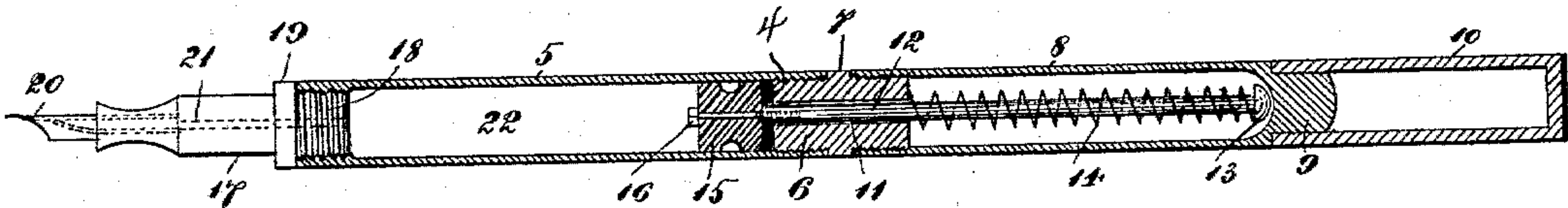


(No Model.)

S. W. FRAZER.
FOUNTAIN PEN.

No. 589,561

Patented Sept. 7, 1897.



WITNESSES

John Buckler
C. Gerst

INVENTOR

Samuel W. Frazer
BY
Edgar Sater
ATTORNEYS.

UNITED STATES PATENT OFFICE.

SAMUEL W. FRAZER, OF BROOKLYN, NEW YORK.

FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 589,561, dated September 7, 1897.

Application filed October 20, 1896. Serial No. 609,446. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL W. FRAZER, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Fountain-Pens, of which the following is a specification, reference being had to the accompanying drawing, forming a part thereof, in which similar numerals of reference indicate corresponding parts.

This invention relates to fountain-pens; and the object thereof is to provide an improved device of this class which is simple in construction and operation, and which is provided with improved means for filling the reservoir with ink, a further object being to provide a fountain-pen, the reservoir of which may be filled without removing the pen from the holder.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, said drawing being a central longitudinal section of the reservoir which I employ and the parts connected therewith, the pen and penholder proper being shown in full lines.

In the practice of my invention I provide a fountain-pen the reservoir of which consists of a tube 5, one end of which is provided with a screw-threaded plug 6, which is provided centrally with an annular rib 7, and the outer end of which is also screw-threaded, and connected therewith is a tube 8, the outer end of which is closed and provided with a reduced extension 9, with which is connected a removable thimble or tube 10, the outer end of which is closed.

The thimble or tube 10 is connected with the extension 9 of the tube 8 by being slipped thereon in the usual manner, and the central plug 6, which is screw-threaded at both ends, is provided with a central longitudinal bore 11, through which passes a rod 12, which is free to slide in the bore 11, and the outer end of the rod 12 is provided with a head 13, and mounted on said rod between said head and the plug 6 is a spiral spring 14. I also provide a piston 15, which is secured to the inner end of the longitudinally-movable rod 12 by means of a screw-threaded bolt 16, which passes through said piston and into the end

of said rod, and the piston 15 is preferably composed of hard rubber, although soft rubber may be employed, and said piston is also so formed as to closely fit the tube 5, while being free to move therein, and mounted on the rod 12 at the inner end of the piston 15 is a washer 4.

Mounted in the end of the tube 5 opposite the plug 6 is a penholder 17, which is provided with a screw-thread 18 at its inner end, and which engages with a corresponding thread in the end of the tube 5, and said holder is also provided with an annular flange or bead 19, and the outer diameter of the holder 17 is the same as the diameter of the extension 9 of the tube 8, and in practice when the pen is not in use the thimble or tube 10 is detached from the extension 9 of the tube 8 and connected with the holder 17, so as to form a protection for the pen.

The outer end of the holder 17 is of the usual or any preferred form, and mounted therein is a pen 20, which may also be of any preferred form, and said holder is provided with the usual bore 21, through which the ink passes to the pen and through which said ink may be drawn into the reservoir 22 in the tube 5 by the piston 15 in the operation of filling the reservoir with ink, as hereinafter described.

The holder 17 and pen 20 form no part of this invention, and are therefore not shown in section, all that is necessary in this connection being to provide any suitable holder through which the ink is free to flow in the usual manner.

When it is desired to fill the reservoir with ink, the tube 8 is disconnected from the screw-threaded plug 6. The rod 12 is then forced downwardly by pressing on the head 13 thereof until the piston 15 strikes the inner end of the penholder 17. The end of the penholder 17 is then inserted into the ink-bottle and into the ink and the rod 13 released, when the spring 14 will throw said rod back into the position shown in the drawing and draw the piston also into the position shown, and in this operation the reservoir will be filled with ink in the manner of an ordinary syringe.

If at any time the passage through the penholder 17 should become clogged or closed, it

may be opened and cleaned by simply operating the piston-rod in the manner of an ordinary syringe, and any ink in the reservoir may be thus forced through the penholder, and said penholder and reservoir may also be thus cleaned with warm water or other material if or whenever necessary.

My invention is not limited to the form of the piston 15 nor to the material of which it is composed, and it is evident that changes in and modifications of the construction herein shown and described may be made without departing from the spirit of my invention or sacrificing its advantages.

Having fully described my invention, I claim as new and desire to secure by Letters Patent—

A fountain-pen having a tubular reservoir 22, threaded at both ends, an extension 17 holding a pen and provided with the usual bore 21, secured in one end of said reservoir,

and a threaded plug 6, provided centrally with an annular rib 7, screwed in the other: rod 12 passing through said plug, head 13 formed on the upper end of said rod, a spiral extension-spring 14 mounted between said head and plug and to normally keep the piston in contact with the under side of the plug, a washer 4 and piston 15 secured to the lower end of said rod; tube 8 one end of which is screwed close to the plug 6, and a detachable cap 10, all of said parts being combined substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 22d day of September, 1896.

SAMUEL W. FRAZER.

Witnesses:

CHARLES S. ROGERS,
M. A. KNOWLES.