the opening 6. A conventional cleaning probe may be inserted through the clean-out opening into the smoke passage 3 of the stem to free the latter of undesirable deposits.

The opposite end of the stem is fitted with an end portion of a wood or metal insert 11. The other end of the insert is fitted into the mouth-piece 4. The insert provides a radial flange 12 which abuts the adjacent ends of the stem and mouth-piece. The mouth-piece is desirably short.

It can be seen that except for the short mouth-piece the entire smoke channel of the pipe is provided by the stem 2. This is desirable, as one of the principal functions of the stem here is to serve as a filter for absorbing moisture and cleaning impurities from the smoke as the latter flows from the bowl to the mouth-piece.

It is desired that the smoke will be subject to filtering action during its entire travel through the stem. Accordingly, the stem is formed of moisture absorption material which will also act to filter out impurities from the smoke. I have found lightweight wood having good absorption characteristics as desirable for forming the stem member. Balsa wood is particularly suitable for this purpose, and therefore the stem is here made of balsa wood. Balsa wood is rigid, yet light in weight. It functions to not only absorb moisture from the smoke flowing through the stem, but also acts to remove impurities from the smoke, such as, nicotinic deposits, and other undesirable matter commonly found in tobacco smoke. The stem may be made in various lengths. I have, however, found that a stem of about three to five inches in length gives excellent results, as confirmed by the fact that smoke issuing from the mouth-piece is dry and clean, the moisture and impurities having been absorbed and filtered out by the balsa wood stem.

To provide a cool as well as a clean and dry smoke, the stem is perforated with a plurality of pin holes 14 throughout its length, whereby the smoke is progressively cooled as it flows through the channel and is mixed with cooling air entering the pin holes. The pin holes are of further advantage in that they provide a draft for the bowl whereby the burning tobacco is not extinguished for lack of air. This avoids the annoyance, so common with pipes, of having to repeatedly relight the tobacco.

Some smokers prefer a cool smoke which will not dry their throats; others desire a smoke which is neither cool nor hot; while still others like a smoke in the condition in which it leaves the bowl, commonly called a hot smoke. To satisfy the tastes of each of these, an adjustable sleeve 15 formed of balsa wood is provided on the stem. The sleeve and stem are provided with a particular pattern of pin holes whereby the heat condition of the smoke may be regulated so as to issue through the mouth-piece as desired from hot to cool.

The sleeve is rotatable on the stem to different angular positions, so that in a first rotated position certain large pin holes 16 in the sleeve register with certain pin holes 17 in the stem, whereby air mixes with the smoke
in the stem and provides a cool smoke. In another or second rotated position of the sleeve certain other holes 18 in the sleeve of a smaller size are registered with certain other pin holes 19 in the stem, whereby less air mixes with the smoke and the issuing smoke is medium cool. In a third rotated position of the sleeve blank spaces in the sleeve seal over all the pin holes in the stem, whereby air to the smoke passage is cut off and the issuing smoke is conventionally hot. It is to be noted that the pin holes in the stem are all of the same diameter.

A preferred form of pin hole arrangement or pattern in the sleeve and stem members is best shown in Figs. 4 and 5, wherein the sleeve and stem are respectively seen as rolled out flat.

The stem has four straight rows of pin holes, all of the same diameter. Each row is spaced 90 degrees from the next. The pin holes in each row are spaced one-fourth inch apart. The alternate pin holes in the stem are designated 19, while the others are designated 17.

The sleeve member 15 has eight straight rows of pin holes, four of which comprise the holes 16 and four of which comprise the holes 18. The rows containing holes 16 are spaced 90 degrees from each other; while the rows containing the holes 18 are also spaced 90 degrees apart, but in alternate midway relation to the rows containing the holes 16. The holes in each of the several rows are spaced one-half inch behind each other. The starting position or location of the first hole in each row containing the holes 18 is one-fourth inch inwardly from the initial position of the first holes in the neighboring rows.

By this arrangement or pattern of holes it can be seen that when the sleeve member is in its first or cool position, the pin holes 16 thereof will register with the pin holes 17 in the stem; in its second or medium cool position, the pin holes 18 of the sleeve will register with the pin holes 19 of the stem. In its third or hot position, which will be between any of the other two positions, the blank spaces of the sleeve will seal over all the holes of the stem.

Where the sleeve and stem members are of sufficient diameter, further pin hole sizes may be added to the sleeve for registration with added pin holes in the stem to provide further regulation of the temperature of the smoke issuing from the mouthpiece.

Position indicating marks may be provided; such as a fixed mark 21 on the bowl with which a mark 22 on the sleeve is alignable to indicate the cool position; and a mark 23 is alignable to indicate the medium cool position.

While an embodiment of the invention has been illustrated and described in detail, it is to be expressly understood that the invention is not limited thereto. Various changes can be made in the design and arrangement of the parts without departing from the spirit and scope of the invention, as the same will now be understood by those skilled in the art; and it is my intent, therefore, to claim the invention not only as shown and described, but also in all such forms and modifications as can reasonably be construed to fall within the spirit of the invention and the scope of the appended claims.

What is claimed is:

1. A tobacco smoking pipe comprising a bowl defining a tobacco burning chamber and having a thick base, the latter having a diametrically extending bore passage opening to the outside of the base at one end of the passage and having a vertical port communicating the passage centrally with the burning chamber, an elongated tubular stem of balsa wood having a short mouthpiece affixed to one end thereof and having its opposite end extended into the base passage, the stem having a radial port registering with the vertical port to the burning chamber whereby the stem serves as a channel for the passage of smoke from the burning chamber to the mouthpiece, the balsa wood structure of the stem serving to absorb moisture and to filter out impurities from the smoke, the stem having a plurality of rows of radial pin holes along its length for admitting cooling air to the interior of the stem for mixing with smoke passing through the latter, a manually rotatable sleeve member of balsa wood surrounding the external length of the stem and having a plurality of rows of pin holes of a particular size and a plurality of alternate rows of pin holes of a larger size, the pin holes of the particular size being registrable with some of the pin holes of the stem in a first rotated condition of the sleeve, the pin holes of the larger size being registrable with the remaining holes of the stem in a second rotated condition of the sleeve, and blank spaces between the various pin holes of the sleeve adapted to cover all of the pin holes of the stem in a further rotated condition of the sleeve, whereby the volume of air flow admitted to the stem is controlled, and visible indicator marks on the sleeve registrable with a fixed mark on the bowl as the sleeve is rotated from one condition to another, whereby the rotated condition of the sleeve relative to the stem may be readily determined.

2. A tobacco smoking pipe as in claim 1, wherein the other end of the bore passage opens to the outside of the bowl and is closed over by a removable plug, the latter end of the passage adapted upon removal of the plug, to allow entrance of a cleaning probe to the interior of the stem.

3. A tobacco smoking pipe as in claim 1, wherein the end of the stem that is extended into the bore passage is characterized by a short metal sleeve thereon at the point of fitting of the stem and bowl and extending slightly into the bore passage, whereby heat from the smoke transmitted to the stem is in part conducted off to the metal sleeve.

References Cited in the file of this patent

UNITED STATES PATENTS

256,033 Naughten Apr. 4, 1882
2,603,373 Lavites June 4, 1935
2,015,369 Shotton Sept. 24, 1935
2,124,130 Van Deventer July 19, 1938
2,145,883 Lavites Feb. 7, 1939
2,206,165 Daymude July 2, 1940
2,440,396 Doppelt Apr. 27, 1948
2,593,016 Dressler Apr. 15, 1952

FOREIGN PATENTS

499,817 Belgium Mar. 13, 1951