

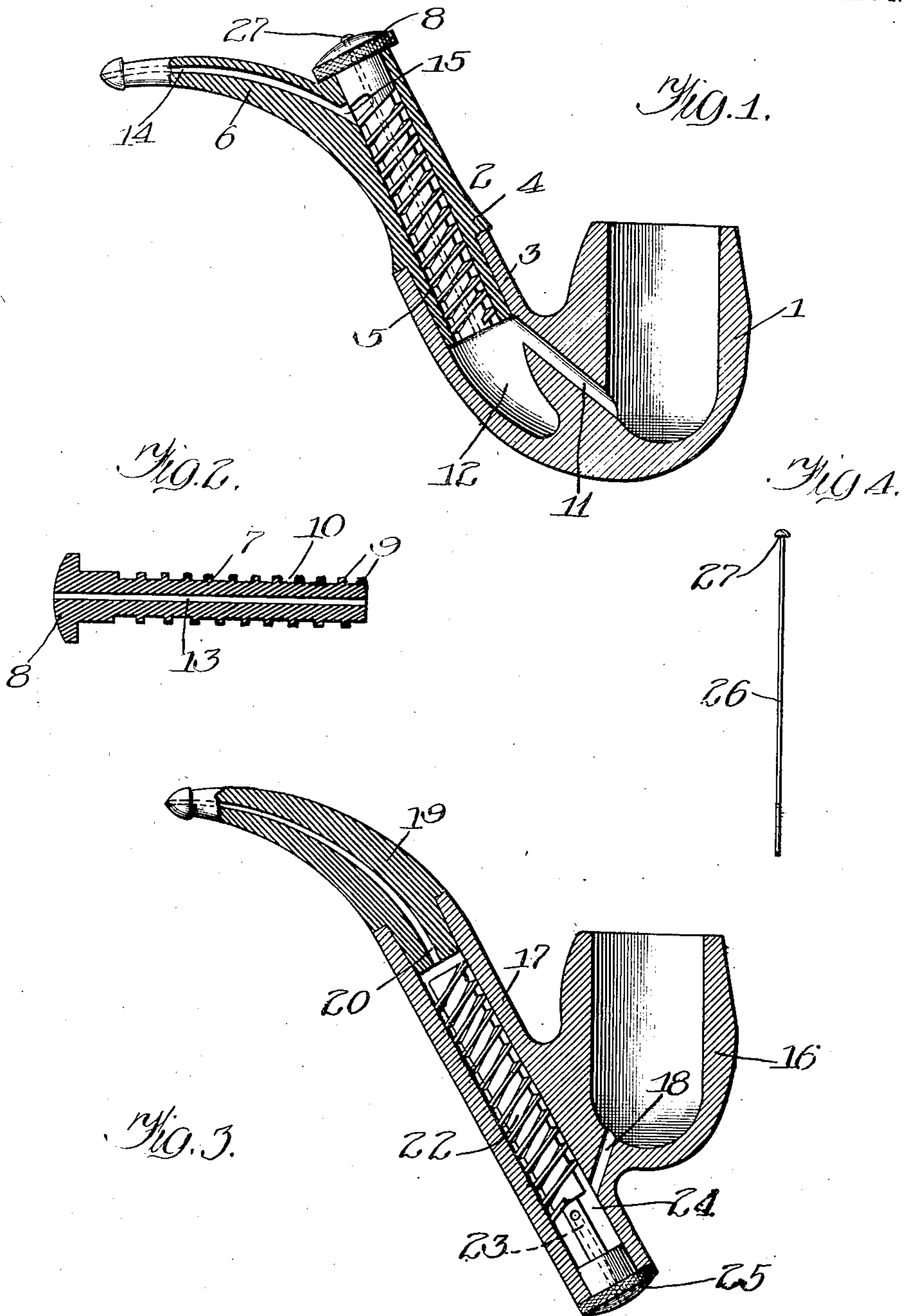
No. 890,751.

PATENTED JUNE 16, 1908.

F. F. AUSTIN.  
TOBACCO PIPE.

APPLICATION FILED FEB. 5, 1907.

2 SHEETS—SHEET 1.



Witnesses:  
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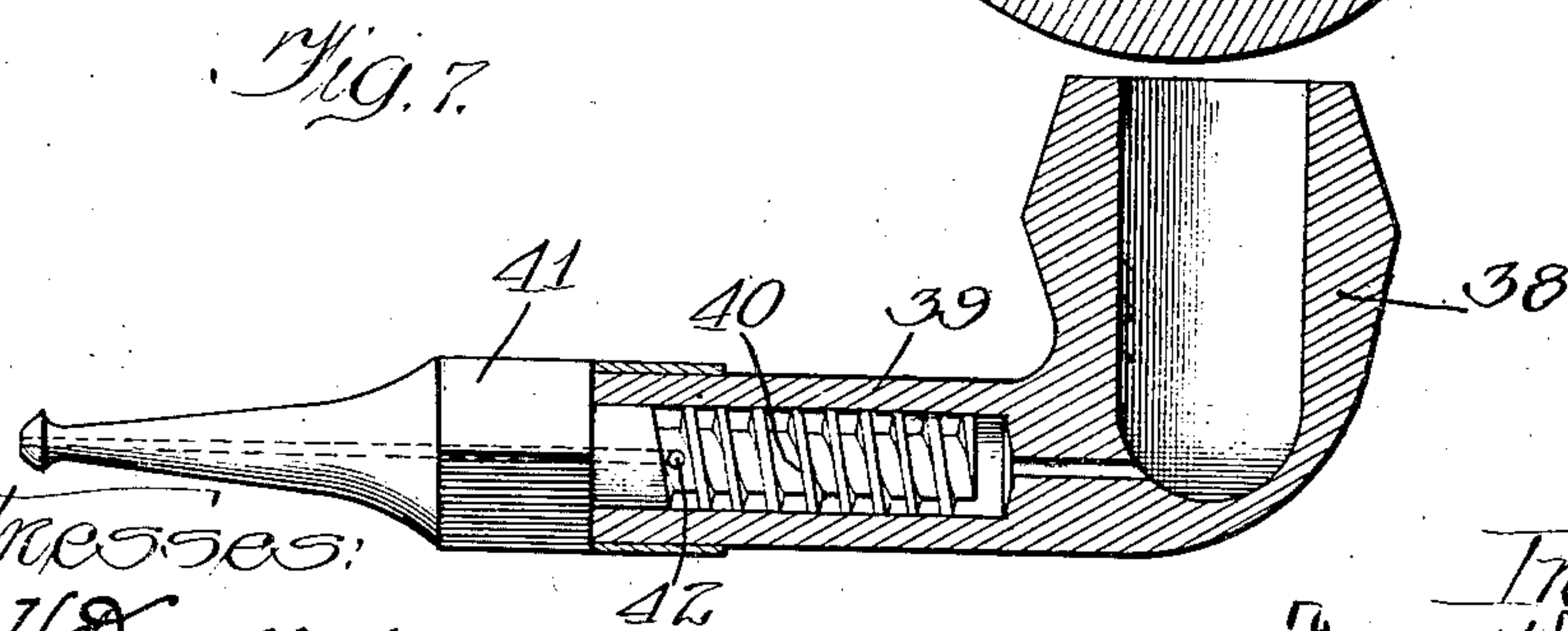
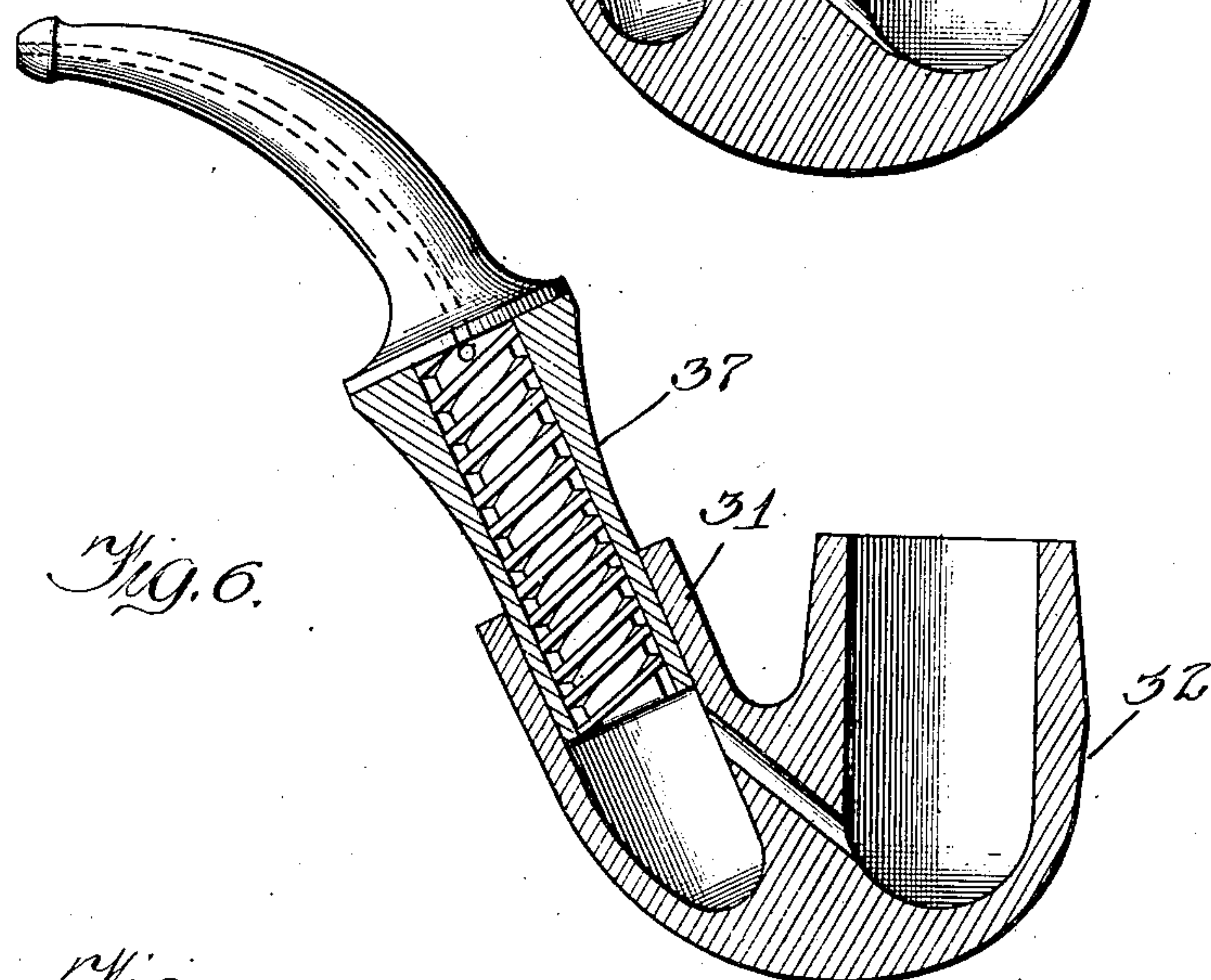
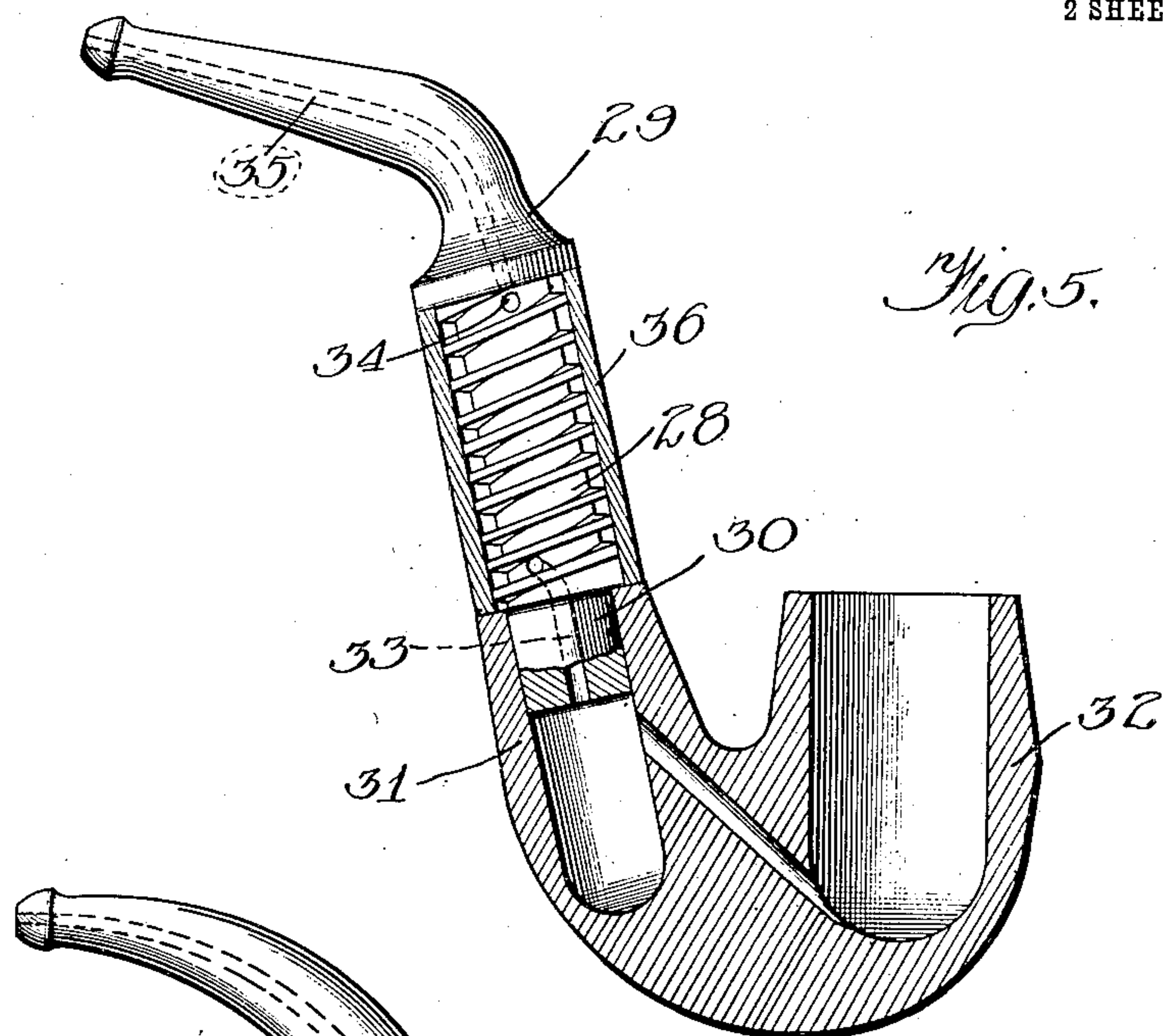
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2 SHEETS—SHEET 2.



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# UNITED STATES PATENT OFFICE.

FRANK F. AUSTIN, OF CHICAGO, ILLINOIS.

## TOBACCO-PIPE.

No. 890,751.

Specification of Letters Patent.

Patented June 16, 1908.

Application filed February 5, 1907. Serial No. 355,901.

*To all whom it may concern:*

Be it known that I, FRANK F. AUSTIN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Tobacco-Pipes, of which the following is a specification.

My invention relates to tobacco pipes and has for its object to provide pipes of new and improved construction, wherein the smoke is effectively cooled and dried in its passage through the stem, the moisture retained in the lower part of the stem, and in which parts may be conveniently removed for purposes of cleaning.

More particularly, the invention relates to providing the stem of the pipe with a plug furnished with a finger-piece by which it may be readily removed from the stem; and in forming in this plug a circuitous, preferably helical smoke passage-way communicating at one end with the bowl and at the other with the bore in the bit.

The invention has for a further object, to form in the stem of the pipe a separate air duct through which a draft of cool air may enter the stem to cause the condensation of moisture in the lower part of the smoke passage. While this latter arrangement may be utilized in pipes of various constructions, it is, perhaps, particularly adapted to my preferred form of construction, in which the stem is provided with a removable plug, because the air duct in this case may be formed centrally in the plug so as to serve also to cool the smoke passing through the helical smoke passage-way. This and such other objects as may hereafter appear are attained by my invention, convenient embodiments of which are illustrated in the accompanying drawings, in which

Figure 1 is a longitudinal section through a pipe illustrating the features of my invention; Fig. 2 a longitudinal section through the removable plug; Fig. 3 a view similar to Fig. 1 of a modified form. Fig. 4 is a perspective view of a cleaner rod; and Figs. 5, 6 and 7 are longitudinal sections illustrating further modifications.

Like numerals of reference indicate the same parts in the several figures of the drawings.

Referring particularly to Figs. 1 and 2 of the drawings, 1 represents the bowl of the pipe and 2 the stem. The stem is here shown as made in two sections, the lower sec-

tion 3 being integral with the bowl and the upper section 4 provided with a reduced part 5 extending into the lower part 3, which is held thereon by frictional engagement. The bit 6 is shown as integral with the upper section 4 of the stem. It is obvious that these are constructional details and might be varied to any extent.

The stem has a straight bore in which is located a plug 7 which extends out of the stem and is provided with the finger-piece 8. On the stem is the threading 9 which forms, with the inner surface of the stem, a helical smoke passage-way 10. The bowl and the interior of the stem are connected by a channel 11 and in the stem below the opening of this channel is preferably a chamber or pocket 12. The plug is preferably formed with a central airduct 13 which, it will be seen, terminates near the upper end of channel 11. The bit has the ordinary bore 14, which is enlarged at 15, so that it will not be stopped up by the threading of the plug.

In Fig. 3 I have shown a modified form of pipe, in which the plug is inserted from the bottom. 16 represents the bowl integral with the stem 17, the bowl and the interior of the stem being connected by the channel 18. The bit 19 is made separate and the stem held thereto by frictional engagement. The plug 22 is similar to the plug above described and forms, by means of its threading, a circuitous passage-way for the smoke. Preferably it has the reduced portion 23 at the lower end forming a chamber 24 at the bottom of the channel 18. The plug is provided with an exterior finger-piece 25, by means of which it may be readily withdrawn from the stem.

The operation of the device is as follows:—Referring particularly to Fig. 1, the smoke from the bowl passes through channel 11 and thence through the circuitous passage-way formed in the plug to the bit. In passing through the convolutions of this passage-way the smoke will be effectively cooled, this operation being aided by the draft of cool air passing through the central duct in the plug. It will be observed that each time the pipe is drawn air will enter the stem not only through the bowl but also through this airduct. The duct terminates near the beginning of the circuitous passage-way, and, therefore, tends to keep the surfaces in this vicinity cool, so as to cause the precipitation of the moisture which will be received in the chamber or pocket 12.



The plug is readily removable by merely pulling on the finger-piece 8 and without, in any manner, disturbing the other parts of the pipe. The interior of the pipe may, therefore, be easily cleaned as may also the circuitous passage-way, without the necessity of removing any other parts. The plug of the modified construction shown in Fig. 3 may also be removed without disturbing the other parts of the pipe. The space in the stem made by reducing the diameter of the lower end of the plug permits the accumulation of moisture which will naturally be deposited in that place instead of being carried through the smoke passage-way in the plug. In Fig. 4 I have illustrated a rod 26 having the head 27, this rod being adapted to be used as a cleaner. It may be made of somewhat flexible material and may be used to stop up the air duct in the pipe, shown in Fig. 1, when it is desired to use the pipe without the down draft feature. In Figs. 5, 6 and 7, I have shown three modified structures illustrating different adaptations of the principles above set forth. In Fig. 5 the threaded plug 28 is attached to the end of the bit 29 and has a projection 30 extending into the part of the stem 31 integral with the bowl 32. The plug has a perforation 33 connecting the interior of the stem with the threading and a perforation 34 connecting the threading with the bore 35 in the bit. A sleeve 36 surrounds the plug. In Fig. 6 the arrangement is similar, except that the sleeve here designated by the numeral 37 extends into the part 31. In this case the threading communicates directly with the chamber in the stem below the plug. Fig. 7 shows a straight pipe consisting of the bowl 38, integral stem 39, plug 40 attached to bit 41, the threading of the plug being connected with the bore of the bit by a perforation 32. The operation of these modifications will be obvious from the description of the structure.

I wish it to be understood that I do not desire to be limited to the precise arrangements and constructions shown and described, for obvious modifications will occur to those skilled in the art. I have illustrated and described several features which I prefer to use together in a single pipe but, as indicated, certain features might be omitted, depending upon the particular construction of the pipe chosen.

I claim:—

1. In a tobacco pipe, the combination of a bowl, with a stem, and a plug in the stem having an exterior groove forming a smoke passage-way and provided with a central air duct, said plug provided with a part exterior to the stem, whereby the plug may be removed from the stem without disturbing the other parts of the pipe.

2. In a tobacco pipe, the combination of a bowl, with a stem having a bore terminating in a pocket, a plug in the outer end of the

bore, and a channel from the interior of the bowl to the bore of the stem above the pocket, said plug being formed with a circuitous smoke passage-way and an air duct, said air duct and passage-way terminating above the pocket.

3. In a tobacco pipe, the combination of a bowl, with a stem having a bore, a channel leading from the interior of the bowl to the bore in the stem, a removable plug in the bore having a smoke passage-way formed therein, and a bit off-set from the stem so as to permit the removal of the plug therefrom with its perforation communicating with the smoke passage-way in the plug.

4. In a tobacco pipe, the combination of a bowl, with a stem, a plug in the stem, said plug formed with two passage-ways, a smoke passage-way and an air duct, said air duct arranged so that when the pipe is drawn air will be conducted inwardly toward the bowl.

5. In a tobacco pipe, the combination of a bowl, with a stem, and means within the stem for forming a helical smoke passage-way and an air duct centrally of the smoke passage-way.

6. In a tobacco pipe, the combination of a bowl, with a stem, a plug in the stem, said plug being formed with an external smoke passage-way, an internal air duct, said air duct arranged so that when the pipe is drawn air will be conducted inwardly toward the bowl, and a channel from the bowl to the interior of the stem below the end of the plug.

7. In a tobacco pipe, the combination of a bowl, with a stem, and means within the stem forming a smoke passage-way and an air duct, said air duct arranged so that when the pipe is drawn air will be conducted inwardly toward the bowl, said means affording a condensing surface opposed to the passage of the smoke and in proximity to the discharge end of the air duct.

8. A tobacco pipe having a smoke passage-way extending through the stem thereof, and a second passage-way to admit air into the interior of the pipe, said second passage-way arranged so that when the pipe is drawn air will be conducted inwardly toward the bowl of the pipe, in combination with a rod adapted to be received in and to close said second passage-way.

9. A tobacco pipe having a smoke passage-way extending through the stem thereof, and a second passage-way to admit air to the interior of the pipe, said second passage-way arranged so that when the pipe is drawn air will be conducted inwardly toward the bowl of the pipe.

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Witnesses:

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