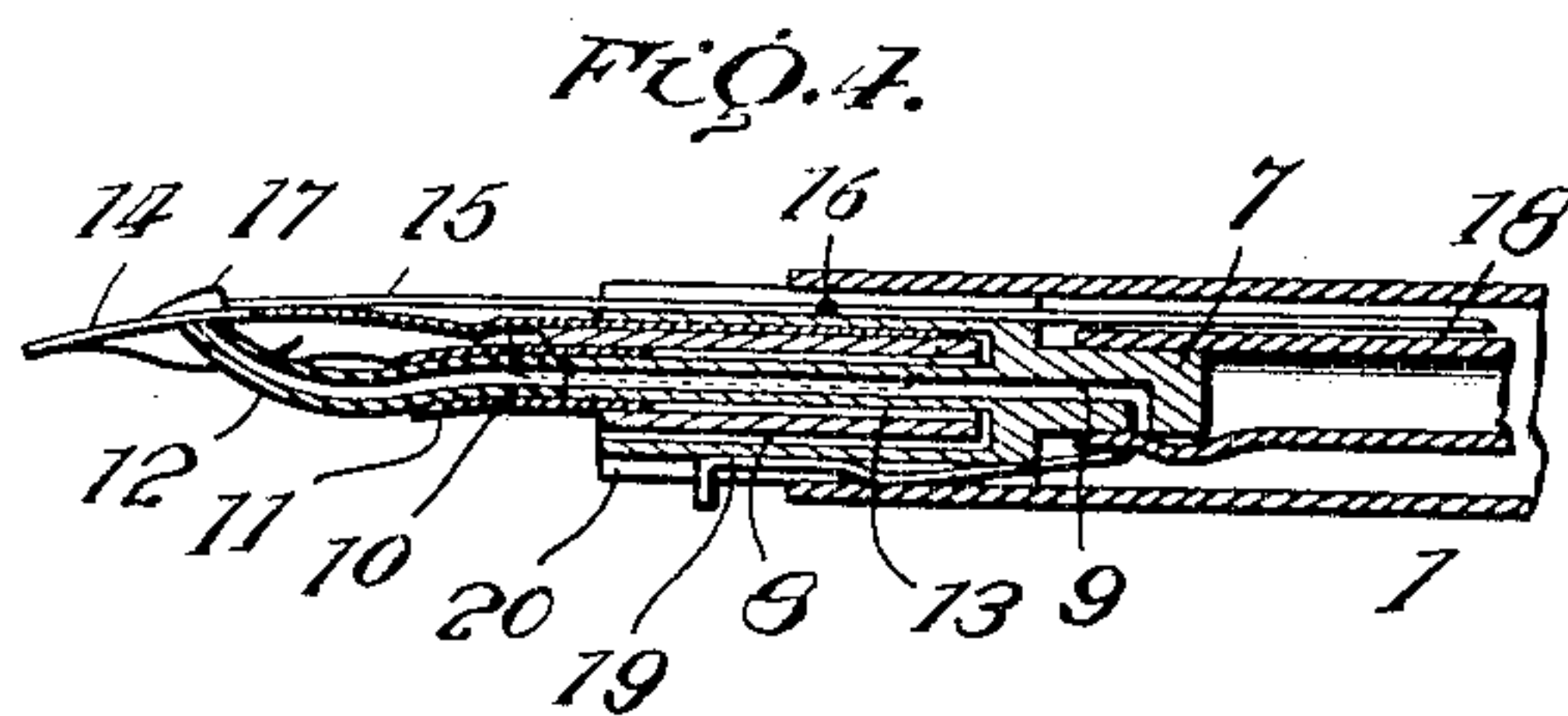
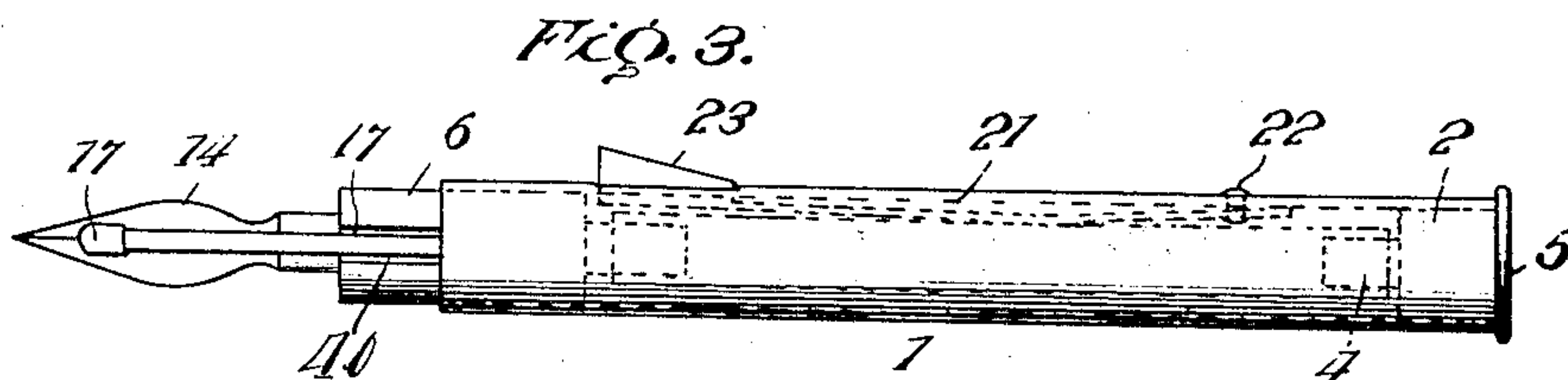
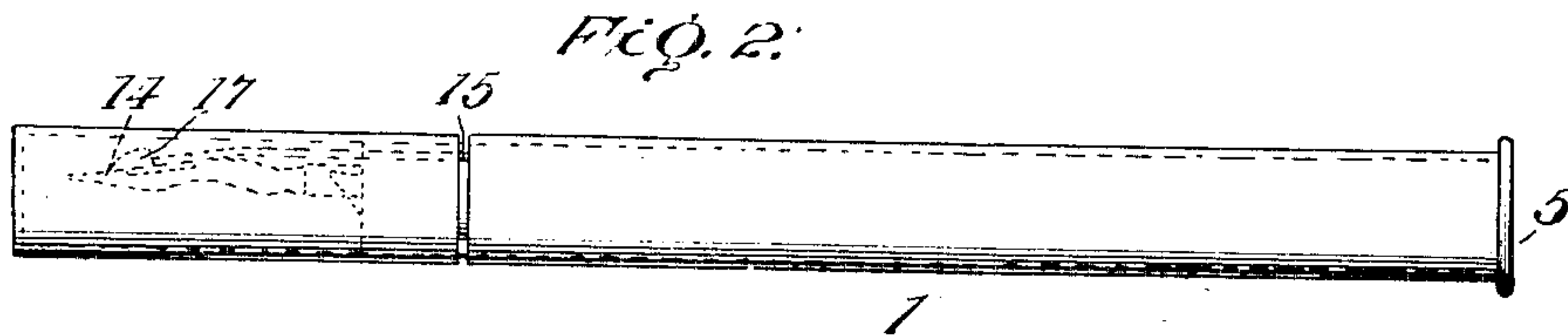
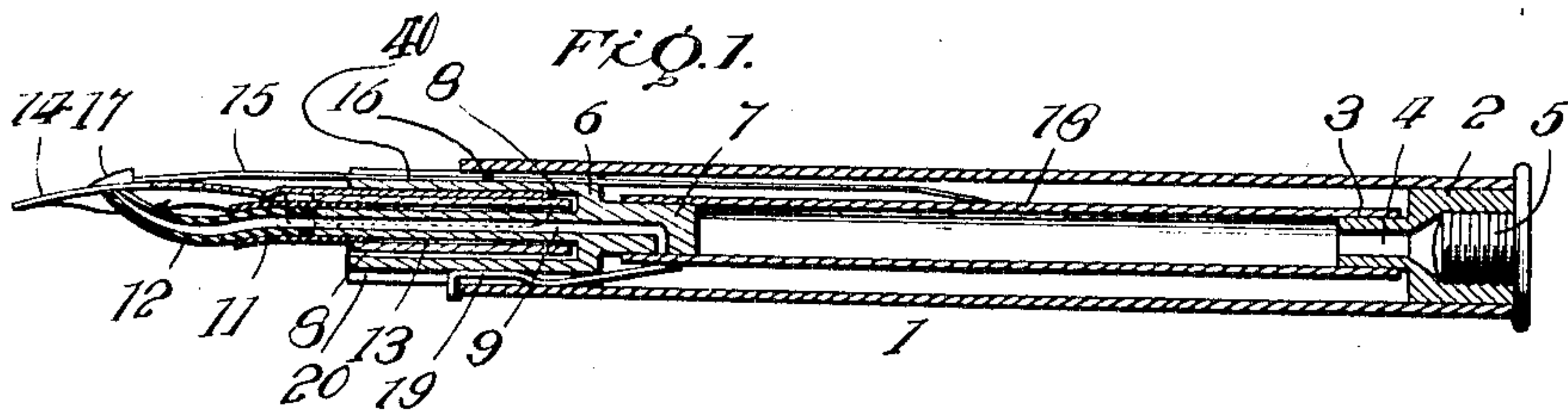


No. 844,646.

PATENTED FEB. 19, 1907.

H. W. BÄHR.
FOUNTAIN PEN.

APPLICATION FILED JULY 17, 1906.



Witnesses

L. H. Schmidt.

W. A. Williams

Inventor

Henrika Wilhelmina Bähr

By

Stuart & Stuart

Attorneys.

UNITED STATES PATENT OFFICE.

HENRIKA WILHELMINA BÄHR, OF HELSINGFORS, RUSSIA.

FOUNTAIN-PEN.

No. 844,646.

Specification of Letters Patent.

Patented Feb. 19, 1907.

Application filed July 17, 1906. Serial No. 326,614.

To all whom it may concern:

Be it known that I, HENRIKA WILHELMINA BÄHR, a subject of the Czar of Russia and Grand Duke of Finland, and a resident of the city of Helsingfors, Finland, Russia, (whose post-office address is Skillnadsgatan 19, Helsingfors, Finland,) have invented certain new and useful Improvements in Fountain-Pens, of which the following is a specification.

My invention relates to certain new and useful improvements in fountain-pens; and the object of my invention is to produce a pen in which the ink is automatically fed to the pen-point and the flow of ink is regulated by the amount of pressure on the pen-point during the writing operation. By this means when heavy pressure is applied to the pen-point, and consequently a large amount of ink is required, the feed will be increased to meet this demand. When the pressure is light, the feed will be correspondingly decreased.

I will first describe my invention in connection with the accompanying drawings, wherein I show the preferred form thereof, and will then particularly point out in the annexed claims the particular parts and combinations which form the invention.

Referring to the drawings, wherein I show the preferred form of my invention and wherein the same part is designated by the same reference-numeral wherever it occurs, Figure 1 is a central longitudinal section of a fountain-pen embodying my invention. Fig. 2 is a side elevation with the cover for the pen-point in position, showing the pen-point in dotted lines. Fig. 3 is a top plan view with the cover removed. Fig. 4 is a detached view of the end of the fountain-pen, similar to Fig. 1, showing, however, the regulator in its outer position.

1 designates a tube preferably formed of vulcanite or similar material. This tube is open at both ends and is provided at one end with a plug 2, which on its inner end is formed with a projecting shoulder 3. The plug 2 is provided with an opening 4 bored there-through to permit of the filling of the pen, and this opening is closed by means of a stopper 5. In the opposite end of the tube I provide a plug 6, having an inwardly-projecting shoulder 7. The plug 6 is provided with a circular recess which extends into the plug through its outer end, and the plug is also provided with a central aperture 9, being formed near the rear end of the plug with a right-angled turn, so that it extends out

through the side of the plug. The plug at the front end is provided with a projecting nipple 10, and 11 is a section of rubber tube which embraces the nipple.

12 is a duct which extends from the end of the nipple to the pen-point and is connected thereto by means of the tube 11.

13 is a metallic ring which is inserted in the recess 8 and clamps the tube 11 in position. This ring loosely fits the aperture, and between the outer surface of the ring and the inner surface of the aperture is placed the pen-point 14.

15 is a lever pivoted at 16 in a slot 40, cut in the side of the tube of the plug 6, one end of said lever extending into the casing 1 and the other end extending out to the pen-point 14. The outer end of the lever is provided with a rubber tip 17, which is adapted to engage the top of the pen-point, as best shown in Figs. 1 and 3.

18 is a rubber tube, one end of which engages the shoulder 3 on the plug 2, and the other end of which engages the shoulder 7 on the plug 6. This tube forms the reservoir for the ink. The inner end of the lever 15 stands just above the tube 18 and approximately at its middle point. From this it will be seen that when the pen-point is pressed onto the paper to produce a heavy line the outer end of the lever 15 will be raised, which will depress the inner end of the lever against the tube and force the ink out to the pen-point.

Preferably and as shown I provide a means for regulating the normal flow of ink to the pen. This is accomplished by forming the rubber tube 18 with an enlargement adjacent to the portion where it embraces the plug 6, through the side of which, it will be remembered, the aperture 9 extends, and I provide a sliding regulator 19, mounted in a groove 20 in the plug 6, the free end of the regulator resting against the tube. When the regulator is pushed to its inner position, as shown in Fig. 1, the supply of ink to the pen will be totally cut off, and thus prevent leakage. When, however, the regulator is drawn outwardly, it will gradually open a passage to the aperture 9 until it has fully opened this aperture, as shown in Fig. 4.

In order to cause the pen to immediately begin to feed when the writing is commenced, I provide a spring 21, (shown in dotted lines in Fig. 3,) one end of which is secured to the inner side of the casing 1 by a rivet 22 or

other means, and the other end of which is provided with a head 23, which extends through a suitable slot in the side of the opening. When the head 23 is pressed, it will compress the rubber tube 18 and force ink to the pen-point preparatory to the beginning of the writing operation.

From the above description it is believed that the operation of my invention will be fully understood. I desire to call attention, however, to the fact that the pen-point can be readily removed and any other pen-point substituted therefor.

While I have described what I believe to be the preferred form of my invention, I desire to have it understood that many changes may be made in the form, construction, and arrangement of parts without departing from the spirit of my invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a fountain-pen, the combination of a casing, of an elastic reservoir within said casing, a plug closing one end of said casing, a point mounted in said plug, a lever pivoted in said plug and having one end resting on the pen-point and the other on the elastic reservoir, whereby pressure on the pen-point will compress the reservoir and force the ink to the pen-point.

2. In a fountain-pen, the combination with a casing, of an elastic reservoir mounted

in the casing, a plug closing one end of the casing and provided with a central aperture, one end of said reservoir being connected to the plug, a pen-point supported by the plug, means for leading the ink from the aperture in the plug to the pen-point and a lever pivoted in the plug having one end in contact with the pen-point and the other resting against the flexible reservoir, whereby, when pressure is applied to the pen-point, the reservoir will be compressed.

3. In a fountain-pen the combination of a penholder carrying a pen, a reservoir in the holder, an ink-channel connected to reservoir and delivering ink from reservoir to pen, and means operated by the bending of the pen to force ink from the reservoir to the pen.

4. In a fountain-pen the combination of a penholder carrying a pen, a flexible reservoir in the holder, an ink-channel connected to reservoir and delivering ink from reservoir to pen, and means operated by the bending of the pen to force ink from the reservoir to the pen.

In testimony whereof I have signed at the city of Helsingfors this 12th day of June, 1906.

HENRIKA WILHELMINA BÄHR.

In presence of—

ANNA SCHROEDER,
J. BAGGE.