

UNITED STATES PATENT OFFICE.

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FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 750,583, dated January 26, 1904.

Application filed August 25, 1903. Serial No. 170,694. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS C. BROWN, a citizen of the United States, and a resident of New Brighton, borough and county of Richmond, city and State of New York, have invented certain new and useful Improvements in Fountain-Pens, of which the following is a specification.

My invention relates to fountain-pens, and more particular to those in which provision is made for retracting the pen-nib into the ink holder or barrel.

The object of my present invention is to provide improved means for projecting and retracting the pen-nib and also for so applying the cap as to avoid any danger of injuring the nib by contact with the cap.

My invention will now be described in detail, and its novel features will then be pointed out in the appended claims.

Reference is to be had to the accompanying drawings, in which—

Figure 1 is a partly-sectional view of a fountain-pen embodying my invention, the cap being removed. Fig. 2 shows the same pen with the cap applied thereto and the nib withdrawn into the barrel, and Fig. 3 is a cross-section on line 3 3 of Fig. 1.

I prefer to make the barrel of two sections A A', connected in any suitable manner, as by means of a screw-joint A². The forward section A' is provided at its free end with an external screw-thread A³, which is adapted to receive a screw-threaded portion B', which is provided at the closed end of the cap B, arranged to fit over the section A'. For the sake of convenience in manufacturing the cap may be made in two sections, as shown in Fig. 2, the screw-thread B' being in this case made on the inner section B² of the cap. The open end of the cap is provided with one or more elastic prongs C', projected from a collar C, which surrounds the open end of the cap. This open end is adapted to abut against a shoulder, which is formed by the forward end of a sleeve D, surrounding the barrel. This sleeve is also engaged by the elastic prong C'. At its rear end the sleeve D, which is capable of sliding lengthwise on the barrel, is provided with a pin E, which latter ex-

tends through a longitudinal slot A⁴ in the barrel A and is connected at its inner end with the feed-bar F, carrying the nib G, in any suitable manner. Any suitable mode of construction may be employed for the forward end of the feed-bar—as, for instance, the one shown in my Letters Patent No. 697,975 of April 22, 1902. The rear portion of the feed-bar—that is, the portion which connects with the pin E—is separated by an ink-tight joint from the forward portion, so as to form an ink-compartment A⁵, this being done by fitting a disk H between the ends of the barrel-sections A A' and providing this disk with a central packing-sleeve H', made, for instance, of cork.

The sleeve D is an important feature of my improved fountain-pen and has the following advantages:

First. It acts as a retainer and as a stop for the cap B when the latter is put over the nib, assuming the latter to be in the projected position, as shown in Fig. 1. It will be obvious that the distance between the front end of the sleeve D and the point of the nib G is always the same, and if the cap B is made a little longer than this distance it will be impossible for the nib to be injured by contact with the closed end of the cap.

Second. When the nib is retracted into the barrel and the cap screwed on subsequently the sleeve D will act as a safeguard against contact of the nib with the cap in case an attempt should be made to project the nib from the barrel before the cap is removed.

A third advantage of the sleeve D is particularly the guiding action on the rear end of the feed-bar, and this is of especial importance when a screw-feed action is employed, as shown in the drawings. For this purpose the pin E extends through a spiral slot I' of a sleeve I, which receives the rear end of the feed-bar F, preferably with the interposition of a collar F'. The rear end of the sleeve I has a screw-thread I², arranged to fit a corresponding internal thread on the rear end of the barrel, and a knob or handle I³ is provided on the sleeve I exteriorly of the barrel. The pitch of the spiral groove I' is much greater than that of the screw-thread I². Thus

by rotating the button or knob I³ the sleeve I is given a slight longitudinal movement and the pin E is caused to travel lengthwise in the slot A⁴, so that the nib G can be projected from the holder, as in Fig 1, or retracted into the same, as shown in Fig. 2.

Certain features of my invention are applicable particularly to fountain-pens having a nib which may be projected into the writing position or retracted into the holder, and the construction of the cap is applicable to fountain-pens of various styles.

It will be observed that the mechanism by which the nib is moved relatively to the holder is located entirely outside the ink-chamber A⁵. Thus this mechanism is not exposed to the corrosive action of the ink, and may therefore be made of cheap material.

Various modifications may be made without departing from the nature of my invention.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A cap for fountain-pens, combined with a holder, a writing-point movable into and out of the holder, and a member without the holder and connected with the writing-point to move therewith, the cap and said member being adapted to abut each other and being of such length as to prevent contact of the writing-point with the cap.

2. A fountain-pen comprising an ink-holder having an external screw-thread at its forward end, a writing-point adapted to be projected through said end, or to be withdrawn into the holder, a cap provided with an internal screw-thread to fit that of the holder, and a sleeve surrounding the holder and of such length as to act as a stop for the open end of the cap before the latter can engage the writing-point.

3. In a fountain-pen, a holder, a writing-point movable relatively to the holder, to be projected therefrom or withdrawn into the same, a sleeve surrounding the holder and connected with said writing-point to move therewith, and a cap arranged to fit over the forward end of the holder and to abut the front end of said sleeve.

4. A cap for fountain-pens, provided with one or more elastic prongs at its open end and with an interior screw-thread at its closed end.

5. A cap for fountain-pens, provided with one or more elastic prongs at its open end.

6. A fountain-pen comprising a holder screw-threaded externally at its forward end, a writing-point movable lengthwise within the

holder, to be projected therefrom or retracted into the same, a sleeve surrounding the holder, and connected with the writing-point to move therewith, and a cap adapted to fit over the forward end of the holder and provided with an internal screw-thread at its closed end, and at its open end with one or more elastic prongs arranged to fit over the forward end of said sleeve.

7. A fountain-pen comprising a holder, a writing-point carrier movable lengthwise within said holder, a pin or stud secured to said carrier, a sleeve surrounding a portion of the carrier and provided with a spiral slot through which said pin projects, said sleeve being connected with the holder and the holder being provided with a longitudinal groove engaged by the said pin.

8. A fountain-pen comprising a holder having a screw-thread at its rear end, a sleeve fitted within the rear portion of the holder and screw-threaded to fit the holder, said sleeve being provided with a spiral slot, a writing-point carrier, extending into said sleeve, an external sleeve surrounding the holder, said holder being provided with a longitudinal slot, and a pin connecting the external sleeve with the writing-point carrier and extending through the slots of the holder and of the internal sleeve.

9. A fountain-pen, comprising a barrel made of two sections, a transverse partition located at the junction of said two sections and clamped between their adjacent ends, a writing-point carrier movable lengthwise of the barrel and extending through said partition with an ink-tight fit, and mechanism located in the rear of said partition for moving the writing-point carrier lengthwise of the barrel.

10. A cap for fountain-pens, combined with a holder, said cap being provided with one or more elastic prongs at its open end, and with means for securing it to the holder at its closed end.

11. A cap for fountain-pens provided with two fastening devices adapted for coöperation with the holder, one of said devices being located at the open end of the cap and the other being located within the cap.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANCIS C. BROWN.

Witnesses:

EUGENE EBLE,
MARCUS C. HOPKINS.