March 11, 1924. 1,486,246

O. B. HJORTH

FOUNTAIN PEN

Filed Sept. 1, 1922

Fig. 1,

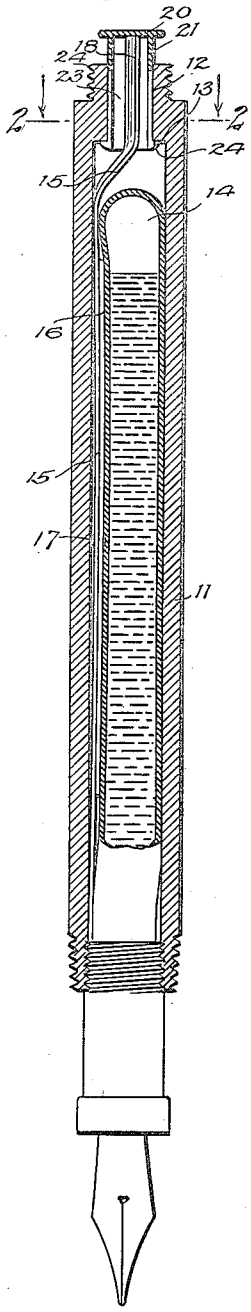


Fig. 2,

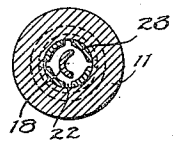


Fig. 3,

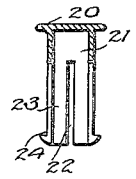
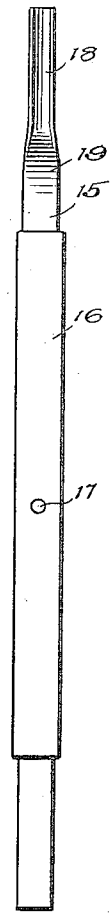


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

OSCAR B. HJORTH, OF JANESVILLE, WISCONSIN, ASSIGNOR TO THE PARKER PEN CO., OF JANESVILLE, WISCONSIN, A CORPORATION OF WISCONSIN.

FOUNTAIN PEN.

Application filed September 1, 1922. Serial No. 585,315.

To all whom it may concern:

Be it known that I, OSCAR B. HJORTH, a citizen of the United States, and a resident of Janesville, in the county of Rock and State of Wisconsin, have invented a new and Improved Fountain Pen, of which the following is a full, clear, and exact description.

The present invention relates to new and useful improvements in fountain pens and it pertains more particularly to fountain pens known as the self-filling type.

It is one of the primary objects of the present invention to provide a self-filling mechanism for fountain pens in which the filling mechanism is removably secured within the barrel of the pen.

It is a further object of the invention to so construct the mechanism that the operating button of the self-filling mechanism is free to turn in respect to the barrel and with respect to the remaining elements of the operating mechanism without injury to the sac or ink container of the pen.

With the above and other objects in view, reference is had to the accompanying drawings, in which—

Figure 1 is a partial longitudinal sectional view of a pen constructed in accordance with the present invention;

Fig. 2 is a transverse sectional view taken on the line 2—2 of Fig. 1;

Fig. 3 is a detail sectional view of the operator or presser button;

Fig. 4 is a view in elevation of the spring bar and pressure bar of the mechanism.

Referring more particularly to the drawings, the reference character 11 designates the barrel of the pen and said barrel is provided at its rear end with an opening or passageway 12. This opening or passageway 12 is of smaller diameter than the internal diameter of the barrel thus providing a shoulder 13 where the inner opening in the barrel leaves off and the opening or passageway 12 begins.

The reference character 14 designates the ink sac and said ink sac is adapted to be received within the barrel 11 of the pen as is the common practice. The reference character 15 designates the spring bar and 16 designates the pressure bar, these bars being secured together by means of a rivet or the like, 17. The rear end of the spring bar 15 is curved in cross section as indicated by the reference character 18, and said curved portion is offset with respect to the main body portion of the spring bar as indicated by the reference character 19. The reference character 20 designates the presser button and said presser button comprises a hollow headed member 21. This member 21 is cut to provide kerfs 22 and said kerfs form a plurality of resilient fingers 23. Each of these fingers 23 is provided on its free end with an angular shoulder 24, the purpose of which will be hereinafter described. This member 21 is adapted to be received within the passage 12 as shown in Fig. 1, the spring fingers 23 thereof lying within said passage and the angular shoulders of said fingers engaging the shoulder 13 heretofore mentioned to prevent displacement of the member 21 relative to the end of the pen barrel 11.

By this construction the members 21 is free to rotate within the passageway 12 but cannot be conveniently withdrawn therefrom by reason of the engagement of the shoulders 24 with the shoulder 13. It will be understood, however, that this member 21 is readily introduced into the passageway 12 since the fingers 23 are of a resilient nature and will tend to contract sufficiently to permit of the shoulders 24 passing through the passageway 12.

The curved end 18 of the spring bar 15 is adapted to be received within the member 21, as clearly shown in Fig. 1, in such a manner that as the member 21 is depressed, the spring bar 15 will be buckled within the barrel and cause the pressure bar 16 to collapse the sac 14. By this construction it is apparent that the presser button 20 is freely movable about the curved end 18 of the spring bar 15 so that upon turning of the presser button 20 no action on the spring bar 15 will be had.

It is to be understood that a suitable cap covers the presser button 20, said cap having screw-threaded engagement with the threads 24 formed on the end of the barrel 11.

What is claimed is:

1. In a fountain pen, a self-filling mechanism comprising a pressure bar, a spring bar for operating the pressure bar, and means for operating said spring bar, said means comprising a hollow member formed

with a plurality of resilient fingers whereby it is removably retained within a fountain pen barrel.

2. In a fountain pen, a self-filling mechanism comprising a pressure bar, a spring bar for operating the pressure bar, and means for operating said spring bar, said operating means comprising a hollow member formed with a plurality of resilient fingers, each of which is provided with an angularly disposed shoulder adapted to engage a shoulder formed on the pen barrel to prevent removal of the operating means with respect to the pen barrel.

OSCAR B. HJORTH.