

Sept. 6, 1932.

J. A. HOLLAND

1,876,298

SELF FILLING PEN

Filed Jan. 8, 1931

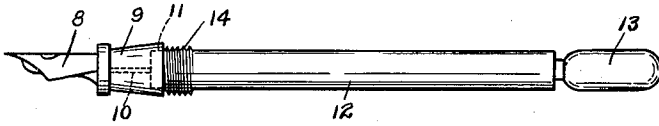


Fig. 1.

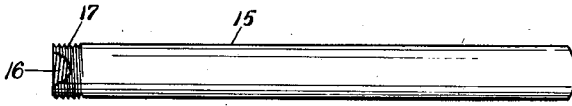


Fig. 2.

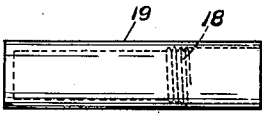


Fig. 3.

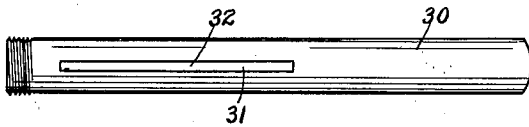


Fig. 4.

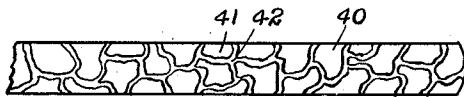


Fig. 5.

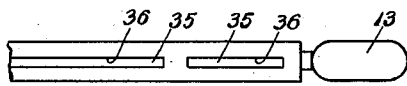


Fig. 6.

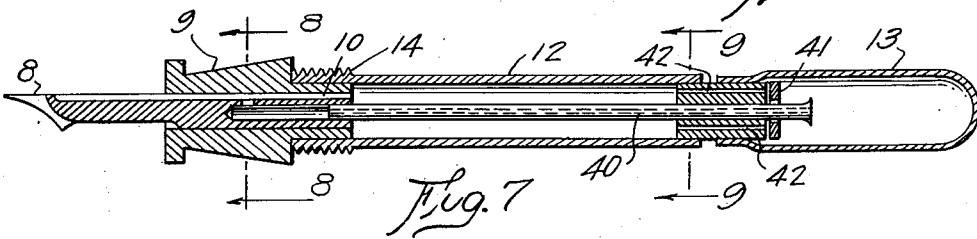


Fig. 7.



Fig. 8.



Fig. 9.

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# UNITED STATES PATENT OFFICE

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## SELF-FILLING PEN

Application filed January 8, 1931. Serial No. 507,455.

This invention relates to writing pens of the type having a reservoir for containing a writing fluid.

An object of the invention is to provide a writing pen with a reservoir that is wholly, or in part, transparent or translucent.

Another object is to provide a writing pen with a transparent or translucent barrel, or one having a slit or window, through which may be observed the contents of a translucent or transparent interior reservoir.

Another object is to provide a pen of the character described, that will hold more writing fluid than a pen of the same size having a rubber sack reservoir.

These and other objects are attained by the means described herein and disclosed in the accompanying drawing, in which:

Fig. 1 is a side elevational view of a writing pen with the barrel and cap thereof removed to show the transparent or translucent reservoir tube and one form of filling means associated therewith.

Fig. 2 is a side elevational view of an opaque or translucent pen barrel or cover for the reservoir.

Fig. 3 is a side elevational view of a protective cap for the pen point.

Fig. 4 is a side elevational view of a pen barrel provided with a slit or window through which the contents of the reservoir may be observed.

Fig. 5 is a side elevational view of a decorated pen barrel certain portions of which are decidedly translucent.

Fig. 6 is a side elevational view of a pen reservoir provided with a window or transparent portion.

Fig. 7 is a longitudinal sectional view of the device shown in Fig. 1.

Fig. 8 is a sectional view on line 8—8 of Fig. 7.

Fig. 9 is a sectional view on line 9—9 of Fig. 7.

The pen of the invention comprises the usual point 8 and mounting means 9 therefor. The mounting means is identical with others in that it has a suitable bore 10 providing for fluid communication between the

point 8 and a transparent or translucent reservoir 12. One end of the reservoir may be attached to the pen mounting means 9 by cementing, screwing, molding, or otherwise providing a connection, as at 11. On the opposite end of the reservoir is provided any suitable means, such as a rubber bulb 13 or a suitable pump device such as is disclosed in the patent to Riesenbergh 1,037,660, Sept. 3, 1912, whereby the reservoir may be filled with writing fluid. By actuating the filling device 13 while the point 8 is immersed in a quantity of writing fluid, the reservoir may be filled with the fluid.

Either the reservoir or the part 11 may be provided with threads 14, or other suitable means, whereby a barrel or cover 15 for the parts 12 and 13 may be detachably held in position relative thereto. In the event that threads 14 are employed for this purpose, cooperative threads 16 are provided in the bore of the hollow barrel 15. The barrel may be provided exteriorly thereof with threads 17 or other suitable means, for cooperation with means such as threads 18 in a protective cap 19, for holding the cap in position about the point 8 when the pen is not in use.

From the foregoing, it should be readily apparent that the user may, by removing the cap 19 and the barrel 15, observe the amount of writing fluid in the transparent or translucent reservoir 12, which latter may be of glass or a non-frangible transparent or translucent material.

In Fig. 4 is shown a barrel 30 of opaque, or nearly opaque material, in which is provided one or more slits or windows 31 through which the writing fluid in the translucent reservoir may be observed without removing the barrel from its normal position about the reservoir. The window 31 may be a strip of glass or other transparent material cemented or otherwise permanently secured in the slit. There may be provided, at a location diametrically opposite the slit or window 31, a second slit or window 32 so that the contents of the reservoir may readily be observed by reason of light passing through both windows to the eye of the observer.

In Fig. 6 is shown a modified form of reservoir having a window or windows 35 which may be of glass or other suitable material cemented or otherwise mounted within a slit 36 therein. In this modification of the invention, the reservoir may be of opaque material.

The barrel 40 shown in Fig. 5 is of a mottled or decorated substance, such as unbreakable glass, a celluloid, or the like, wherein either the portions 41 or 42 are made translucent so as to render visible the writing fluid in the transparent reservoir 12. The barrels are made interchangeable with the reservoir structures, thereby making it possible to please a purchaser as to both the type of barrel and point desired.

It is to be understood that the reservoir 12 may be translucent or transparent as a whole, or partially only, and that the barrel 15 may be opaque or nearly so, as desired. Various other modifications and changes in structural details of the device may be made, within the scope of the appended claim, without departing from the spirit of the invention. The invention is not to be restricted to the type of filling means indicated at 13, nor to the specific means shown for uniting the barrel, reservoir and cap.

The tube 40 has connection with the bore 10 and with the interior of the bulb 13 in the same manner in which similar tube 6 of Riesenberg, supra, has communication with similar members. The valve 41 cooperates with the ports 42 as does Riesenberg's valve 10 cooperate with his ports 12.

What is claimed is:

In a fountain pen, the combination of a pen point mounting member including means for feeding ink through said mounting member to the pen point, a refillable translucent rigid non-frangible cylindrical reservoir member fixed to the mounting member and having its hollow center in communication with the ink feeding means, a pump means comprising a tube having communication with the ink feeding means and valve controlled communication with the interior of the reservoir, and a flexible bulb having its interior in communication with the tube and attached to and sealing the free end of the cylinder for introducing ink into the interior of the reservoir by way of the ink feeding means, and a hollow barrel having detachable connection to the mounting member at the junction of the mounting member and the reservoir member and completely enclosing the reservoir member and the pump means.

In testimony whereof, I have hereunto subscribed my name this 6th day of January, 1931.

JOHN A. HOLLAND.