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R. T. POLLOCK

FOUNTAIN PEN

Original Filed Jan. 18, 1922

FIG. 1.

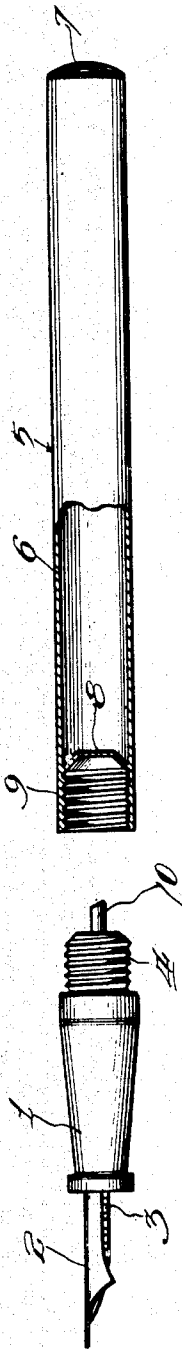
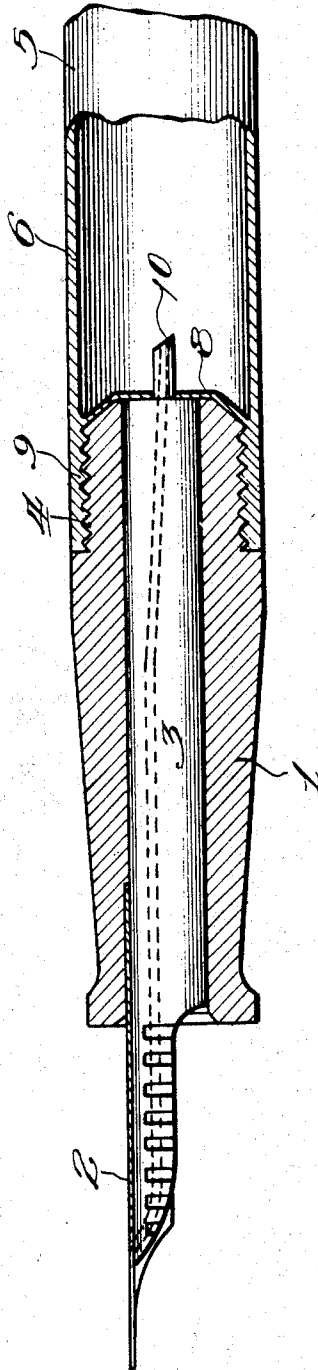


FIG. 2.



Witness:

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UNITED STATES PATENT OFFICE.

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FOUNTAIN PEN.

Application filed January 18, 1922, Serial No. 530,073. Renewed March 15, 1926.

This invention relates to fountain pens and is more particularly directed to what may be styled the "cartridge" pen in which the ink supply is carried in an individual cartridge or holder which is thrown away or otherwise disposed of and a new filled cartridge or container substituted when the cartridge in use becomes empty.

The present invention is more particularly directed to an improvement in which the ink cartridge itself forms the handle or barrel of the pen and which thus dispenses with the necessity of any other handle or barrel.

In the drawing, Figure 1 is a view, partly in side elevation and partly in section, showing the cartridge or holder before it has been attached to the end piece which holds the cap. Figure 2 is an enlarged sectional view of the end piece showing the cartridge attached thereto.

Referring in detail to the drawing, 1 designates the end piece in which is inserted the pen point or nib 2. The end piece is provided with the usual feed member 3 and is provided with the reduced screw-threaded portion 4. To this portion 4 is adapted to be detachably screwed the cartridge 5, which has preferably been filled with ink. This cartridge or ink container 5 may be made, for example, of brass, bronze, hard rubber, glass or the like and comprises a barrel portion 6, closed end 7 and a puncturable seal 8, and internally screw-threaded extension 9. This screw threaded portion 9 is adapted to be screwed onto the screw-threaded portion 4 of the end piece. As the cartridge is screwed onto the end piece, the puncturing point 10 punctures the seal 8, permitting the ink to flow down into the end piece. The parts are so arranged, however, that before the puncture point 10 reaches the member 8, the screw-threaded extension 9 has engaged the extension 4, thus sealing the space between the end piece and the holder before the cartridge is punctured. This, of course, prevents any leakage.

As soon as the point 10 has punctured the cartridge, which is accomplished just before the holder has been entirely screwed onto the

member 4, the pen is ready for use. When the cartridge is empty, i. e., when the ink has been used up, the cartridge is simply unscrewed and a new sealed filled cartridge simply screwed on and punctured as before.

I claim as my invention:

1. In a fountain pen, the combination with a pen holding portion having a pen point fitted in one end and an exteriorly threaded engaging portion on the opposite end thereof, of a hollow bevel puncturing element centrally mounted on the threaded end of said pen holding portion, an ink conduit extending from said hollow puncturing element curved at its opposite end to deliver ink to the back of the pen point, a replaceable ink container forming the barrel portion of the pen, said container constructed with an internally threaded flange adapted to be screwed onto the exteriorly threaded engaging portion of said pen holding portion and a cup-shaped puncturable seal extending entirely across the interior of said barrel portion at the base of said threaded flange adapted to be centrally punctured by said puncturing element to permit ink to flow from the container through said conduit to said pen point.

2. In a fountain pen, the combination with a pen holding portion having a pen point fitted in one end and an exteriorly threaded engaging portion on the opposite end thereof, of a puncturing element mounted on the threaded end of said pen holding portion, an ink conduit extending inwardly from said puncturing element to deliver ink to the pen point, a replaceable ink container forming the barrel portion of the pen, said container constructed with an internally threaded flange adapted to be screwed onto the exteriorly threaded engaging portion of said pen holding portion, and a puncturable seal extending across the interior of said barrel portion at the base of said threaded flange adapted to be punctured by said puncturing element to permit ink to flow from the container through said conduit to said pen point.

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