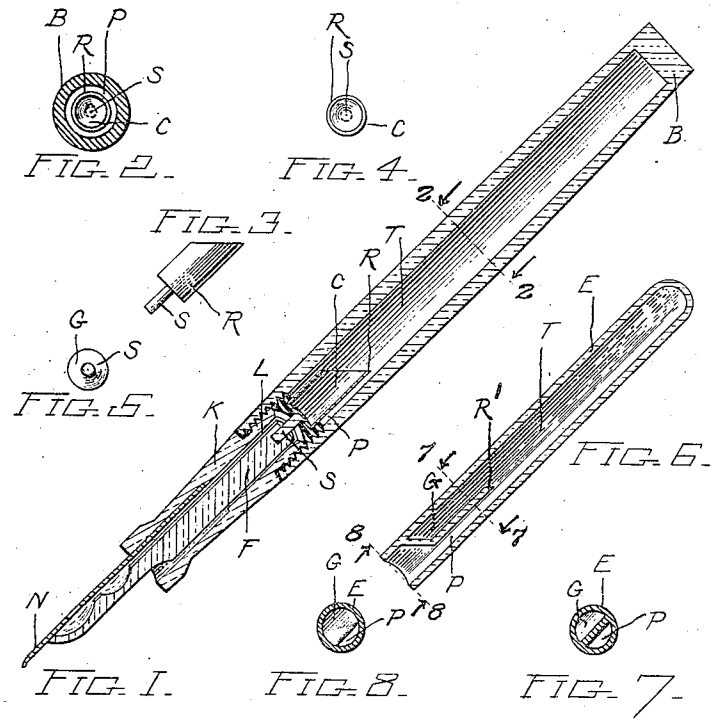
J. C. RORISON.

FOUNTAIN PEN.

APPLICATION FILED AUG. 18, 1921.

1,425,607

Patented Aug. 15, 1922.



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INVENTOR

UNITED STATES PATENT OFFICE.

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1,425,607. Specification of Letters Patent. Patented Aug. 15, 1922.

Application filed August 18, 1921. Serial No. 493,281.

To all whom it may concern:

Be it known that I, JOHN C. RORISON, a citizen of the United States, residing at New York city, in the county of New York, State of New York, have invented certain new and useful Improvements in Fountain Pens, of which the following is a description, reference being had to the accompanying drawing and to the figures of reference marked thereon.

This invention relates to new and useful improvements in pens, and more particularly fountain pens having a reservoir for supplying the pen point with ink.

An object of the invention is to provide a pen of the above type with an auxiliary supply of ink which may be readily rendered available for use when the main supply of ink becomes exhausted.

In the drawings:—

Figure 1 is a longitudinal sectional view through a pen embodying my improvement;

Fig. 2 is a sectional view on the line 2—2 of Fig. 1;

Fig. 3 is a side view of the auxiliary reservoir;

Fig. 4 is a top plan view of the auxiliary reservoir;

Fig. 5 is a bottom plan view of the same;

Fig. 6 shows a modification of the invention and is a longitudinal sectional view through the upper portion of the flexible sac of a self-filling fountain pen;

Fig. 7 is a sectional view on the line 7—7 of Fig. 6, and

Fig. 8 is a view on the line 8—8 of Fig. 6.

The invention is directed broadly to a fountain pen having a main ink reservoir for supplying ink to the pen point. Said invention consists in providing an auxiliary ink reservoir which is preferably located within the main reservoir. Said auxiliary reservoir is spaced from the main reservoir so as to allow ink to pass between the same and the inner walls of the main reservoir on the way to the pen point. In the specification the pen is considered in writing position unless otherwise stated. The said auxiliary reservoir is open at its upper end so that the ink in the main reservoir will run into and fill the auxiliary reservoir when the pen is held in writing position. On the other hand, when the pen is inverted and the main reservoir substantially empty, then the ink in the auxiliary reservoir will run into the main reservoir and when the pen is again placed in position for writing, the ink will pass by the auxiliary reservoir and on to the pen point.

Referring more in detail to the drawings, I have shown my invention as applied to a fountain pen which consists of a barrel B having a main reservoir T for the ink. The barrel is threaded at its lower end to receive the closing stem K in which is mounted the pen point N. Also mounted in the stem K is a feed bar F. The ink passes from the main reservoir through a channel L to the pen point. Thus far the pen is of the usual construction. My improvements are directed particularly to an auxiliary reservoir R which is preferably cylindrical in shape with the upper end thereof open and truncated. The lower end of the auxiliary reservoir R is closed by a bottom portion S which is provided with a stem adapted to extend into a socket or recess in the feed bar F. The outer diameter of the auxiliary reservoir R is less than the inner diameter of the main reservoir in the barrel B and this provides a space P through which the ink passes from the main reservoir and finds its way to the feed channel L. The auxiliary reservoir R is set up slightly from the upper end of the feed bar F so as to provide space for the ink to flow from the space P to the feed channel L.

In the modified form of the invention, the flexible sac within the barrel of the fountain pen is shown at E and said sac is provided with a main reservoir T. Projecting from the upper wall of the sac E is a partition sheet R′ which extends inwardly slightly beyond the center of the main reservoir and thence upwardly. This forms an auxiliary reservoir G open at its upper end and said auxiliary reservoir is spaced from the lower wall of the barrel so as to provide the passage P through which the ink passes from the main reservoir to the pen point.

In the operation of my device, the pin is used in the ordinary way and the ink from the main reservoir runs down through the feed channel L to the pen point N. When the pen is in writing position, the ink from the main reservoir fills the auxiliary reservoir but during the process of writing the ink from the auxiliary reservoir is trapped and does not run to the pen point. If the ink gives out during writing, then the user either shakes the pen or inverts the pen for a moment which results in the ink in the

auxiliary reservoir or a portion thereof being discharged into the main reservoir and to run down through the passage P and the channel L, and thus to the pen point. Thus it is that the user may continue writing for a limited time using the ink from the auxiliary reservoir. When the ink in the main reservoir gives out, this is a warning to the user that the supply is nearly exhausted and only a small amount of ink remains in the auxiliary reservoir. Therefore, the user should take warning and refill the pen.

It is obvious that minor changes in the details of construction and arrangement of the parts may be made without departing from the spirit of the invention as set forth in the appended claims.

Having described the invention, what I claim as new and desire to secure by Letters-Patent, is:—

1. A fountain pen having a main reservoir, means forming an auxiliary reservoir having an unrestricted communication with said main reservoir to permit the supply of ink in said auxiliary reservoir to discharge freely into said main reservoir when said pen is inverted or sufficiently shaken, said means being constructed and arranged to retain a supply when said pen is in writing position.

2. A fountain pen having a main reservoir for ink and an auxiliary reservoir located within said reservoir and spaced from the wall thereof at the lower side when the pen is in writing position, said auxiliary reservoir being closed at its lower end and open at its top whereby ink is retained therein when the pen is in writing position and is discharged into the main reservoir when the pen is inverted or sufficiently shaken.

3. A fountain pen having a main reservoir and an auxiliary reservoir located within said main reservoir and having its lower end closed and a supporting stem for carrying the auxiliary reservoir, said auxiliary reservoir having its upper end open and its side walls thereof spaced from the walls of the main reservoir so as to provide a passage through which the ink may flow from the main reservoir past the auxiliary reservoir to the pen point.

4. A fountain pen having a main reservoir, means forming an auxiliary reservoir therefor, said means being constructed and arranged to cause said auxiliary reservoir to discharge freely into said main reservoir when said pen is in inverted position and to replenish the ink in said main reservoir from said auxiliary reservoir when said pen is in writing position.

In testimony whereof, I affix my signature.

JOHN C. RORISON.