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W. I. FERRIS.  
SELF FILLING FOUNTAIN PEN.  
APPLICATION FILED JULY 19, 1915.

1,176,529.

Patented Mar. 21, 1916.

Fig. 1.

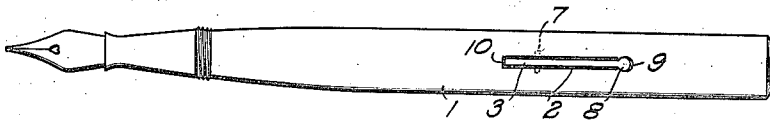


Fig. 2.

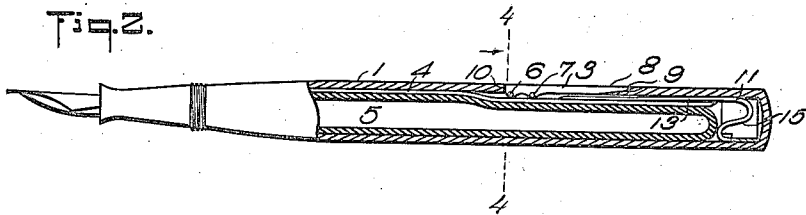
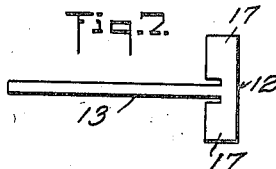
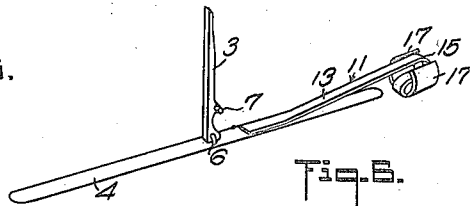
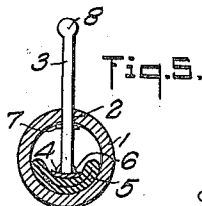
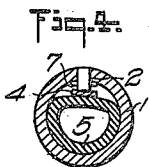
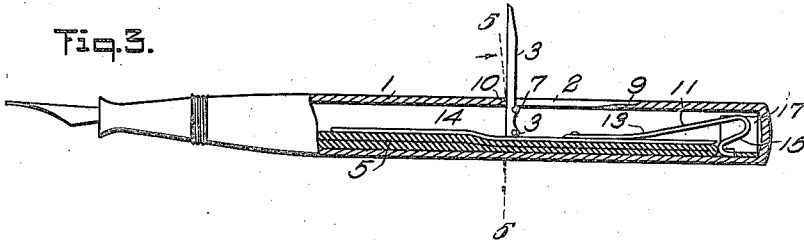


Fig. 3.



WITNESSES

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# UNITED STATES PATENT OFFICE.

WILLIAM I. FERRIS, OF WESTFIELD, NEW JERSEY, ASSIGNOR TO L. E. WATERMAN CO.,  
OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

## SELF-FILLING FOUNTAIN-PEN.

1,176,529.

Specification of Letters Patent.

Patented Mar. 21, 1916.

Application filed July 19, 1915. Serial No. 40,645.

*To all whom it may concern:*

Be it known that I, WILLIAM I. FERRIS, a citizen of the United States, and a resident of Westfield, in the county of Union and State of New Jersey, have invented a new and improved Self-Filling Fountain-Pen, of which the following is a full, clear, and exact description.

This invention relates to self-filling fountain pens and deals more particularly with operating means for the deflating presser bar for the ink sack.

The invention has for its general objects to improve and simplify the construction and operation of ink sack deflating means so as to be reliable and efficient in use, comparatively simple and inexpensive to manufacture and so designed as to be easily manipulated.

A more specific object of the invention is the provision of a simple, novel and effective actuating lever for the sack presser bar, whereby the tilting of the lever through ninety degrees from normal position will deflate the sack, while tilting of the lever in the opposite direction will permit the sack to expand and draw in the charge of ink, the lever being automatically held in sack-deflating position until it is desired to restore the lever to normal position and allow the ink to be drawn into the sack, and the lever being hingedly connected with the presser bar and provided with a fulcrum having a sliding engagement with the handle or barrel of the pen, whereby the swinging of the lever will effect a movement of the presser bar.

Still another object of the invention is to provide a novel, inexpensive and reliable spring for the presser bar.

With such objects in view, and others which will appear as the description proceeds, the invention comprises various novel features of construction and arrangement of parts which will be set forth with particularity in the following description and claims appended hereto.

In the accompanying drawing, which illustrates one embodiment of the invention, and wherein similar characters of reference indicate corresponding parts in all the views, Figure 1 is a plan view of a fountain pen equipped with the invention; Figs. 2 and 3 are longitudinal sections showing respec-

tively the presser bar and its actuating lever in normal position and in ink-sack deflating position; Fig. 4 is a transverse section on the line 4—4, Fig. 2; Fig. 5 is a similar section on the line 5—5, Fig. 3; Fig. 6 is a perspective view of the presser bar, its spring and actuating lever removed from the pen barrel; and Fig. 7 is a plan view of the shank from which, the presser bar spring is formed.

Referring to the drawing, 1 designates the barrel of the fountain pen, which barrel is of any desired form and has a longitudinal slot 2 adjacent its middle for accommodating the operating lever 3 of the presser bar 4. Within the barrel 1 is the usual ink sack 5 which is deflated by the presser bar 4 being moved from the position shown in Fig. 2 to that shown in Fig. 3. This presser bar is hingedly connected at 6 with the lever 3, and on this lever are oppositely-extending fulcrum lugs 7 which have sliding engagement with the interior of the barrel at opposite sides of the slot 2 when the lever is moved to and from its normal position. On the free end of the lever is a knob or finger-piece 8 that is normally disposed in a recess 9 in the external surface of the barrel, and this knob is adapted to be engaged by the finger nail so that the lever can be thrown up from a normal position flush with the barrel to a position at right-angles thereto. The throw of the lever is limited by the end wall 10 of the slot 2, so that when the lever is fully thrown, as shown in Fig. 3, the ink sack will be held depressed. While in this condition the point end of the fountain pen is inserted in an ink well and the lever 3 is restored to normal position, thereby removing the presser bar from the sack 5, which expands of its own resiliency and draws in a charge of ink. It will be observed that the lever is flush with the external surface of the pen barrel, so that it will not be annoying to the user in writing, nor catch in the garment.

The spring 11 for the presser bar is made from a blank of the form shown in Fig. 7. This blank comprises a rectangular portion 12 from which extends a straight bar-like member 13, there being recesses in the plate 12 at opposite sides of the inner or root portion of the member 13. This inner or root portion of the member 13 is formed with a

compound bend 15 so as to resemble the letter S, and the free extremity of the member 13 is riveted or otherwise fastened at 16 to the presser bar. By reason of the compound bend of the spring a better spring action is obtained than where only a single bend is employed. The end portions 17 of the plate 12 are curved upwardly around the S-shaped bend of the spring, so as to form, as it were, a split ring of such diameter as to snugly fit in the bore of the handle or barrel 1 of the fountain pen.

From the foregoing description taken in connection with the accompanying drawings, the advantages of the construction and method of operation will be readily understood by those skilled in the art to which the invention appertains, and while I have described the principle of operation, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative and that such changes may be made when desired as are within the scope of the appended claims.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent:

1. A self-filling fountain pen comprising a barrel having a slot, an ink-carrying sack in the barrel, a presser bar for the sack, a lever hingedly connected with the presser bar and disposed in the slot, and a sliding fulcrum between the lever and barrel whereby the swinging of the lever will move the presser bar to enable the sack to be charged.

2. A self-filling fountain pen comprising a barrel having a slot, a presser bar, an ink sack in the barrel, a lever disposed in the slot and hingedly connected with the presser bar, fulcrum lugs on the lever engaging the barrel at opposite side of the slot, a spring connected with the presser bar, and a stop for limiting the movement of the lever when the presser bar is in sack-deflating position.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM I. FERRIS.

Witnesses:

C. BRADWAY,  
PHILIP D. ROLLHAUS.