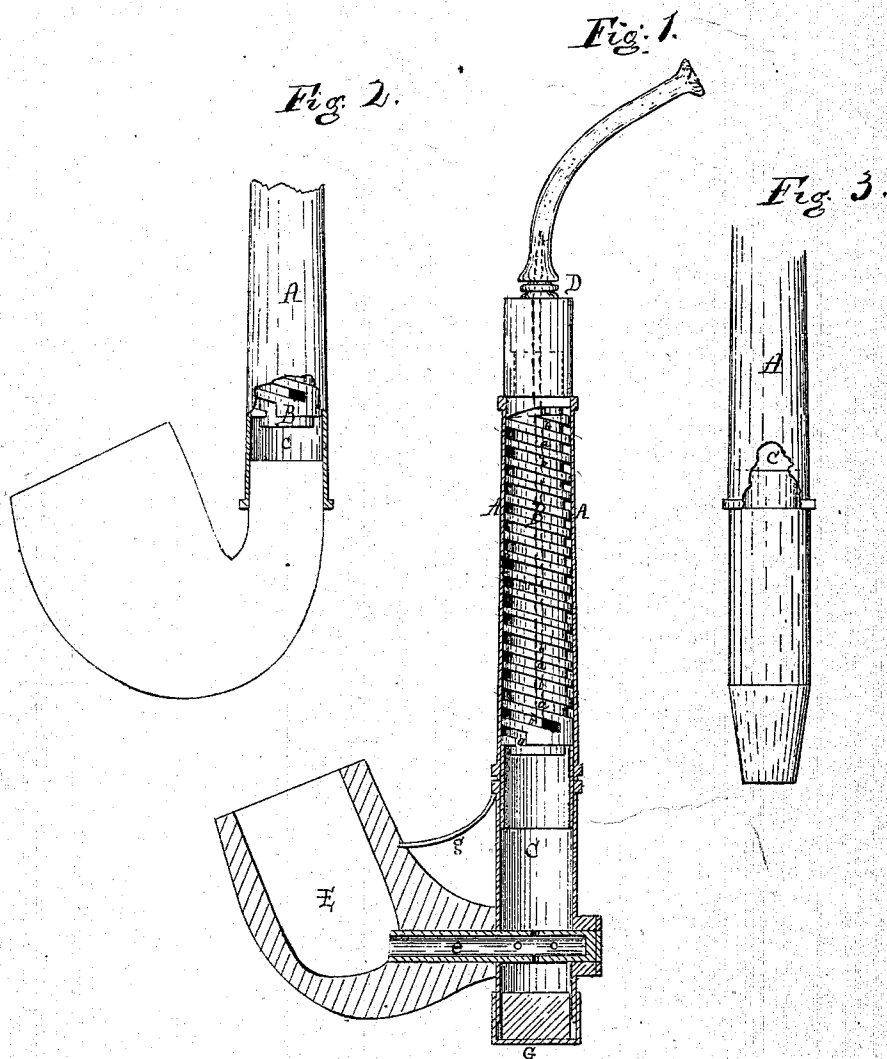


J. DAVIS.
Pipe-Stems.

No. 139,880.

Patented June 17, 1873.



Witnesses.
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UNITED STATES PATENT OFFICE.

JONATHAN DAVIS, OF ST. PAUL, MINNESOTA.

IMPROVEMENT IN PIPE-STEMS.

Specification forming part of Letters Patent No. **139,880**, dated June 17, 1873; application filed October 16, 1872.

To all whom it may concern:

Be it known that I, JONATHAN DAVIS, of St. Paul, in the county of Ramsey and State of Minnesota, have invented certain Improvements in Pipe-Stems, of which the following is a specification:

This invention consists in the combination, with the outer stem of a pipe, of a tube having spiral grooves on its periphery arranged within said stem, whereby the smoke will pass up through one spiral groove and down through the other, and then into the tube at about the center thereof, from which it passes to the mouth, the object and purpose of which will be fully hereinafter described.

In the drawings, Figure 1 shows one form of my stem, and Figs. 2 and 3 another.

A is a cylinder, which I prefer to make slightly conical, as shown, in order that the part B may fit tightly within it. B is a tube, closed at the bottom and provided with a spiral groove, *a*, which starts from a chamber, C, in the lower part of the stem, and passes up to the upper portion of the cylinder A, where it turns, and, as shown at *b*, descends to near the bottom of the tube B, where a perforation connects it with the interior. D is the mouth-piece, attached in the usual manner to the tube B. E is the pipe, shown as connected (in Fig. 1) by a perforated stem, *e*. G is a cap, covering the bottom of the stem and made removable, to discharge any accretions of oil. *g* is a stay to strengthen the connection between the stem and the pipe.

The smoke from the pipe passes into the chamber C, and from thence up through the groove *a* and back through groove *b* to the center of the tube B, from which it is drawn into the mouth.

The tube may be made of wood, or some absorbent material, like plaster or clay, and taken out when foul and replaced by a new one; or it may be made of some substance which can be easily cleaned. The short stem *e* can also be readily removed and replaced.

With a common style of pipe I lengthen the cylinder A and insert an ordinary stem in it, as shown in Figs. 2 and 3.

I am aware that pipe-stems have been made with grooves running around the inner part from the chamber at the bottom to the mouth-piece at the top, the whole course being ascending; but this I do not claim. I am also aware that a pipe-stem has been provided with a tube having two or more vertical channels, whereby the smoke will first pass up one channel and down the other to the bottom of the tube, and then pass into the stem to the mouth; but such is not claimed by me.

I claim as my invention—

The outer stem A, in combination with the tube B having ascending spiral groove *a* and descending spiral groove *b*, on its periphery, substantially as and for the purpose described.

JONATHAN DAVIS.

Witnesses:

CHAS. F. SLEEPER,
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