

F. W. VAUGHN, JR. & H. J. UPTON.

FOUNTAIN PEN.

APPLICATION FILED NOV. 15, 1911.

1,035,665.

Patented Aug. 13, 1912.

Fig. 1.

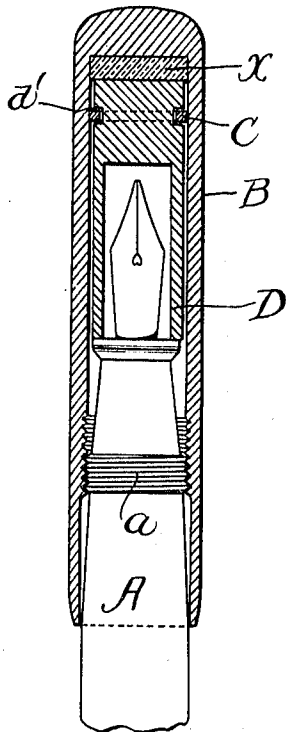


Fig. 2.

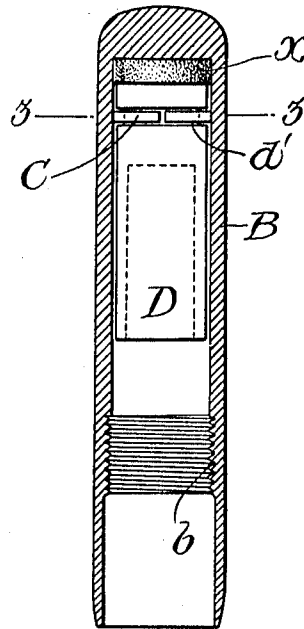


Fig. 3.

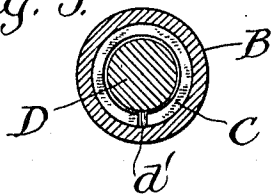


Fig. 4.

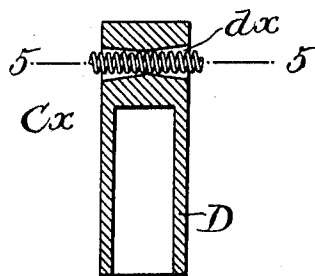


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

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FOUNTAIN-PEN.

1,035,665.

Specification of Letters Patent. Patented Aug. 13, 1912.

Application filed November 15, 1911. Serial No. 660,361.

To all whom it may concern:

Be it known that we, FRANCIS W. VAUGHN, Jr., and HENRY J. UPTON, citizens of the United States, residing at West Medford and Somerville, respectively, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Fountain-Pens, of which the following is a specification.

10 Our invention relates to fountain pens and particularly to that kind of fountain pen in which provision is made for thoroughly inclosing the ink when the pen is not in use so that it will not escape to the detriment
15 of the user.

The object of our invention is to provide an improved construction of the cap of the pen so that when the latter is closed the ink will be perfectly confined within the fountain of the pen and cannot escape to the exterior of the latter. To accomplish this we provide an auxiliary cap within the main cap of the pen, which auxiliary cap is adapted to fit tightly against the open end of the
25 fountain and effectually connect with the same so that any ink which may pass out of the end of the fountain will be received in the auxiliary cap and cannot reach the inner surface of the main cap or in any way travel
30 down to the outer surface of the end of the fountain where the fingers of the user rest in the act of writing. This auxiliary cap is held within the main cap by a friction device and is provided with means to give it
35 a slight yielding capacity so that it may seat.

In the accompanying drawings: Figure 1 is a central longitudinal sectional view of one end of a pen with a cap embodying our invention; Fig. 2 is a longitudinal sectional view of the cap shown in Fig. 1 detached from the pen; Fig. 3 is a cross section of the cap shown in Fig. 2 on line 3—3; Fig. 4 is a view, partly in section, of a cap embodying a modified form of our invention;
45 and Fig. 5 is a section on line 5—5 of Fig. 4.

In Fig. 1 it will be observed that the end

of the pen fountain A and the inner surface of the main cap B are provided with screw threads, *a* and *b* respectively, by means of which the main cap may be screwed upon
50 the end of the fountain and positively held in place by the screw threads. The inner or auxiliary cap D is fitted as to its exterior diameter to the interior bore of the main cap. Between its closed end and the inner
55 end of the outer cap is interposed a cushion of soft packing *x*, preferably of soft rubber, and the inner cap has upon its outer surface an annular groove *d'* into which is sprung a split friction ring C of resilient
60 material, preferably spring steel. The ring C is sprung into the groove *d'* and the cap with its friction ring inserted in the outer cap and pushed toward the upper end thereof where it is retained by the frictional
65 engagement of the ring C with the inner walls of the main cap. In operation the main cap is put over the end of the fountain and the screw threads *a*, *b*, engaged and the main cap screwed down upon the fountain. The
70 gold pen enters into the inner cap D and as the cap is screwed to position, the open end of the cap D is brought into contact with the open end of the fountain, the walls of the fountain and the cap D contacting
75 and fitting together to form a liquid tight joint. The upper end of the main cap B contacts with the rubber pad *x* and presses the inner cap upon the open end of the fountain with a yielding but firm pressure, giving
80 a slight opportunity for the inner cap to rock and seat itself firmly in case of any trifling imperfection in the contact surfaces.

In the modification of our device shown in Fig. 4 the spring ring C and groove *d'*
85 are replaced by a perforation *d* *x* through the top of the inner cap in which is seated a spiral spring *c* *x* which performs the function of frictionally supporting the inner cap within the main cap.
90

We claim:

In a fountain pen, a closure made up of

an outer or main cap; an auxiliary cap
within the main cap, a spring friction mem-
ber interposed to retain the inner cap in
place and a cushion of soft packing inter-
posed between the upper end of the inner
5 cap and the inner side of the top of the
main cap.

Signed by us at Boston, Mass., this 13th
day of November, 1911.

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Witnesses:

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