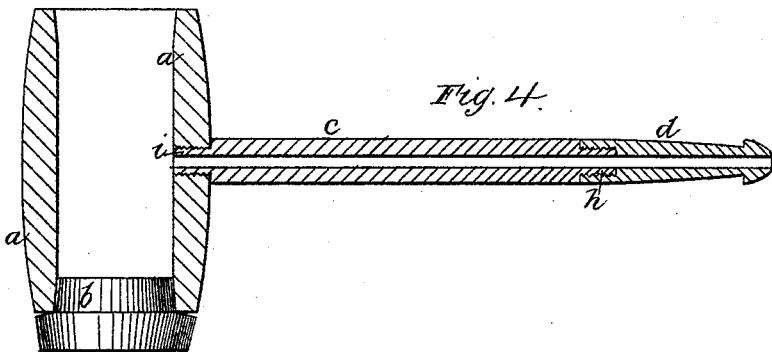
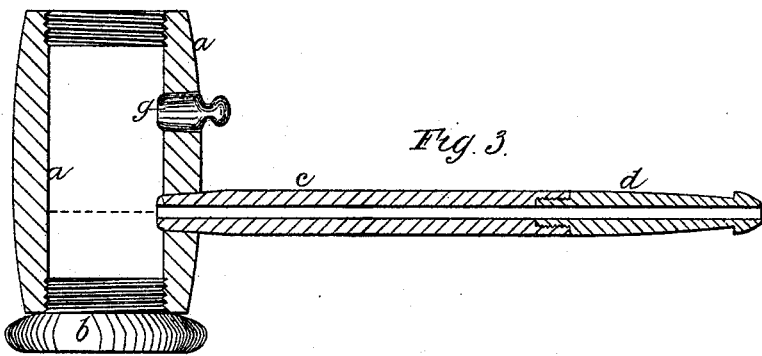
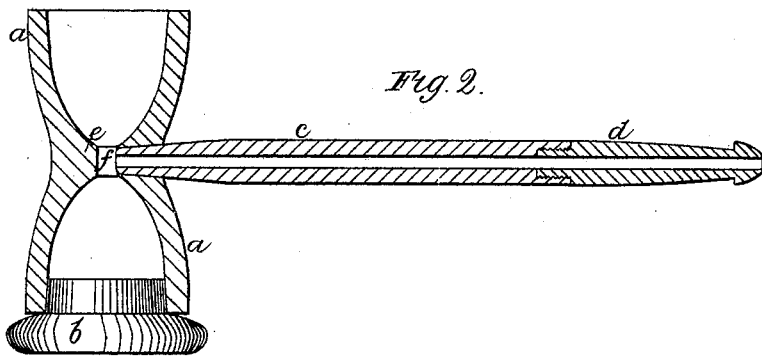
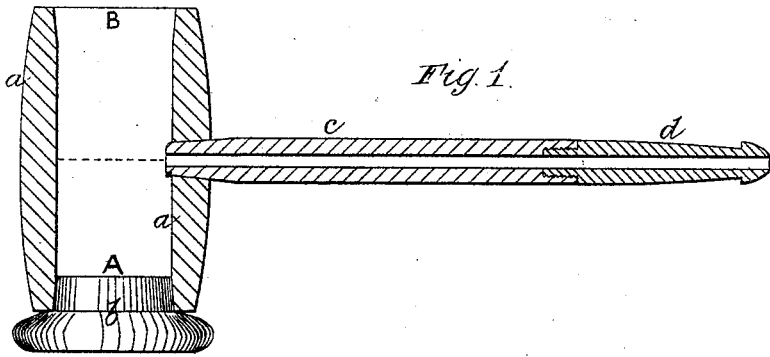


G. CASTLEDEN.
Tobacco-Pipe.

No. 210,598.

Patented Dec. 10, 1878.



WITNESSES

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IMPROVEMENT IN TOBACCO-PIPES.

Specification forming part of Letters Patent No. **210,598**, dated December 10, 1878; application filed August 15, 1878.

To all whom it may concern:

Be it known that I, GEORGE CASTLEDEN, of Canterbury, in the county of Kent, England, have invented certain Improvements in Pipes for Smoking Tobacco, of which the following is a specification:

This invention consists in improvements in pipes for smoking tobacco, the object of the improvements being to so construct such pipes that they shall not become foul, and may be self-cleaning by causing the nicotine to be consumed, or partially consumed, or driven out, by burning the top and bottom of the charge of the tobacco alternately, also to allow the whole of the tobacco to be consumed, thus avoiding the usual waste.

In the accompanying drawing, Figures 1 and 2 show sectional elevations of one form of construction of my improved pipe; Fig. 3, a sectional elevation of a modification of the same; and Fig. 4, a sectional elevation of my improved pipe, provided with a reversible stem.

Similar letters in all the figures represent similar or corresponding parts.

In carrying out my invention, I employ a hollow cylinder, *a*, Fig. 1, open at both ends, and provided with a removable cork, stopper, or plug, *b*, of any suitable material and construction, for closing either end of the said cylinder, as hereinafter described. To this cylinder *a* is fitted an ordinary pipe-stem, *c*, with mouth-piece *d*, in the usual manner; or instead of forming the bowl of a plain cylinder I may form the same with a division or diaphragm, *e*, in the middle, with a central hole, *f*, as shown in Fig. 2.

In a pipe of the construction shown in Fig. 1, the stopper *b* being placed in one end of the bowl or cylinder *a*, the bowl or cylinder *a* is then filled with tobacco, and the tobacco being lighted is smoked until it is consumed down to the middle of the cylinder, as indicated by the dotted lines, the nicotine falling into the tobacco in the lower part of the cylinder *a*. The upper part, *B*, of the cylinder *a* is now refilled with tobacco, and the cork, stopper, or plug *b* is removed from the lower end, *A*, of the cylinder *a*, and placed in the upper end, *B*, and the cylinder being turned

over the tobacco in the other part, *B*, of the cylinder is then smoked, the nicotine sinking as before, or being partially consumed, and so on alternately, thus keeping the bowl of the pipe constantly clean. In Fig. 2 the bowls are filled and the stopper placed in the bottom bowl, and the pipe is smoked as in Fig. 1.

The pipe shown in Fig. 3 has a bowl, *a*, and cork, stopper, or plug *b*, similar to that shown in Fig. 1; but it is provided with two holes at equal distances from the ends. Into one of these holes is placed a plug or stopper, *g*, and into the other the stem *c*. When the tobacco in the upper part of the bowl or cylinder *a* (down to the dotted lines) has been consumed, the same is refilled, as hereinbefore described, and the stopper is removed and placed in the other end of the cylinder, and the stem *c* and plug *g* being removed the stem is placed in the hole from which the plug has been removed, the plug being placed in the one lately occupied by the stem, and the pipe smoked as before. The action is similar to that described by reference to Figs. 1 and 2.

In Fig. 3 I have shown the cork, stopper, or plug *b* formed with a screw-thread for screwing into a corresponding female screw in either end of the cylinder *a*.

In Fig. 4 I have shown a pipe constructed according to my invention and provided with a reversible stem—that is to say, the stem is formed with a similar gage-screw thread at each end—one, *h*, for receiving the mouth-piece, and the other, *i*, for screwing into the bowl or cylinder *a*. This construction allows of the stem *c* being removed, and the mouth-piece being detached from the end *h* of the stem is screwed on the end *i*, the end *h* of the stem being then screwed into the bowl or cylinder *a*. The object of this construction of stem is to prevent, by frequently reversing the same, the accumulation of nicotine in one part only of the stem.

Having thus described my invention and the manner of performing the same, what I claim is—

1. A pipe for smoking tobacco consisting of a hollow reversible cylinder, *a*, or its equivalent, provided with a removable cork stopper or plug, *b*, adapted for closing either end

of such cylinder, and having a hole through the bowl, about centrally thereof, adapted to receive an ordinary removable stem, all substantially as shown and described.

2. The reversible bowl having a plug, *b*, adapted for either of its ends, and two openings leading into the bowl, one for the stem

and the other for the plug, as shown and described.

GEORGE CASTLEDEN.

Witnesses:

G. F. REDFERN,
A. ALBUTT.