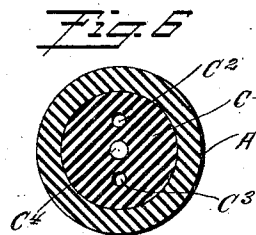
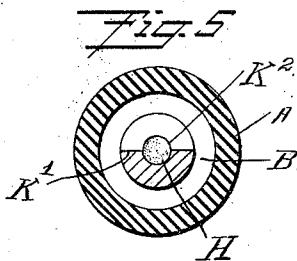
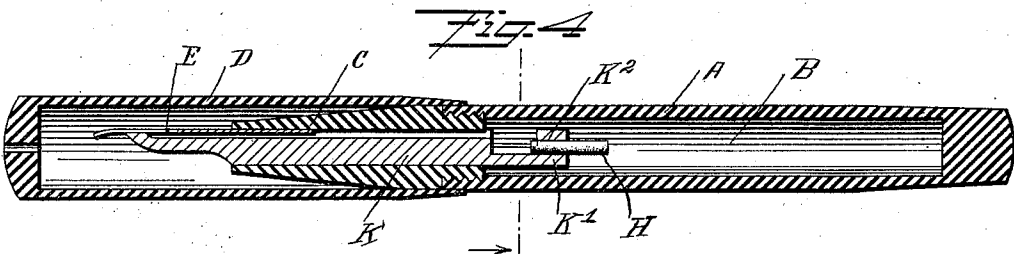
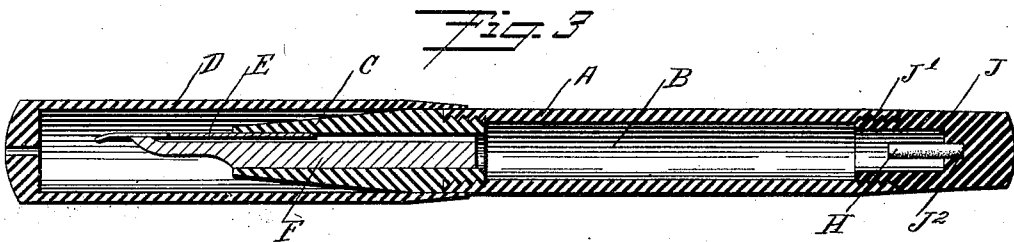
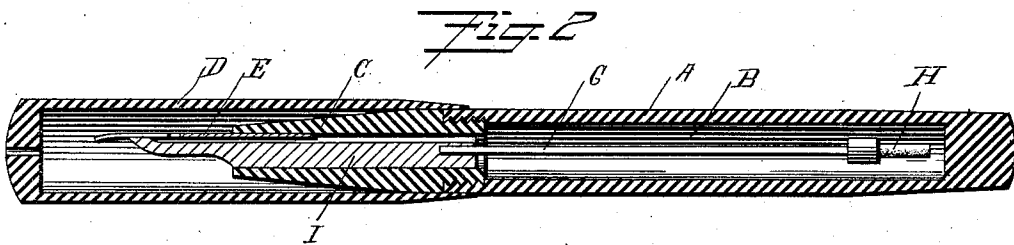
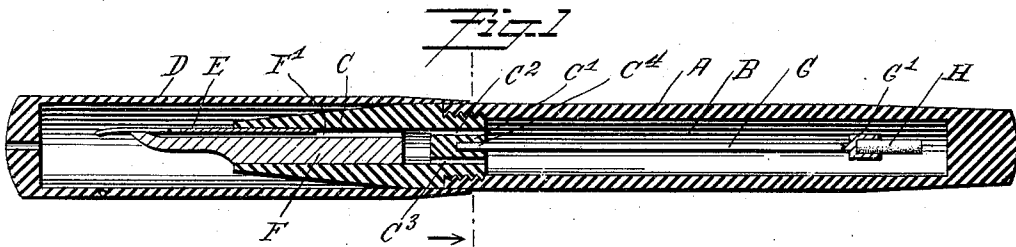


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Patented Aug. 8, 1911.



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UNITED STATES PATENT OFFICE.

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FOUNTAIN-PEN.

1,000,319.

Specification of Letters Patent.

Patented Aug. 8, 1911.

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To all whom it may concern:

Be it known that I, FRANK M. ASHLEY, a citizen of the United States, and a resident of New York city, in the county of Kings and State of New York, have invented certain new and useful Improvements in Fountain-Pens, of which the following is a specification.

My invention relates to fountain pens, and the object of my invention is to provide a fountain pen having means for holding a piece of ink that will dissolve in water, so that by filling the reservoir of the pen with water the same will be converted into ink by dissolving the said piece of ink, which is preferably made in the form of a lead such as is usually used in an indelible ink pencil.

A further object of my invention is to hold the ink stick to a part of the pen, so that it may be removed or renewed without difficulty.

Referring to the drawings which form a part of this specification, Figure 1 is a longitudinal sectional view through my improved pen illustrating the ink stick being held by a rod which extends from the pen section. Fig. 2 is a similar view illustrating the rod held to the plug within the pen section. Fig. 3 is a similar view showing the ink stick held in the rear end cap piece. Fig. 4 is a similar view showing the plug provided with an extension which projects within the reservoir and holding the ink stick in the end of said projecting portion. Fig. 5 is a cross sectional view on the dotted line in Fig. 4 looking toward the ink stick. Fig. 6 is a cross sectional view on the dotted line shown in Fig. 1.

Referring to Fig. 1, A indicates a casing having a reservoir B therein. C indicates the pen section which is secured in the front end of the casing A and forms a part of the casing of the pen, and D the cap to protect the pen point E. As shown in Fig. 1, the rear end of the pen section C is made solid at C' and is provided with two passages indicated by C² and C³ respectively which establish communication between the reservoir B and plug F. The plug F is provided with a passage F' which leads to the pen point and in the usual manner well-known to the art. G indicates a rod preferably made of small diameter so as not to reduce the ink capacity of the reservoir more than is necessary. This rod is preferably made of hard

rubber and is inserted in the end of the pen section preferably at its center by providing a recess C⁴ in the portion of the pen section C' as illustrated and forcing the end of the rod G into the said recess where it is held by frictional engagement. This rod extends to near the rear end of the reservoir B as illustrated and is provided with a recess G' in which the one end of the ink stick H is inserted to hold the ink stick, which is preferably made cylindrical, in the reservoir and out of contact with the walls thereof.

Referring to Fig. 2, the rod G is shown to be held in the end of the plug I instead of being held in the end of the pen section C. This construction is slightly less expensive to manufacture than that illustrated in Fig. 1.

Referring to Fig. 3, J indicates a cap piece which closes the rear end of the reservoir B and is secured thereto by a threaded joint J'. This cap piece is provided with a recess J² in which one end of the ink stick H is inserted to hold it in position in the reservoir.

Referring to Fig. 4, the plug K is shown provided with an extension K' which has a hole K² formed longitudinally therein and the ink stick H is held therein as illustrated. It will be noticed that in each case the ink stick is held within the reservoir. In the illustrations shown in Figs. 1, 2 and 3, the ink stick is held near the rear end of the reservoir, so that when the reservoir is filled with water and the pen is being carried in the pocket of the wearer in the usual position with the pen point upward, the ink stick is gradually being dissolved by the water, converting the water into ink.

In Fig. 4, I illustrate the ink stick held in the reservoir at the end nearest to the plug K. In this form the ink stick H is in the water when the user is in the act of writing. I have found by experience, that some inks are dissolved much faster than others, therefore, when I use ink that dissolves slower, I prefer to hold it near the rear end of the reservoir as illustrated in the first three figures of the drawings. When using an ink that dissolves comparatively fast, I prefer to hold it nearer the front end of the reservoir as illustrated in the drawing of Fig. 4. By the use of this ink stick the reservoir may be filled many times with water and the water converted into ink,

which makes the pen particularly desirable for people who do not use a pen very often such as workmen in the lumber regions, sailors, and others, since if the water evaporates from the reservoir the owner can simply refill with water and immediately may write with ink.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. A fountain pen comprising a casing having a reservoir for ink therein, a plug at one end of said casing holding a pen, and having a feed passage therein extending from said pen directly to said reservoir, and means for holding a stick of ink within said reservoir and at a fixed distance from said ink duct.

2. A fountain pen comprising a casing having a reservoir for ink therein, a plug at one end of said casing holding a pen, and having a feed passage therein extending from said pen directly to said reservoir, and means for holding a stick of ink within said reservoir and at a fixed distance from said ink duct and out of contact with the wall of said reservoir.

3. A fountain pen comprising a casing having a reservoir for ink therein, a plug

at one end of said casing, a pen held by said plug, a passage for ink leading through said plug to said pen; a rod for holding a piece of ink within said reservoir at a distance from said passage.

4. A fountain pen comprising a casing having a reservoir for ink therein, a plug at one end of said casing, a pen held by said plug, a passage for ink leading through said plug to said pen, and a rod extending from said plug to the rear end of said reservoir provided with a recess for holding a solid ink.

5. A fountain pen comprising a casing having a reservoir for ink therein, a plug at one end of said casing, a pen held by said plug, a passage for ink leading through said plug to said pen, and a rod independent of said passage connected to said plug and holding a piece of ink within said reservoir at a distance from said passage and out of contact with said casing.

Signed at New York city in the county of New York and State of New York this 24th day of January, A. D. 1910.

FRANK M. ASHLEY.

Witnesses:

A. T. SCHARPS,
MINNIE S. MILLER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."