J. W. LAUGHLIN.

FOUNTAIN PEN.

APPLICATION FILED FEB. 8, 1912.

1,042,804. **Patented Oct. 29, 1912.**

Fig. 1.

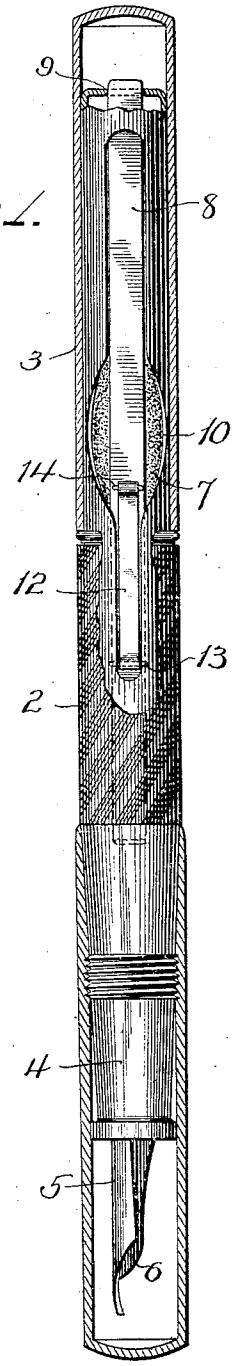


Fig. 2.

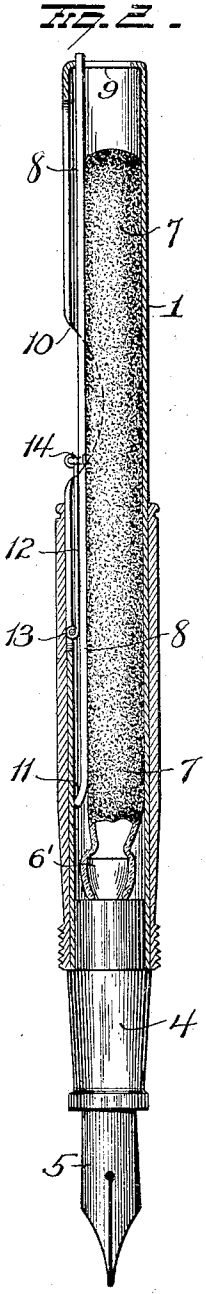
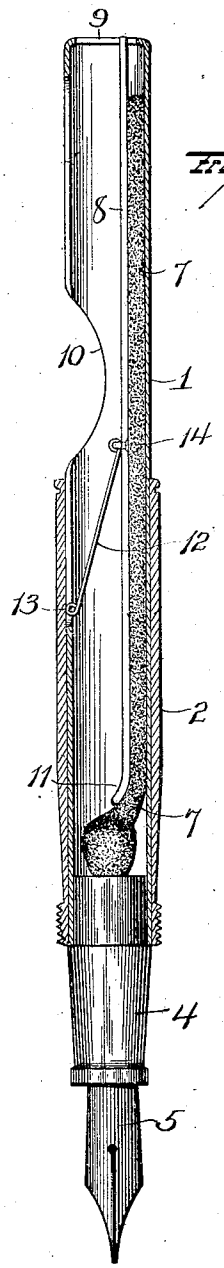


Fig. 3.



WITNESSES

E. L. Nottingham

G. F. Downing

INVENTOR

J. W. Laughlin

By H. A. Seymour Attorney

UNITED STATES PATENT OFFICE.

JAMES W. LAUGHLIN, OF DETROIT, MICHIGAN, ASSIGNOR TO CATHERINE H. LAUGHLIN, OF DETROIT, MICHIGAN.

FOUNTAIN-PEN.

1,042,804. Specification of Letters Patent. Patented Oct. 29, 1912.

Application filed February 8, 1912. Serial No. 676,392.

To all whom it may concern:

Be it known that I, JAMES W. LAUGHLIN, a resident of 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 type in which compressible reservoirs are employed to facilitate the filling of the pen, the object of the invention being to provide simple and efficient means for compressing the reservoir in a manner to reduce to a minimum, wear on the flexible material of the reservoir and prevent possibility of its becoming detached from the nipple on the nib-carrying member of the device.

A further object is to so construct compressing means for the flexible tube or reservoir, that the use of returning springs shall be obviated and so that the deflection of the reservoir shall be accomplished gradually from the upper toward the lower or forward end thereof, and the inflation in the reverse direction, whereby the gradual and complete filling of the reservoir shall be accomplished with a minimum amount of strain on the parts manipulated.

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

In the accompanying drawings, Figure 1 is a plan view partly in section and partly broken away, illustrating my improvements. Fig. 2 is a view in section at right angles to Fig. 1 showing the parts in normal position with the flexible reservoir inflated, and Fig. 3 is a view similar to Fig. 2 showing the reservoir deflated.

1 represents a metal tube, the forward part of which is secured within a hard rubber barrel portion 2 and the rear or upper part of said metal tube is normally covered by a removable hard-rubber barrel section 3. A nozzle-section 4 is secured within the lower or forward end of the tube 1, for the accommodation of a pen nib 5 and a suitable feeder 6, and the rear or upper end of said for attachment of the lower or forward end of a flexible tube or reservoir 7, preferably constructed of soft rubber.

A presser bar 8 is located within the tube 1 and projects through and is guided in a slot 9 in the rear or upper end of said tube, and access to said presser bar by the finger of the user, will be had through an opening 10 located in the wall of the tube preferably between its center and rear or upper end. The presser bar is of sufficient length to engage the flexible tube or reservoir practically throughout its entire length and the lower or forward end of said bar is upturned slightly, as at 11 to avoid injury to the rubber of the flexible tube or reservoir.

A link 12 is pivotally attached at its forward end to the tube 1 as at 13, forwardly of the opening 10 in the tube 1 and at its rear or upper end, said link is pivotally attached as at 14 to the presser bar 8 near the forward end of the opening 10.

With the construction and arrangement of parts above described, it will be apparent that when the operator presses at 10 against the bar 8, said bar will be caused to move downwardly to collapse the rubber tube or reservoir 7,—the forward end 11 of said bar bearing against the inner wall of the tube 1 until the upper end of said bar shall have been fully depressed, after which, continued pressure against the bar 8 will cause it to descend and finally assume the position shown in Fig. 3. When the presser bar 8 is thus operated, the tube 7 will be collapsed from its rear end forwardly, and when pressure is removed from said bar 8, the latter will be caused to move to its original position (as seen in Fig. 2) by the resiliency of the rubber tube, the inflation of said tube being progressive from its forward toward its rear end and caused to become completely filled with ink if the nib 5 be immersed in ink during such inflation of the rubber tube or reservoir. During the movement of the presser bar, it will be guided and prevented from lateral displacement by the link 12 and the slot 9, and when the presser bar is being depressed, said link will also cause the presser bar to move forwardly, somewhat, crowding the rubber of the tube 1 forwardly and thus avoiding injury to the rubber tube or displacement of the same from the nipple 6'

what I claim as new and desire to secure by Letters-Patent, is:

1. In a fountain pen, the combination with a tube having a finger opening in its wall, and a collapsible reservoir within said tube, of a presser bar bearing against the flexible reservoir within the tube and extending past the finger opening in the latter, and a single link located within the tube and pivotally connected at one end to the presser bar and pivotally attached at its other end to the tube forwardly of its connection with the presser bar and forwardly of the finger opening in the tube.

2. In a fountain pen, the combination with a tube having a transverse slot in its rear end and a collapsible ink reservoir within said tube, of a presser bar within said tube and bearing against the reservoir, said presser bar projecting through the slot in the end of the tube and guided in both its lateral and longitudinal movements by the walls of said slot, and a link pivoted at one end to the tube and at the other end to the presser bar at a fixed point on the latter.

3. In a fountain pen, the combination with a tube having a finger opening in its wall, and a collapsible ink reservoir within said tube, of a presser bar within said tube and bearing against said reservoir, and a link pivotally attached at one end to the tube forwardly of said opening in the latter, the other end of said link being pivotally attached to the presser bar at a fixed point on the latter.

4. In a fountain pen, the combination with a tube having a finger opening in its wall, and a collapsible reservoir in said tube, of a presser bar in said tube adapted to bear against the reservoir, said presser bar having an up-turned forward end which normally engages the inner wall of said tube, and a link pivoted at its forward end to the tube forwardly of the opening therein and having pivotal connection with the presser bar at a fixed point between the ends of the latter.

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

JAMES W. LAUGHLIN.

Witnesses:
CLARA HEBESTREET,
TESSIE QUINLAN.