

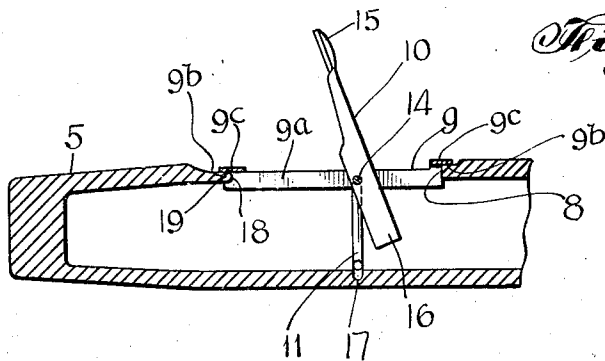
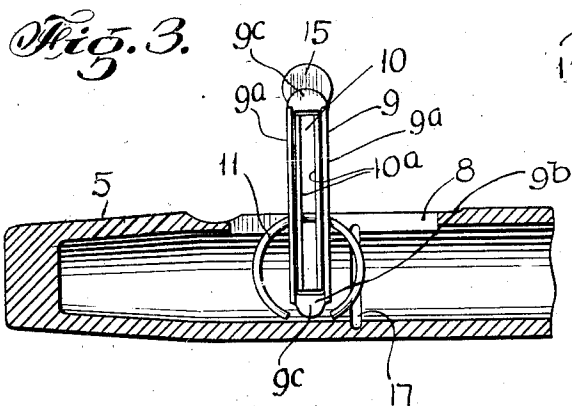
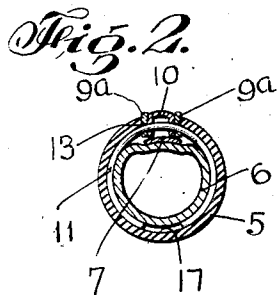
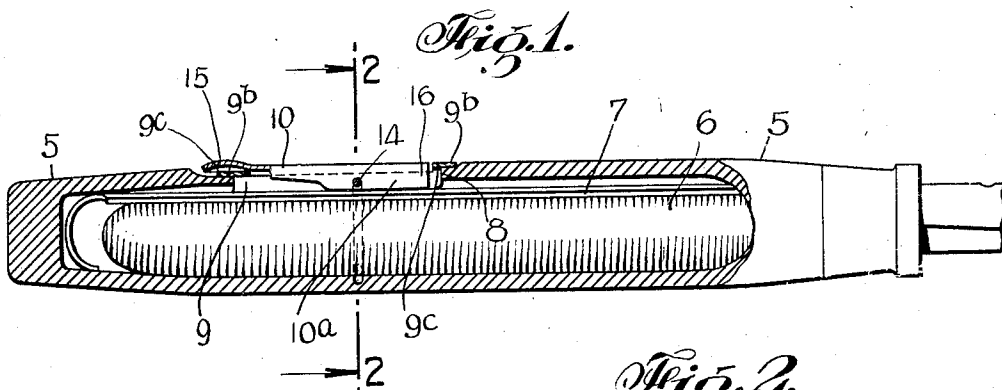
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FOUNTAIN PEN ATTACHMENT

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**FOUNTAIN-PEN ATTACHMENT**

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This invention relates to attachments for fountain pens and particularly to pens of the self-filling type; and the object of the invention is to provide the apertured portion of the barrel of the fountain pen with a liner to reinforce the boundary walls of said aperture and the pen structure and also to form a neat and finished appearance thereto; a further object being to provide a simple and quick means of attachment and mounting of a liner of the class specified and for retaining such liner against displacement from the barrel of the pen, the retaining or securing means also serving as a fulcrum and mounting for the manually operated lever of the pen; and with these and other objects in view, the invention consists in an attachment of the class and for the purpose specified, which is simple and unitary in construction, efficient in use and which is constructed as hereinafter described and claimed.

Fig. 1 is a side and sectional view of a part of the barrel of a pen, showing one of my improved attachments mounted in connection therewith.

Fig. 2 is a section on the line 2—2 of Fig. 1.

Fig. 3 is a view similar to Fig. 1 but showing only a part of the construction and illustrating the manner of mounting my improved attachment in connection with the barrel of the pen; and,

Fig. 4 is a view similar to Fig. 1 showing only a part of the construction and showing a slight modification.

In the drawing, 5 represents the barrel of a fountain pen in which is supported, in the usual manner, a flexible or compressible sack 6. At 7, I have shown a spring bar extending longitudinally of the well 6 which is adapted to be depressed in the operation of compressing the sack 6 for the purpose of filling or refilling said sack with ink in the usual manner. The barrel 5 is provided with an elongated aperture 8 in one well thereof, and mounted in this aperture is one of my improved units involving a substantially box-shaped liner 9 to which is pivotally supported an operating lever 10 by means of a spring ring 11, the latter serving as means for

mounting and supporting the liner 9 in connection with the barrel of the pen.

The liner 9 consists in the construction shown of oppositely disposed elongated side walls 9a adapted to snugly fit in the opposite side walls of the aperture 8. These side walls are joined at the end portions thereof by top wall members 9b which project beyond the ends of the side walls 9a to form rounded projecting flanges 9c which overlie the end walls of the aperture 8 and rest upon the barrel of the pen as clearly seen in Fig. 1 of the drawing.

The side walls 9a of the liner are provided substantially centrally thereof with apertures 13 for receiving the mounting ring 11, which ring also passes through apertures 14 in the side flanges 10a of the lever 10 said flanges being disposed within and adjacent the side walls 9a of the liner 9. One end of the lever 10 projects beyond one flanged end 9c of the liner and is arranged thereabove to form a finger piece 15 by means of which the lever 10 may be actuated, whereas the other end 16 of said lever is arranged within the other flanged end 9c of the liner and is adapted to move into the barrel of the pen to engage the spring bar 7 and to compress the well 6 in the usual manner. The bore of the barrel 5 of the pen is provided substantially centrally of the aperture 8 with an annular ring groove 17 in which the ring 11 is adapted to be placed under compression in the operation of securing my improved attachment within and to the pen.

In Fig. 4 of the drawing, I have shown a slight modification of the structure shown in Figs. 1 to 3 inclusive, which consists in recessing one end of each of the side walls 9a of the liner as shown at 18 to encircle the adjacent wall 19 of the barrel 5 of the pen to form a lock engagement of said end of the liner with the barrel. Otherwise, the structure shown in Fig. 4 is identical with that shown in Figs. 1 to 3 inclusive, and like references will represent like parts.

In both forms of construction shown, it will be understood that the liner 9, lever 10 and ring 11 are assembled as a unit after the respective parts have been made, and as

a unit are mounted in connection with the barrel of the pen, which result is accomplished by first passing one end of the unit into the barrel of the pen through the aperture 8 in the manner seen in Fig. 3 of the drawing, with the lever 10 and liner 9 in substantially parallel relation to the ring 11. When so inserted, the entire unit is rotated to bring the same into a position at right angles to that shown in Fig. 3, after which the unit is moved longitudinally of the barrel of the pen to place the spring in the groove 17.

In this operation, the liner 9 is moved into horizontal position, by forcing the end portion of said liner, provided with the flange 9c, which is arranged within the barrel, outwardly through the aperture 8, to bring said flange in engagement with one end wall of the aperture and the outer wall of the pen barrel, which result is accomplished against the action of the spring 11. Said spring will serve to move the other end portion of the liner and its flange 9c into engagement with the outer wall of the pen barrel, when released, it being understood that the spring 11 exerts inward pressure upon the liner 9 to support it in the aperture 8, the flanges 9c limiting the inward movement of said liner.

An assembled position of the parts is shown in Figs. 1 and 2 of the drawing, and when in this position, the liner 9 is held against displacement from the barrel of the pen, unless pressure be exerted to deliberately remove the same therefrom for cleaning, repair or other purposes. At the same time, the lever 10 may be actuated from time to time in the operation of filling and refilling the well 6 of the pen as will be apparent. In this operation, it will be noted that the pressure of the lever is exerted directly upon its pivot, namely the ring 11, which is resisted by the walls of the barrel 5 of the pen, and this will in no way tend to loosen or dislodge the liner 9. In inserting the liner shown in Fig. 4 of the drawing, the recessed end 18 is moved into engagement with the well of the pen barrel prior to or in the operation of moving the ring 11 into position to engage the ring groove 17.

I am aware of the fact that other liners have been used in connection with fountain pen barrels to accomplish the result herein disclosed, but in all of such liners, crimping, compressing or other operations become necessary in securing the liner in position which necessitates the inclusion of projecting clips or prongs on the liner structure.

Whereas, with my construction, I provide a very simple form of liner as well as a very simple, quick and practical manner of securing the liner in position. The cost of producing my improved liner will be considerably less than that of other devices of

this class, and in like manner, the installation cost is materially reduced.

While I have shown certain details of construction for carrying my invention into effect, it will be understood that I am not necessarily limited to these details, and various changes in and modifications of the construction herein shown and described may be made within the scope of the appended claims without departing from the spirit of my invention or sacrificing its advantages.

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

1. The combination with a fountain pen barrel having an elongated aperture therein, of a liner for said aperture, and means involving a member movably coupled with said liner for supporting the same within the aperture of said pen barrel, said means comprising a spring ring.

2. The combination with a fountain pen barrel having an elongated aperture therein, of a liner for said aperture, means involving a member movably coupled with said liner for supporting the same within the aperture of said pen barrel, and a lever pivotally coupled to said liner by said means.

3. The combination with a fountain pen barrel having an elongated aperture therein, of a liner for said aperture, means involving a member movably coupled with said liner for supporting the same within the aperture of said pen barrel, a lever pivotally coupled to said liner by said means, and said liner comprising parallel side walls joined by crossheads at the ends thereof, and said crossheads having outwardly projecting flanges engaging the walls of said barrel.

4. A lever support for self-filling fountain pens of the class described comprising an elongated box-shaped liner adapted to be arranged in an aperture in the barrel of a pen, means on said liner for preventing inward movement of said liner, a spring ring on said liner and arranged in the barrel of the pen for retaining said liner against outward movement with respect to the pen barrel, a lever pivoted to said liner by said ring, and said ring being adapted to fit in a ring groove in the bore of the pen barrel.

5. A liner for the lever aperture in the barrel of self-filling fountain pens comprising oppositely disposed and parallel side walls joined at the end by crosshead wall members, the ends of said liner engaging the walls of the pen barrel to limit the inward movement of said liner, and means movably coupled with said liner and arranged within the pen barrel for retaining said liner against displacement from said barrel, said means comprising a split ring.

6. A liner for the lever aperture in the barrel of self-filling fountain pens comprising

oppositely disposed and parallel side walls joined at the end by cross-head wall members, the ends of said liner engaging the walls of the pen barrel to limit the inward movement of said liner, means movably coupled with said liner and arranged within the pen barrel for retaining said liner against displacement from said barrel, said means comprising a split ring, and said ring forming the pivot for the lever of the pen.

7. A unitary attachment for self-filling fountain pens comprising a lever, a liner within which said lever is movably supported, means passed through said lever and liner for pivotally coupling the lever to said liner, said means comprising a spring ring adapted to be arranged within the barrel of a fountain pen to retain the liner and lever against displacement therefrom and said lever, liner and ring being attachable and detachable with respect to the pen barrel as a unit.

8. A unitary attachment for self-filling fountain pens comprising a lever, a liner within which said lever is movably supported, means passed through said lever and liner for pivotally coupling the lever to said liner, said means comprising a spring ring adapted to be arranged within the barrel of a fountain pen to retain the liner and lever against displacement therefrom and said lever, liner and ring being attachable and detachable with respect to the pen barrel as a unit, and said liner including laterally projecting flanges on the outer surfaces thereof.

In testimony that I claim the foregoing as my invention I have signed my name this 22nd day of November, 1928.

CLINTON E. MARSHALL.