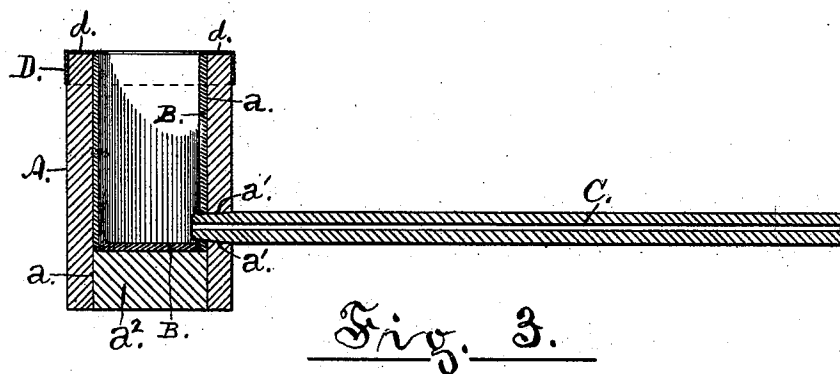
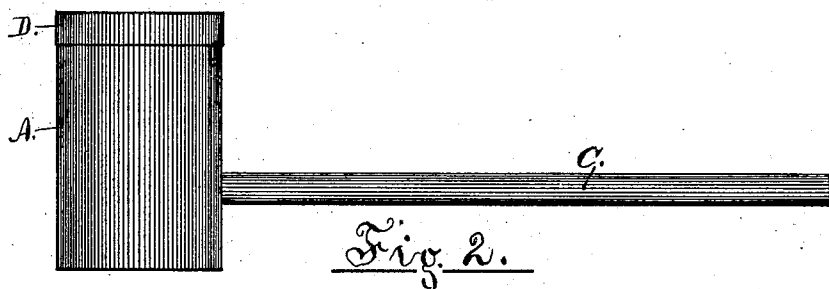
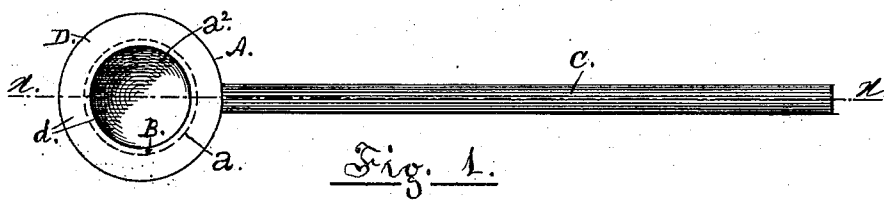


(No Model.)

A. W. WOODWARD.  
LINED TOBACCO SMOKING PIPE.

No. 549,418.

Patented Nov. 5, 1895.



Witnesses:

Frank G. Urban.

Wm. B. Meerr,

Inventor:

Ambrose Webster Woodward.

By

Paul H. Herr,  
Attorney.

# UNITED STATES PATENT OFFICE.

AMBROSE WEBSTER WOODWARD, OF LANCASTER, PENNSYLVANIA,  
ASSIGNOR TO BYRON G. DODGE, OF SAME PLACE.

## LINED TOBACCO-SMOKING PIPE.

SPECIFICATION forming part of Letters Patent No. 549,418, dated November 5, 1895.

Application filed April 16, 1895. Serial No. 545,869. (No model.)

*To all whom it may concern:*

Be it known that I, AMBROSE WEBSTER WOODWARD, a citizen of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Lined Tobacco-Smoking 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.

This invention relates to improvements in a tobacco-smoking pipe, but more particularly to the class known as "lined" pipes.

The object of the invention is to produce a smoking-pipe that will not get strong, but will give to the smoker the full enjoyment of the pure aroma and flavor of the tobacco, or a pipe that will not taste or smell strong when first used, which is an important consideration, inasmuch as all pipe-smokers know that all new pipes, of whatever heretofore-known material made, when first brought into use give out a distinct and marked flavor or taste of the substance of which they are composed; and to overcome this latter objection a specially-prepared mixture or compound is used in forming the lining, which compound constitutes the chief feature of the invention.

The elements of the invention will separately and distinctly appear in the following description, and will be severally and collectively set forth in the claims, reference being had to the accompanying drawings, in which similar letters of reference designate like parts throughout the several views, and in which—

Figures 1 and 2 are respectively a plan and a side elevation of a smoking-pipe embodying the elements of the invention; and Fig. 3 is a longitudinal vertical section taken on the line *x x* in Fig. 1, showing the disposition of the several parts used in the construction.

In the drawings, A designates the body or bowl of the pipe; B, the lining; C, the stem or mouthpiece, and D a metal ring with an annular flange applied to the upper end of the bowl.

The body of the bowl A of the pipe is preferably made of selected cork and is preferably drilled centrally through, as by a cork-cutter, forming the axial bore *a* vertically through its body to receive the lining and constitute the tobacco-receptacle or smoke-pot of the pipe. Through a side, at a prescribed point above its lower edge, is formed an orifice or aperture *a'* to receive the attaching end of the pipe-stem or smoker's mouth-piece C, which may have any approved shape or form and be made of any suitable material. Into the lower end of the bore *a* is closely fitted a cylindrical disk or plug *a*<sup>2</sup>, having a prescribed thickness, so as to extend nearly up to the stem-aperture, being flush with the lower end of said bore. This plug *a*<sup>2</sup> constitutes the bottom of the pipe and is, likewise, preferably made of cork.

The lining-mixture for the lining B is made as follows: First, one part of dextrine and three parts of water are boiled together until the dextrine is thoroughly dissolved to constitute the component liquid; second, one part of asbestos and two parts of plaster-of-paris, both in ground or powdered form, are thoroughly mixed and then combined with sufficient of the liquid and well stirred until the mass is reduced to the consistency of a very thick starch or paste. This compound or mixture is then applied to the interior of the bowl and spread over its entire inner surface in any approved manner, evenly covering the sides and bottom thereof, and allowed to dry or become fixed in a natural way, best without forcing. The lining having become fixed, the ring D, with the annular flange *d*, is then applied to the top of the bowl, as shown, and the stem or mouthpiece C inserted into the aperture *a'*, (best shown in Fig. 3,) when the pipe is completed and ready for use.

It is not the intention to be restricted to the precise construction of the body of the pipe-bowl as hereinbefore described; but

What is considered new, and desired to be secured by Letters Patent, is—

1. In a tobacco smoking pipe, the lining composed of asbestos and plaster of paris mixed together in about the proportions described, and reduced by a liquid composed of dextrine and water boiled together in about

the proportions named, forming a paste adapted to be applied to the interior of said pipe, substantially as shown, as and for the purpose hereinbefore set forth.

5 2. The herein described tobacco smoking pipe, comprising a cylindrical tubular body, and a plug fitted into said body to close the lower end thereof, and an inside lining comprising a mixture in about the proportions  
10 named of asbestos and plaster of paris reduced

to one mass by a liquid comprising in about the proportions named dextrine and water boiled together, all substantially as described and for the purpose hereinbefore set forth.

In testimony whereof I affix my signature 15  
in presence of two witnesses.

AMBROSE WEBSTER WOODWARD.

Witnesses:

JEREMIAH RIFE,  
DANL. H. HERR.