

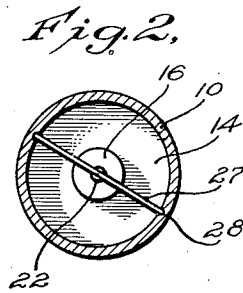
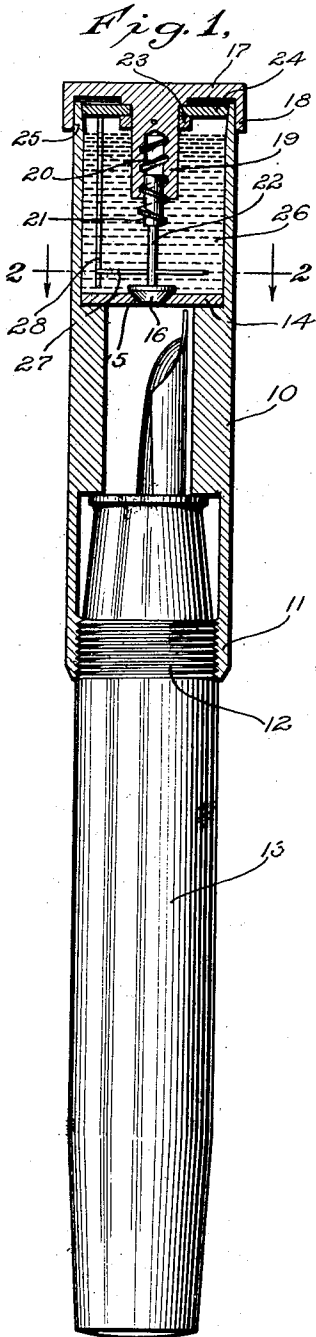
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FOUNTAIN PEN

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WITNESSES

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FOUNTAIN PEN.

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The present invention is concerned with the provision of a fountain pen having a supplemental ink reservoir therein, so that if the pen runs dry at times when there is no additional ink available, the supplemental ink reservoir may be used to supply an additional amount of ink to the pen.

In accordance with one embodiment of the invention, the ink reservoir is contained in the usual pen cap, and is selectively manually controlled to deliver the ink to the pen.

Objects of the invention are to provide a fountain pen of this character so constructed that the ink in the supplemental reservoir is securely sealed against leakage, and may be readily released when desired.

Further objects are to provide a pen of simple, practical construction which will be rugged, durable and efficient in use, neat and attractive in appearance, and capable of being manufactured with comparative economy.

With the above noted and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter set forth and pointed out in the claims. The invention may be more fully understood from the following description in connection with the accompanying drawings, wherein—

Fig. 1 is a view in side elevation of a fountain pen, the pen cap containing the supplemental ink reservoir being shown in longitudinal section.

Fig. 2 is a transverse sectional view on the line 2—2 of Fig. 1.

In the drawings we have shown an embodiment of the invention in which the supplemental ink reservoir is carried by the pen cap 10. This cap may be of the usual cylindrical form provided with an open threaded end 11 adapted to screw on to the usual threads 12 on a pen barrel 13. Near its other end the cap 10 is provided with a transverse partition 14 having an opening 15 therein controlled by valve 16. Valve 16 may be shifted on and off of its seat by rotating a closure element 17 of disc-like formation including a flange 18 which embraces the end of the cap 10, and an inwardly projecting extension 19. The hollow interior of the extension 19 is threaded or

grooved at 20 for coaction with a spiral thread 21 on the stem 22 of the valve 16. Between the closure element 17 and a gasket or collar 23 pinned to the closure element, there is provided a washer or disc 24 adapted to be force fitted into the bevelled end 25 of the cap 10. Washer 24 thus serves to provide rotary mounting for the closure element 17. This tight fit with the cap prevents leakage around its outer edges, and washer 23 prevents leakage between the extension 19 and the washer 24.

The walls of the cap 10, the partition 14 and the washer 24 co-operatively define a supplemental or emergency ink reservoir 26 in the closed end of the cap 10. In order that rotary movement of the closure element 17 may effect axial movement of the valve stem 22, this stem is locked against rotation by a cross pin 27 passed therethrough and having its ends working in grooves 28 in the walls of the cap.

When the pen 13 runs dry, ink may be readily released from the reservoir 26 by the simple expedient of rotating the closure element 17 to retract the valve 16. In this connection it is to be noted that the ink may either be poured from the cap 10 into a suitable receptacle from which the pen may be filled, or the pen may be held in the position of Fig. 1 and the valve retracted to cause the ink to flow into the lower end of the cap. The valve may then be resealed, the position of the pen inverted, and the usual filler mechanism (not shown) operated to cause the pen to suck the ink from the cap.

Obviously various changes and alterations might be made in the general form and arrangement of parts described without departing from the invention. Hence we do not wish to limit ourselves to the details set forth, but shall consider ourselves at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

We claim:

1. A fountain pen cap having an ink reservoir therein and a valve controlling the discharge of ink from said reservoir.

2. A fountain pen cap having an ink reservoir therein, a valve controlling the discharge of ink from said reservoir, a rotatable closure at one end of the cap and oper-

ative connections between the closure and valve whereby rotation of the closure operates the valve.

3. As a new article of manufacture, a fountain pen cap having a transverse partition therein co-operating with the closed end of the cap to define an ink reservoir, said partition having a valve seat therein, a valve in the seat, a valve stem, the closed end of the cap being rotatable relatively to the body thereof and including a threaded inwardly presented extension having

threaded engagement with the valve stem.

4. A device of the class described in claim 5, and wherein a pin extending transversely through the stem has its ends riding in grooves in the walls of the cap to prevent rotation of the stem. 15

5. A device as described in claim 3, and wherein the rotatable closure element is carried by a gasket force fitted into the end of the cap. 20

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