

P. J. SCHREIBER.
 FOUNTAIN PEN CAP.
 APPLICATION FILED APR. 4, 1912.

1,059,398.

Patented Apr. 22, 1913.

Fig. 1.

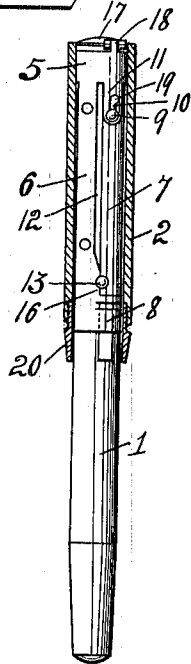


Fig. 2.

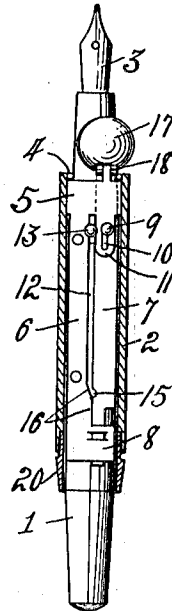


Fig. 4.

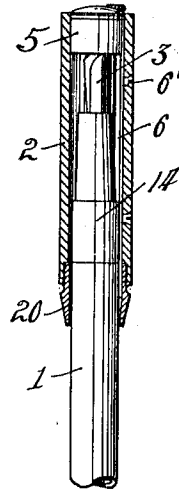
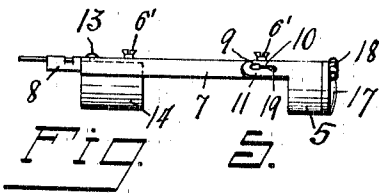
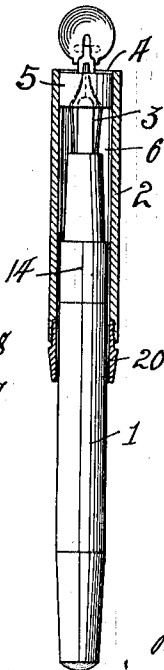


Fig. 3.



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UNITED STATES PATENT OFFICE.

PHILIP J. SCHREIBER, OF TOLEDO, OHIO.

FOUNTAIN-PEN CAP.

1,059,398.

Specification of Letters Patent.

Patented Apr. 22, 1913.

Application filed April 4, 1912. Serial No. 688,522.

To all whom it may concern:

Be it known that I, PHILIP J. SCHREIBER, a citizen of the United States, and a resident of Toledo, in the county of Lucas and State of Ohio, have invented a certain new and useful Fountain-Pen Cap; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

My invention relates to an attachment intended particularly for use in connection with fountain pens, but may be used in connection with other kinds of pens if desired, or in any other connection for which it may be adapted or appropriate.

The object of my invention is the provisions of means for use within a fountain-pen cap for permanently attaching the cap to the pen barrel for longitudinal movements thereon, and for causing the automatic opening of the outer cap end to expose the pen proper for writing when the cap is moved rearwardly on the barrel, and to close the outer cap end over the pen end when the cap is moved to pen protecting position, thus preventing the liability of misplacing or losing the pen cap, or of breaking the same by reason of its falling from the barrel, as is frequently the case with the separable form of cap commonly used.

This invention also serves as a safe and reliable protecting means for a pen point when the pen is being carried in a pocket.

Further objects of the invention will be apparent from the following detailed description thereof.

The invention is fully described in the following specification, and while, in its broader aspect, it is capable of embodiment in numerous forms, a preferred embodiment thereof is illustrated in the accompanying drawings, in which,—

Figure 1 is a side elevation of a fountain-pen embodying my invention, with the cap in closed position. Fig. 2 is a similar view with the parts in open position. Figs. 3 and 4 are similar side views thereof turned in different positions, with the cap in closed

position in the latter and partially opened 55 in the former, and Fig. 5 is a detail of the operable parts separate from the cap.

Referring to the drawings, 1 designates the barrel of a fountain-pen, and 2 the cap which is mounted for longitudinal sliding 60 movements thereover to enable it to be moved into positions to cover or uncover the pen point 3.

In carrying out the feature of my invention, I open the outer end of the cap 2, as shown at 4, and mount a ring 5 preferably of metal therein adjacent to such outer end. This ring has an arm 6 projecting laterally from the inner end thereof toward and adjacent to the inner end of the cap 2, such 70 arm being rigidly attached to the cap by screws 6', or in any other suitable manner, to adapt such arm to move in unison with the cap.

A slide-bar 7 is mounted in longitudinal 75 parallelism with the arm 6 adjacent to one side edge thereof and has its inner end working in a guide 8 projecting laterally from the inner end of the arm 6 and its outer end working through the ring 5 in 80 close relation to its inner wall, and guided for reciprocatory movements at such end by a pin or lug 9, projecting laterally therefrom through a guide-slot 10 provided in an extension 11 on the inner end of the ring 5. 85 The inner or adjacent longitudinal edges of the arm 6 and slide-bar 7 cooperate to form a guide-slot 12 for a pin 13, projecting, in the present instance, from a ferrule 14, that is threaded or otherwise suitably attached 90 to the barrel 1 adjacent to its pen point end, to work in.

The pin 13, in addition to serving to prevent a rotation of the cap and internally attached parts upon the pen barrel, also coacts 95 with a notch 15 in the rear or inner end portion of the slide-bar 7 to move such bar inward or outward relative to the cap and fixedly attached arm 6 when the cap is in or adjacent to its completely closed position, 100 as best shown in Fig. 1. The inner edge of the arm 6 is provided near its rear or inner end adjacent to the notch 15 with a cam surface 16, which is intended to force the pin 13 laterally into the notch 15 when 105 such notch is positioned in opposed relation to said surface and the cap carried parts are at a predetermined point in their outward

sliding movements, and vice versa. Upon a continued outward movement of the cap carried parts relative to the pen barrel, the pin 13 is held in engagement with the notch 15 by the surface 16 of the arm 6, thus causing the bar 7 to stand fixed relative to the pin 13 during a continued outward movement of the cap 2 and fixedly attached arm 6, and also during the initial portion of an inward movement of the cap and attached arm.

The outer end of the cap 2 is intended to be closed by a disk-like gate or closure member 17, which is hinged to a lug projecting from the outer end of the ring 5, as at 18, whereby the gate is permitted to swing into positions to open or close the open outer end of the cap 2. The gate 17 is preferably of suitable size to fit snugly within the end of the cap 2 against the shoulder formed by the outer end of the ring 5, and preferably has its inner side faced with soft rubber or other suitable material to enable the gate to have a substantially air tight fit within or against the outer end of the cap.

The opening and closing movements of the gate are controlled by longitudinal movements of the slide-bar 7 relative to the ring 5 and fixedly attached parts, and for such purpose has its outer end projected through the ring 5 and pivotally attached to the inner side of the gate 17 in suitable position to effect an opening of the gate when the slide-bar is moved forwardly relative to the cap, and to effect a closing of the gate when the bar is moved rearwardly relative to the cap. When the gate is in the full open position shown in Fig. 2, the pin 9, which projects from the slide-bar 7 is seated within a laterally curved portion 19 of its guide slot 10, thus tending to hold the parts 6 and 7 in their relative positions of adjustment.

As the cap 2 and associated parts are preferably made of suitable size to adapt them to be mounted on pen barrels of different sizes, the rear or inner end of the cap has a reducing ferrule or adapter 20 threaded therein. These ferrules are made in different sizes to adapt their outer reduced ends to have a sliding fit around the pen barrel upon which the cap is to be mounted.

The operation of my attachment is as follows: When the cap 2 and associated parts are in closed position relative to the pen barrel with the gate 17 closing the open end of the cap, the slide-bar 7 stands at the limit of its rearward movement relative to the member 6 that is fixed to the cap 2, and the pin 13 is seated in the slide-bar notch 15, being retained therein by the broadened or cam portion 16 of such member, as best shown in Fig. 1. To uncover the pen point 3 for the purpose of writing, the user is merely required to grasp the cap 2 and move

it rearwardly upon the barrel to the limit of its permissible movement in such direction. During the initial portion of such movement the slide bar 7 is caused to stand stationary relative to the pen barrel due to the pin 13 fitting into the notch 15, thus causing the gate 17 to move to the open position shown in Figs. 2 and 3 due to the rearward movement of its pivot with the cap parts. When the gate 17 has been moved to its full open position, the member 6, which is attached to the cap 2, will have moved rearwardly a sufficient distance for the cam portion 16 thereof to move into register with the notch 15 to permit a release of the pin 13 from engagement therewith, thus enabling the member 6 and slide-bar 7 to move together during the remainder of the rearward opening movement of the cap 2, which movement places the parts in the positions shown in Fig. 2. When it is desired to close the cap over the pen point the user moves the cap 2 outwardly on the barrel, and when the notch 15 has been moved into register with the pin 13 on the barrel, such pin is forced into engagement with such notch, thus holding the slide bar stationary relative to the pin during the remainder of the outward movement of the cap. The holding of the bar 7 in this manner during the continued outward movement of the cap and attached member 6 causes the gate 17 to be swung into the cap-closing position shown in Fig. 1. It is apparent that this attachment prevents a losing of the cap, and provides a simple and efficient protection for the pen point when carrying the pen in the pocket. It is also apparent that my invention may be easily attached to any of the fountain pens on the market or to the holders of the ordinary writing pens, as it is only necessary to slip the parts over the pen barrel or holder and to secure the collar or ferrule member 14, which carries the pin 13, in proper adjustment thereon.

I wish it understood that my invention is not limited to any particular construction or arrangement of the parts except in so far as such limitations are specified in the claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is,—

1. The combination with a pen barrel or holder, of a cap mounted for sliding movements thereon and having its outer end open, a gate hinged to said cap for closing the outer end thereof, a member fixed within the cap for sliding movements relative thereto, a bar carried by said member for limited reciprocatory movements relative to said cap to open or close said gate, and means fixed to the barrel or holder and movable relative to said bar and member and adapted to engage and hold said bar stationary relative to the barrel or holder during predetermined

portions of the movement of the cap on the barrel or holder.

2. The combination with a pen barrel or holder, of a cap mounted for sliding movements thereon, a gate for closing the outer end of said cap, a guide member fixed to the cap, a bar carried for limited sliding movements relative to said cap and member and being movable therewith, and means fixed to the barrel or holder and guided by said member at predetermined points in a movement of the cap relative to the barrel or holder to engage and maintain said bar stationary to impart opening or closing movements to the cap.

3. The combination with a pen holder, of a cap mounted for sliding movements thereon and having a hinged part for opening or closing its outer end, a bar movable with the cap relative to the holder and capable of having limited relative movements longitudinal of the cap, and means fixed to the holder and movable therewith relative to said cap and bar during portions of the movements of said bar and cap on the holder and adapted to engage and hold said bar stationary during other portions of the movements of said cap relative to the holder to impart opening and closing movements to said cap part.

4. The combination with a pen holder, of a cap mounted for reciprocatory movements thereon, a gate hinged to said cap for closing the outer end thereof, a bar movable with said cap and capable of limited longitudinal movements relative thereto, and means fixed to the holder and adapted to engage and hold said bar stationary during the initial portion of a pen uncovering movement of the cap to cause a projection of the bar from the cap to open said gate.

5. The combination with a pen barrel or holder, of a cap mounted for limited sliding movements thereon, a gate for closing the outer end of said cap over the pen point, a slide-bar attached to said gate, said bar being movable with the cap, and means for holding the bar stationary during predetermined portions of the movements of the

cap to impart opening or closing movements to the gate.

6. In combination, a holder for pens etc., a member mounted for longitudinal movements thereover for covering or uncovering an end portion thereof, said member having its outer end open, a cap hinged to said member for closing said end, a bar attached to said gate and carried by said member for limited sliding movements relative thereto, and means fixedly attached to said holder within the member and adapted to engage and hold said bar stationary during predetermined portions of the movements of said member to impart opening and closing movements to the gate.

7. In combination, a pen holder, a member mounted for sliding movements upon the pen holding end thereof and adapted to inclose or uncover such end, a gate hinged to said member for closing the outer end thereof, a bar attached to said gate and carried by the member for limited sliding movements relative thereto and adapted to impart opening and closing movements to the gate when moved in different directions relative to said member, said bar and a part of said member cooperating to form a longitudinally extending guide-slot and one having a notch and the other a cam surface in adjacent relation, a pin projecting from the holder and working within said slot, said pin permitting the member and bar to have limited longitudinal movements together and adapted to engage said notch to hold the bar stationary during portions of the movements of said member to impart opening and closing movements to the gate, said pin being held in locking engagement with said notch by the cam surface of said member during the relative movements of such parts.

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

PHILIP J. SCHRIEBER.

Witnesses:

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E. E. THOMAS.