

R. DE ECHEVARRIA,
INK CONTENT INDICATING FOUNTAIN PEN,
APPLICATION FILED MAR. 30, 1920.

1,372,608.

Patented Mar. 22, 1921.

Fig. 1.

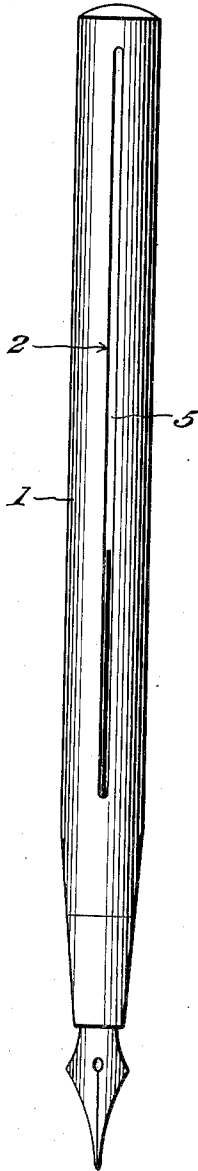


Fig. 2.

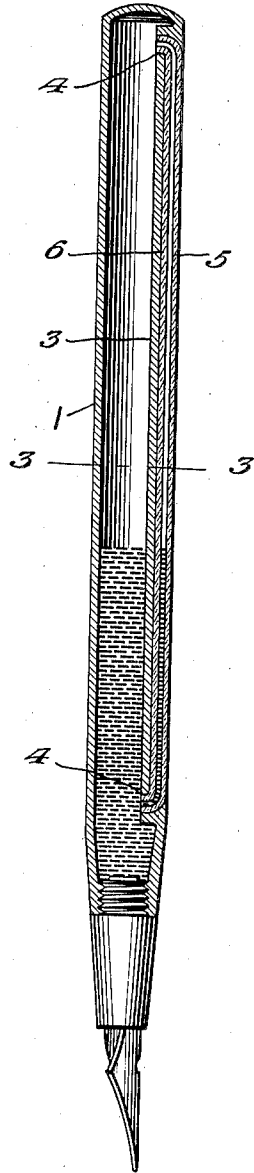


Fig. 4.

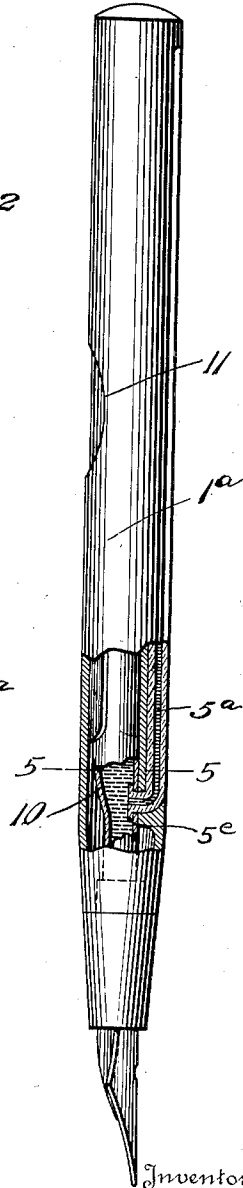


Fig. 3.

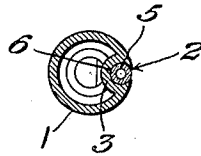
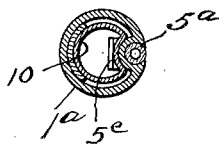


Fig. 5.



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INK-CONTENT-INDICATING FOUNTAIN-PEN.

1,372,608.

Specification of Letters Patent. Patented Mar. 22, 1921.

Application filed March 30, 1920. Serial No. 369,896.

To all whom it may concern:

Be it known that I, RAMÓN DE ECHEVARRIA, a subject of the King of Spain, residing at Santa Cruz, Tagulaya, Davas, Philippine Islands, have invented new and useful Improvements in Ink-Content-Indicating Fountain-Pens, of which the following is a specification.

It has frequently happened to the many users of fountain pens that at the time when the pen is needed in an emergency, it is dry or devoid of ink. Therefore, one object of my invention is the provision of a fountain pen embodying means for apprising the owner thereof of the quantity of ink in the pen, so that when the ink supply is almost depleted, it may be replenished with a view to averting the experience indicated.

Another object of the invention is to so construct and arrange the indicating means in the pen body that it does not materially reduce the ink-carrying capacity of the pen or render the same cumbersome or unsightly.

To the attainment of the foregoing, the invention consists in the ink-content indicating fountain pen hereinafter described and definitely claimed.

In the accompanying drawings, hereby made a part hereof:

Figure 1 is an elevation of a fountain pen constructed in accordance with my invention.

Fig. 2 is a diametrical section taken in a plane at right angles to Fig. 1.

Fig. 3 is a transverse section taken in the plane indicated by the line 3—3 of Fig. 2.

Fig. 4 is a view, partly in elevation and partly in section, of the pen.

Fig. 5 is a transverse section on line 5—5 of Fig. 4.

Similar numerals designate corresponding parts in Figs. 1 to 3 to which reference will first be had.

In accordance with my invention the tubular body 1 of the fountain pen is provided in its wall 3, with a longitudinal groove 2, which groove 2 is provided with open ends 4, but is otherwise imperforate. Carried in the wall 3 and sealed at its ends thereto is an indicating tube 5, of transparent material, preferably of glass, and provided by preference with a white back

portion 6, so as to increase the contrast between the tube and the ink therein and thereby indicate the height of the ink in the tube. The said transparent tube is exposed practically throughout its length by the slot 2, and the ends of the tube are in communication with the interior of the body 1. From this it follows that the ink will seek its level in the tube 5, Fig. 2, and will thereby at all times apprise the user of the pen of the quantity of ink therein contained. When the ink in the tubular body 1 falls below the lower end of the tube 5, the user of the pen will be made aware of the fact that it is incumbent upon him to replenish the supply of ink in the pen if he desires to avert the likelihood of the pen becoming dry at an inopportune time.

As shown in Figs. 4 and 5, my novel indicator is susceptible of embodiment in the so-called "self-filling" pen; the connection of the tube 5^a in this arrangement being with the compressible rubber reservoir 10 for ink in the interior of the body of the fountain pen, and the body 1^a being apertured at 11 to permit of the manual compressing of the reservoir incident to the filling of the reservoir with ink according to the ordinary, well known practice.

The tube 5^a has a flange 5^e disposed within the reservoir 10 as shown.

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

1. A fountain pen having a tubular body and a longitudinal groove in the outer side of the wall thereof, and a longitudinal transparent tube carried in the groove and sealed at its ends thereto and having its ends open and in communication with the ink containing portion of the pen.

2. A fountain pen having a tubular body and a longitudinal groove in the outer side of the wall thereof and also having apertures connecting the ends of the groove with the interior of the body, a compressible ink reservoir within the body and a longitudinal transparent tube carried in the groove and sealed at its ends thereto and having its ends in communication with the interior of the compressible reservoir.

In testimony whereof I affix my signature.

RAMÓN DE ECHEVARRIA.