F. G. MERRIAM.

PIPE.

No. 169,566. Patented Nov. 2, 1875.

Fig. 1.

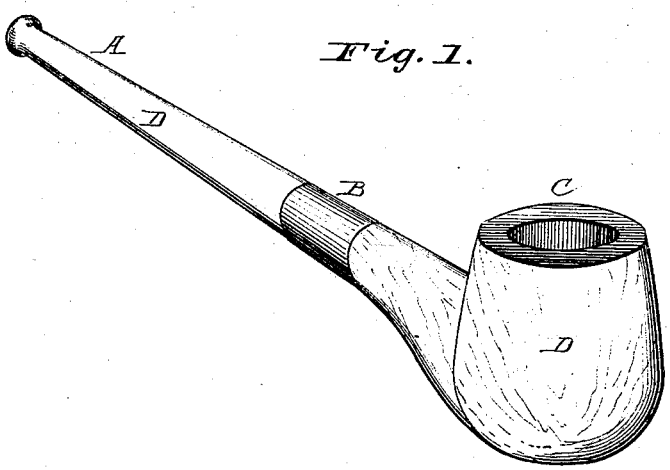


Fig. 2.

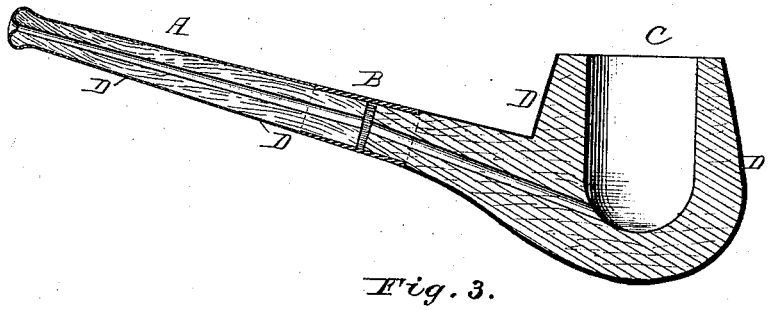
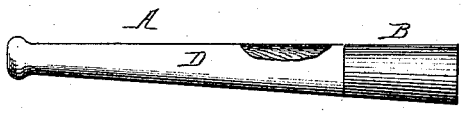


Fig. 3.



Attest:
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UNITED STATES PATENT OFFICE.

FLAVEL G. MERRIAM, OF AKRON, OHIO.

IMPROVEMENT IN PIPES.

Specification forming part of Letters Patent No. **169,566**, dated November 2, 1875; application filed September 7, 1875.

To all whom it may concern:

Be it known that I, FLAVEL G. MERRIAM, of Akron, in the county of Summit and State of Ohio, have invented certain new and useful Improvements in Tobacco-Pipes and Stems for the same, of which the following is a specification:

This invention relates to certain improvements in the manufacture of stems and other portions of wooden tobacco-pipes, its object being to fill or close up the pores of the wood, and at the same time to impart a highly finished and polished appearance to the exterior of the same, in imitation of the more expensive materials of which the stems and various parts of the pipes have hitherto been constructed.

My invention consists in forming the stem and other parts of the pipe of wood, and in saturating and coating the same with enamel in various colors, baking the articles after each coating to cause the enamel to thoroughly permeate the pores of the wood, and to properly harden the same, so as to withstand the action of the oily products of combustion. I prefer to form the stem and bowl of the pipe separately, and connect the two by means of a short metallic tube; but the whole may be formed in one piece, if desired, and enameled as described.

In carrying out my invention I construct the stem and bowl separately of wood, or both in one piece. I then saturate the same with enamel, applying the enamel to the articles in successive applications, and baking after each coat, until the pores of the wood are thoroughly filled and permeated, and the desired polish and finish is produced upon the surfaces of the articles. Variously colored enamels may be employed, to give the pipes the appearance of the expensive woods and other materials ordinarily used for the manufacture of such articles, such as briar-wood, rosewood, or meerschaum.

I am thus enabled to construct the articles of the cheaper varieties of wood, and impart to the same the durability and finished appearance of the more expensive pipes and pipe-stems, and at the same time render the pipes impervious to the oily products of combustion of the tobacco, enabling the same to be kept clean and sweet for an indefinite period of time, which is an important improvement upon wooden pipes, which, owing to their porosity as ordinarily constructed, speedily become charged with the nauseous oily products of combustion of the tobacco, rendering the pipe unfit for further use.

In the drawings, Figure 1 represents a perspective view of my improved pipe and stem; Fig. 2, a sectional view of the stem; and Fig. 3, a detached view of the stem and connecting-tube, with a portion of the enamel removed from the tube.

The letter A represents the stem, constructed of wood, and provided at one end with a metallic tube or sleeve, B, which sets over one end of the wooden stem and the short stem of the pipe-bowl C, securing the two together. D represents the enamel coating on the pipe stem and bowl. The enamel is applied separately to the stem and bowl, and the two afterward united by means of the tube or sleeve.

Black enamel is prepared by boiling Naples asphaltum, fifty pounds, and dark gum-anime, eight pounds, in two gallons of linseed-oil, with a sufficient quantity of any suitable drier, until wholly dissolved and the ingredients are uniformly incorporated, after which the mass is thinned down with thirty gallons of oil of turpentine. The enamel is applied to the aforesaid pipes, which are made wholly or partially of earthen material or composition, and stems, by immersing the same in the enamel until the pores are completely filled, and then baking at a high temperature. The enameled articles are then dipped in the enamel and again baked, and the process is continued until the desired finish and polish is obtained upon the surfaces. The enamel is baked in the article at a temperature higher than that to which the pipe will ever be heated in smoking, forming an impervious filling for the pores of the article, which will prevent the essential oil of the tobacco from soaking into the pipe, and leave the pipe and stem in a condition to be readily and thoroughly cleaned whenever desired, besides giving a highly finished and ornamental appearance to the same.

I am aware that various wooden articles have heretofore been coated with japan and

other similar enamels for the purpose of ornamentation, and to protect the same and render them impervious to the action of moisture. My process of enameling, however, by saturating the articles with the composition and baking at a high temperature, in such a manner as to permeate the pores of the wood with the enamel, and render it sufficiently hard to withstand the temperature of the burning tobacco and the solvent action of the oily products of combustion of the same, has never been done heretofore, and by means of said process an entirely new article is produced, forming a pipe possessing all the impervious and durable properties of the pipes heretofore made of refractory materials, and possessing the beauty of the pipes hitherto made of expensive woods and other costly materials.

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

A pipe composed wholly or partially of wood, saturated with the enamel herein described, and baked after the application of the enamel, substantially as and for the purposes described.

In testimony that I claim the foregoing, I have hereunto set my hand in the presence of the subscribing witnesses.

FLAVEL G. MERRIAM.

Witnesses:
JAMES L. NORRIS,
ALBERT H. NORRIS.