

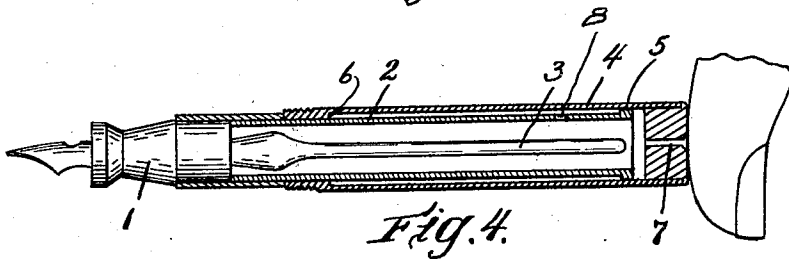
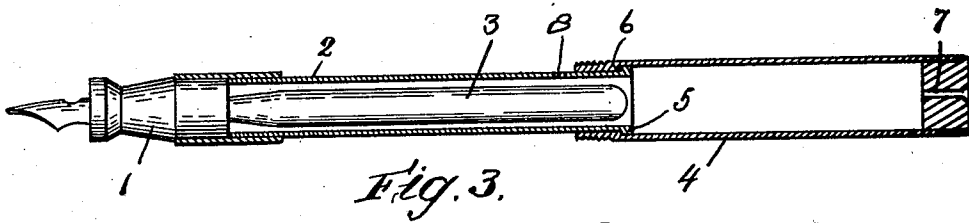
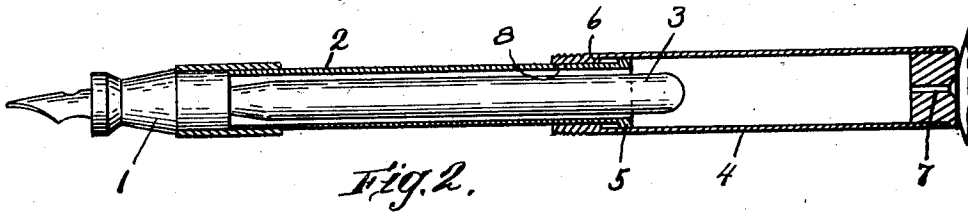
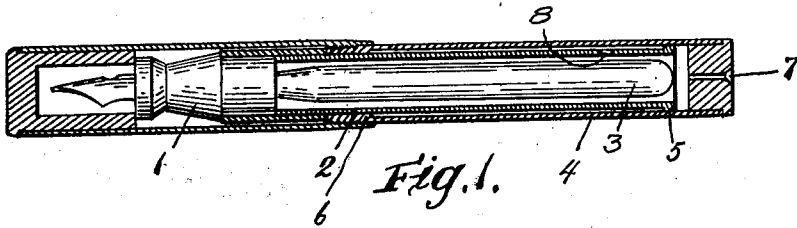
April 22, 1930.

E. C. BERRY

1,755,586

FOUNTAIN PEN

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Inventor.
Edward C. Berry
By L. H. Kaminian
Atty.

UNITED STATES PATENT OFFICE

EDWARD C. BERRY, OF MELROSE, MASSACHUSETTS, ASSIGNOR TO CHILTON PEN COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS

FOUNTAIN PEN

Application filed October 3, 1928. Serial No. 310,114.

This invention relates to fountain pens of the type described in Upton Patent No. 1,580,093, dated April 6, 1926, in which the barrel portion of the holder is slidably mounted on a metal tube, in which the rubber ink sack is enclosed, so that, after the barrel has been drawn outward on the tube, the air within the latter is compressed by closing a vent in the outer end of the barrel with the finger and forcing the barrel into its normal position. The ink sack is then collapsed, so that it will become filled with ink if the pen is held in the ink while the compressed air is permitted to escape.

While instructions as to this method of filling may be given which are apparently clear and definite, it frequently happens that an operator will hold a finger over the vent-hole in the barrel while the latter is being drawn outward, so that a rarified condition of the air is caused within the tube, and then, without removing the finger from the vent-hole, the barrel will be pushed back to its normal position. Under such conditions the air will be only slightly compressed, if at all, so that only a partial collapsing, if any, of the sack will be secured.

The object of my invention is to provide a fountain pen, of the above described type, which is so constructed that failure to fill the ink sack completely for the reason above stated will be prevented.

I accomplish this object by means of the construction hereinafter described and as illustrated in the accompanying drawing, in which:

Figs. 1 to 4 inclusive are longitudinal sectional views of a fountain pen embodying the invention, the parts being shown in different positions in the different figures.

As shown in the drawing, the parts of the pen are similar to the parts shown in said prior patent, comprising pen section 1, to which one end of the metal inner tube 2 is attached, the ink sack 3 being arranged within said tube and the barrel 4 being slidably fitted thereon at its inner end, or end next the pen section. The tube 2 is provided with a stop flange 5 at its outer end, which is engaged by an internal shoulder 6 on the bar-

rel 4 near its inner end, to limit the outward movement of the barrel on the tube.

With this construction, as the barrel 4 has a sliding fit on the tube 2, if the vent hole 7 in the end of the barrel should be closed while the barrel is being drawn out, the result would be that the air in the tube would be rarified and the sack, being open to the outside air through the pen section, would be enlarged and lengthened, as indicated in Fig. 2.

To avoid the result of this action, so that normal air pressure will be restored about the sack, before the barrel is pressed inward while the vent 7 is still closed, an aperture 8 is formed in the inner tube 2 near its outer end and in a position in which it will be uncovered by the inner end portion of the barrel, which is fitted to the tube, by the time the barrel is drawn outward to the point at which the stop shoulders 5, 6 are engaged, so that air will be permitted to pass into the tube and restore the air pressure therein to normal before the barrel is pushed inward again. A slight inward movement of the barrel acts to close the aperture 8, so that the air within the tube will be then confined and the compressing action will take place during the rest of the inward movement, causing the ink sack to be completely collapsed.

I claim:

1. In a fountain pen comprising a pen holding section having a resilient ink sack connected thereto, a tube enclosing said sack and connected to said section at one end and open at its opposite end, a barrel telescopically fitted on said tube, and having an end opening, stops on said tube and barrel arranged for engagement to limit the extent to which the barrel may be drawn from the tube and having means arranged to permit the passage of air into the tube, independently of said opening, when said stops are engaged, and to be closed against the passage of air upon a slight initial inward movement of the barrel on the tube.

2. In a fountain pen comprising a pen holding section having a resilient ink sack connected thereto, a tube enclosing said sack and connected to said section at one end and open at its opposite end, a barrel telescopically

5 cally fitted on said tube at its inner end, and
having a vent opening at its outer end, and
stops on said tube and barrel arranged for
engagement to limit the outward movement
of the barrel on the tube, said tube having a
vent aperture through the walls thereof ar-
ranged to be opened by the barrel as said stops
are engaged.

10 In testimony whereof, I have signed my
name to this specification.

EDWARD C. BERRY.

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