No. 818,803. PATENTED APR. 24, 1906.

O. E. WEIDLICH.

FOUNTAIN PEN.

APPLICATION FILED JUNE 8, 1905.

Fig. 1

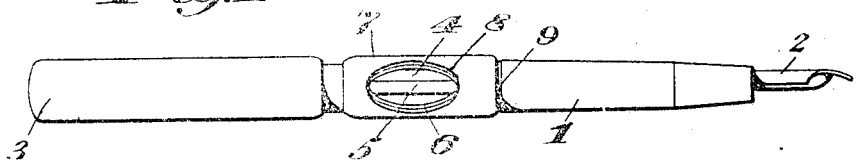


Fig. 2

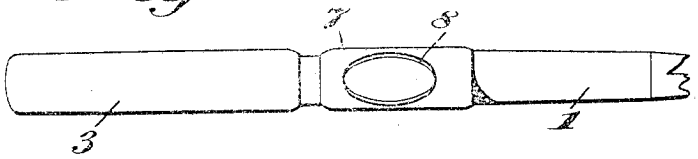
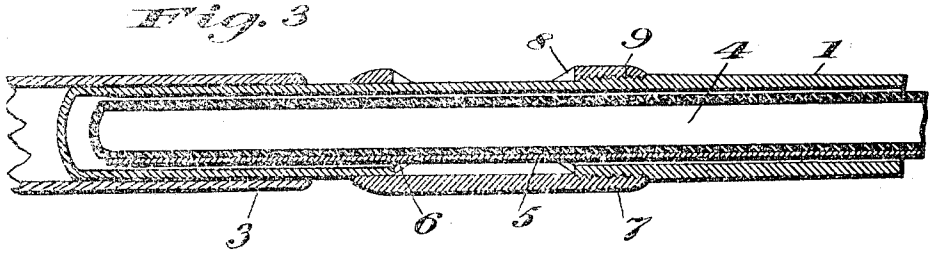


Fig. 3



Witnesses
L. W. Grow
Miriam Schuchardt

Inventor
Otto Emil Weidlich,
By John Elias Jones,
Attorney.

UNITED STATES PATENT OFFICE.

OTTO EMIL WEIDLICH, OF NORWOOD, OHIO.

FOUNTAIN-PEN.

No. 818,803. Specification of Letters Patent. Patented April 24, 1906.

Application filed June 8, 1905. Serial No. 264,251.

To all whom it may concern:

Be it known that I, OTTO EMIL WEIDLICH, a citizen of the United States of America, and a resident of Norwood, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Fountain-Pens, of which the following is a specification.

This invention relates to certain improvements in fountain-pens, and more particularly in that class of such devices which are provided with means forming part of the pens for use in quickly and conveniently filling the same with ink; and the object of the invention is to provide a pen of this general character having filling means of an improved and simplified construction adapted for use for readily and conveniently filling the pen and of a nature to insure against the accidental discharge or spilling of the ink from the pen when the same has been filled.

The invention consists in certain novel features of the construction, combination, and arrangement of the several parts of the improved fountain-pen, whereby certain important advantages are attained and the device is rendered simpler, cheaper, and otherwise better adapted and more convenient for use, all as will be hereinafter fully set forth.

The novel features of the invention will be carefully defined in the claim.

In the accompanying drawings, which serve to illustrate my invention, Figure 1 is a side view of a fountain-pen, provided with my improvements and with its filling means arranged in position to afford access thereto for filling the pen. Fig. 2 is a side view similar to Fig. 1, but showing the pen-point omitted and the fore end of the pen-barrel broken off, and with the improved filling means adjusted to prevent access to its internal parts, so that accidental operation thereof for discharge or spilling of ink from the pen is prevented. Fig. 3 is a partial axial section drawn on an enlarged scale and showing the filling means adjusted to the closed position seen in Fig. 2.

As seen in these views, 1 indicates the barrel or body portion of the improved pen, which is made in elongated tubular form and having screw connection at one end with the pen section or plug whereon the pen-point 2 is carried in a well-known way.

3 is a cap or cover, which is adapted to be slipped on the barrel 1 to inclose and cover the pen-point 2 when the device is not in use, and which is designed at other times to be slipped over and held upon the opposite or upper end of the barrel, as seen in Figs. 1 and 2.

With the pen-section is connected in a well-known way an elastic or compressible ink-reservoir 4, which may be conveniently formed of a soft-rubber tube, closed at its upper end and arranged to communicate at its lower end with the feed opening or openings of said pen-section, so that when the pen-point 2 is dipped in a supply of ink and said elastic soft-rubber tube 4 is compressed to expel the air from its interior through such feed opening or openings the elasticity of the walls of said tube or reservoir 4 will upon release of pressure upon the same serve to cause said tube to resume its original hollow form, so that ink from the supply in which the pen-point has been dipped will be drawn up through the feed opening or openings of the pen-section to fill said tube or reservoir with a supply sufficient to permit use of the pen in writing for a considerable time.

5 is a metallic strip extended along one side of the elastic soft-rubber tube 4, and adapted to compress said tube along substantially its entire length when pressure is applied at about the central part of the tube to said strip, and 6 represents an elliptical opening provided in one side of the barrel 1 at or near the central part thereof and of dimensions sufficient to permit convenient insertion of the tip of the finger of the user so that such finger-tip when inserted at said opening 6 may be caused to press upon the central part of the metallic strip 5 to compress the tube 4 and expel the air therefrom.

7 is a sleeve held upon the central portion of the barrel 1 and of an interior diameter to fit snugly thereon, and one side of said sleeve has an opening 8 of elliptical form and similar in dimensions to the opening 6 in barrel 1, and when said sleeve 7 is turned upon the barrel to one position, as illustrated in Fig. 1, the opening 8 in sleeve 7 is adapted to come into coincidence with the opening 6 in the barrel, so that in such position of the parts the user of the pen may conveniently insert the tip of his finger at said openings to press upon the central part of the metallic strip 5, and thereby to compress and expel the air from the tube or reservoir 4, so that the same may be filled with ink when such pressure is relaxed.

When the sleeve 7 is turned upon the bar-

rel, however, it will be evident that the openings 8 and 6 will be brought out of coincidence, so that an imperforate side of the sleeve will be caused to extend across and close the opening 6 in the barrel, as shown in Fig. 3, and in this position of the sleeve it will be evident that since the opening 6 is covered over and completely closed, access cannot be had to the collapsible tube or reservoir 4 within the barrel, so that accidental compression thereof and spilling of ink from the pen when filled is altogether prevented, although at the same time the sleeve 7 may be readily turned on the barrel to bring the openings 6 and 8 into alinement in order that the pen may be quickly filled when desired.

In order to hold the sleeve 7 in position against endwise movement upon the barrel, I prefer to form said barrel with an enlarged screw-threaded portion 9, with which one end of the sleeve 7 has screw connection, as shown in Figs. 1 and 3, and by this arrangement it will be seen that said screw-threaded enlargement of the barrel forms a stop to prevent excessive turning of the sleeve in one direction when the opening 6 in the barrel has been closed and covered by the imperforate side of the sleeve, so that by turning the sleeve in such direction until the limit of the screw-threads has been reached the user will be certain of having covered the opening in the barrel. This affords a convenient means also for holding the sleeve against accidental turning on the barrel, since the friction afforded by the fully-engaged screw-threads of the parts will be sufficient to prevent such accidental turning of the sleeve, and at the same time a very slight force is required for reversely turning said sleeve a half-rotation to uncover the opening in the barrel so that the finger may be inserted to compress the reservoir 4.

From the above description it will be seen that the improved fountain-pen constructed according to my invention is of an extremely simple and inexpensive nature and is especially well adapted for use by reason of the readiness and convenience with which the ink-reservoir may be filled when empty and of the security with which the opening in the barrel is closed when the pen is filled to prevent accidental spilling of ink therefrom.

It will also be obvious from the above description of my improvements that the pen is capable of some modification without material departure from the principles and spirit of the invention, and for this reason I do not desire to be understood as limiting myself to the precise form and arrangement of the several parts as herein set forth in carrying out my invention in practice.

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

A fountain-pen comprising a barrel having a finger-opening in its wall and having, adjacent to said opening, an enlarged screw-threaded portion, a compressible ink-reservoir in the barrel and provided with a metal strip extended along it with a central part exposed at the finger-opening of the barrel, and a sleeve one end of which has screw connection with the screw-threaded enlargement of the barrel, said sleeve having an opening adapted, when the sleeve is turned on its screw connection, to be moved in and out of registry with the opening in the barrel.

Signed at Cincinnati, Ohio, this 1st day of June, 1905.

OTTO EMIL WEIDLICH.

Witnesses:
JOHN ELIAS JONES,
WILLIAM SCHUCHARDT.