

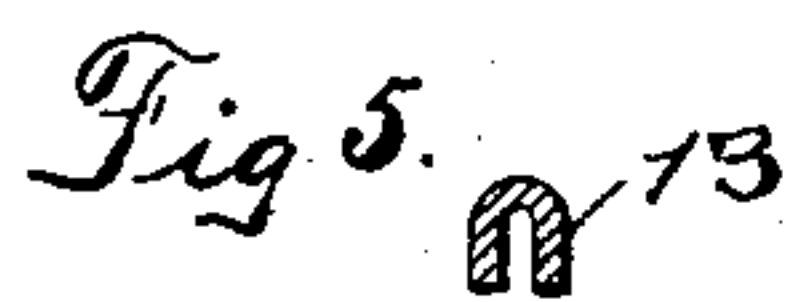
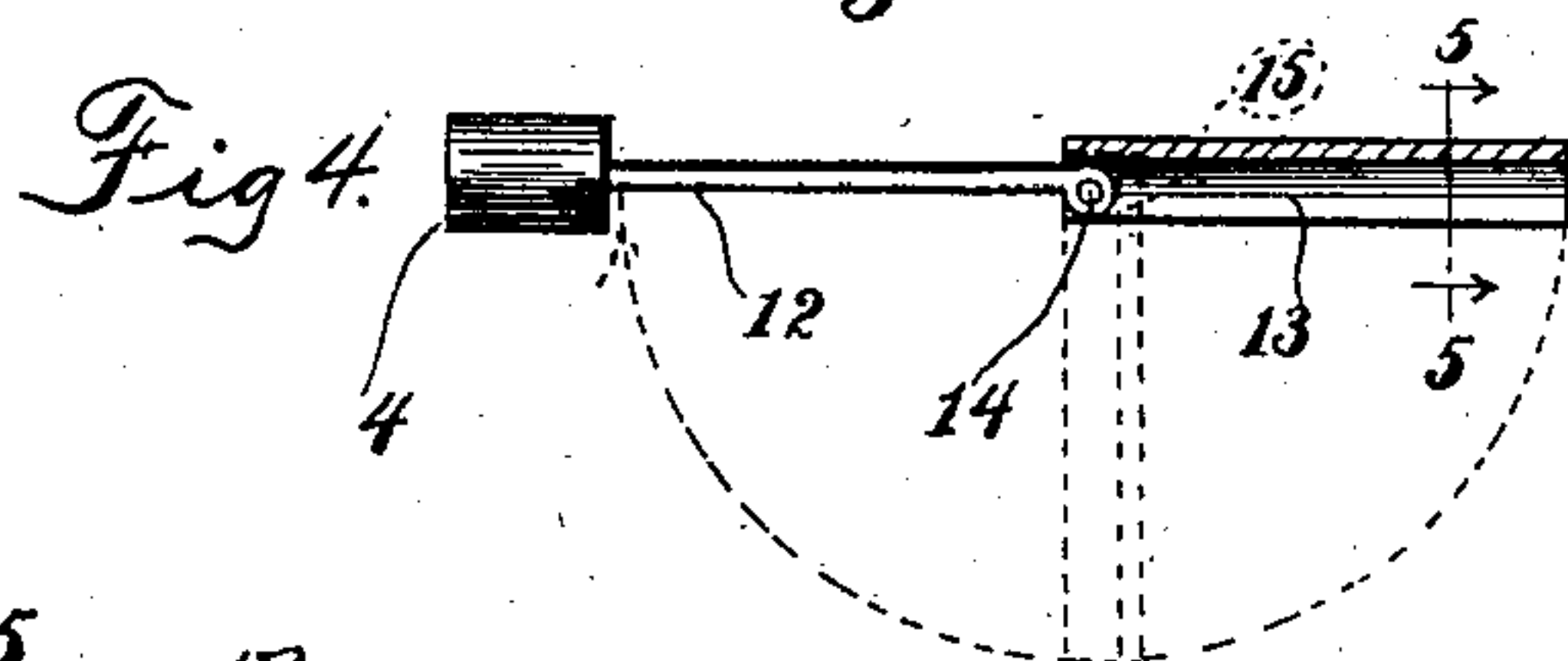
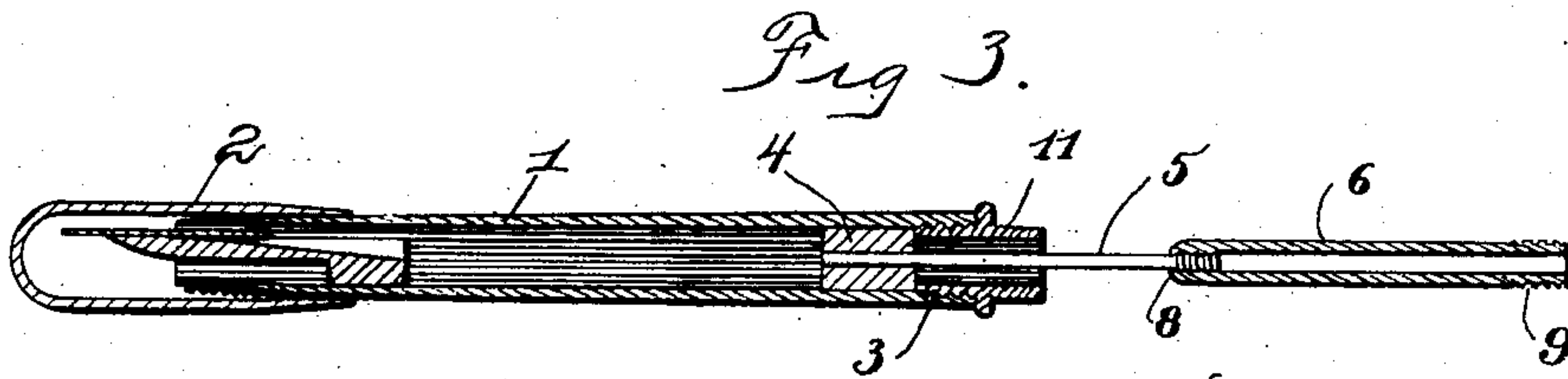
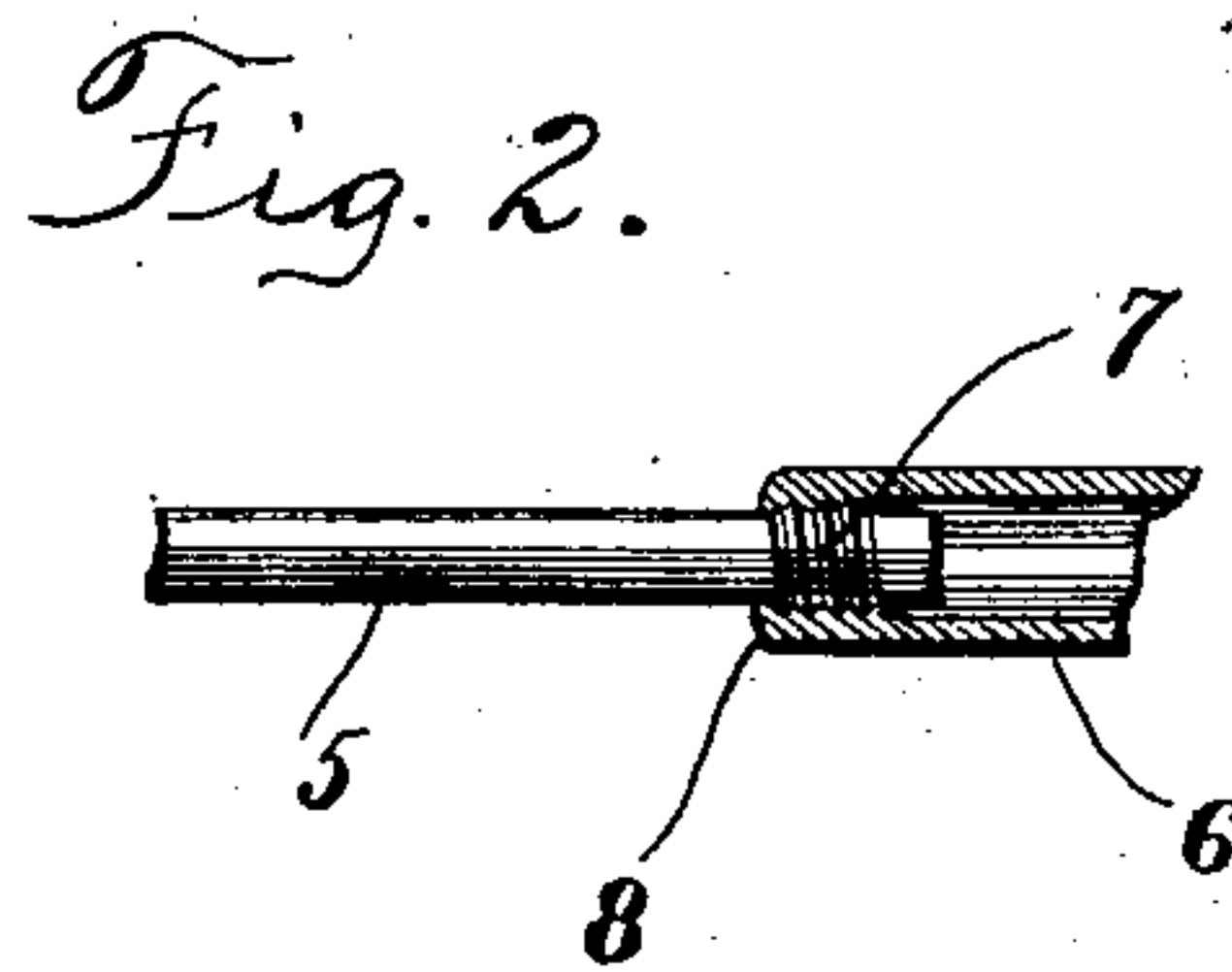
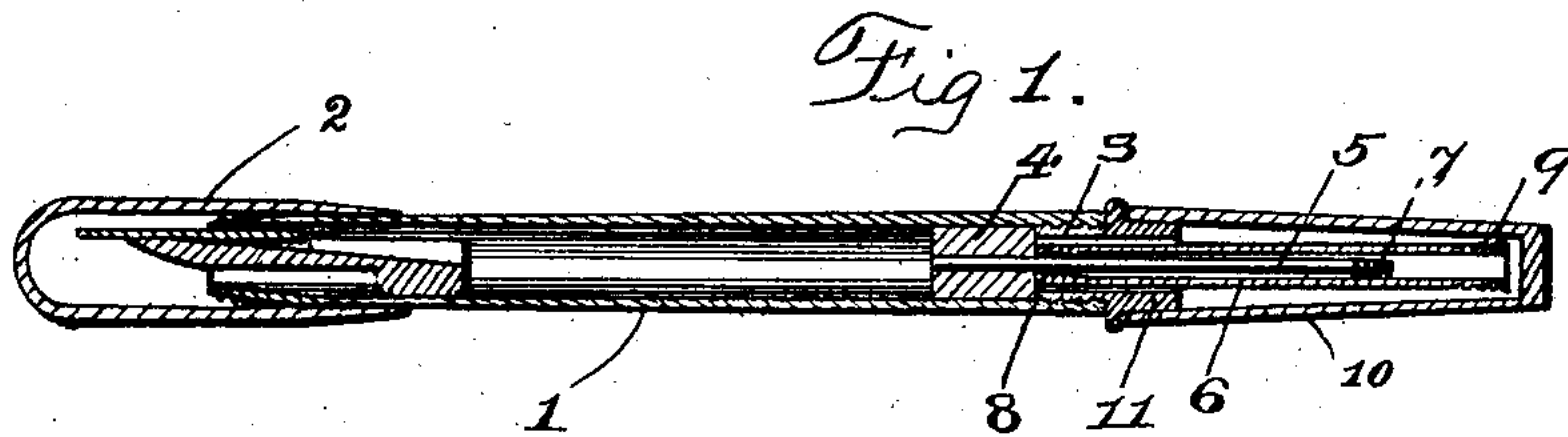
No. 705,316.

Patented July 22, 1902.

J. BOVILL.  
FOUNTAIN PEN.

(Application filed Mar. 24, 1902.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

JOHN BOVILL, OF CHICAGO, ILLINOIS.

## FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 705,316, dated July 22, 1902.

Application filed March 24, 1902. Serial No. 99,569. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN BOVILL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have  
5 invented certain new and useful Improvements in Fountain-Pens, of which the following is a full, clear, and exact specification.

My invention relates more particularly to the means for filling the fountain and to that  
10 species of such means in which a piston is employed with a piston-rod, whereby the ink may be drawn into the barrel or fountain of the pen through the point end thereof; and my invention has for its primary object to  
15 provide improved and simple means whereby the length of the piston when not in use may be materially reduced and the parts thereof so related that they need not be separated from each other when the rod is thus reduced  
20 in length.

With these ends in view my invention consists in certain features of novelty in the construction, combination, and arrangement of parts by which the said objects and certain  
25 other objects hereinafter appearing are attained, all as fully described with reference to the accompanying drawings, and more particularly pointed out in the claims.

In the said drawings, Figure 1 is a longitudinal sectional view of my improved fountain-pen, showing the parts of the piston-rod telescoped together and reduced in length and the inclosing cap therefor in place. Fig. 2 is an enlarged detail sectional view of the  
35 piston-rod joint. Fig. 3 is a longitudinal sectional view of the pen, showing the sections of the rod secured together in readiness for operation. Fig. 4 is a side elevation of a modified form of piston-rod; and Fig. 5 is a  
40 transverse section thereof, taken on the line 5 5, Fig. 4.

1 is the barrel or fountain of the pen, which may be of the usual or any suitable construction and in one end of which the pen-point and feeding device 2 are secured, as usual,  
45 while in the other end is screwed a bushing 3, which reduces the internal diameter of the barrel 1 and forms a shoulder or stop for limiting the outward movement of a piston or  
50 plunger 4, located within the barrel and fitting the latter so tightly as to prevent the passage of ink between it and the sides of

the barrel. To this piston or plunger 4 is secured one end of a short rod 5, which constitutes one section of a piston-rod and  
55 whose outer end is detachably secured to an outer section 6 of such rod, the two sections 5 6 being of such length that when they are attached together end to end, as shown in Fig. 3, they may be utilized for forcing  
60 the plunger 4 to the extreme end of its movement toward the left or until it touches the opposite end of the barrel 1, thus expelling the air from the barrel and causing the ink to be drawn into the barrel through the point  
65 end thereof when the plunger is returned to its normal position, as shown in Figs. 1 and 3. This connection between the outer end of the section 5 and the inner end of section 6 may be effected in any suitable way which  
70 will permit the sections to remain permanently together. In Figs. 1 and 3 of the drawings I have shown the outer end of section 5 provided with screw-threads 7, whose  
75 extreme diameter is greater than the interior of the section 6, which latter is in the form of a tube, and the inner end of the section 6 is provided with screw-threads adapted to engage with the threads 7 when the section 6 is pulled outwardly until the extremities of  
80 the two sections come together, it being understood that the section 6 is of sufficient internal diameter to permit the enlargement constituted by the screw-threads 7 to slide back and forth in the plain portion of section  
85 6, so that the two sections may be telescoped together in the manner shown in Fig. 1, and thus reduce the length of the piston-rod by about half, when the outer section is unscrewed from the threaded end 7 of the inner  
90 section. The inner extremity of the outer section is also contracted around the section 5, as shown at 8, so as to render it impossible to entirely unscrew the section 6 from the section 5, or, in other words, to entirely separate the two sections, the contraction 8 constituting a stop for limiting the outward movement of the section 6 with relation to the section 5.

In assembling the parts of the piston and  
100 piston-rod the inner end of the section 5 is inserted into the outer end of the section 6 and passed through the contraction 8 and is then secured in any suitable way to the pis-



ton 4, which is inserted into the barrel 1 before the bushing 3 is screwed therein, the interior of the bushing being, if desired, large enough to pass over the outer section 6.

5 If desired, the outer end of the outer section 6 may be milled, as shown at 9, to afford better purchase for the fingers of the user, and it is of course understood that the piston 4 fits the barrel sufficiently tight to  
10 hold the section of rod 5 against rotation while the outer section 6 is being screwed thereto.

After the sections of the piston-rod have been telescoped together in the manner shown  
15 in Fig. 1 they may be inclosed and protected by a cap 10 of any suitable design inserted on a protruding end or flange 11 of the bushing 3, which, together with said bushing, serves to strengthen the structure at this point.

20 In the form of my invention shown in Figs. 4 and 5 the piston-rod is composed of two sections 12 13, the inner end of which, 12, is rigidly secured to the piston, while the outer end is pivoted at 14 to the outer end of the  
25 inner one, and the two are adapted to fold together jackknife fashion. The inner section 12 may be constituted by a rod of any suitable form, while the outer section is composed of a trough-shaped rod, so that it will  
30 fold over and receive the rod-section 12. One end of the rod-section 12 is rounded, as shown at 15, so that the inner end of section 13 may be extended somewhat over the outer end of section 12, and thereby constitute a back-  
35 stop for limiting the pivotal movement of section 13 in one direction, so that the rod may be rigid when being pushed into the barrel.

Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent, is— 40

1. In a fountain-pen, the combination of a barrel or fountain, a piston therein and a piston-rod secured to said piston and comprising two sections permanently connected together and relatively extensible, substan- 45 tially as set forth.

2. In a fountain-pen, the combination of a barrel or fountain, a piston therein, and a piston-rod secured to said piston and comprising two sections having means at their 50 meeting ends for holding them from being entirely separated, said sections being relatively extensible, substantially as set forth.

3. In a fountain-pen the combination of a barrel or fountain, a piston therein, a bush- 55 ing secured in one end of said barrel, and a piston-rod passing through said bushing and comprising two sections permanently connected together and relatively extensible, substantially as set forth. 60

4. In a fountain-pen the combination of a barrel or fountain, a piston therein, and a piston-rod secured to said piston and comprising two telescoped sections permanently connected together and relatively extensible, 65 the inner one of said sections having screw-threads at its outer end and the outer one of said sections having internal screw-threads at its inner end adapted to engage said first screw-threads, substantially as set forth.

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