

H. B. DODS.  
 NON-LEAKING FOUNTAIN PEN.  
 APPLICATION FILED NOV. 4, 1912.

1,075,631.

Patented Oct. 14, 1913.

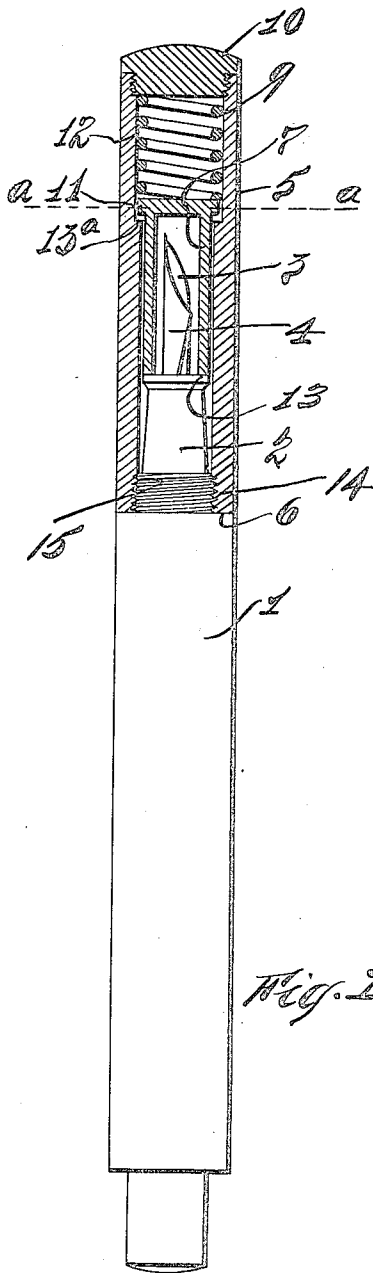


Fig. 1.

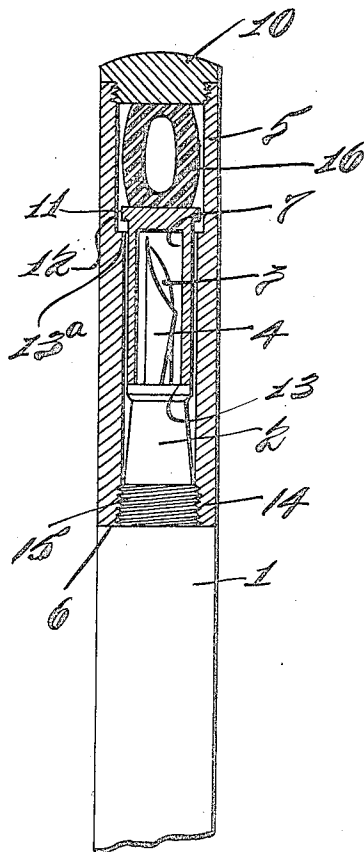
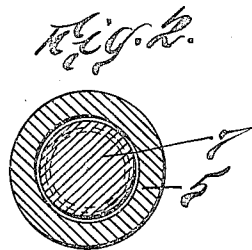


Fig. 3.

Witnesses:  
 C. A. Jarvis  
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# UNITED STATES PATENT OFFICE.

HARRY B. DODS, OF BROOKLYN, NEW YORK, ASSIGNOR TO DIAMOND POINT PEN COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

NON-LEAKING FOUNTAIN-PEN.

1,075,631.

Specification of Letters Patent.

Patented Oct. 14, 1913.

Application filed November 4, 1912. Serial No. 729,234.

*To all whom it may concern:*

Be it known that I, HARRY B. DODS, a citizen of the United States of America, residing at Brooklyn, Kings county, in the State of New York, have invented certain new and useful Improvements in Non-Leaking Fountain-Pens, of which the following is a full, clear, and exact description.

This invention relates to an improvement in non-leaking fountain-pens, the object being to provide a fountain-pen with means to prevent ink from leaking out through the joint between the cap and barrel of the pen when the said cap is placed over the pen point for the purpose of protecting the pen when the pen is not in use.

I will now proceed to describe my invention in detail, the novel features of which will be pointed out in the appended claim, reference being had to the accompanying drawing, forming part hereof, wherein—

Figure 1 illustrates an elevation of a fountain pen, partly in section, embodying my improvement; Fig. 2 is a cross sectional plan view thereof, the section being taken on a line *a-a* in Fig. 1, and Fig. 3 illustrates an elevation of a portion of a fountain pen, partly in section, showing a modified form of my improvement.

In the accompanying drawing, the barrel of a fountain pen is indicated by the numeral 1, which carries the usual pen section 2, which in turn carries the feeder-bar 3 and pen point 4.

The numeral 5 indicates an outer or closing cap which is provided for the purpose of protecting the pen-section and pen when the pen is not in use, as illustrated in the drawing.

One of the chief annoyances present in fountain pens is that the ink leaks out through the feeder bar, thence through the joint 6 between the cap 5 and barrel 1, that is to say, the ink usually leaks out through this joint in the pens as now commonly constructed. To prevent this leakage is the object of my invention, and to effect this result I provide an auxiliary or inner cap or sleeve 7, which is located within the outer cap 5.

To provide a non-leakable pen, I preferably provide a plurality of joints for the pen proper, that is to say, a joint for the pen barrel and outer cap and a joint for the pen-section and auxiliary cap or sleeve. To in-

sure a perfect joint between the auxiliary cap or sleeve and the pen section, I provide a yieldable pressure producing element, such as a coil spring 9, and locate the said pressure producing element between the top of the auxiliary cap 7 and plug 10 in the end of the outer cap 5. As can be seen in the drawing, the body of the auxiliary cap 7 is slightly smaller in diameter than the bore of the cap 5 and the head 11 of the cap 7 is slightly smaller than the counterbore 12 of the said cap 5, the head 11 being larger in diameter than the diameter of the body of the auxiliary cap. By making the auxiliary cap smaller in diameter than the bores within which it is held the said auxiliary cap is adapted for a substantially universal movement to permit it to accommodate itself, at the lower end thereof, to the surface of the end 13 of the pen-section.

The function of the pressure producing element, or spring 9, is to force the auxiliary cap downwardly against the surface 13 of the pen-section. The shoulder or stop 13<sup>a</sup> prevents the spring from forcing the auxiliary cap out of the main cap when the latter is removed from the pen. When the cap 5 is removed from the pen the spring 9 will force the cap 7 downwardly against the stop 13. When the cap 5 is placed on the pen barrel, over the pen-section, it is rotated to cause the threaded end 14 thereof to engage, and travel downwardly upon the threads 15 on the pen-section until the end of the cap and adjacent end of the barrel meet to form the joint 6. During the downward movement of the cap 5 the auxiliary cap 7 will contact with the surface 13 of the pen-section 2, and during the continued downward movement of the cap 5 the spring 9 will be placed under a gradually increasing tension, thereby firmly pressing the cap 7 against the pen section.

Owing to the above construction I am enabled to produce a non-leaking pen.

In the modified form of the device illustrated in Fig. 3, I utilize a yieldable rubber cushion 16 to exert a downward pressure upon the cap 7, instead of the spring shown in Fig. 1.

Having now described my invention, what I claim and desire to secure by Letters Patent is:

A fountain pen including a barrel, an outer cap engaging the barrel, a pen section se-

110

cured to the barrel and normally housed  
within the closing cap, the interior of the  
outer cap beyond the terminal pen section  
being circumferentially enlarged and an  
5 auxiliary cap having a flange cooperating  
with the enlarged portion of the outer cap,  
said auxiliary cap covering the pen section,  
and pressure means engaging the outer cap  
and auxiliary cap, the length of the auxil-  
10 iary cap normally holding the flange thereof  
spaced from the lower margin of the en-  
largement of the outer cap when the parts

are in normal position, whereby the pressure  
means will operate to maintain a sealing  
junction by the auxiliary cap and pen sec- 15  
tion until the outer cap is practically sepa-  
rated from the barrel.

Signed at New York city, N. Y. this 31  
day of October, 1912.

HARRY B. DODS.

Witnesses:

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