

No. 787,152.

PATENTED APR. 11, 1905.

J. T. DAVISON.
SELF FILLING FOUNTAIN PEN.
APPLICATION FILED NOV. 19, 1904.

Fig. 1.

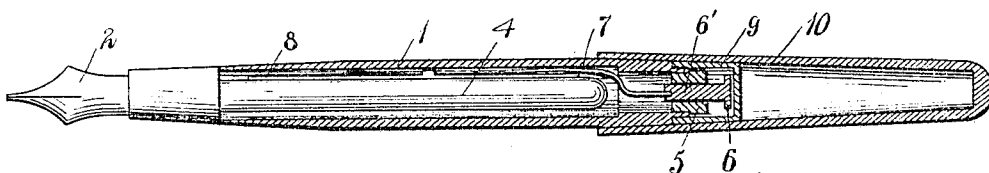
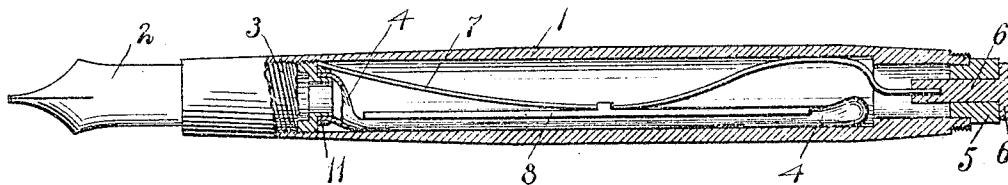


Fig. 2.



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UNITED STATES PATENT OFFICE.

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SELF-FILLING FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 787,152, dated April 11, 1905.

Application filed November 19, 1904. Serial No. 233,436.

To all whom it may concern:

Be it known that I, JOHN T. DAVISON, a citizen of the United States, residing in the borough of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Self-Filling Fountain-Pens, of which the following is a specification.

My present invention relates to improvements in fountain-pens, and more particularly to that class of fountain-pens known as "self-filling" fountain-pens.

The object of my invention is to provide an improved fountain-pen of this specific class which will be simple in construction, durable, and effective in operation.

Heretofore in the making of self-filling fountain-pens it has been customary to employ a flexible reservoir, which is compressed to expel air therefrom when it is desired to fill the pen with ink, the pen then being inserted in a body of ink and the reservoir being allowed to expand, drawing the ink into the same. In some instances the reservoir has been compressed by hand, while in others devices have been contrived for the purpose of mechanically compressing the reservoir.

The object of my invention is to provide an improvement on this latter class of compressing devices wherein a very simple device is employed for the purpose of creating an equal pressure throughout the entire length of the reservoir. Such a device is clearly shown in the accompanying drawings and described in the following specification, in both of which like reference-numerals refer to like parts.

In said drawings, Figure 1 is a transverse section through a fountain-pen embodying my improved self-filling mechanism, showing the parts in a position of rest; and Fig. 2 is a similar section, slightly enlarged, with the protecting-cap of the pen removed, showing the parts in operated position.

Referring now in detail to the drawings, 1 represents the casing of a fountain-pen embodying my invention, carrying at its forward end the pen 2, seated in a plug 3, carrying a flexible reservoir 4 of suitable length, lying longitudinally within the casing 1. At the end of the casing 1 opposite to the pen-

point 2 the diameter of the casing is decreased to receive a tubular wedge-plug 5, forming a seat for a press-button 6, with a shank 6' sliding in said plug 5. The shank 6' has seated in its inner end a spring-rod 7, extending upwardly and then toward pen 2, abutting at its opposite end the end of the plug 3 and resting on a retaining-ring 11 for retaining reservoir 4 on plug 3 and for preventing the end of rod 7 from puncturing reservoir 4. Suitably secured to the spring-rod 7 is an equalizing compressor-plate 8, resting against the wall of the reservoir 4.

9 is a protecting-cap threaded upon the end of the casing 1 over the button 6 to prevent access of dust and other foreign matter into the casing 1 past the plug 5 and to prevent, on the other hand, any leakage which might occur in the reservoir 4 from escaping from the casing, and, furthermore, to prevent accidental or unintended movement of the button 6.

10 is a customary protecting-cap for the pen-point, which is inserted over the button end of the pen when the pen is in use.

The device described is operated as follows: When it is desired to refill the pen, the caps 10 and 9 are removed and the button 6 depressed with the thumb or finger of the operator bowing the spring-rod 7, forcing the equalizing-plate 8 against the reservoir 4 to create an even pressure on said reservoir 4 throughout its length and to completely deflate the same. The pen-point is then inserted in a body of ink, the button 6 released, allowing rod 7 to resume its straightened or normal position, permitting the reservoir 4, by reason of the elasticity of its wall, to resume its extended shape, and thereby creating a suction through the mouth of the reservoir, which will draw ink past the pen-point 2 and into the reservoir 4 until the latter is filled. The plug 5 being held in the casing 1 by friction rather than by means of screw-threads is removed therefrom by a pull with possibly a slight twist. This obviates the tendency of the spring-rod 7 and the reservoir 4 to become entangled and twisted upon revolving the plug 5 to remove the same were the same screw-threaded in casing 1.

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

1. A fountain-pen, comprising a casing, a pen-plug seated in the end of said casing, a flexible reservoir mounted on said plug, a press-button at the opposite end of said casing, a spring-rod seated in said press-button and abutting said pen-plug, and an equalizing-plate carried by said spring-rod and resting against the wall of said reservoir.

2. A fountain-pen, comprising a casing, a pen-plug, and a flexible reservoir connected to said pen-plug, a press-button seated in said casing, a spring-rod seated in said press-button, means preventing movement of said rod longitudinally, and an equalizing-plate carried by said rod and resting against the wall of said reservoir.

3. A fountain-pen, comprising a casing, a pen-plug, and a flexible reservoir connected to said pen-plug, a spring-rod mounted between the casing and the reservoir, an equalizing-plate carried by the spring-rod, and means for bowing the spring-rod for forcing

said equalizing-plate against the reservoir to deflate the same.

4. A fountain-pen, comprising a casing, a pen-plug, a flexible reservoir connected to said pen-plug, a spring-rod mounted between the casing and reservoir, means preventing longitudinal movement of said rod, a press-button connected to said rod, and an equalizing-plate carried by the spring-rod and bearing against the wall of the reservoir.

5. A fountain-pen, comprising a casing, a pen-plug, and a flexible reservoir connected to said pen-plug, in combination with a plug frictionally seated in said casing, a button sliding in said plug, a spring-rod mounted between the casing and the reservoir and seated in said button, an equalizing-plate carried by the spring-rod, and means for bowing the spring-rod to force said equalizing-plate against the reservoir to deflate the same.

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