No. 769,546. PATENTED SEPT. 6, 1904.

R. S. KOCH.

TOBACCO PIPE.

APPLICATION FILED APR. 5, 1904.

NO MODEL.

Fig. 1.

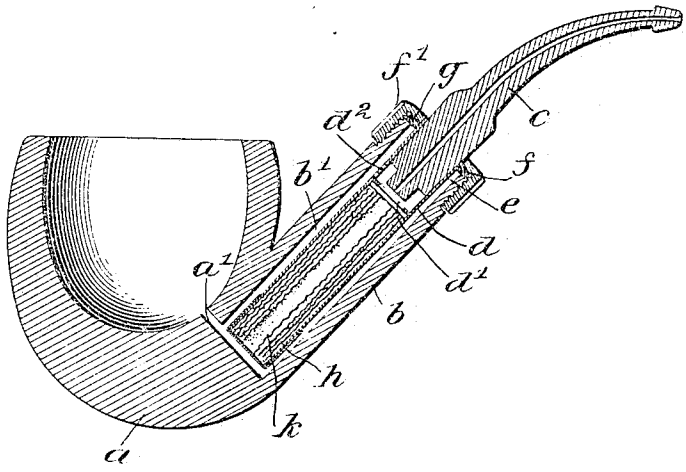


Fig. 2.

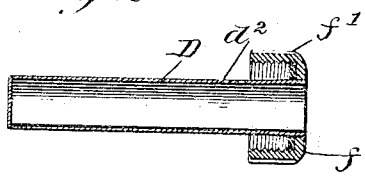


Fig. 3.

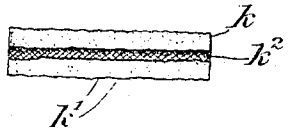
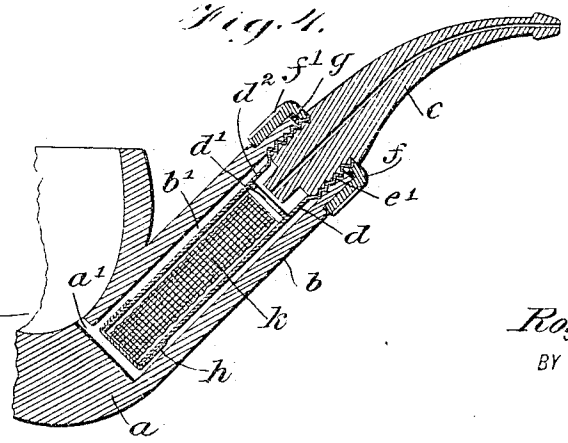


Fig. 4.



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No. 769,546. Patented September 6, 1904.

UNITED STATES PATENT OFFICE.

ROYAL S. KOCH, OF BETHLEHEM, PENNSYLVANIA.

TOBACCO-PIPE.

SPECIFICATION forming part of Letters Patent No. 769,546, dated September 6, 1904.

Application filed April 5, 1904. Serial No. 201,640. (No model.)

To all whom it may concern:

Be it known that I, ROYAL S. KOCH, a citizen of the United States, and a resident of Bethlehem, in the county of Northampton and State of Pennsylvania, have invented a new and Improved Tobacco-Pipe, of which the following is a full, clear, and exact description.

My invention relates to a tobacco-pipe, the principal objects being to provide means for absorbing and retaining moisture and preventing it from interfering with the draft of the pipe.

Further objects will appear in the course of the subjoined description.

The collection of moisture in the stem of smoking-pipes is a very disagreeable feature, and many attempts have been made to do away with it; but, so far as I am aware, none of these attempts has been practically successful.

The chief purpose of the present invention is to accomplish this object.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal central sectional view of a preferred form of my invention. Fig. 2 is a longitudinal central sectional view of a detail slightly modified. Fig. 3 is a similar view of another detail; and Fig. 4 is a view, similar to Fig. 1, of a modification.

In the form shown in Fig. 1, which represents the principle of my invention in a preferred form, a indicates the bowl of a pipe, b the stem, and c the mouthpiece, the stem b preferably being integral with the bowl a.

a' is a passage from the bowl to the interior of the stem. b' is an enlarged cavity extending throughout the length of the stem adapted for containing a cartridge, and d is a cartridge-case located in the cavity b' and is preferably provided with a wall d', extending partly or wholly around the same for the purpose of retaining the cartridge therein. The cartridge-case is provided with one or more openings d^2 for the purpose of permitting the passage of smoke or air.

e is a joint formed on the upper interior surface of the cartridge-case for the purpose of retaining the mouthpiece c in position. As shown in Fig. 1, this joint is a tapering one, which will allow the mouthpiece to be retained by friction.

f is a cap which may be attached to the parts in any desired way, Fig. 1 showing the cap screwed to the end of the stem.

f' represents the location of a mark on the circumference of the cap and on the same side as the holes d^2 for the purpose of indicating when these holes are in the proper position in the assembling of the parts. A packing g is preferably placed between the cap and the end of the stem.

h represents a closure removably attached to the bottom of the cartridge-case for the purpose of permitting the cartridge to be readily removed from the casing.

The cartridge is represented by k and may be of any desired character—as, for example, the corn-pith or blotting-paper now in use may be employed; but I prefer to use the form represented in Fig. 3, which consists of a cylinder of wire-netting k' with absorbent cotton wound upon it. A series of layers of wire-netting or foraminous material having absorbent cotton placed between them and around the outside thereof, as shown in Figs. 1 and 4, may also be used. By this construction a passage k^2 is left through the center of the cartridge throughout its length, and this passage is a desirable feature, because the saliva dropping down into the opening will have a chance to descend part way to the bottom before being absorbed, and thus it will be distributed throughout the length of the cartridge.

In operation when the parts are assembled, as shown Fig. 1, the saliva dropping from the end of the mouthpiece will be absorbed by the cartridge, as mentioned above; but the passage of smoke through the openings d^2 and the passage a' will not be interrupted. The parts of course will fit air tight, so as to prevent air entering through any of the joints, and the closure h will effectually prevent any liquid passing from the cartridge into the opening b'. The parts may be very easily assembled and when taken apart can be placed in an ordinary pipe-case in a very convenient manner. The cartridge remaining in its case

and attached to the stem may be turned to a position such that the openings d' are at the top, and therefore the liquid will not escape and give the case a strong odor.

It will be seen that the pipe may be packed in a case as small as that ordinarily employed for pipes of this character and that the case may be kept neat and clean, which is obviously a very great advantage. When it is desired to clean the pipe, the casing may be removed from the stem by unscrewing the cap f and the closure removed from the bottom of the casing, which will permit the ready removal of the cartridge and the replacement of a fresh one.

Another advantage of my invention consists in the fact that the ordinary forms of absorbent cartridges now on the market can be employed without any change.

In practical experience it has been demonstrated that a pipe constructed in this manner will remain free from obstruction in the smoke-passages for more than a week, and by replacing the cartridge as often as once a week the pipe may be always kept in a clean condition, and the case in which it is carried will be entirely free from the objectionable odors now so common in pipe-cases. If the smoker should forget to clean the pipe at the end of a week, the liquids contained in the cartridge will merely fill up the cartridge-case and will have to reach the point d^2 before they will overflow into the smoke-passages, and the pipe may be used for a much longer period than a week without cleaning.

In case it is desired to reduce the expense of manufacture of the pipe the partition d' may be dispensed with and the closure h replaced by a bottom integral with the casing. This construction is shown in Fig. 2, the casing being represented by D. In this case the cartridge must be removed from the top of the casing instead of the bottom and will ordinarily be held in the casing by gravity while the pipe is in use; but preferably the cartridge should be made large enough to be retained in the casing by friction, so that when the pipe is not in use and is placed in the pipe-case the cartridge will be retained in position.

In Fig. 4 I have shown another modification, in which most of the parts are the same as those represented in Fig. 1; but instead of the cap being screwed to the stem it is fitted to it by an ordinary smooth joint, and the mouthpiece and interior of the end of the stem are provided with screw-threads e'. The upper part of the casing is likewise provided with both internal and external screw-threads, so that the casing can be screwed into the stem and the mouthpiece into the casing, this forming a better joint, but requiring a little more time to disengage the mouthpiece from the stem. The principle may be applied to a straight pipe.

It will be obvious that many other modifications may be made without departing from the spirit of my invention and that the drawings merely illustrate the principle thereof.

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

1. A pipe comprising a stem having a cavity therein, a cartridge-case in said cavity, an absorbent cartridge in said case, and a cap for the end of said stem, said cartridge-case having means for securing a mouthpiece thereto.

2. A pipe comprising a stem having a cavity therein, a cartridge-case in said cavity, an absorbent cartridge in said case, a cap for the end of said stem secured to said case, and means for removably securing said cap to the stem.

3. A pipe comprising a stem having a cavity therein, a cartridge-case, a cap removably secured to the end of said stem and to said case, and a packing between said cap and stem.

4. A cartridge-case for tobacco-pipes, having a closed lower end, an internal projection in the upper end for retaining a cartridge therein, and a perforation in its walls on one side above said means.

5. The combination of a cartridge-case having a closed end, means for retaining a cartridge therein at the other end, and an opening in its walls for the passage of smoke, and a cap directly and removably secured to said case; said cap having a mark on the same side as the opening.

6. The combination of a cartridge-case having a closed lower end, means in the upper end for retaining a cartridge therein when the case is reversed and openings in its walls, a cap, means for securing the cap to a pipe-stem, and means for securing the cartridge-case to a mouthpiece.

7. A cartridge-case for a tobacco-pipe, having an open upper end having an inwardly-projecting flange for retaining a cartridge therein, openings in its walls, and a removable closure constituting an air-tight lower end therefor.

8. The combination of a cartridge-case for a tobacco-pipe, having a closed lower end, an opening in the upper end of substantially the size of the inside of the cartridge, means for retaining a cartridge therein and openings in its walls, and an absorbent cartridge held in said case.

9. An absorbent cartridge for tobacco-pipes, comprising a layer of wire-netting having a plurality of layers of absorbent cotton upon it, and having a longitudinal passage through the center thereof.

10. In a tobacco-pipe, the combination of a bowl, a stem integral therewith having a cavity therein, a cap for the end of said stem, a mouthpiece, a cartridge-case having means for securing said mouthpiece thereto, a packing between the cap and stem, means for holding the case in said cavity in the stem out of con-

tact with the walls thereof, means for allowing the passage of smoke or air from the bowl to the mouthpiece around the cartridge-case, and means for catching and retaining liquid matter in said case comprising an absorbent cartridge.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ROYAL S. KOCH.

Witnesses:
H. J. MACK,
WILLIAM E. HORNE.