S. M. ROWE.

FOUNTAIN PEN.

APPLICATION FILED APR. 6, 1917.

1,289,921.

Patented Dec. 31, 1918.

Fig. 2.

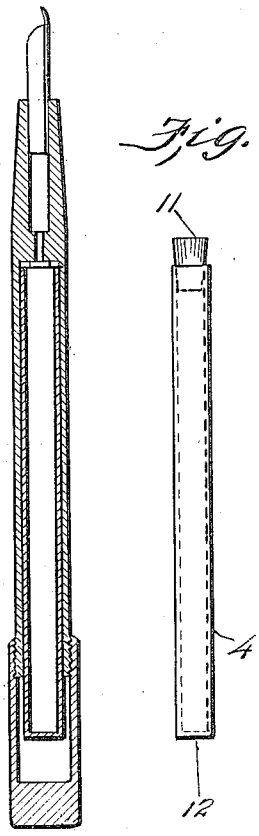
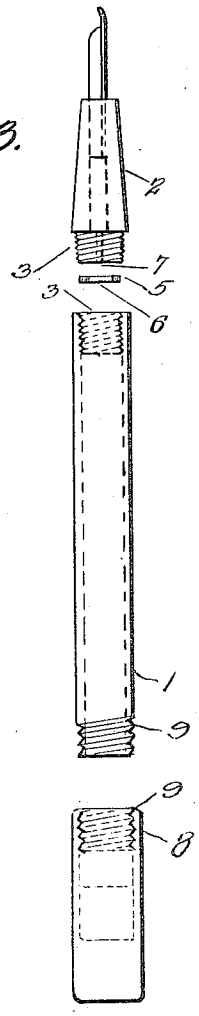


Fig. 3.



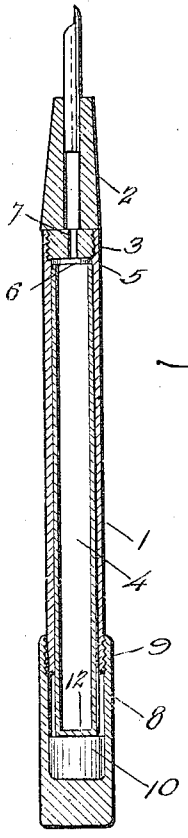


Fig. 1.

Fig. 4.

WITNESSES:

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UNITED STATES PATENT OFFICE.

SIDNEY M. ROWE, OF CINCINNATI, OHIO, ASSIGNOR OF THREE-TENTHS TO LOUIS R. SHAFER, OF CINCINNATI, OHIO.

FOUNTAIN-PEN.

1,289,921. Specification of Letters Patent. Patented Dec. 31, 1918.

Application filed April 6, 1917. Serial No. 160,319.

To all whom it may concern:

Be it known that I, SIDNEY M. ROWE, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Fountain-Pen, of which the following is a specification.

My invention relates to improvements in fountain-pens in which the ink reservoir is interchangeable; and the objects of my invention are first, to provide a reservoir that can be removed instantly when emptied and substituted with another filled one; second, to provide a method by which the pen is supplied with writing fluid other than the usual method of filling the barrel of the pen by means of a dropper or by the method used in self-filling pens wherein the reservoir is a collapsible rubber sack or tube.

I attain these objects by the mechanism illustrated in the accompanying drawing, in which—

Figure 1 is a longitudinal section of the entire pen.

Fig. 2, a plan view in detail of the exterior of the pen showing in dotted lines the interior screw joints and connections and the rubber or lead gasket;

Fig. 3, shows the reservoir and stopper for the same.

Fig. 4 is a longitudinal section of an entire pen whose barrel and pen stock is fashioned out of one piece.

Similar numerals refer to similar parts throughout the several views.

The barrel 1 and the pen stock 2 secured to the barrel by means of threaded joints 3, constitute the frame work of the pen. Within the interior of the barrel and fitting the walls of the same smoothly throughout its length, is an ink tube or reservoir 4, which can be constructed of either glass or metal.

Between the pen stock 2 and the ink tube or reservoir 4, whose outer periphery fits closely the interior wall of the barrel 1, is a rubber or soft lead gasket 5; the purpose of said gasket 5, being to secure a perfect joint between the pen stock and the ink tube or reservoir, to prevent leakage from the reservoir into the barrel; the said gasket having an orifice 6, through the center to allow the ink from the reservoir to flow into the duct 7, located in the pen stock.

The upper end of the barrel is also threaded exteriorly to receive a cap 8, having the interior 9, thereof threaded in part. Within this cap is a rubber plug 10, permanently fixed therein for a purpose hereinafter explained.

The reservoir 4, in Fig. 3, it will be noticed has a stopper 11, for the mouth; this stopper or cork is removed from the mouth of the reservoir before inserting the reservoir into the barrel of the pen. The cap 8, first being unscrewed from the barrel 1, and then inserting the reservoir longitudinally into the interior of the barrel until the mouth of the reservoir comes into contact with the surface of the gasket 5; then by screwing the cap 8, onto the barrel 1, until the rubber plug 10, impinges itself upon the closed end 12, of the reservoir, the mouth of the reservoir is forced against and into the surface of the gasket thereby securing a joint that will not leak.

It is obvious that by removing the cap the reservoir can be withdrawn when empty, to be replaced by another filled reservoir.

In Fig. 4 I aim to show that the same principle, as shown in Fig. 1, can be applied to the type of pen wherein the pen-stock and the barrel are fashioned of one piece of material, although the type of fountain-pen having the removable pen-stock is preferred because it is much easier to remove or replace the gasket when worn.

I also show in the drawings a part of the closed end of the reservoir protruding from the barrel in order to afford a grip to remove the same.

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

The combination of a cylindrical ink tube or cartridge having one open end, and a barrel of a size to receive said tube, an end piece for the barrel adapted to screw onto the same, said end piece containing a cush-

ioned plug for abutting the closed end of the tube, a pen stock adapted to screw on the other end of the barrel, and a cushioned abutment intermediate the stock and the open end of the tube, whereby the two removable parts at the ends of the barrel retain the tube firmly in place therein, and ink tight against leakage.

SIDNEY M. ROWE.

Witnesses:
CLIFFORD L. BORSCH,
WM. F. DRUHMAN.