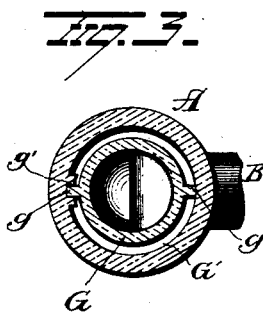
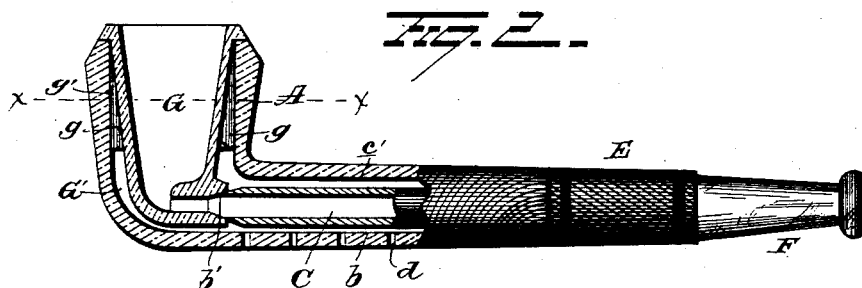
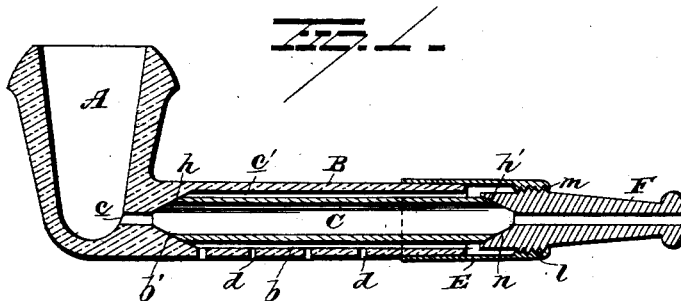


(No Model.)

J. F. MALLINCKRODT.  
TOBACCO PIPE.

No. 525,465.

Patented Sept. 4, 1894.



Witnesses  
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Inventor  
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# UNITED STATES PATENT OFFICE.

JOHN F. MALLINCKRODT, OF DENVER, COLORADO.

## TOBACCO-PIPE.

SPECIFICATION forming part of Letters Patent No. 525,465, dated September 4, 1894.

Application filed August 25, 1890. Renewed December 30, 1892. Serial No. 456,803. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN F. MALLINCKRODT, of Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Tobacco-Pipes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in tobacco pipes and stems.

The object is to provide a pipe of light and substantial construction with such an arrangement of parts that a free circulation of air is had around the parts receiving heat from the light and smoke in the pipe.

With this end in view my invention consists in certain features of construction and combinations of parts, as will be hereinafter fully described, and pointed out in the claims.

In the accompanying drawings: Figure 1 is a longitudinal sectional view of the preferred construction. Fig. 2 is a modification, and Fig. 3 is a section on the line  $x-x$  of Fig. 2.

A represents the bowl of the pipe and B the stem. These are preferably made of paper pulp or comminuted fibrous material capable of being molded or compressed into the required form. The bowl is cupped out in the ordinary manner and the stem is provided throughout its length with a cavity  $b$ , the inner end  $b'$  of which is of conical form, and having communication with the interior of the bowl through a passage  $c$ . Perforations  $d$  in the stem extend to the cavity to allow the air to freely circulate therein.

A tube C composed preferably of paper pulp or comminuted fibrous material constitutes a porous lining for the stem. This tube is of such diameter that an annular space  $c'$  is afforded between it and the inner wall of the stem for the free circulation of air to insure coolness of parts as well as evaporation of moisture which might otherwise collect in the porous tube. The ends  $h, h'$  of the tube are conical and may be coated with paraffine or wax, and the former is adapted to enter the conical end  $b'$  of the cavity  $b$ . A ferrule E fits tightly over the end of the stem B. The cavity in the outer end of the ferrule is about the size of cavity  $b$  and provided with

screw threads  $l$ . Mouth piece F has the general appearance of those ordinarily used, it being provided with the usual air passage through its center, but its inner end besides being made to fit the cavity in the outer end of the ferrule and provided with screw threads  $m$  to engage the threads  $l$ , also has a conical cavity  $n$  therein, adapted to receive the conical end  $h'$  of the tube C. Enough space is left between the ferrule and tube C for the mouth piece to move endwise so that the more the mouth piece is screwed into the ferrule the tighter the joints at the conical ends of the tube C are formed, thus making them preferably air tight, but leaving a continuous air passage through the stem and mouth piece.

In the modification shown in Figs. 2 and 3 the bowl A is cupped out a little more so as to receive an inner shell G. The latter is preferably made of the same material as the bowl and its upper edge overlaps the latter, while its lower end tapers somewhat, thus leaving an air space  $G'$  between it and the bowl. The shell is provided on its outside with ribs  $g$  adapted to enter recesses  $g'$  inside the bowl for preventing the shell from turning and also holding it away from the inner wall of the bowl. The lower end of the shell is provided with a conical cavity  $b'$  corresponding to the conical end of cavity  $b$ , in former construction. This cavity is adapted to receive the conical end of tube C and thus one continuous air space is formed around the tube C and the shell G. The other parts are all the same as in former construction. Of course the pipe may be finished and embellished to suit the fancy and also it is worthy of notice that the parts may be changed and renewed without throwing away the whole pipe.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A tobacco pipe consisting of a bowl, stem, and mouth piece, the stem provided with internal conical recesses at each end, and a tube having tapering ends seated in the conical recesses whereby the tube is supported at its ends only and an annular space is formed between it and the interior of the stem, substantially as set forth.

2. A tobacco pipe comprising a bowl, stem

and mouth piece and having internal recesses  
or sockets formed internally at each end of  
the stem, a cylindrical tube of less size than  
the internal diameter of the stem whereby an  
5 annular space is formed between the tube  
and the stem, the ends of the tube supported  
in the recesses or sockets, and the stem pro-  
vided with perforations for admitting air to  
the annular space, substantially as set forth.  
10 3. A tobacco pipe comprising a bowl, a  
stem, and a removable mouth piece, said  
mouth piece having a conical recess in its in-  
ner end and a corresponding conical recess  
formed at the opposite end of the stem, a tube

having tapering ends fitted in the conical re- 15  
cesses whereby the tube is supported at its  
opposite ends and an annular space is formed  
around the tube, and the stem provided with  
perforations for supplying air to the annular  
space. 20

In testimony whereof I have signed this  
specification in the presence of two subscrib-  
ing witnesses.

JOHN F. MALLINCKRODT.

Witnesses:

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ROBERT S. FERGUSON,