March 3, 1931. H. H. SPAYDE 1,794,651

FOUNTAIN PEN

Filed Feb. 24, 1930

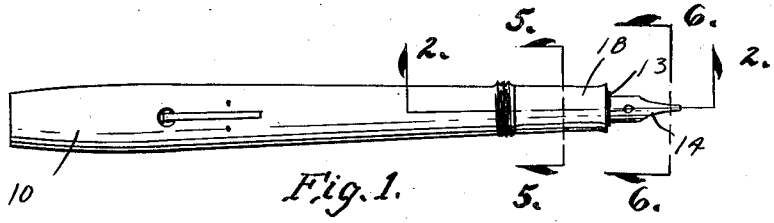


Fig. 1.

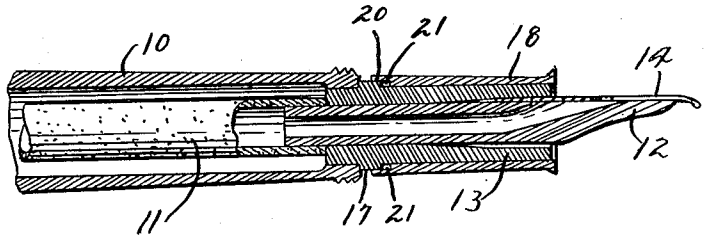


Fig. 2.

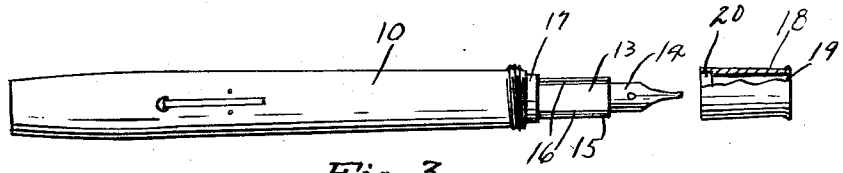


Fig. 3.

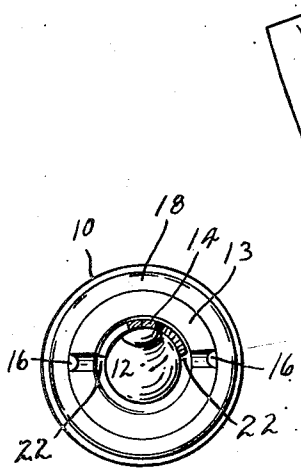


Fig. 6.

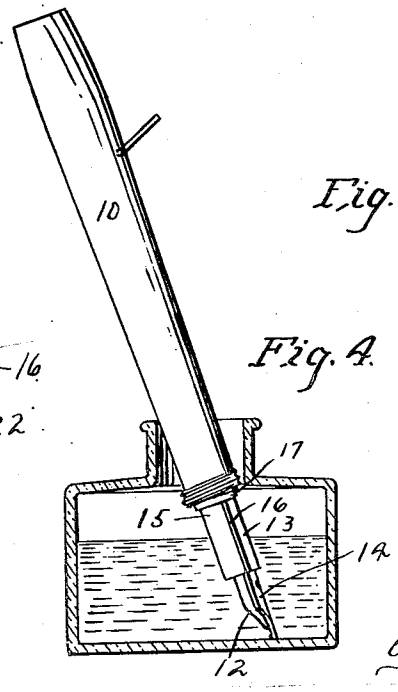


Fig. 4.

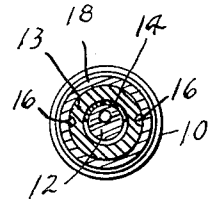


Fig. 5.

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UNITED STATES PATENT OFFICE

HARWOOD H. SPAYDE, OF DES MOINES, IOWA

FOUNTAIN PEN

Application filed February 24, 1930. Serial No. 430,990.

The object of my invention is to provide in a fountain pen of that type having means for drawing ink into the barrel of the pen through its nozzle, improved means for cleaning the nozzle of said pen of any ink which may adhere thereto, said cleaning means being designed to provide a finger shield to protect the fingers against coming in contact with ink from the pen.

More specifically, it is the object of my invention to provide a pen nozzle so constructed and arranged that a shield may be moved onto and off said nozzle and when the shield is moved into position thereon, any free ink adhering thereto will be cleaned from the nozzle and forced to the end of the pen.

My invention consists in the construction, arrangement and combination of the various parts of the device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which:

Figure 1 is a plan view of my improved pen.

Figure 2 is an enlarged detail sectional view of the nozzle end of the pen and of my improved shield therefor.

Figure 3 is a plan view of my improved pen showing the finger shield removed.

Figure 4 is a sectional view of an ink bottle showing the manner in which my improved pen is used in connection therewith while being filled.

Figure 5 is a detail sectional view taken on the line 5—5 of Figure 1.

Figure 6 is a detail sectional view taken on the line 6—6 of Figure 1.

I have used the reference numeral 10 to indicate the pen barrel, which is of ordinary construction. Said barrel is formed hollow and provided with a rubber sack 11 for containing the ink. Said sack is connected to the inner end of the pen feeder 12. Said feeder is mounted in a nozzle 13 in the usual manner and provided with a pen point 14.

The nozzle 13 is provided with a cylindrical surface 15. Said surface has longitudinally extending grooves 16 and is provided at its inner end with a cylindrical portion 17 of larger diameter than the portion 15. The inner end of the portion 17 is designed to rest against the outer end of the barrel 10 in the manner clearly illustrated in Figure 2. The said grooves 16 are located on opposite sides of the nozzle 13 and have their outer ends terminating adjacent to the junction of the side edges of the pen 14 and the feeder 12 in the manner clearly illustrated in Figure 6.

The surface 15 of the nozzle 13 is designed to receive a finger shield 18 having an opening 19 designed to fit the surface 15. The inner end of the opening 19 terminates in an enlarged recess or annular groove 20. Said recess 20 is designed to fit and receive the member 17.

As the pen is placed in an ink bottle to be filled in the manner illustrated in Figure 4, the nozzle 13 is usually dipped into the ink a certain distance so as to insure the sack 11 being filled on account of the ink level being lowered during the filling operation. When the pen is removed, a portion of the ink adheres to the outer surface of the nozzle. The finger shield 18 is then placed in position on the surface 15 and slid longitudinally thereon, causing any ink adhering to the surface 15 to be forced into the groove 16 or into the annular recess 20.

The further inward movement of the finger shield will cause the flange portion of the recess 20 to engage the member 17 so that an air chamber 21 is formed. Further inward movement of the finger shield will cause the air trap in said chamber 21 to become compressed and any ink filling the groove 16 or within the chamber 21 will be forced longitudinally and outwardly through said grooves and to the junctions 22 between the side edges of the pen 14 and its feeder 12. The ink will then be fed to the pen point by capillary attraction, thus providing means whereby the nozzle of the pen may be easily and quickly cleaned without the use of a wiper, such as heretofore has been the practice.

I claim as my invention:

1. A fountain pen comprising a barrel, having at one end a nozzle, said nozzle having a cylindrical portion terminating in a smaller cylindrical portion, the smaller cylindrical

portion being provided with longitudinal grooves, and a finger shield having a cylindrical opening designed to fit and receive the smaller cylindrical portion of said nozzle and provided with an enlarged annular groove designed to fit the enlarged cylindrical portion of said nozzle, whereby when said finger shield is moved longitudinally upon the smaller cylindrical portion of said nozzle any free ink will be scraped from said cylindrical portion into said grooves and forced outwardly through said grooves.

2. A fountain pen comprising a barrel, having at one end a nozzle member, a pen feeder in said nozzle, a pen outside of said feeder, the outer surface of said nozzle being formed cylindrical and provided with longitudinal grooves, the outer ends of said grooves terminating adjacent to the ends of side edges of said pen, whereby ink from the outer end of said grooves will flow along the junction of the side edges of said pen and its feeder to the pen point, and a finger shield slidably mounted on said nozzle to scrape ink inwardly and force the same outwardly through said grooves.

3. A fountain pen comprising a barrel, having at one end a pen nozzle having grooves, a pen in said nozzle, and a finger shield slidably mounted thereon, said shield and nozzle including means whereby inward sliding movement of said shield will cause ink on said nozzle to be forced through said grooves adjacent to the side edges of said pen.

4. A fountain pen comprising a barrel, having at one end a pen nozzle, a pen in said nozzle, and a finger shield slidably mounted thereon, said shield and nozzle including means whereby sliding movement of said shield relative to said nozzle will cause ink adhering thereto to be delivered to said pen point.

HARWOOD H. SPAYDE.