

(No Model.)

J. ULLRICH.
STYLOGRAPHIC FOUNTAIN PEN.

No. 264,974.

Patented Sept. 26, 1882.

Fig: 1.

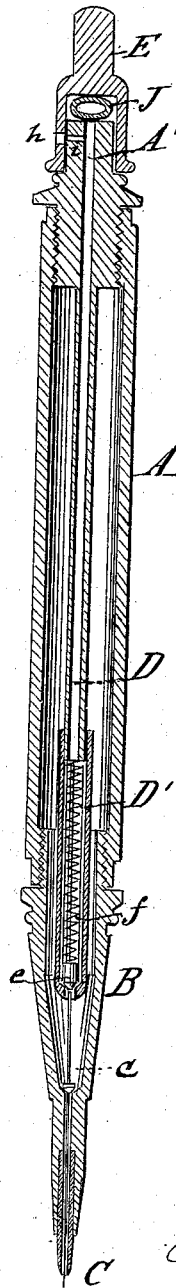


Fig: 2.

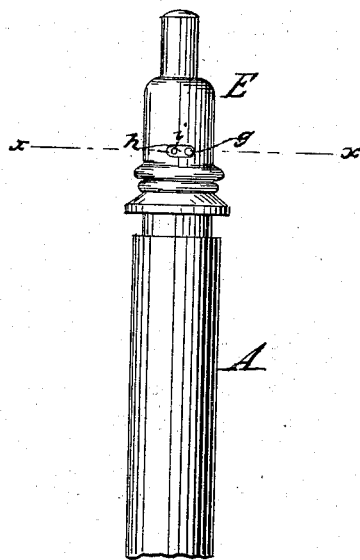


Fig: 3.

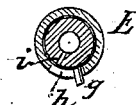
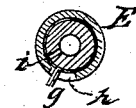


Fig: 4.



WITNESSES:

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JACOB ULLRICH, OF HOBOKEN, NEW JERSEY.

STYLOGRAPHIC FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 264,974, dated September 26, 1882.

Application filed January 19, 1882. (No model.)

To all whom it may concern:

Be it known that I, JACOB ULLRICH, of Hoboken, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Stylographic Fountain-Pens, of which the following is a specification.

This invention has reference to improvements in that class of stylographic fountain-pens in which a weighted needle-valve is used to regulate the supply of ink to the point-section; and the invention consists, first, of an air-tube in the interior of the barrel of the pen, provided with a detachable end portion, having a spring-pressed valve at its eduction end, said valve being operated by the shank of the needle-valve to admit air to the ink in the barrel at each vibration of the needle.

The invention consists, secondly, of a barrel or reservoir provided with an air-tube which extends through the screw-plug of the barrel, and which corresponds by a vent-opening with a slotted cap, which turns by means of a guide-pin on the screw-plug of the barrel, so that the air is admitted or shut off from the air-tube by a simple axial motion of the cap.

In the accompanying drawings, Figure 1 represents a vertical central section of my improved stylographic fountain-pen. Fig. 2 is a side view of the upper end of the barrel with its vent-cap; and Figs. 3 and 4 are horizontal sections on line *x x*, Fig. 2, showing the vent-cap respectively in open and closed position.

Similar letters of reference indicate corresponding parts.

A in the drawings represents the barrel, B the point-section, C the needle or spindle, D the air-tube, and E the vent-cap, of my improved stylographic fountain-pen. The air-tube D is provided at the inner end with a detachable section, D', through the lower perforated end of which the shank of the needle-valve extends to the inside of the tube D'.

When the pen is not in use the needle-valve is in closed position, and simultaneously the supply of air through the air-tube cut off by a small conical valve, *e*, which closes the exit-aperture of the tube D', the valve being pressed

down by means of a spiral spring, *f*, interposed between the valve and the end of the fixed air-tube D. Whenever the pen is in use and the needle vibrated within the point-section the valve *e* is pressed back, and thereby at each motion of the pen a sufficient quantity of air is supplied to the ink in the barrel to keep up the proper supply of ink to the spindle, without, however, admitting the ink into the air-tube, as the valve is tightly pressed on its seat the moment the pen is out of use.

The vent-cap E, instead of screwing up and down upon the screw-plug A' of the barrel, is arranged to turn axially on its being guided by a short slot, *h*, on a fixed pin, *g*, projecting from the plug A', which slot communicates also with a vent-opening, *i*, leading to the air-tube D. By turning the cap E in one direction or back the vent-opening *i* is opened or closed, as desired. The vent-cap is retained tightly upon the end of the screw-plug A' by means of an interior friction-spring, J, as shown in Fig. 1, which serves the purpose of preventing the turning of the vent-cap while the fountain-pen is carried in the pocket.

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

1. In a stylographic fountain-pen, the combination, with the barrel and fixed air-tube extending through the same, of a detachable end tube having an interior spring-pressed valve actuated by the shank of the needle-valve, substantially as and for the purpose set forth.

2. In a stylographic fountain-pen, the combination of the barrel, fixed end plug having an air-opening and a fixed guide-pin, an interior air-tube, and a vent-cap having a guide-slot and interior friction-spring, the vent-cap being adapted to turn on the end plug, so as to establish or interrupt the air-supply to the air-tube, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

JACOB ULLRICH.

Witnesses:

PAUL GOEPEL,
CARL KARP.