J. E. BRADLEY.

TOBACCO PIPE.

APPLICATION FILED OCT. 11, 1916.

1,243,803. Patented Oct. 23, 1917.

Fig. 1.

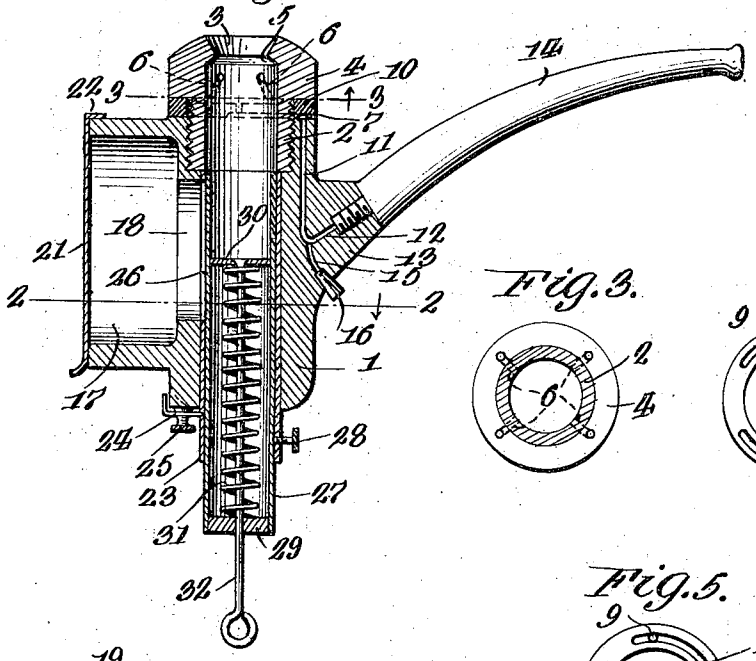


Fig. 3.

Fig. 4.

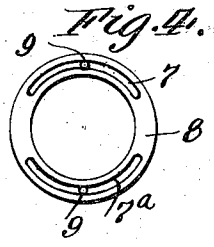


Fig. 5.

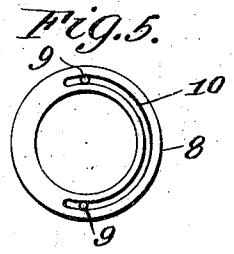


Fig. 2.

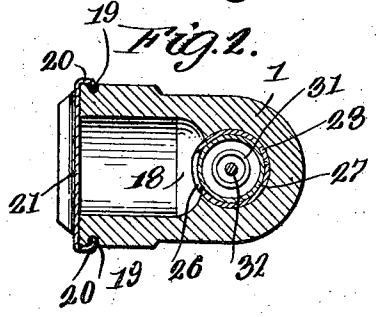


Fig. 7.

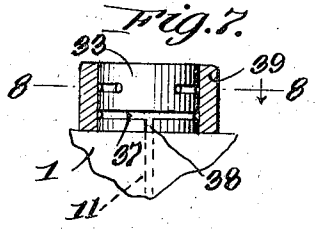


Fig. 6.

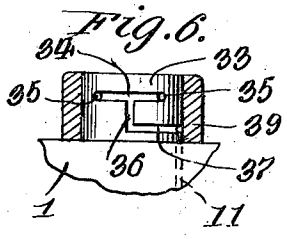
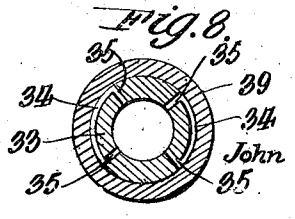


Fig. 8.



WITNESSES

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TOBACCO-PIPE.

1,243,803. Specification of Letters Patent. Patented Oct. 23, 1917.

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To all whom it may concern:

Be it known that I, JOHN E. BRADLEY, a citizen of the United States, residing at Fort Smith, in the county of Sebastian and State of Arkansas, have invented certain new and useful Improvements in Tobacco-Pipes, of which the following is a specification.

This invention relates to tobacco pipes, and more particularly to a pipe of that type in which the suction or smoke openings are positioned adjacent the upper end of the pipe bowl.

One of the main objects of the invention is to provide a pipe of the character stated of simple construction and operation provided with a casing or magazine from which tobacco may be supplied directly to the interior of the pipe bowl. A further object is to provide means for exerting constant upward pressure on the tobacco contained in the pipe bowl so as to gradually force the same toward the upper end of the bowl as it is consumed. A still further object is to provide a pipe having the suction openings so relatively disposed as to insure even burning of the tobacco. Further objects will appear from the detail description.

In the drawings:

Figure 1 is a central vertical sectional view taken through a pipe constructed in accordance with my invention,

Fig. 2 is a section taken on line 2—2 of Fig. 1,

Fig. 3 is a section on line 3—3,

Fig. 4 is a top plan view of the smoke collecting ring,

Fig. 5 is an underneath view of the same,

Fig. 6 is a fragmentary sectional view taken through the smoke collecting sleeve of a modified form,

Fig. 7 is a similar view taken at right angles to Fig. 6,

Fig. 8 is a section on line 8—8 of Fig. 7.

The cylindrical bowl 1 of the pipe is provided, at its upper end, with an internally threaded enlargement which receives the externally threaded neck 2 of the fire bowl 3. The lower end of this neck fits snugly against the upper face of the annular shoulder contiguous with the inner cylindrical chamber of bowl 1 so as to effect a tight closure therewith. The fire bowl 3 is provided with an external annular shoulder 4, and, at its upper end, with an inwardly directed annular shoulder 5 which is concentric with the frusto-conical opening at the top of the fire bowl. The fire bowl is further provided with a plurality of downwardly and outwardly inclined smoke ducts 6. These ducts communicate with the interior of the fire bowl a short distance below the annular shoulder 5. There are four of these ducts in all, and they are spaced 90° apart about the fire bowl, the ducts of one side of the fire bowl communicating at their lower ends with a horizontal groove 7 formed in the upper face of the smoke collecting ring 8 which is threaded about the neck 2 of the fire bowl between the upper end of pipe bowl 1 and shoulder 4. The two ducts at the other side of the fire bowl communicate with a similar groove 7^a in the upper face of smoke collecting ring 8. Each of these grooves is connected by a vertical duct 9 with an approximate semi-circular groove 10 formed in the underface of smoke collecting ring 8. This groove 10 communicates with a vertical smoke passage 11 extending downward in the wall of pipe bowl 1 which communicates with a smoke passage 12 formed in a neck 13 of the pipe bowl. Neck 13 is threaded to receive the usual stem 14. By this means smoke may be drawn from the fire bowl through the stem, and this smoke is taken from four equally spaced points within the fire bowl, thus insuring even burning of the contents of this bowl. A short by-pass 15 communicates with the smoke passage 11, at its juncture with the smoke passage 12. This by-pass is directed downwardly and outwardly and is normally closed by a stopper 16. The by-pass 15 provides a collecting chamber for any nicotin or tobacco juice which may get into the smoke passage, and these accumulations can be quickly and easily removed by removing stopper 16 from the pipe bowl.

A tobacco holding chamber or magazine 17 is secured to the front of bowl 1 and communicates with the interior thereof through a slot or passage 18. This magazine is provided, in each side near the outer edge thereof, with a longitudinally extending groove 19. These grooves are adapted to receive the turned over flanges 20 of a sheet metal cover 21 so as to secure the same slidably on the magazine. The upper end of this cover is turned over to provide a flange 22 which engages the top of magazine 17 thus

preventing the cover from moving downward from in front of the magazine. As will be evident, the cover may be raised, when desired, so as to open the magazine.

A metal cylinder 23 open at both ends fits snugly within the cylindrical interior chamber of bowl 1. This cylinder is provided, near its lower end, with a groove which receives the inner end of a catch 24 pivotally mounted on the bottom of pipe bowl 1 by means of screw post 25. This catch acts to normally hold the cylinder within the pipe bowl. Cylinder 23 is of such length that, when in operative position, it extends to the inner end of neck 2 of the fire bowl. This cylinder is provided with a longitudinally extending slot 26 which is normally in register with passage 18 of magazine 17.

A cylinder 27 fits snugly within the cylinder 23 and is open at its upper end. This cylinder is secured in adjustment in cylinder 23 by means of a set screw 28 threaded through cylinder 23 and engaging cylinder 27. The lower end of cylinder 27 is closed by a disk 29 secured therein. A head 30 is slidably mounted in the cylinder 27 and fits snugly within the same. This head is forced upward by means of a coil spring 31 confined between the same and disk 29. A rod 32 is secured through head 30 at the center thereof and is slidable through an opening through the center of disk 29.

In using the pipe, the cylinder 27 is drawn downward, after releasing the same from set screw 28, so as to uncover the slot 26 of cylinder 23. When this has been done a suitable quantity of tobacco may be forced from the magazine 17 into the pipe bowl, the head 30 being drawn downward by means of rod 32, this tobacco falls into the cylinder 27 above the head. When a suitable charge has thus been forced into cylinder 27, this cylinder is returned to position to shut off communication between the pipe bowl and the magazine. The spring 31 will act by expansion to force head 30 upward thus forcing the charge of tobacco into the fire bowl 3. This tobacco will engage the annular shoulder 5 at the upper end of the bowl which will prevent the tobacco from being forced entirely out of the bowl. The top of the charge is then ignited in the usual manner, the smoke passing downward about the fire bowl into the stem 14. As the tobacco is burned, the ash produced will have very little resistance and will therefore be forced upward out of the top of the bowl permitting the tobacco within the pipe bowl to be gradually forced upward as it is consumed. By this means the smoke is taken from the top portion of the tobacco charge and does not pass downward through a relatively large mass of tobacco as in the common form of pipe. This prevents, to a large extent, excessive heating of the tobacco within the pipe bowl thus eliminating the creation of large quantities of nicotin within the pipe. By adjusting the cylinder 27 within cylinder 23 the pressure on the tobacco within the pipe bowl may be adjusted as desired.

When it is desired to clean the pipe bowl the cylinders 23 and 27 may be quickly and easily removed, as may also the fire bowl 3. This leaves the pipe bowl in the form of a cylinder open at both ends thus permitting ready access to the interior of the same.

The modified form shown in Figs. 6 to 8 of the drawings is very similar to that shown in Figs. 1 to 5. In this form the fire bowl 3 is replaced by a ring 33 provided in its outer face with two diametrically opposite horizontal grooves 34 which communicate at their ends with the interior of the ring through ports 35. Each of the grooves 34 is connected by a vertical passage 36 to a horizontal passage 37 which communicates through a short vertical passage 38 with the smoke passage 11 of pipe bowl 1. The action of this modified form of pipe is similar to that previously described in connection with the form shown in Figs. 1 to 5 of the drawings, the smoke ring 10 being replaced by a sleeve 39 which fits snugly about ring 33. This sleeve acts to confine the smoke and cause the same to flow downwardly into the smoke passage and thence into the stem of the pipe.

There may be slight changes made in the construction and arrangement of the different parts of my invention without departing from the field and scope of the same, and I intend to include all such variations, as fall within the scope of the appended claims, in this application in which a preferred form only of my invention is disclosed.

What I claim is:

1. In a tobacco pipe, the combination of a bowl, a magazine carried thereby and communicating with the interior of the bowl, a cylinder adjustably secured within the bowl and adapted, when in normal position, to shut off communication between the magazine and the interior of the bowl, a head slidable within the cylinder, and resilient means for normally forcing the head upward within the cylinder.

2. In a tobacco pipe, the combination of a bowl, a magazine carried thereby and communicating with the interior of the bowl, a cylinder removably secured within the bowl and open at both ends, a second cylinder adjustably secured within the first said cylinder, a head slidable within the second cylinder, and a coil spring confined between the head and the bottom of said second cylinder and adapted to normally force the head upward.

3. In a tobacco pipe, the combination of

a bowl, a magazine carried thereby and communicating with the interior of the bowl, a cylinder removably secured within the bowl and open at both ends, a second cylinder adjustably secured within the first said cylinder, a head slidable within the second cylinder, a coil spring confined between the head and the bottom of said second cylinder and adapted to normally force the head upward, and means for forcing the head downward against the action of said spring.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN E. BRADLEY.

Witnesses:
H. W. SMITH,
WM. D. WILLIAMS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."