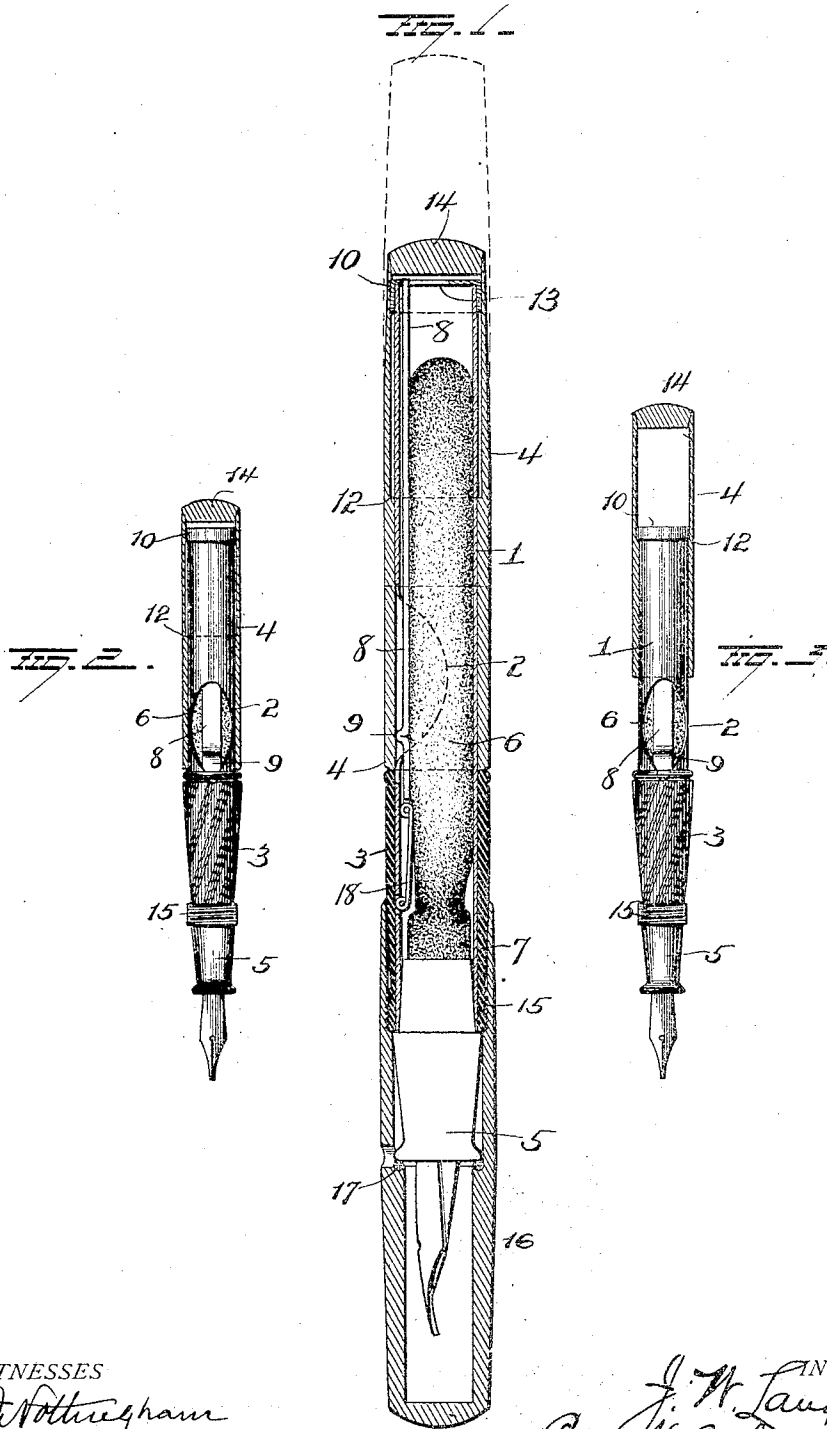


J. W. LAUGHLIN.
 FOUNTAIN PEN.
 APPLICATION FILED APR. 20, 1912.

1,042,695.

Patented Oct. 29, 1912.



WITNESSES
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FOUNTAIN-PEN.

1,042,695.

Specification of Letters Patent.

Patented Oct. 29, 1912.

Application filed April 20, 1912. Serial No. 692,095.

To all whom it may concern:

Be it known that I, JAMES W. LAUGHLIN, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Fountain-Pens; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in fountain pens, and particularly to that class in which inclosed compressible filling reservoirs are employed—one object of the invention being to provide simple and efficient means for preventing the complete withdrawal of the shell section of the holder from the tube which incloses the compressible reservoir when said shell section is removed to permit access to the compressible filling reservoir.

A further object is to provide means to prevent leakage when the cap is in place when the pen is not in use.

With these objects in view the invention consists in certain novel features of construction and combinations of parts as hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1 is an enlarged sectional view of a fountain pen embodying my improvements, Fig. 2 is an elevation, partly in section, taken at right angles to Fig. 1, and Fig. 3 is a view similar to Fig. 2 with the movable shell section distended.

1 represents a metallic tube provided intermediate of its ends with an opening 2 and forwardly of this opening, a hard rubber shell section 3 is secured to the metal tube,—the rear end of said shell section terminating somewhat in advance of the forward end of the opening 2 so that when a movable shell section 4 on said metal tube, is moved so as to abut against the rear end of the shell section 3, it will completely cover the opening 2 and slightly overlap the upper end of the latter. The forward shell section 3 carries a pen section 5 in which a suitable pen point and feed-bar are located. A collapsible reservoir 6 (preferably of soft rubber) is inclosed within the metal tube 1 and the forward end of this collapsible reservoir is attached to a nipple 7 on the pen

section 5. A presser-bar 8 is disposed within the metal tube; normally rests against the collapsible reservoir, and extends past the opening 2 in the metal tube so that access may be had to said bar for compressing the reservoir. The forward portion of the presser-bar is connected with the metal tube by means of a link 18 pivotally attached at its respective ends to said bar and tube. With this construction, when the presser-bar is pressed by the operator, the reservoir will be deflated from the upper toward the lower or pen end of said reservoir and said presser-bar will also have a slight forward movement. In order to induce the operator to press forwardly as well as inwardly or downwardly against the presser-bar in the act of deflating the reservoir, said presser-bar is provided with a slight protuberance 9 to be engaged by the thumb or finger of the operator.

It is desirable to prevent the complete removal of the shell section 4 from the metal tube 1 when said shell section is moved to expose the finger opening 2 of said metal tube. To accomplish this result, features of construction which will now be explained are employed.

A cap 10 is secured to the rear end of the metal tube in any suitable manner and the peripheral edge of this cap projects slightly beyond the peripheral face of the metal tube. The internal diameter of the movable shell section 4 is slightly greater at its upper portion than at its forward portion for the accommodation of the projecting peripheral edge of the cap 10. By thus constructing the interior of the movable shell section 4 an annular shoulder 12 is formed within the forward portion of said shell section to be engaged by the projecting peripheral edge of the cap 10 when said shell section is moved on the metal tube 1 to expose the finger opening in the latter. In this manner an effectual stop is formed to limit the movement of the shell section 4 and prevent its removal from the tube 1. The cap 10 is provided with an elongated slot 13 through which the upper end of the presser-bar passes and in which said presser-bar is guided. In assembling the movable shell section 4 on the tube 1, one end of said shell section may be left open and after the parts shall have been assembled, the open end of

said shell section will be permanently closed by a small disk 14 which may be vulcanized thereto.

The forward shell section 8 is provided with external threads 15 to engage threads in a cap section 16. A flexible gasket 17 is located within the cap section 16 in such position that when said cap section has been screwed onto the barrel of the pen, said flexible gasket will engage the forward end of the pen section 5 and effectually prevent leakage and evaporation.

Having fully described my invention what I claim as new and desire to secure by Letters-Patent, is--

1. In a fountain pen, the combination with a metal tube having a finger opening, a fixed shell section on said tube, a pen section, and a collapsible reservoir within said metal tube, of a cap on one end of said metal tube, the forward edge of said cap forming a shoulder on the tube, a movable shell section on said tube, a portion of said movable shell section having greater internal diameter than the remaining portion whereby a shoulder is formed in said movable shell section to engage the shoulder

formed by said cap and prevent the removal of said movable shell section from the metal tube.

2. In a fountain pen, the combination with a metal tube having a finger opening, a shell section fixed to the metal tube, a pen section on said shell section, and a collapsible reservoir within the metal tube, of a cap on one end of said metal tube and provided with an elongated slot, a presser-bar within said tube and guided at its upper end by the elongated slot in the cap on the tube, a link connecting the forward portion of said presser-bar with the tube, and a sliding shell section mounted on the tube and provided interiorly with a shoulder to engage the cap on the metal tube and prevent removal of said sliding shell section from the latter.

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

JAMES W. LAUGHLIN.

Witnesses:

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