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N. E. WEIGEL

2,305,287

FOUNTAIN PEN

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Fig. 1.

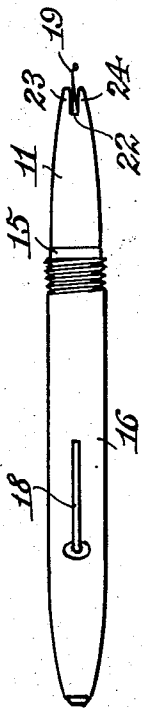


Fig. 2.

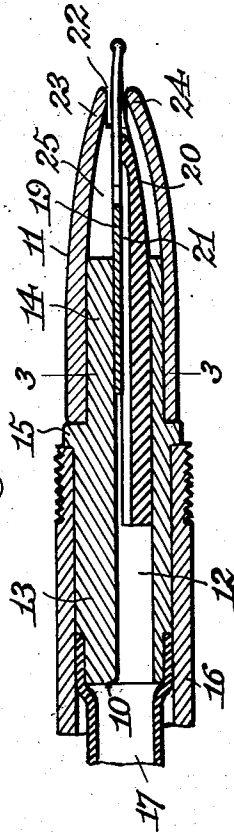


Fig. 3.

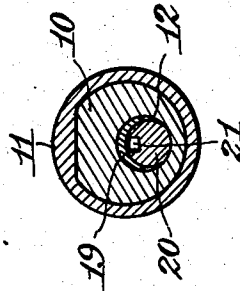


Fig. 4.



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FOUNTAIN PEN

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2 Claims. (Cl. 120—52)

This invention relates to improvements in fountain pens and especially to the ink feeding means therefor.

An object of the invention is to provide a fountain pen whose nib will be constantly kept wet with ink in such manner that it is possible to start writing with the pen without shaking or otherwise coaxing it and providing a sure flow of the ink while writing.

A further object of the invention is to provide a pen which contains a primary supply of ink in the sack or barrel and also a secondary supply in a well or chamber at the feed section and fed by the primary supply in the use of the pen so that the nib and correlated parts will not become dry when the pen is not in use, but which will be instantly ready for writing, and which will have an induced flow of ink by the mere act of writing with the pen in the usual manner.

A further object of the invention is to provide a pen affording the advantages mentioned hereinabove, which will not become clogged, and which may be readily refilled with ink as the occasions arise.

The nature of the invention and its distinguishing features and advantages will appear as the following specification is read in connection with the accompanying drawing, in which,

Fig. 1 is a side view of a fountain pen embodying the features of the present invention.

Fig. 2 is an enlarged central longitudinal sectional view of the pen showing the main features of the invention.

Fig. 3 is a transverse sectional view taken on the line 3—3 of Fig. 2.

Fig. 4 is a perspective view of the feed cap.

Referring now more particularly to the drawing it will be apparent that the fountain pen shown, in accordance with the invention, has a feed section 10 and a feed cap 11. The section 10 has an off-center ink passage 12 extending longitudinally therethrough. The section 10 consists of a portion 13, a portion 14 and a shoulder 15 occurring between the ends of the section at the juncture of the portions 13 and 14. The portion 13 is cross-sectionally round and tightly fits in the open end of a barrel 16 and has connected therewith the open end of a sack or bladder 17 which contains a primary supply of the writing fluid or ink. A suitable filling device 18 on the barrel cooperates with the bladder for creating a suction action for the purpose of refilling the bladder with ink after the pen has run dry. A nib 19 of any preferred style and material has the usual slit and air hole. The nib is associ-

ated with a feed bar 20 having one or more fissures or grooves 21 extending longitudinally therein. The nib 19 and feed bar 20 are inserted in the passage 12 securely fitted to the section 10 in functioning relation thereto. The provision and arrangement of the parts is such that the point of the nib will be located centrally or coincidental with the longitudinal axis of the pen so that it will be well balanced for writing.

The cap 11 may be made of metal, plastic or any other suitable material. The cap is elongated, tubiform and tapered for a portion of its length. The small end of the cap is bifurcated as at 22 to provide a mouth and upper and lower lips 23 and 24 respectively, which constitute feed portions. The opposite end of the cap snugly fits on the portion 14 of the feed section and both may have a flat surface or be made non-cylindrical in cross-section to prevent the cap from turning with respect to the section 10.

When the cap 11 is in place on the section 10, the nib 19 and feed bar 20 will extend thereinto and the nib will project through the mouth 22 between the lips 23 and 24. The extent of the nib projection may be governed by the measure of adjustment of the cap 11 on the section 10. Also the cap as associated with the section 10 will provide a space or well 25 for a secondary supply of ink. The well 25 will be filled with ink in the filling operation when the device 18 is manipulated to fill the bladder 17. The well 25 will remain filled with ink by capillary action until used in writing with the pen in the usual manner. The nib 19 will be kept wet with ink from the well and adhesion of the ink due to capillarity will prevent the ink from leaking out of the cap when the pen is not in use. In flexing the nib while writing with the pen the film of ink at the mouth will be broken and ink will flow smoothly as the writing is started, and aided by the feeding action of the lips 23 and 24 which feed ink to the upperside and underside of the nib, ink continues to flow from the well which is in turn fed by the bladder until the user ceases to write. The cap 11 will be enclosed by the usual cap when the pen is not in use.

The mouth in the cap 11 extends partly along the opposite sides and across the end thereof to obtain a more pronounced taper and for overflow ink to make contact by virtue of which the ink will back up into the well 25. The device 18 is manipulatable in conjunction with the sack 17 to cause a suction action to perform the following function, namely, to fill said sack and well with

ink simultaneously when the pen is held with the cap \parallel immersed in a supply of ink.

I claim:

1. In a fountain pen, an ink feed cap which may be slid securely into engagement with a portion of the pen, means to prevent the cap from turning with respect to said portion, said cap being tapered toward the nib-end of the pen and the nib-end of the cap being bifurcated to provide a mouth and ink feed portions at the mouth extending transversely with respect to the longitudinal axis of the pen.

2. In a fountain pen, a cap for containing overflow ink and which surrounds the nib and feed bar of the pen, said cap having a mouth which extends across and partly along the opposite sides thereof through which the point of the nib may project, and means which acts as a guide to locate the cap with respect to the nib and which prevents the cap from turning and so holding the cap in place with respect to the nib.

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