(No Model.)

C. W. BOMAN.

FOUNTAIN PEN.

No. 599,592. Patented Feb. 22, 1898.

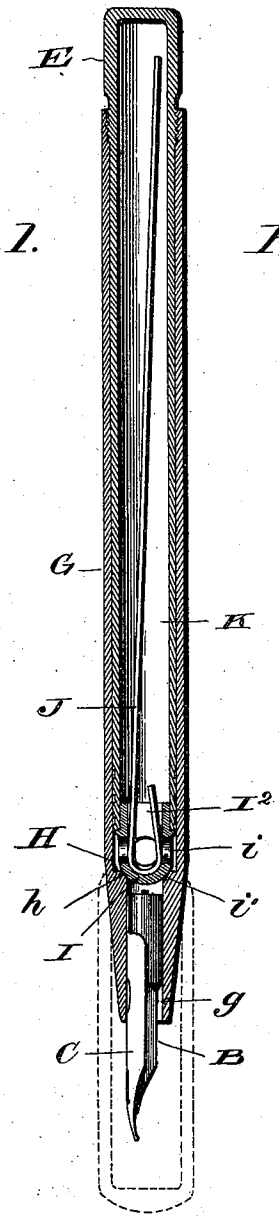

Fig. 1.

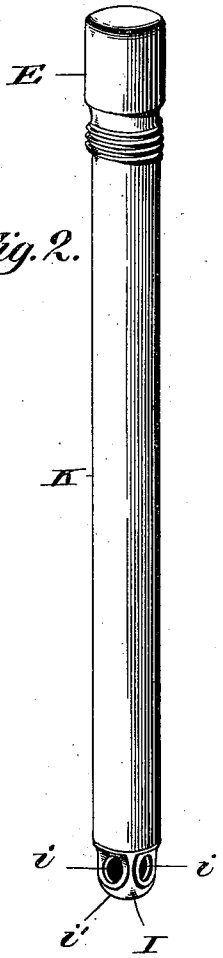

Fig. 2.

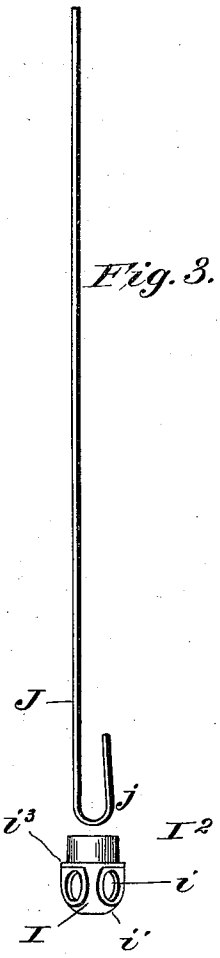

Fig. 3.

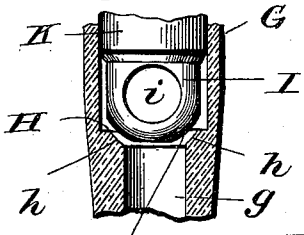

Fig. 4.

Witnesses:
L. C. Hills
Wells Brick

Inventor:
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By Marcellus Bailey
his Atty.

UNITED STATES PATENT OFFICE.

CLAES W. BOMAN, OF NEW YORK, N. Y., ASSIGNOR TO THE EAGLE PENCIL COMPANY, OF SAME PLACE.

FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 599,592, dated February 22, 1898.

Application filed December 9, 1897. Serial No. 661,270. (No model.)

To all whom it may concern:

Be it known that I, CLAES W. BOMAN, a citizen of the United States, and a resident of New York city, in the county and State of New York, have invented a certain new and useful Improvement in Fountain-Pens, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a longitudinal sectional view of the complete pen. Fig. 2 is an elevation of the ink-reservoir detached. Fig. 3 is a detached view of the removable head carried by the ink-reservoir and the conducting-strip associated therewith. Fig. 4 is a detail sectional view, on an enlarged scale, of the removable head and upper part of the sheath or penholder.

In the drawings, G represents the tubular sheath or penholder, which may be of any suitable material, such as hard rubber, which is the material preferably employed for all parts of the device except the pen proper. At its front or lower end it is formed with an opening *g* of a shape and size to receive the pen C and the feeder B, which conducts the ink from the reservoir to the pen. The rear end of the sheath is preferably open to permit the insertion and withdrawal of the ink-reservoir in order that there need not be a joint in the sheath near its front end. Adjacent to the inner end of the opening *g* in the penholder or sheath there is formed an internal shoulder H, constituting an annular seat, with which a head or stopper carried by the ink-reservoir is adapted to engage, as will be presently described. This seat is preferably beveled, as represented at *h*. The ink-reservoir is represented by K and is preferably tubular in shape and of a size to closely fit within the sheath G. Its front end is open, and at its rear end it is preferably secured to or made in one with the plug E, which engages with and closes the rear open end of the sheath G, as by means of a screw-thread.

Instead of having the front or lower annular open end of the ink-reservoir engage directly with the seat H, as in another invention of my own, (for which I have filed application for Letters Patent Serial No. 654,819,) I provide the front end of the ink-reservoir with a head I, perforated, as at *i*, so that the ink may pass out from the reservoir through such head, and adapted to be seated against the shoulder H when the ink-reservoir is forced into place within the sheath, as by the screwing in of the plug E. The end of the head is rounded, as represented at *i'*, so as to fit the beveled face *h* of the internal shoulder H in order to insure a tight fit therewith. There are preferably several openings *i* through the head, four being represented in the drawings, so that the flow of ink may be uniform under all conditions of use.

The head I is preferably removable, having a cylindrical portion i^2, which fits into the end of the ink-reservoir, and a shoulder i^3, which bears against the end thereof. By making the head removable the filling and cleaning of the ink-reservoir are facilitated.

A leader or conductor for the ink is arranged within the reservoir K. It consists of a strip J of material, such as hard rubber, of a length about equal to that of the ink-reservoir and having one end *j* bent into a U shape and adapted to fit into and, by reason of its resiliency, engage with the head I, so that it may be removed from and replaced within the ink-reservoir along with the head.

It will be understood that when the plug E is screwed into place the head is crowded against the seat and acts as a valve or stopper to effectively close all communication between the ink-reservoir and the opening *g* in the sheath or penholder. If the plug be slightly retracted, ink will flow to the pen, passing through the openings *i* in the head and between the latter and the seat H into the opening *g* in the sheath.

The pen described has the advantages incident to a construction in which there is no joint in the sheath at its forward end through which ink can leak.

The removable head I constitutes a most effective and desirable stopper between the ink-reservoir and the pen.

The pen is provided with the usual removable cap or sleeve, as shown in dotted lines in Fig. 1, which fits over and covers the pen C when it is not in use and may be fitted upon the rear of the sheath or upon the plug E when it is desired to use the pen.

Having now described my invention, what

I claim herein as new and of my own invention is as follows:

1. In combination with the handle and feeder, the plug closing and removable from the rear end of the handle, the ink-reservoir carried by said plug, and a head carried by said handle provided with openings for ink flow and with an imperforate portion adapted when the reservoir is forced home to fit closely against a seat within the handle so as to close the opening in the front end of the latter through which the ink passes to the pen, substantially as and for the purposes hereinbefore set forth.

2. The tubular sheath or handle in combination with the removable plug closing the rear end of the handle, the reservoir carried by said plug, and the valve-like head carried by and removably connected to the reservoir provided with openings for the ink flow and with an imperforate portion adapted when the reservoir is forced home to fit closely against a seat within the handle so as to close the opening in the front end of the latter through which the ink passes to the pen, substantially as and for the purposes hereinbefore set forth.

In testimony whereof I have hereunto set my hand this 8th day of December, 1897.

C. W. BOMAN.

Witnesses:

SAMUEL KRAUS,

M. NEUBURGH.