

No. 877,071.

PATENTED JAN. 21, 1908.

A. A. FURNESS.  
TOBACCO PIPE.  
APPLICATION FILED APR. 18, 1907.

Fig. 1.

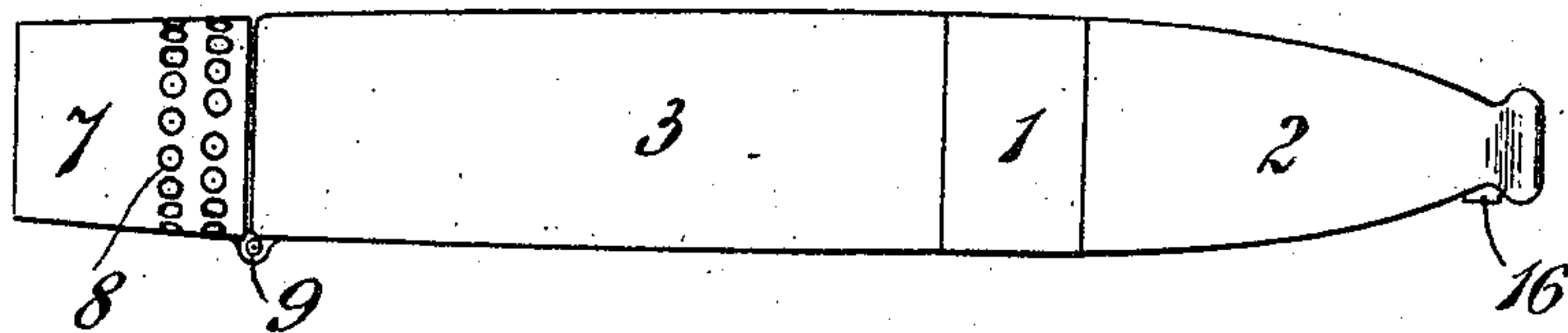


Fig. 2.

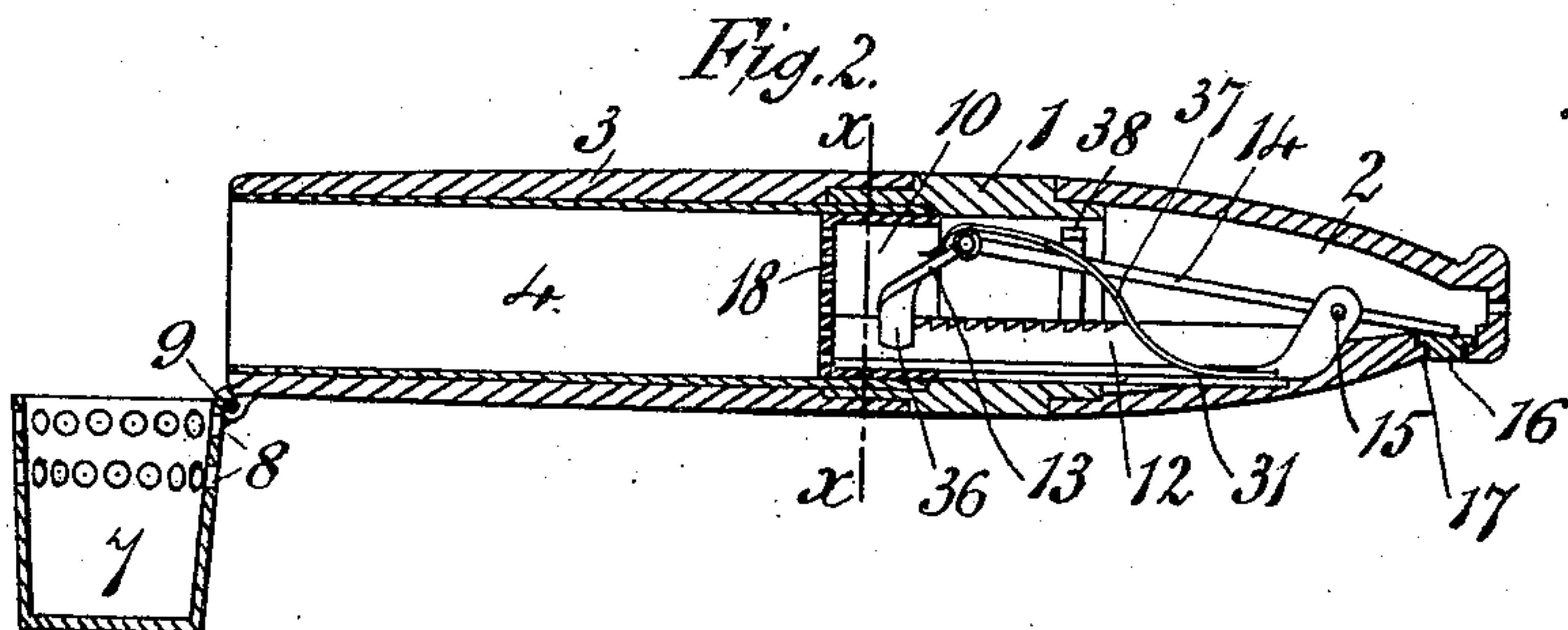


Fig. 3.

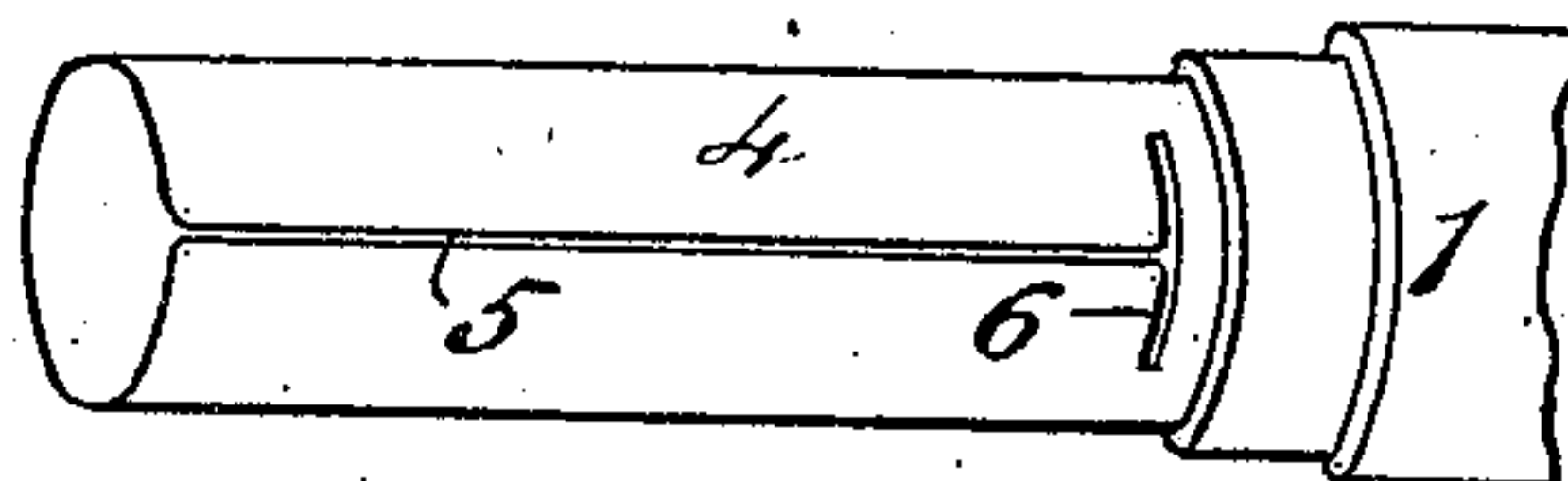


Fig. 4.

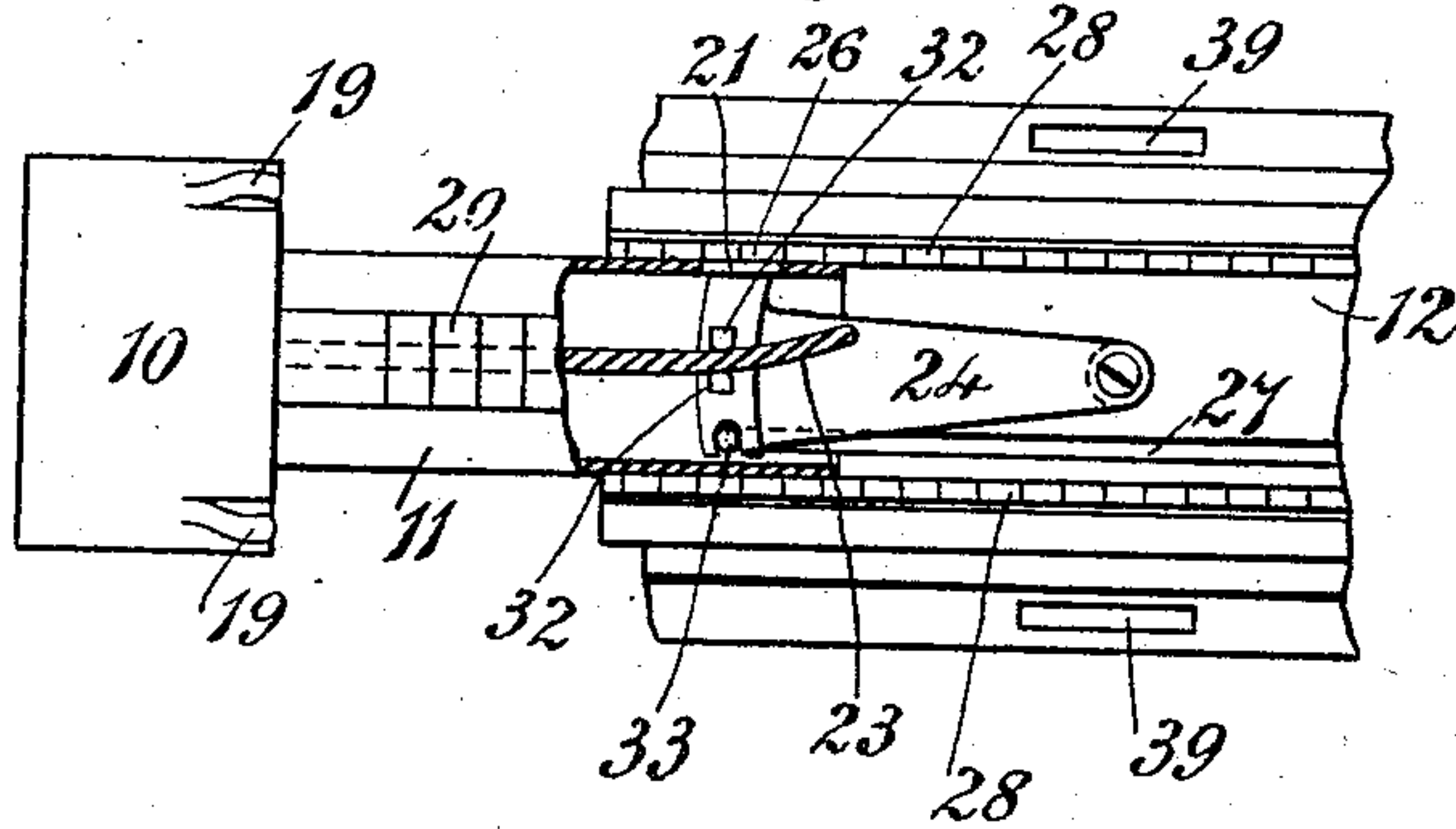
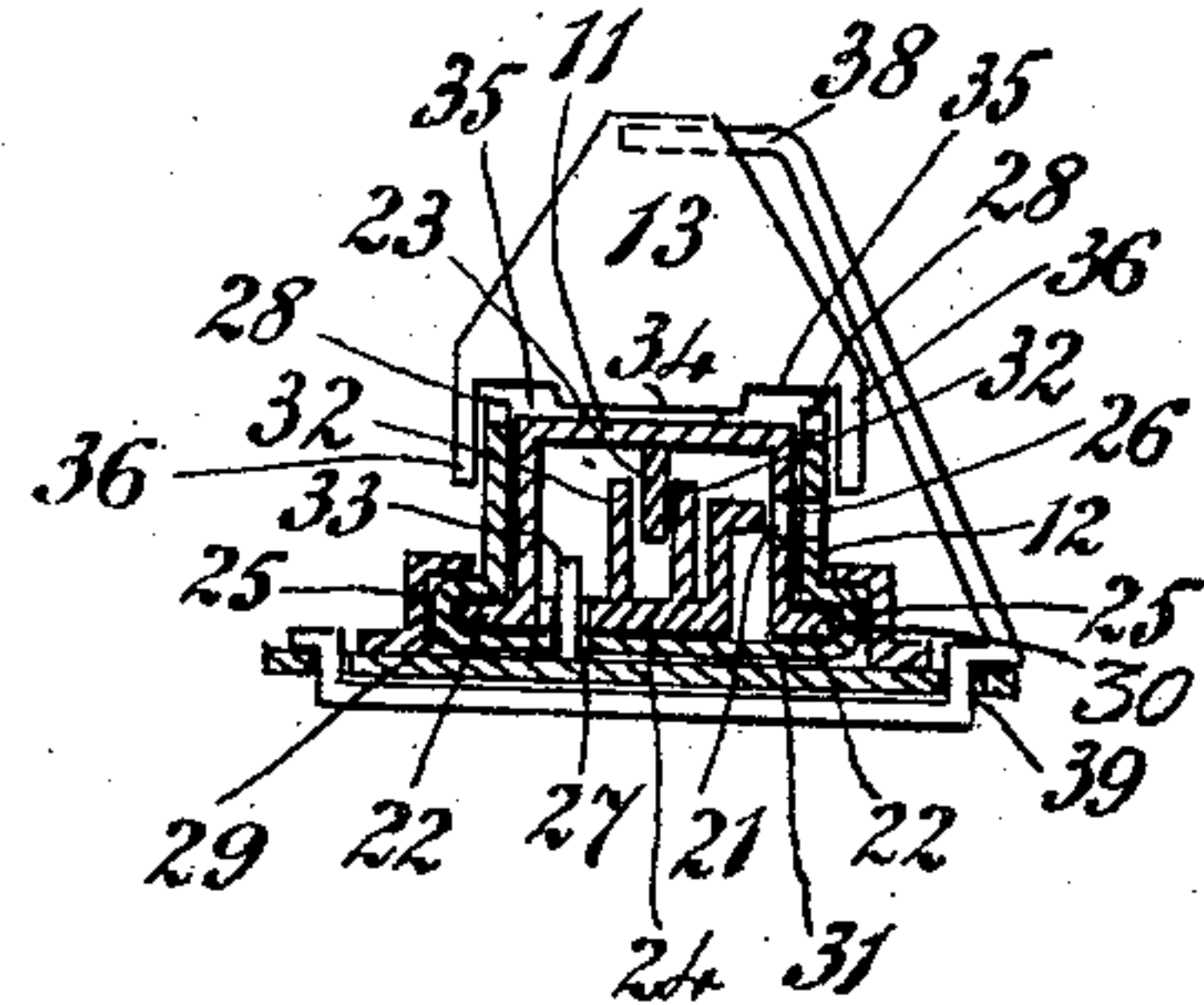


Fig. 5.



Witnesses

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# UNITED STATES PATENT OFFICE.

ARTHUR ALBERT FURNESS, OF GUILDFORD, ENGLAND.

## TOBACCO-PIPE.

No. 877,071.

Specification of Letters Patent.

Patented Jan. 21, 1908.

Application filed April 18, 1907. Serial No. 368,900.

*To all whom it may concern:*

Be it known that I, ARTHUR ALBERT FURNESS, factory manager, a subject of the King of Great Britain and Ireland, and residing at Alma Cottage, Eagle Road, Guildford, in the county of Surrey, England, have invented certain new and useful Improvements in Tobacco-Pipes, of which the following is a specification.

This invention relates to an improved tobacco pipe which in outward appearance resembles a cigar and consists of a tubular case constructed of three separate sections and an inner tube or chamber for holding the tobacco. Means are also provided for feeding the tobacco forward as it is consumed.

In the accompanying drawings illustrating my invention Figure 1 is an outside side view of the improved pipe. Fig. 2 is a longitudinal section of the same showing the hinged end or ash retainer open. Fig. 3 is a side view, in perspective, of the inner tube or tobacco holder. Fig. 4 is a sectional plan, to a larger scale, showing the locking, and a portion of the feeding mechanism. Fig. 5 is a cross section on the line *x, x* of Fig. 2 with the outer case omitted.

The outer case consists of a union piece 1, the mouthpiece 2 and a detachable outer tube 3. The inner tube 4 holds the tobacco and is fixed to the union piece 1. This tube is formed with the longitudinal slit 5 and the cross slit 6 for permitting it to spring open slightly when the outer tube 3 is removed and to close up tightly when the outer tube 3 is replaced. The said outer tube is provided with the tubular extension 7 which may be open at each end or closed at the outer end and formed with perforations 8, and is hinged at 9 to the tube 3 so as to open out, as shown in Fig. 2. The section 7 serves as an ash retainer or holder.

The tobacco is placed within the tube 4 and as it is consumed it is fed forward by the following mechanism. This consists of a hollow plunger or piston 10, the telescopic stem in two sections 11 and 12, the pawl 13 pivoted to a lever 14 which is itself pivoted at 15, and the pressure piece or stud 16 fitted in the opening 17 of the mouthpiece. The piston 10 is of a diameter to fit the inner tube 4 within which it slides and is furnished with the perforated face 18 and the spring tongues 19 cut and bent up therefrom to provide a frictional contact on the inner tube 4 and prevent its slipping back with the return

movement of the pawl 13. The telescopic sections 11 and 12 are formed of channel shape section as shown in Fig. 5, the section 11 being attached to the piston 10 and inverted with a rack 20 on its upper surface. It also has a slot 21 in one side and flanges 22 on both sides while on its upper inner side is a guide 23 which operates a latch or locking piece 24 pivoted to the section 12. The section 12 is formed with side grooves 25 in which the flanges 22 of the section 11 slide; it is also provided with slots 26 and 27, the double racks 28, and outside tongues 29 sliding in guides 30 fixed to the support 31.

When the section 11 has been fully fed forward and the slots 21 and 26 are in register, the guide 23 sliding between projections 32 on the latch 24, disengages the latter from the catch or pin 33 fixed to the support 31 and projecting through the slot 27 in the bottom of the section 12. The latch 24 is thus engaged with the slots 21 and 26 and the sections 11 and 12 are thereby locked together and move forward as one stem. When this stem is pushed back the action of the latch is reversed thus disengaging the sections. The pawl 13 is provided with a central tooth 34 and with two side teeth 35 engaging respectively with the racks 20 and 28 on the sections 11 and 12; it is also formed with side wings 36 extending on each side of the section 12 and serving to keep the lever 14 and the pawl in line.

The action of the pawl 13 is as follows:— When the central tooth 34 is in engagement with the rack 20 on the stem section 11, the side teeth 35 are held clear of the double rack 28 on the stem section 12 and are inoperative until the section 11 is fed completely forward and locked by the latch 24. The section 12 being of channel shape permits the tooth 34 to drop between the double rack 28, and the side teeth 35 are thus brought into gear with the said double rack. The telescopic action of the stem reduces the length of the forwarding mechanism, when closed, to about half that of the charge smoked.

The lever 14, carrying the pawl, oscillates in a vertical plane and communicates the required pressure to the piston 10 by means of the said pawl 13 actuated by the pressure piece or stud 16 which is forced inwards, against the end of the lever 14 by the teeth of the smoker. The extent of the forward movement of the piston is determined by the angle formed between the lever and the



pawl. 37 is a combination spring acting upon the lever 14 to raise it to its original angle after each forward movement of the piston, and to return the pawl into engagement with the racks 20 and 28. The pawl is weighted, or formed of sufficient weight, so that upon inverting the forwarding mechanism, by turning over the pipe, it would overcome the pressure exerted upon it by the end portion of the combination spring 37 and fall out of engagement with the racks on section 12. This would leave the stem section 11 free to be moved back by pressure upon the face of the piston, which might be applied by the insertion of a fresh charge of tobacco in the tobacco chamber.

The support 31 is fixed at one end to the union piece 1, the other end wedging into the mouthpiece 2, and to it is fitted the adjustable stop 38 which has a longitudinal movement along the said support by means of the slots 39 through which the lower part of the stop passes as shown in Fig. 5. The said movement or adjustment is for the purpose of limiting the upward motion of the lever 14 and consequently the forward stroke of the piston 10.

Having now fully described the nature of

my said invention, what I claim and desire to secure by Letters Patent is:—

1. In a tobacco pipe having the shape of a cigar the forwarding mechanism consisting of a piston sliding within a tobacco chamber, a telescopic stem connected with said piston, single and double racks carried by the stem, a pivoted pawl formed with two sets of teeth engaging with the racks, a pivoted lever carrying said pawl, and a pressure piece or button fitted to the mouthpiece of the pipe and acting upon the lever, substantially as described.

2. In a tobacco pipe having the shape of a cigar, the combination with the mouthpiece of a telescopic stem and an automatic locking device consisting of a latch pivoted to one of the sections of the said stem and operated by a guide carried by the other section of the stem, substantially as described.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

ARTHUR ALBERT FURNESS.

Witnesses:

ALFRED MORRIS JOHNSON,  
ALBERT REGINALD SYMONDS.