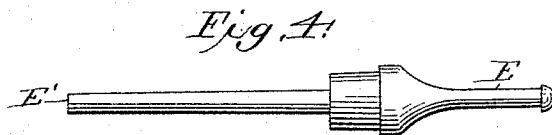
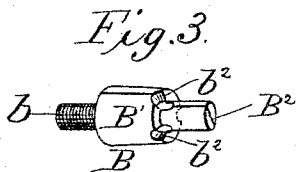
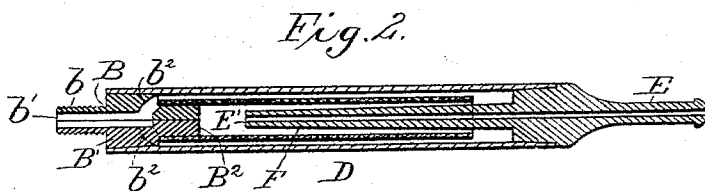
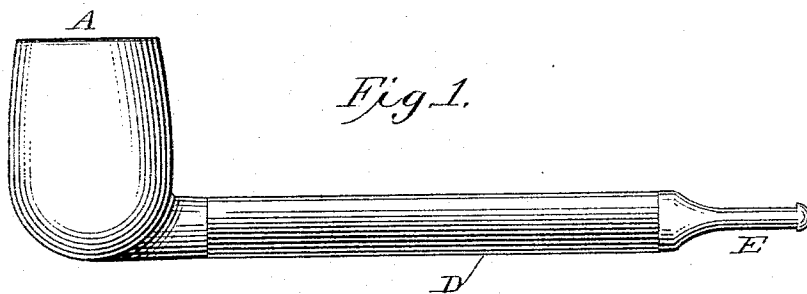


(No Model.)

W. J. SWARTZ & F. SHOFF.
TOBACCO PIPE STEM.

No. 531,982.

Patented Jan. 1, 1895.



WITNESSES

Chas. Burdine
G. A. Pennington

INVENTORS

William J. Swartz and
Franklin Shoff
By Jos. H. Hunter
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM J. SWARTZ AND FRANKLIN SHOFF, OF AXTELL, NEBRASKA; SAID
SWARTZ ASSIGNOR TO JOHN S. PYLE, OF CANTON, OHIO.

TOBACCO-PIPE STEM.

SPECIFICATION forming part of Letters Patent No. 531,982, dated January 1, 1895.

Application filed July 12, 1894. Serial No. 517,343. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM J. SWARTZ and FRANKLIN SHOFF, citizens of the United States, residing at Axtell, in the county of Kearney and State of Nebraska, have invented certain new and useful Improvements in Tobacco-Pipe Stems, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention relates to an improvement in tobacco-pipe stems for smokers' use.

The object of our invention is to produce a tobacco-pipe stem that can be fitted to briar, corn cob, and other pipe bowls, and that will from its method of construction and materials employed in its manufacture, afford a means for the ready removal and renewal of parts that are liable to become impregnated with nicotine, so that a practically new stem may thus be afforded at a trifling cost to the user.

With these objects in view our invention consists in certain features of construction and novel combination of parts, as will be hereinafter described and definitely pointed out in the claim.

In the accompanying drawings forming part of this specification, and wherein like letters of reference indicate corresponding parts in the several views,—Figure 1, is an elevation of a pipe and our improved stem applied thereto. Fig. 2 is a longitudinal section of the stem. Fig. 3 is a detail perspective view of the coupling member; and Fig. 4 is a detail view of the mouth piece.

In the drawings A represents the bowl of any desired form or material, it being understood that our invention is adapted for application to any of the usual forms or styles of pipe bowls.

B represents the coupling member formed with the threaded nipple *b* projecting out from a central enlarged cylindrical portion *B'*. The nipple and central portion have an axial perforation or passage *b'* therein, which terminates at its rear end in a plurality of inclined passages *b²* opening or terminating in the vertical rear wall of the central portion.

B² is an imperforate holding teat or projection extending out from the rear central face of the portion *B'* and preferably tapering in form and cylindrical in cross-section. The

exact form of this teat is, however, susceptible of numerous obvious variations.

D represents a hollow cylindrical shell or outer casing having its bore of a diameter to receive the central portion *B'* on which the cylinder closely fits and is held preferably by frictional contact. In the opposite end of the cylinder D is detachably fitted and preferably held by frictional contact, the mouth piece E having an extension *E'* which is perforated throughout, the perforation forming a continuation of the smoke passage of the mouth piece.

The extension *E'* is of a length sufficient to carry its forward end into proximity to the end of teat *B²* or to a point forward beyond the center of the cylindrical casing D. The diameter of the extension *E'* is less than the diameter of the teat *B²* for purposes herein-after stated.

On the teat *B²* is fitted and held a removable collecting tube F formed with absorbent material which will collect thereon the nicotine coming from the bowl. The material may be pulp or other fibrous mass and is sufficiently stiff to retain its shape and thereby be held in a position central of the cylinder D, so that a passage between is formed and retained. The forward edge of the tube F abuts against the rear face of the portion *B'* of the coupling, below the mouths of the passages *b²*, while the rear end of the tube extends forward over the extension *E'* and into proximity but out of contact with the mouth piece, thereby forming a passage between.

In operation the parts are adjusted as described, and when in use the smoke will pass through the apertures *b' b²* into the space between the cylinder D and tube F, around the rear end of the tube, back through the tube and thence through the extension *E'* and mouth piece, the nicotine being collected on the surface of the tube, which may be quickly removed when required, and replaced with a duplicate.

By this form of stem a circuitous passage for the smoke is formed, which tends to cool the same before it reaches the mouth of the smoker.

It is evident that many minor changes in the construction and arrangement of the parts

can be made, such for instance, as making threaded joints instead of frictional engagements, without in the least departing from the nature and principle of our invention.

5 The coupling member is preferably formed in two like sections by dividing the same longitudinally. By so constructing the same the passages are more easily formed and after use cleaned.

10 Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

A pipe stem, comprising a detachable coupling member having a tubular nipple, a central passage leading from the nipple, lateral
15 openings in its rear portion and a support-

ing teat beyond the lateral openings, a casing on the coupling member, an absorbent cylindrical tube removably sleeved on the teat having its forward end closed by the teat, 20 and supported centrally within the casing, and a mouth piece supported in the casing having an extension projecting into the tube, substantially as described.

In testimony whereof we affix our signatures 25 in presence of two witnesses.

WILLIAM J. SWARTZ.
FRANKLIN SHOFF.

Witnesses:

ERNEST SHOFF,
HENRY BANZETT.