

(No Model.)

R. C. FRAMPTON.

FOUNTAIN PEN.

No. 397,053.

Patented Jan. 29, 1889.

Fig. 1.

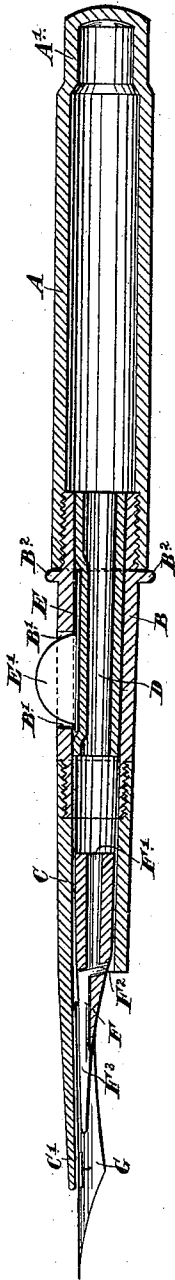
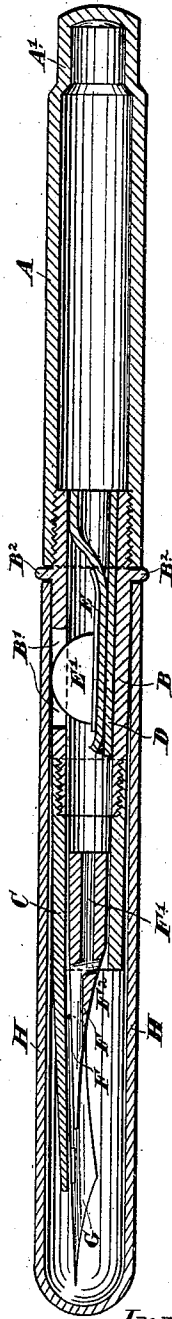


Fig. 2.



Witnesses
Chas. R. Burr.
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UNITED STATES PATENT OFFICE.

ROBERT CHRISTOPHER FRAMPTON, OF LONDON, ASSIGNOR TO THE CONSOLIDATED AGENCY COMPANY OF LONDON, ENGLAND.

FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 397,053, dated January 29, 1889.

Application filed June 20, 1888. Serial No. 277,644. (No model.)

To all whom it may concern:

Be it known that I, ROBERT CHRISTOPHER FRAMPTON, a subject of the Queen of England, residing at London, in England, have
5 invented certain new and useful Improvements in Fountain-Pens, of which the following is a specification.

This invention relates to that class of pens known as "fountain-pens," and in which the
10 ink is held in a reservoir in the body or handle of the pen and passes to the nib when required for use.

The invention will be best understood by reference to the accompanying drawings, in
15 which—

Figure 1 is a longitudinal section without the cap or cover and ready for use, and Fig. 2 is a similar view with the cap on as it would be worn in the pocket. Both views are rather
20 larger than usual full size, though the size is quite immaterial to the invention, and can be varied at pleasure.

The ink is contained in the body or barrel A, to which the intermediate section, B, is
25 screwed, and to the section B is screwed the point-section C. A can be readily filled with ink when the intermediate section, B, is unscrewed from it. In section B is a piece of flexible tube, preferably rubber tube, D, upon
30 which rests the compressor E, consisting of a thin flat blade, preferably of some resilient material—such as steel—(coated, if necessary, to prevent corrosion,) and having a rounded or equivalent projection, E', which passes
35 through an opening, B', in the intermediate section, B, as shown in Fig. 1. Sections B and C, may, if desired, be made in one piece. In the point-section C is a plug, F, having a longitudinal perforation, F', throughout its
40 length, and one or more small cross-perforations, F², extending from the under side of the plug into the aforementioned perforation F'.

The object of the cross-perforation F² is to admit air or to assist in admitting air to the
45 interior of the pen.

At F³ the perforation F' opens into both the upper and lower sides, becoming for a short distance an open slot, the through-opening upon the upper side extending back as far as
50 the cross-perforation F².

The pen-nib G is pushed in between the plug F and the tapering end C' of the point-section C, which being slightly sprung, exerts sufficient pressure to hold the pen tight.

The action of this pen is as follows: The
55 reservoir A having been filled with ink, which may be done with one of the ordinary glass and rubber fillers generally used for filling pens of this class, and the cover or cap H being removed from the business end of the pen
60 and placed upon the reduced extension A' of the barrel, the pen is ready for use, the air requisite to allow of the flow of ink entering by the openings or perforations F³, F², and F', and passing through the flexible tube D
65 into the reservoir or interior of the barrel A. When the pen is to be closed up, the point-protecting cover H is removed from the extension A' and placed over the point-section C and onto the intermediate section, B, upon
70 which it rests against the flange B², as in Fig. 2. From Fig. 2 it will also be seen that in pushing on the cover H it has forced in the projecting portion E' of the compressor E, with the result that the flexible tube D is
75 squeezed quite flat, so that the ink cannot pass through it, and the inner end of tube D fitting closely in the inner end of the intermediate section, B, the flow of ink to the pen is entirely stopped—the desideratum when the
80 pen is not in use.

The projection E' need not of necessity be arched, as shown, so long as an inclined face is presented to the cap or cover, so that as the cover is pushed on the projection E' is
85 forced into the holder.

Upon withdrawing the cap H the tube D resumes its normal condition, as in Fig. 1, forcing out the projection E', and the pen is again ready for use. The compressor E might
90 be merely a solid piece or block; but I find in practice that the resilient portion is desirable, as it conveniently compresses a longer portion of the flexible tube. I prefer to have this portion resilient, as stated, as it can be
95 conveniently made out of a piece of watch-spring; but this resiliency is not by any means a necessity, as it is the power of the rubber tube in resuming its normal shape which forces out the projection E'.
100

I claim—

1. In a fountain-pen, the combination, with the reservoir or barrel, the pen, and the cap for covering the same, of the cut-off for preventing the flow of ink and the compressor for operating the same, projecting in the path of the cap, whereby when said cap is on the ink-supply is cut off, substantially as described.
2. In a fountain-pen, the combination, with the reservoir or barrel, the pen, and the cap for covering the same, of the flexible tube within the barrel and the compressor for closing the tube, held in the path of the cap by the resiliency of said tube, whereby when the cap is on the tube will be closed and the ink-supply cut off, substantially as described.
3. In a fountain-pen, the combination, with the point-section and the plug for holding the

pen, having the longitudinal perforation at one end, through which the ink passes, opening out into the slot at the opposite or point end, of the cross-perforation in the wall of the plug above said slot for the entrance of air, substantially as described.

4. In a fountain-pen, the combination, with the reservoir and the flexible tube governing the flow of ink, of the compressor having the broad flexible surface bearing on the tube, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of the two subscribing witnesses.

ROBERT CHRISTOPHER FRAMPTON.

Witnesses:

HAROLD WADE,

HARRY B. BRIDGE.