

R. J. MACKENZIE.  
FOUNTAIN PEN.  
APPLICATION FILED DEC. 3, 1919.

1,390,366.

Patented Sept. 13, 1921.

FIG-1.

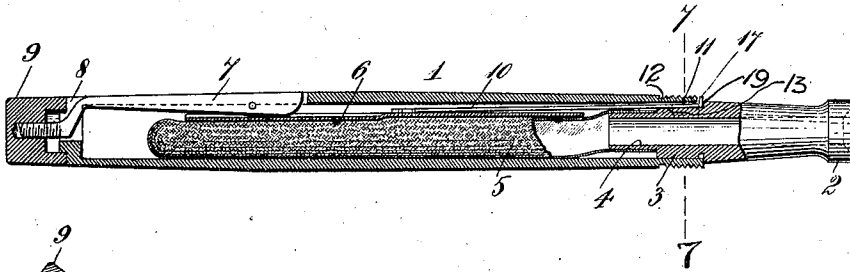


FIG-2.

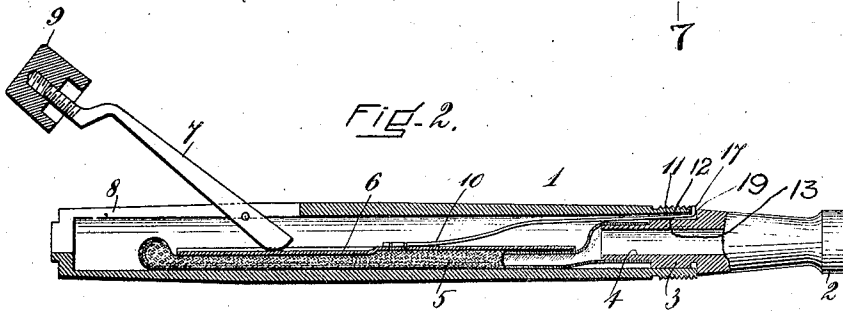


FIG-3.

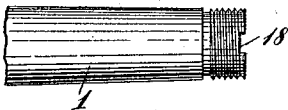


FIG-4.

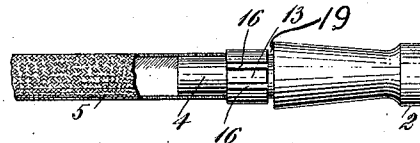


FIG-5.

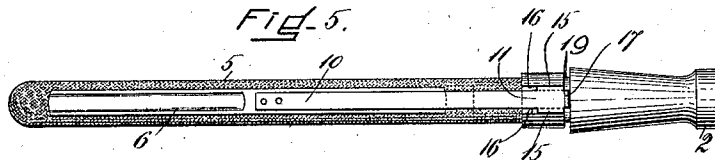
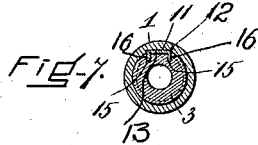
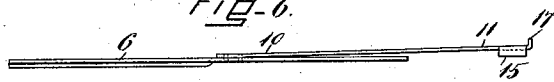


FIG-6.



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# UNITED STATES PATENT OFFICE.

RODERICK J. MACKENZIE, OF CAMBRIDGE, MASSACHUSETTS, ASSIGNOR TO CROCKER PEN COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

FOUNTAIN-PEN.

1,390,366.

Specification of Letters Patent. Patented Sept. 13, 1921.

Application filed December 3, 1919. Serial No. 342,071.

*To all whom it may concern:*

Be it known that I, RODERICK J. MACKENZIE, of Cambridge, in the county of Middlesex and State of Massachusetts, a citizen of the United States, have invented a new and useful Improvement in Fountain-Pens, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

The present invention relates especially to self-filling fountain pens having a compressible rubber sack and a presser bar or plate directed by some means or device for compressing the sack.

In fountain pens of this type and in fact of all types, it is desirable that the several parts of the pen be easily and accurately assembled to assume proper working positions; and that the parts be maintained in such positions. This is especially true of the bar or plate which compresses the sack. It is necessary during the assembling of the parts that the presser bar be located in proper position relatively to the means or device which actuates it for compressing the sack, and that the presser bar be retained to maintain at all times its properly located position.

It is the object of my invention to meet the requirements above pointed out. In meeting these requirements it is my further object, also, not to multiply or add to the several parts of the fountain pen, but to attain the desired ends in as simple a manner as possible.

My invention can best be seen and understood by reference to the drawings in which it is illustrated in the light of the fountain pen shown and described in reissued Patent No. 14,397, of November 27, 1917.

In the drawings:—

Figure 1 is a longitudinal section of the fountain pen embodying my invention.

Fig. 2 is the same as Fig. 1 excepting that certain of the operative parts are shown in a changed position.

Fig. 3 is a top plan view of a portion of the barrel of the pen.

Fig. 4 is a view mainly in top plan view of the pen-carrying section of the fountain pen and sack connected thereto.

Fig. 5 is a plan of the pen with attached sack and presser bar applied thereto.

Fig. 6 shows the presser bar in side elevation together with its attached arm.

Fig. 7 is a section on line 7—7 of Fig. 1.

Referring to the drawings:—

1 represents the barrel of the pen. 2 is the pen-carrying section having a reduced or neck portion 3 which fits slidably within the forward end of the barrel and by means of which the pen-carrying section is attached to the barrel. From the neck portion 3 a tubular extension 4 extends backwardly into the chamber of the barrel and to this extension is secured the collapsible ink-carrying sack 5 contained within said chamber.

6 is the presser bar for collapsing the sack. This bar is disposed over the sack and extends in longitudinal alinement therewith. 7 is a lever by which the presser bar is actuated to compress the sack. The lever is contained within a slot 8 formed within the barrel and is pivoted to the barrel, the arrangement being such that as the lever is turned the end thereof will engage the presser bar and move it into engagement with the sack for collapsing it, as shown in Fig. 2. In this connection it will be understood that the presser bar must occupy a properly defined position within the barrel in order that it may be engaged by the end of the lever. 9 is the end piece or nut on the end of the lever for holding it in place when the lever is occupying its normal out-of-the-way position as shown in Fig. 1, all substantially as shown and described in said patent.

Fixed to the presser bar is a spring bar 10. This spring bar acts to carry the presser bar and hold it in a properly defined position with relation to the lever 7 and also return the presser bar, after it has been actuated for compressing the sack, to the position normally occupied by it when the sack is extended as shown in Fig. 1.

The spring bar 10 from the point of its attachment to the presser bar extends forward over this bar in longitudinal alinement therewith, and the free end 11 of the spring bar is extended into a keyway formed within the joint between the forward end of the barrel and the neck 3 to the pen-carrying portion of the fountain pen. The keyway which receives the forward end of the spring bar is provided by slotting the forward end of the barrel of the pen and also the neck to the pen-carrying section, the barrel being provided with an internal slot 12 and the neck 3 with a slot 13. When fitting within

the keyway thus provided the forward end of the spring bar acts as a key for preventing the turning of the pen-carrying section 2 of the fountain pen with relation to the barrel.

The disposition or location of the keyway is in direct alinement with the lever which actuates the presser bar, and accordingly when the end of the spring bar is contained within the keyway it will operate to hold the presser bar in proper alined position for receiving the engagement of the lever, and will maintain the presser bar in such position.

A difficulty hitherto encountered where the spring bar carrying the presser bar has been secured to some portion of the pen-carrying section has been that, after the presser bar has been once properly alined for receiving the engagement of the lever, its alinement might be disturbed by an accidental turning of the pen-carrying section, and then the parts would not function properly. Any difficulty of this kind is overcome in the present construction inasmuch as the spring bar which holds the presser bar in alinement, acts as a key for preventing the turning of the pen-carrying section with relation to the barrel.

At the time the several parts of the pen are assembled the present arrangement insures a proper disposing of the presser bar with relation to the lever even in the hands of a careless workman. Inasmuch as the pen-carrying section fits slidably within the end of the barrel, it cannot be made to fit therein together with the free end of the spring bar acting as a key, until the pen-carrying section has been turned to a position for forming the keyway. When the keyway is formed, then the free end of the spring bar will fit within it and the pen-carrying section may be slipped into the barrel, when all the parts become properly alined and the lever may properly engage the presser bar.

In assembling the parts of the pen preparatory to fitting the pen-carrying section into the end of the barrel the free end of the spring bar is fitted within the slot 13 of the neck portion to the pen-carrying section. To assist in retaining the end of the bar in this slot and for assisting, also, in preventing longitudinal movement of the bar when disposed within the keyway, the end of the bar is preferably provided with downturned wings or flanges 15 which fit within incisions 16 formed within the neck portion 3. By fitting these wings or flanges within the incisions the end of the spring bar may be properly applied to the neck piece preparatory to slipping it into the end of the barrel. I prefer, also, for preventing any tendency to a longitudinal displacement of the spring bar to provide it with an upturned end

piece 17 which, when the bar is disposed within the keyway, extends outwardly into a slot 18 formed in the end of the barrel and between the end of the barrel and the shoulder 19 formed upon the pen-carrying section. Thus will the spring bar be maintained within the keyway against possibility of longitudinal displacement.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States:—

1. In a fountain pen, the combination comprising the barrel of the pen, a pen-carrying section having jointed engagement with said barrel, both said barrel and pen-carrying section having a slot to provide a keyway at the point of the joint between said members when the pen-carrying section is turned to occupy a determinate position with relation to said barrel, a compressible sack within the barrel, a presser bar for collapsing said sack when actuated, means for actuating the presser bar, and means carrying said presser bar and extended to lie within said keyway.

2. In a fountain pen, the combination comprising the barrel of the pen, a pen-carrying section having jointed engagement with said barrel, both said barrel and pen-carrying section having a slot to provide a keyway at the point of the joint between said members when the pen-carrying section is turned to occupy a determinate position with relation to said barrel, a compressible sack within the barrel, a presser bar for collapsing said sack when actuated, means for actuating the presser bar, a spring bar attached to said presser bar for carrying the same and defining the position thereof, said bar being extended whereby the free end thereof may lie within said keyway, and means for preventing longitudinal displacement of said spring bar.

3. In a fountain pen, the combination comprising a barrel, a pen-carrying section having jointed engagement with the barrel, both the barrel and the pen-carrying section being slotted to provide a keyway at the point of the joint between said members when the pen-carrying section is turned to occupy a determinate position with relation to the barrel, a collapsible sack within the barrel, and mechanism for controlling said sack, said mechanism consisting in part of a bar within the barrel extending to lie within said keyway.

4. In a fountain pen, the combination comprising a barrel, a pen-carrying section having jointed engagement with the barrel, both the barrel and the pen-carrying section being slotted to provide a keyway at the point of the joint between said members when the pen-carrying section is turned to occupy a determinate position with relation to the barrel, a collapsible sack within the

barrel, mechanism for controlling said sack, said mechanism consisting in part of a bar within the barrel extending to lie within said keyway, and means for preventing endwise displacement of said bar.

5 In a fountain pen, the combination comprising a barrel, a pen-carrying section having jointed engagement with the barrel at the forward end thereof, said barrel having a slot in it adjacent said joint, a collapsible sack within the barrel, and mechanism for controlling said sack, said mechanism consisting in part of a bar within the barrel extending to lie within said slot in the barrel.

10 6. In a fountain pen, the combination comprising a barrel, a pen-carrying section having jointed engagement with the barrel at the forward end thereof, said barrel having a slot in it adjacent said joint, a collapsible sack within the barrel, mechanism for controlling said sack, said mechanism consisting in part of a bar within the barrel extending to lie within said slot in the barrel, and means for holding said bar against endwise displacement.

7. In a fountain pen, the combination comprising a barrel, a pen-carrying section having jointed engagement with the barrel at the forward end thereof, said barrel having a slot in it adjacent said joint, a collapsible sack within the barrel, and mechanism for controlling said sack, said mechanism consisting in part of a bar within the barrel extending to lie within said slot in the barrel, said bar being provided with a flange-forming member for holding the bar against endwise displacement.

15 8. In a fountain pen, the combination comprising a barrel, a pen-carrying section having jointed engagement with the barrel, both the barrel and the pen-carrying section being provided with slots adjacent said joint, a collapsible sack within the barrel, and mechanism for controlling said sack, said mechanism consisting in part of a bar within the barrel extending to lie within said slot in the barrel and provided with a flange lying within said slot in the pen-carrying section.

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