J. DE MEZA.

TOBACCO PIPE.

APPLICATION FILED DEC. 19, 1910.

999,120.

Patented July 25, 1911.

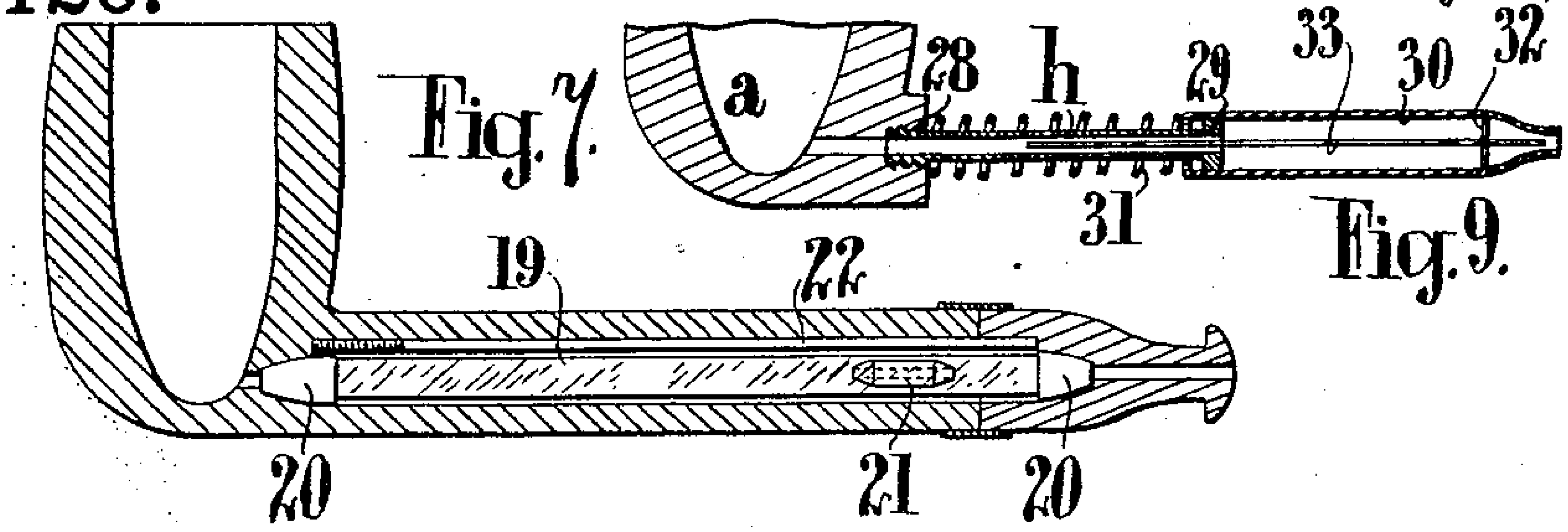


Fig. 7.

Fig. 9.

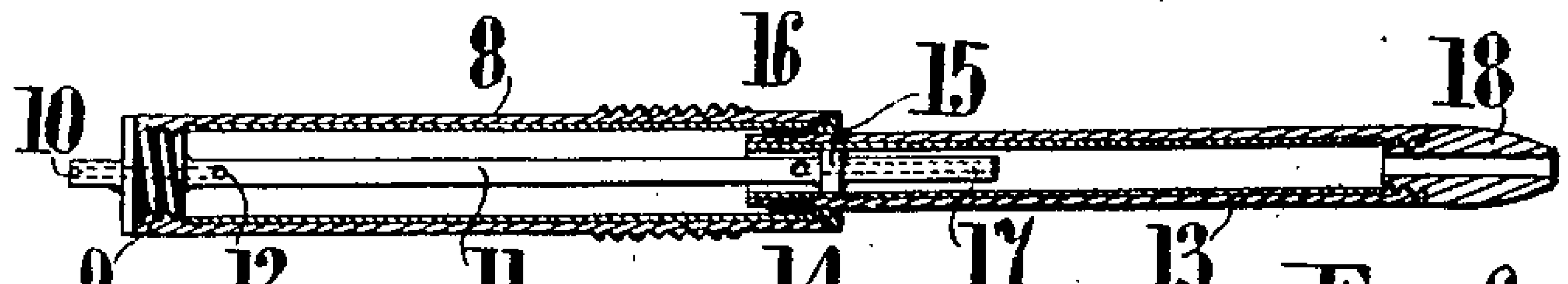
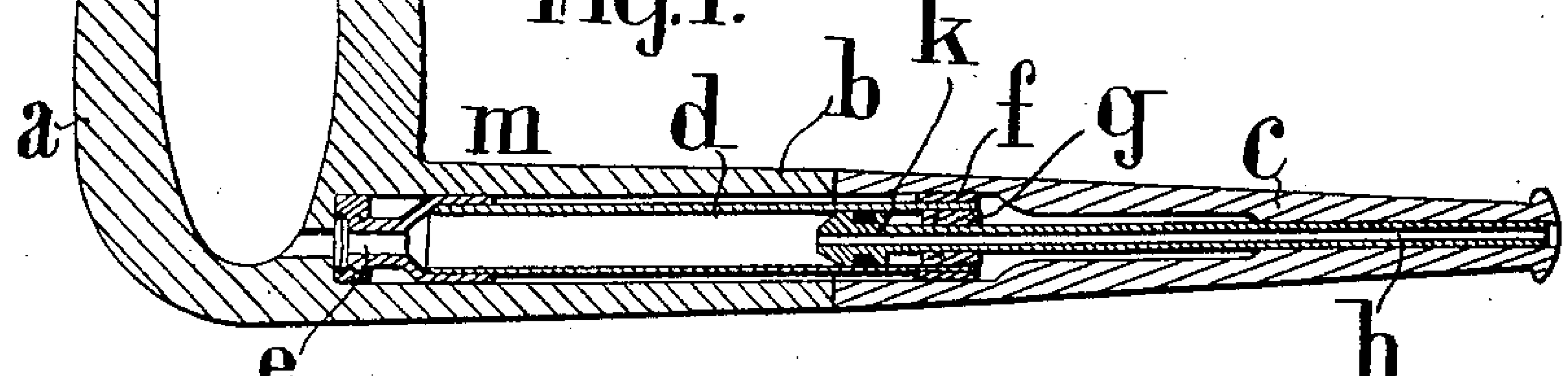


Fig. 6.

Fig. 1.



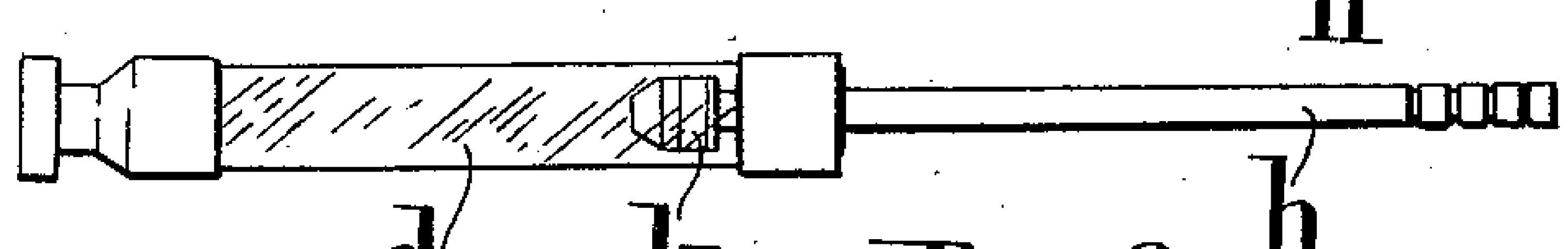


Fig. 2.

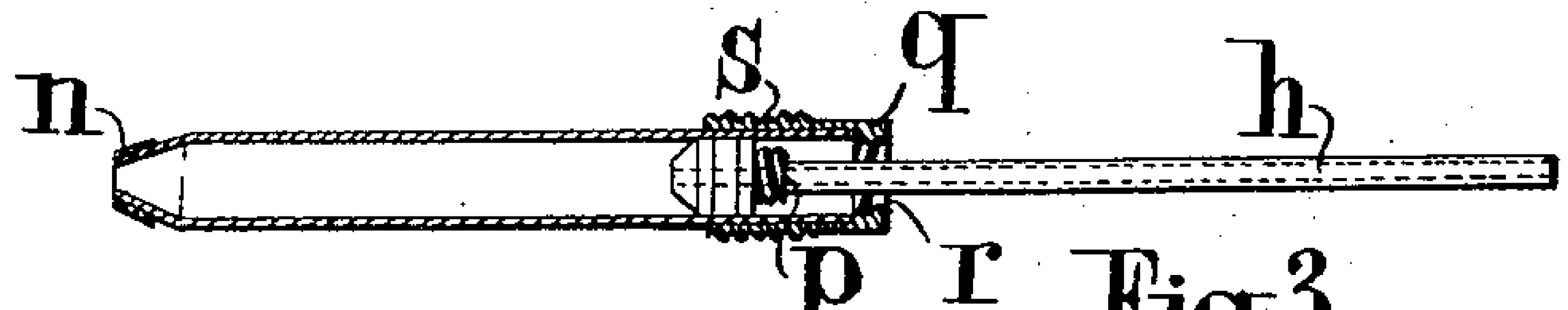


Fig. 3.

Fig. 4.

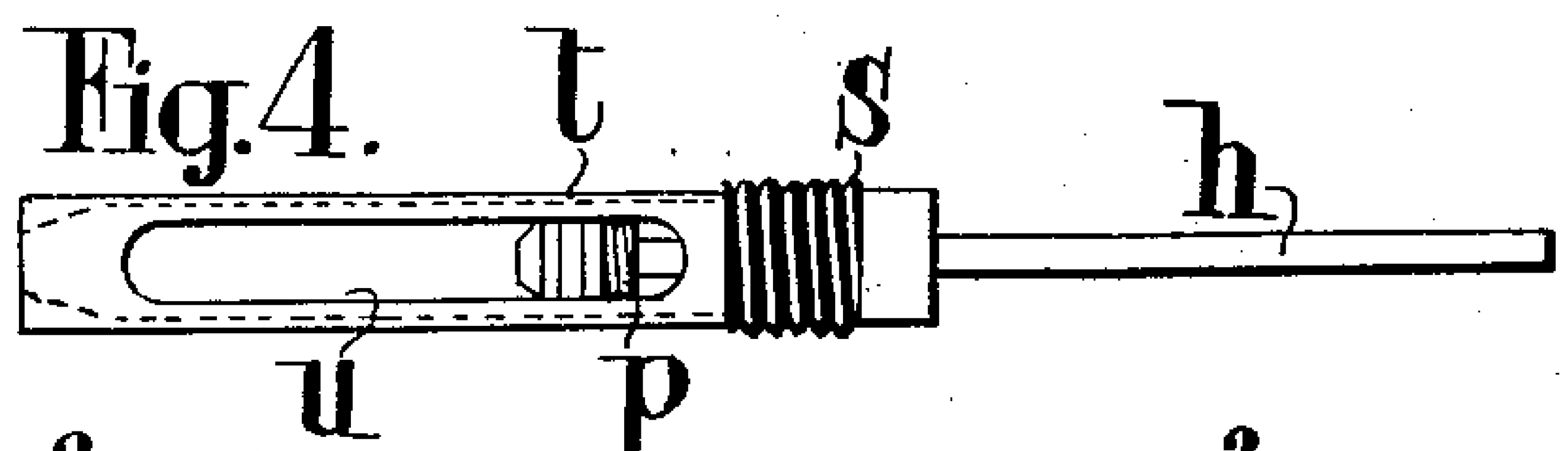
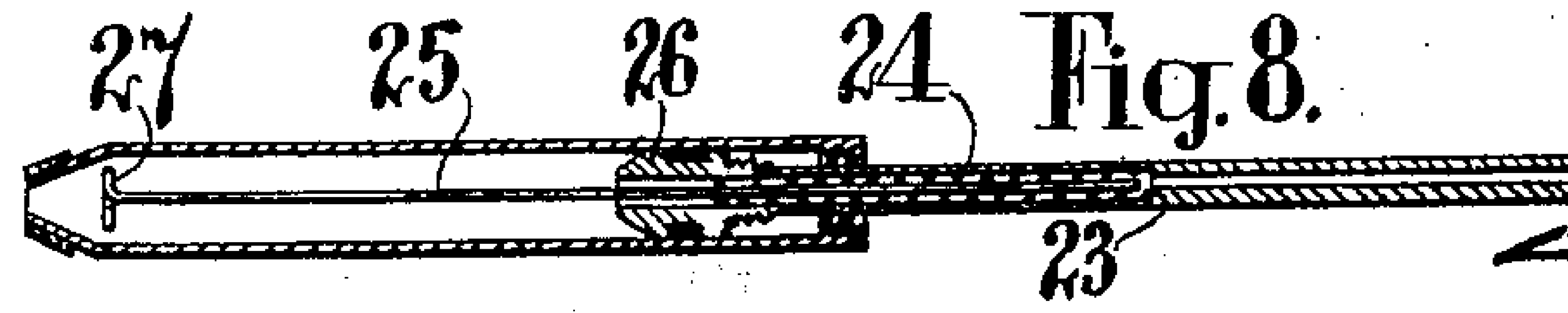


Fig. 5.

Fig. 8.



Witnesses

Denis Mattern.

J. S. Giusta

Inventor

Joseph de Meza,

by Wilkinson, Fisher & Witherspoon

his Attorneys

UNITED STATES PATENT OFFICE.

JOSEPH DE MEZA, OF LONDON, ENGLAND.

TOBACCO-PIPE.

999,120. Specification of Letters Patent. Patented July 25, 1911.

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To all whom it may concern:

Be it known that I, JOSEPH DE MEZA, a subject of the King of England, residing at 3 Tollington Place, Tollington Park, London, England, have invented certain new and useful Improvements in and Relating to Tobacco-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 tobacco pipes and has for its object to provide a pipe with a nicotin trap which can be very easily removed from the pipe and cleaned.

In carrying out my invention I so construct the pipe that the mouthpiece can be easily detached from the stem, and insert into the stem and mouthpiece a syringe of glass or other suitable material or combination of materials, which syringe is in all cases separable from the pipe and is so made that the smoke passes through the body or cylinder of the said syringe when the pipe is being smoked. The piston and cylinder may be of special construction so as to act as a nicotin trap. In order to clean the inside of the syringe when requisite, it is simply necessary to remove the mouthpiece, take out the syringe, which as will be understood is in the extended position, dip the cylinder into water or other liquid and to give the rod a reciprocating motion so as to draw the water or other liquid into the interior of the syringe thus cleaning it out, or simply to give the rod a reciprocating motion without any liquid. And in order that my said invention may be better understood, I will now proceed to describe the same with reference to the drawing accompanying this specification, which shows by way of example various methods of constructing a tobacco pipe according to my said invention.

Figure 1 is a longitudinal section of a pipe with the syringe in place; Fig. 2 is an elevation of the syringe removed from the pipe and in the extended position; Figs. 3, 4, 5, and 6 show modified forms of syringes. Fig. 7 shows a sectional elevation of pipe with another form of syringe made according to my invention applied thereto. Fig. 8 shows a section of a further modified form of the device. Fig. 9 shows a section of a form in which the direction of the syringe is reversed for the purpose hereinafter explained.

The same letters and numerals of reference are employed to denote the same parts in all the views.

Referring to Figs. 1 and 2 *a* is the bowl of the pipe and *b* the stem. *c* is the mouthpiece removably fitted to the stem *b*. The stem is hollowed out for the reception of the cylinder *d* of the syringe. This cylinder is provided at the end toward the bowl with a cap having an orifice *e* coming opposite the hole in the bottom of the bowl. *f* is a sleeve at the opposite end of the cylinder, and of such size that a hollowed out portion in the mouthpiece *c* fits over it. *g* is a plug of cork or other suitable material through which passes the hollow piston rod *h*. This carries the piston *k* which has a conical front, and is provided with packing. The hollow piston rod *h* fits within the bore of the mouthpiece *c*.

The action of the device will be obvious. When the pipe is being smoked the smoke passes freely through the hole at the bottom of the bowl and into the cylinder *d* through the hole *e*, and thence through the hollow piston rod *h* to the mouth. The nicotin is prevented passing to the rod *h* by the formation of the front of the piston *k* constituting a nicotin trap. When it is required to clean the device it is simply necessary to remove the mouthpiece *c*, withdraw the syringe from the stem *b*, place the finger on the hole in the top of the hollow piston rod *h*, dip the orifice *e* into water or some other cleansing liquid and then work the rod up and down, thereby drawing the liquid into and expelling it from the cylinder *d*, thus thoroughly cleaning the barrel of the syringe, or the barrel may be cleaned by simply reciprocating the piston without using a liquid. To clean the hollow piston rod *h* the finger may be placed over the hole *e* and the end *h* dipped into the cleansing liquid and the barrel reciprocated, which operation cleans the rod *h*. The syringe may be then replaced within the stem and the mouthpiece returned to its position.

I prefer to leave a space *m* between the outer wall of the cylinder *d* and the inner surface of the stem *b* as shown in the drawing for the purpose of cooling.

In some cases the piston rod may be increased in diameter so as to be almost as large as the cylinder, so that the invention assumes the form of two tubes one telescoping within the other. This is suitable for

cheap constructions and in this case if desired the end orifice may be left open.

Referring to the modified form of syringe shown at Fig. 3, in this case the barrel *d* of the syringe is made of glass or other suitable material or combination of materials as before and is conical in shape toward the orifice and provided with a rubber washer *n*. The piston is provided with a screw threaded plug *p* and the end of the cylinder has a sleeve *q* provided with an internal thread *r*. The object of this arrangement is to enable the piston rod *h* to be locked in the extended position, so that no accidental telescoping of the rod within the cylinder can take place when the mouthpiece is being fitted into position. The sleeve *q* is further provided with an external thread at *s* so that it can be screwed into a corresponding screw thread provided in the end of the stem, and the mouthpiece may further be provided with an internal screw thread so as to enable it to be screwed on to a portion of this thread *s*, thus holding the entire device firmly in position.

Referring to Fig. 4 in this case the barrel of the syringe *d* is inclosed in a metal or other suitable sleeve *t*, to protect same from breaking, which is furnished with long slots *u* coming on opposite sides thereof, so that the tube can be examined from the outside. The end of the sleeve is provided with a screw thread *s* and the piston with a screw thread *p* as before explained with reference to Fig. 3.

It will of course be understood that in order to clean the syringe of the forms shown at Figs. 3 and 4, when the syringe is removed from the pipe the piston rod must be rotated so as to disengage the threads as shown at *p* and *r* in Fig. 8. The cleaning can then be effected and the piston again screwed into position before replacing the syringe.

In the form of the device shown at Fig. 5, the cylinder 2 of the syringe is formed of a simple glass tube provided at each end with a rubber nipple 3 and 4 is a rod which passes loosely through the aperture of one of the nipples so as to leave an annular space 5. 6 is the piston which in this case is provided with a number of perforations. The end of the syringe from which the rod 4 projects fits into the perforation in the bowl and the other end extends normally to the end of the stem. The smoke can be easily drawn as it passes from the bowl around through the annular space 5 and through the perforations in the piston 6 to the mouthpiece. When it is required to clean the device it is simply necessary to remove it from the pipe, plunge one end in the water or into the cleaning liquid as before described and draw the piston backward and forward by means of the rod 4. In some cases where it is desired to provide additional length to the rod 4 I split a portion thereof, hinge this to the other part at 7 so that when the rod is withdrawn, this portion can be turned up outward, thus giving the requisite additional length.

Referring to Fig. 6, in this case the barrel 8 of the syringe is provided with a cap 9 which is furnished with an aperture 10. The cap 9 is extended into a rod 11 made hollow at the ends. 12 is an aperture in the side of the rod 11 communicating with the opening 10. 13 is another cylinder adapted to slide within the cylinder 8 and provided at the front end with a piston packing 14. The rod 11 is provided with a fixed piston 15. The rod is also furnished with a perforation at 16 communicating with a hollow portion 17 opening toward the mouthpiece. 18 is a packing fitting within the mouthpiece of the pipe near to the mouth. With this form of the device the smoke when the pipe is in use passes through the aperture 10 out at the hole 12 into the cylinder 8 thence through the hole 16 and out at the hollow portion 17 through the plug 18 and out through the mouthpiece. In order to clean the device it is simply necessary to dip either of the ends into water and to reciprocate the two barrels with respect to one another, for cleaning out both the cylinders 8 and 13.

Referring to the form of the device shown at Fig. 7, in this case the cylinder 19 which is of glass is provided with a nipple 20 at each end. 21 is a piston provided with a hole running through same, one end, that toward the mouthpiece, being provided with a screw thread. 22 is a rod which is screw threaded at one end, such screw thread being adapted to screw into the aperture in the piston 21. This rod fits into a space between the barrel 19 and the inside of the stem of the pipe.

Referring to Fig. 8, the hollow piston rod is formed with a step 23, against which rests a spiral spring 24, the other end of which bears against a pin 26 attached to a rod 25, which rod 25 carries a ring 27. When the piston rod is pushed in, the ring 27 is forced against the inside of the conical opening of the cylinder and on further pressure of the hollow piston rod toward the mouthpiece the rod 25 enters the smaller portion of the hollow piston rod, thus cleaning the same out, while the piston itself cleans out the cylinder.

Referring to Fig. 9, in this case the hollow piston rod *h* is screw threaded at 28 and the neck of the bowl portion *a* is correspondingly screw threaded. The hollow piston rod *h* is provided with a piston 29 working in the barrel 30. 31 is a spiral compression spring which rests between the neck of the bowl and the end of the barrel 30. 33 is a

wire which passes partly down through the hollow piston rod *h* and lies within the barrel 30. It has attached to it a wire cross piece 32. It will be observed that in this case the direction in which the syringe is placed is reversed and that the barrel lies within the mouthpiece of the pipe. During smoking the smoke passes through the hollow piston rod *h* into the barrel 30 and then to the smoker's mouth. When it is desired to clean the device the mouthpiece is removed, and it is simply necessary to dip the orifice at the mouthpiece into the cleaning liquid and then after having covered the top of the bowl, to work the piston backward and forward within the barrel against the pressure of the spring. At the same time the wire 33 cleans out the hollow piston rod *h* and the hole communicating with the pipe. If desired the bowl may be dipped beneath the liquid and the cleaning operation conducted from the opposite end.

In some cases the hollow piston rod *h* may be unscrewed so as to remove the syringe entirely from the pipe which can then be smoked in the ordinary way.

It will be evident that the methods of carrying out my invention just described are given by way of example merely, as the constructional details may be varied to suit requirements. Any suitable material may be employed for making any of the parts and the general construction and arrangement may be varied without departing from the principle of the invention. For instance, where it is desired to lock the piston in the extended position in the cylinder, other methods may be adapted besides the engaging screws herein described.

What I claim and desire to secure by Letters Patent of the United States of America is:—

1. In a pipe the combination of a hollow stem, a mouth piece removably attached to the stem, a cylinder removably mounted within the hollow stem, a piston for the cylinder, and a hollow piston rod projecting from the piston and loosely mounted within the mouth piece.

2. In a pipe the combination of a hollow stem, a mouth piece removably attached to the stem, a cylinder arranged in the hollow stem and removably supported in spaced relation to the sides thereof, a piston for the cylinder, and a hollow piston rod projecting from the piston and loosely mounted within the mouth piece, substantially as described.

3. In a pipe the combination of a hollow stem, a mouth piece removably attached to the stem, a glass cylinder arranged in the hollow stem, a casing surrounding the cylinder and having openings to permit inspection thereof, a piston in the cylinder, and a hollow piston rod projecting from the piston and loosely mounted within the mouth piece, substantially as described.

4. In a pipe the combination of a hollow stem, a mouth piece removably attached to the stem, a cylinder removably mounted within the hollow stem and having a contracted inner end, a nipple at the contracted end of the cylinder, a piston for the cylinder, and a hollow piston rod projecting from the piston and loosely mounted within the mouth piece, substantially as described.

5. In a pipe the combination of a hollow stem, a mouth piece removably attached to the stem, a cylinder removably mounted within the hollow stem, a piston for the cylinder, a hollow piston rod projecting from the piston and loosely mounted within the mouth piece, and means within the cylinder for projecting into the hollow piston rod when same is operated, substantially as described.

6. In a pipe the combination of a hollow stem, a mouth piece movably attached to the stem, a cylinder removably mounted within the hollow stem, a piston for the cylinder, a hollow piston rod projecting from the piston and loosely mounted within the mouth piece, and a rod supported within the cylinder for projecting into the hollow piston rod when same is operated, substantially as described.

7. In a pipe the combination of a hollow stem, a mouth piece removably attached to the stem, a cylinder removably mounted within the hollow stem, a piston in the cylinder and having perforations therethrough, and a hollow piston rod projecting from the piston and loosely mounted within the mouth piece, substantially as described.

8. In a pipe the combination of a hollow stem, a mouth piece removably attached to the stem, a glass cylinder having a contracted inner end, a nipple at the contracted end, a casing surrounding the cylinder and removably mounted in the stem, the casing having openings to permit inspection of the cylinder, a piston in the cylinder, a piston rod projecting from the piston and loosely mounted within the mouth piece, a rod supported within the cylinder for projecting into the hollow piston rod when same is operated, and a spring on the rod for returning the piston to normal position, substantially as described.

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

JOSEPH DE MEZA.

Witnesses:
HERBERT D. JAMESON,
JOHN WILLIAM SUTTON.