

W. I. FERRIS.
FOUNTAIN PEN.
APPLICATION FILED MAY 24, 1905.

Fig-1.

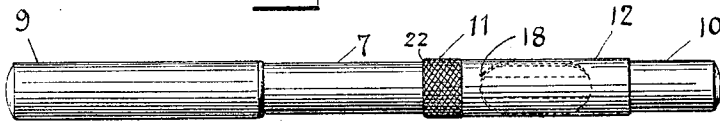


Fig-2.

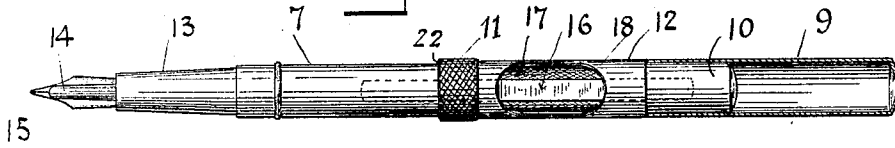


Fig-7.

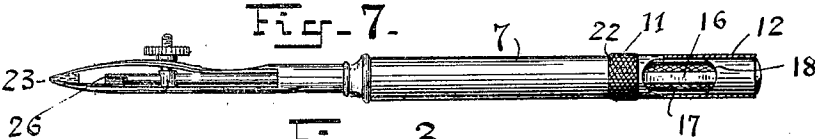


Fig-3.

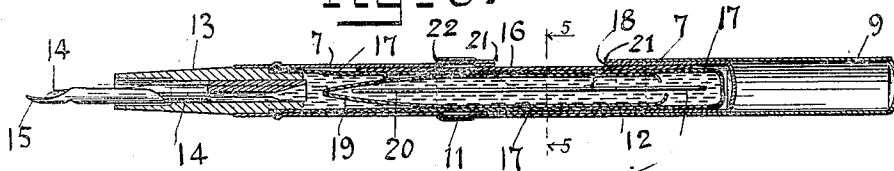
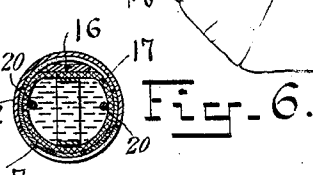
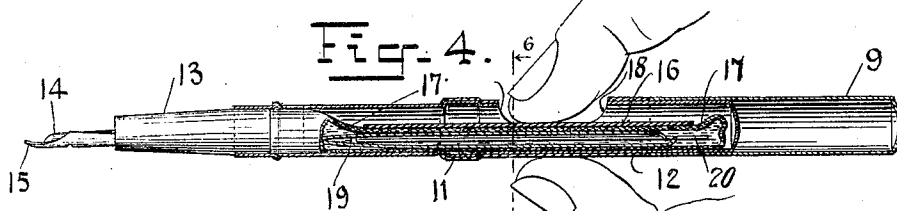


Fig-4.



Witnesses
Charles Hanigmann
Halter B. Raymond

William I. Ferris Inventor
By his Attorney James J. Watson

UNITED STATES PATENT OFFICE.

WILLIAM I. FERRIS, OF STAMFORD, CONNECTICUT, ASSIGNOR TO L. E. WATERMAN COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

FOUNTAIN-PEN.

No. 799,897.

Specification of Letters Patent.

Patented Sept. 19, 1905.

Application filed May 24, 1905, Serial No. 261,976.

To all whom it may concern:

Be it known that I, WILLIAM I. FERRIS, a citizen of the United States, residing at Stamford, in the county of Fairfax and State of Connecticut, have invented a certain new and useful Improvement in Fountain - Pens, of which the following is a full, clear, and exact specification.

My invention relates to fountain-pens, and more especially to self-filling pens having a compressible ink-reservoir.

The object of my invention is to construct a fountain-pen having a compressible ink-reservoir contained within the usual non-compressible holder and provided with improved means and facilities for compressing the reservoir which shall be effective without requiring undue manipulation of the parts of the pen or unusual or complicated parts and which shall be of simple and cheap construction.

I attain the objects of my invention by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal view of the entire pen, showing the finger-slot closed and the cap in place on the front end of the pen. Fig. 2 is a longitudinal view of the pen with the finger-slot open, the cap in section in place on the rear end of the pen. Fig. 3 is a longitudinal sectional view of the pen. Fig. 4 is a longitudinal view, partly in section, showing the ink-sack partially compressed. Fig. 5 is a cross-sectional view on the line 6-6, Fig. 4. Fig. 6 is a cross-sectional view on the line 5-5, Fig. 3. Fig. 7 shows my device applied to a fountain drawing-pen.

Similar numerals refer to similar parts throughout the several views.

The usual cylindrical holder or casing 7 is provided to contain and protect a compressible ink-reservoir 17, constructed of soft vulcanized rubber or other suitable material. This compressible ink-reservoir is connected and secured in the usual manner to the holder and feeding device 14, employed for facilitating the passage of the ink from the reservoir to the pen-point 15. The cylindrical holder or casing is cut away or slotted, 18, at a convenient point on one side in a form preferably oval, as shown in the drawings, as will best permit the thumb or finger to be inserted through the casing to press against the compressible ink-sack. A press-bar 16, con-

sisting, preferably, of a ribbon-like piece of metal or other suitable material, extends longitudinally along the ink-sack and is cemented or otherwise conveniently secured to it. By pressing the thumb or finger on this press-bar the operator is able to press and collapse the ink-sack easily and quickly. Around the cylindrical casing I provide a revolving band or sleeve 12 for covering the thumb-slot. This sleeve or band is slotted, 21, to correspond with the slot in the cylindrical casing, and the sleeve is revolved or rotated by the operator around the casing, exposing the slot in the casing when it is desired to fill the pen and covering this slot at all other times. The sleeve is secured in place on the casing or holder by an annular lip and bead 22, which prevents the sleeve from moving on the casing in a longitudinal direction, and it is thus secured in such relation to the slot in the holder or casing that it is always in place for opening or closing the slot, as required.

The cap 9 is provided to cover up the pen-point 15 and the front end of the casing 13 when the pen is not in use. When the pen is in use, the cap 9 is placed on the rear end 10 of the holder. The revolving sleeve 12 is provided with a boss 11 to facilitate the revolving of the sleeve upon the casing. The interior of the compressible ink-sack is provided with metal springs 19 and 20, which may be incased in soft rubber, for expanding the ink-sack.

In Fig. 7, which shows my device applied to a fountain drawing-pen, 23 is the pen-point, and 26 is the feeding device. In this modified form it may be found desirable to secure a supply of ink at the pen-point by exerting pressure at intervals when ink is required upon the press-bar 16.

When it is desired to refill the fountain-pen, the sleeve 12 is revolved on the casing 7 by means of the boss 11 until the slot in the sleeve is opposite the slot in the casing, as shown in Figs. 2 and 4. The thumb or finger is then pressed upon the spring 16, and the ink-sack is compressed, as shown in Fig. 4. The front end of the pen is then dipped in the ink-bottle or other ink-receptacle and the pressure on the sack removed. As soon as the pressure is removed the sack expands to its normal condition (shown in Figs. 2 and 3) and in expanding draws the ink from the ink-receptacle and fills itself.

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

In a fountain-pen, the combination with a cylindrical casing carrying a pen-point and feeding device and having a finger-slot cut on one side, of a compressible reservoir contained within said cylindrical casing and connected with said feeding device, a pressure-bar secured to the outside of said compressible reservoir and extending longitudinally of the same, a metal spring within said compressible reservoir for expanding the same, a revolving sleeve around said cylindrical

casing having a finger-slot to correspond with the finger-slot in the cylindrical casing, and an annular lip and bead for holding the said sleeve in place, substantially as shown and described. 15

In witness whereof I have hereunto set my hand, in the presence of two subscribing witnesses, this 16th day of May, 1905. 20

WILLIAM I. FERRIS.

Witnesses:

JOHN C. THORBURN,
SAMUEL J. WATSON.