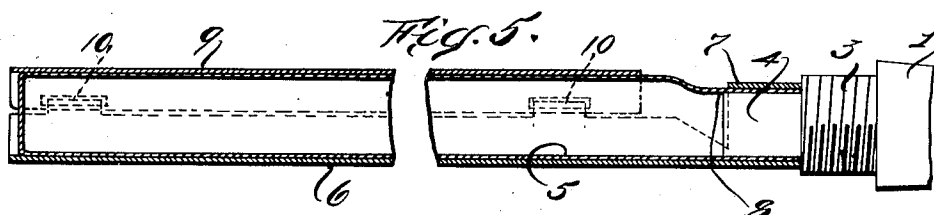
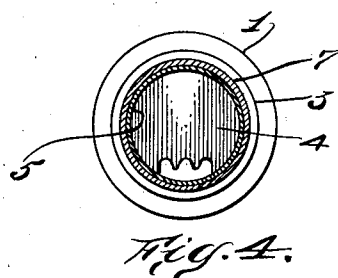
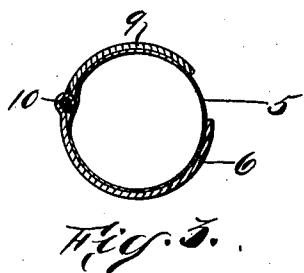
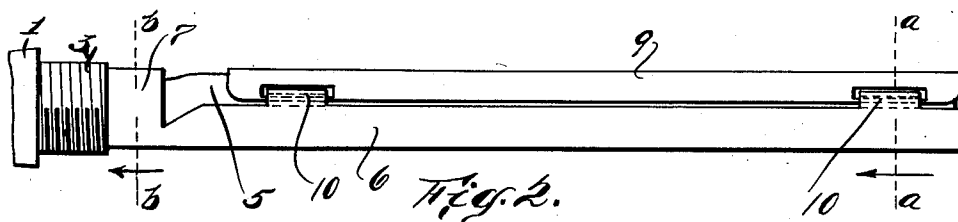
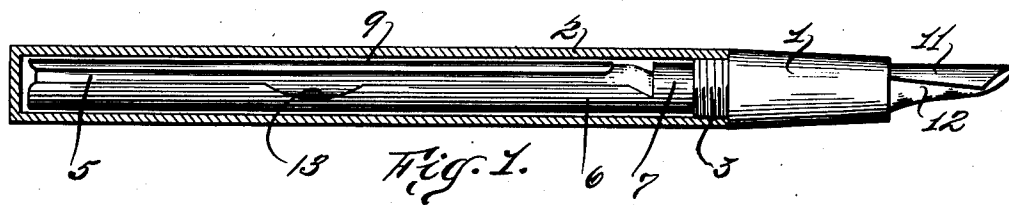


H. B. LEVY.
 FOUNTAIN PEN.
 APPLICATION FILED JAN. 19, 1911.

991,520.

Patented May 9, 1911.



Witnesses:
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FOUNTAIN-PEN.

991,520.

Specification of Letters Patent.

Patented May 9, 1911.

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To all whom it may concern:

Be it known that I, HENRY B. LEVY, a citizen of the United States of America, residing in Manhattan borough, city, county, and State of New York, have invented certain new and useful Improvements in Fountain-Pens, of which the following is a full, clear, and exact description.

This invention relates to an improvement in the so-called self filling fountain pens, the object being to provide a fountain pen of this character that may be converted into the ordinary fountain pen, that is to say, into that form of fountain pen, the barrel of which is filled by means of a dropper. To provide a fountain pen of the self filling variety adaptable for conversion into the ordinary fountain pen is of great advantage for the reason that should the bag, employed for self filling purposes, become ruptured by corrosion or misuse, the said bag, and means for compressing same, may be removed and the barrel of the pen utilized as the reservoir for the ink.

To carry out the object of my invention, I preferably construct the self filling devices of my improved pen in such manner as to adapt them for attachment to the pen-carrying-section of the pen, and also to mount them in such manner as to adapt them for ready removal should the bag or compressing device therefor, become unfit for use.

My improved device for self filling fountain pens obviates the necessity of providing the barrel of the pen with an opening through which the bag compressing device may be manipulated. For this reason, the barrel does not become unfit for holding the ink should this become necessary. To fill the bag with ink, I remove the pen section to which the bag is secured from the barrel and manipulate the compressing device therefor.

I will now proceed to describe my invention in detail, the novel features of which I will finally claim, reference being had to the accompanying drawing forming part hereof, wherein:

Figure 1 illustrates a side elevation of the greater part of a fountain pen constructed in accordance with my improvement, the barrel thereof being shown in section; Fig. 2 is a similar view, on a larger scale, looking from the opposite side of the pen, the barrel being removed; Fig. 3 is an enlarged

cross-sectional view taken on a line *a-a* in Fig. 2; Fig. 4 is a similar view, taken on a line *b-b* in Fig. 2; and Fig. 5 is a longitudinal central sectional view of the ink bag and compressing device therefor, a portion only of the pen section being shown.

Referring to the drawing the pen section of my improved fountain pen is indicated by 1, while 2 indicates the barrel portion thereof, the barrel portion being screwed on to the threaded lug 3 of the pen-section as is usual in fountain pen construction.

By referring to Fig. 5 it will be seen that the pen section 1 is also provided with a reduced projection or lug 4 which projects from the threaded lug 3, the surface of the lug 4 being smooth. The function of the lug 4 is to support a compressible ink reservoir or bag 5, made preferably out of rubber.

One of the principal features of my invention is the cradle or convexed semi-cylindrical support 6, which supports the ink bag 5 throughout substantially its entire length. The cradle 6 not only supports the ink bag but also acts to secure or hold the open end 8 of the bag in place upon the lug, or projection 4. To hold the said end of the bag upon the lug 4 I provide the adjacent end of the cradle 6 with a ring 7 which is of a size sufficient to slide over the end 8 of the bag 6 and squeeze it against the projection 4. In other words, the internal diameter of the ring 7 is slightly less than the diameter of the projection 4, plus the thickness of the wall of the end 8 of the bag, whereby the end 8 of the bag is held in place upon the projection 4 by pressure. The bag 5 can be removed from the projection 4 when the cradle has been pulled off. The ring 7 is preferably made integral with the cradle 6.

To compress the bag 5 in order to fill it with ink, I provide a convexed presser-plate 9 which is hinged to the cradle 6 as at 10. I preferably make the plate 9 long enough to compress the bag substantially throughout its length.

As can be seen in Figs. 3 and 5, the cradle 6 receives or supports about one-half of the entire bag 5 circumferentially and longitudinally thereof, and is thereby rendered fit to support and protect the said bag when the pen section 1 is removed from the barrel 2, in order that the said bag can be handled as a comparatively rigid structure and easily filled. As can be also seen in Fig. 3, the plate or compressing device 9 covers

nearly the remaining half of the ink bag or sack. By means of the cradle 6 and compressing device 9 the bag 5 is thoroughly supported and protected when removed from the barrel 2.

5 To prepare the pen for use, the pen section 1 is removed from the barrel 2 and with it the bag 5, compressing device 9 and cradle 6. The pen 11 and feeder-bar 12, a portion only of each being shown, are then inserted into an ink supply, and the compressing device 9 forced toward the cradle 6, a recess 13 in the cradle 6 permitting the finger of the user to more thoroughly depress the plate 9. This action compresses the bag or sack, thereby excluding the air therein. When the compressing device is released the bag 5 will react and fill with ink. The pen section 1 with connected cradle and sack can then be screwed into the barrel 2, at which time the pen is ready for use.

Should the sack 5 become punctured or otherwise rendered unfit for use, it can be readily removed from the pen section 1 by removing the cradle 6. After the bag and cradle have been removed from the pen section, the pen may still be used by filling the barrel 2 by means of a dropper, as is usual. The failure of the bag to perform its function as a reservoir does not destroy the pen for further use.

Having now described my invention, what I claim and desire to secure by Letters Patent is:

35 1. In combination with the pen section of a fountain pen, a semi-cylindrical support carried thereby, a compressible ink reservoir supported by said semi-cylindrical sup-

port, and a compressing device for said reservoir pivotally supported by said semi-cylindrical support.

2. In combination with the pen section of a fountain pen, a compressible ink reservoir carried thereby, a semi-cylindrical support for said reservoir, a ring carried by said support adapted to hold said reservoir in position upon said pen section, and a convexed compressing device for said reservoir pivotally mounted on said semi-cylindrical support.

3. A self filling device for fountain pens, comprising a compressible ink reservoir, a semi-cylindrical cradle adapted to support said reservoir throughout the length thereof, and a convexed compressing device pivotally secured to said cradle and adapted to compress said reservoir throughout substantially the length thereof.

4. A self filling device for fountain pens, comprising a compressible ink reservoir, a semi-cylindrical cradle adapted to support said reservoir throughout the length thereof, a convexed compressing device, pivotally secured to said cradle, and adapted to compress said reservoir throughout substantially the length thereof, and means carried by said cradle adapted to secure the open end of said reservoir to an element of a fountain pen.

Signed at New York city, N. Y. this 17 day of January 1911.

HENRY B. LEVY.

Witnesses:

EDWARD A. JARVIS,
ESTELLE O. HAMBURGER.