

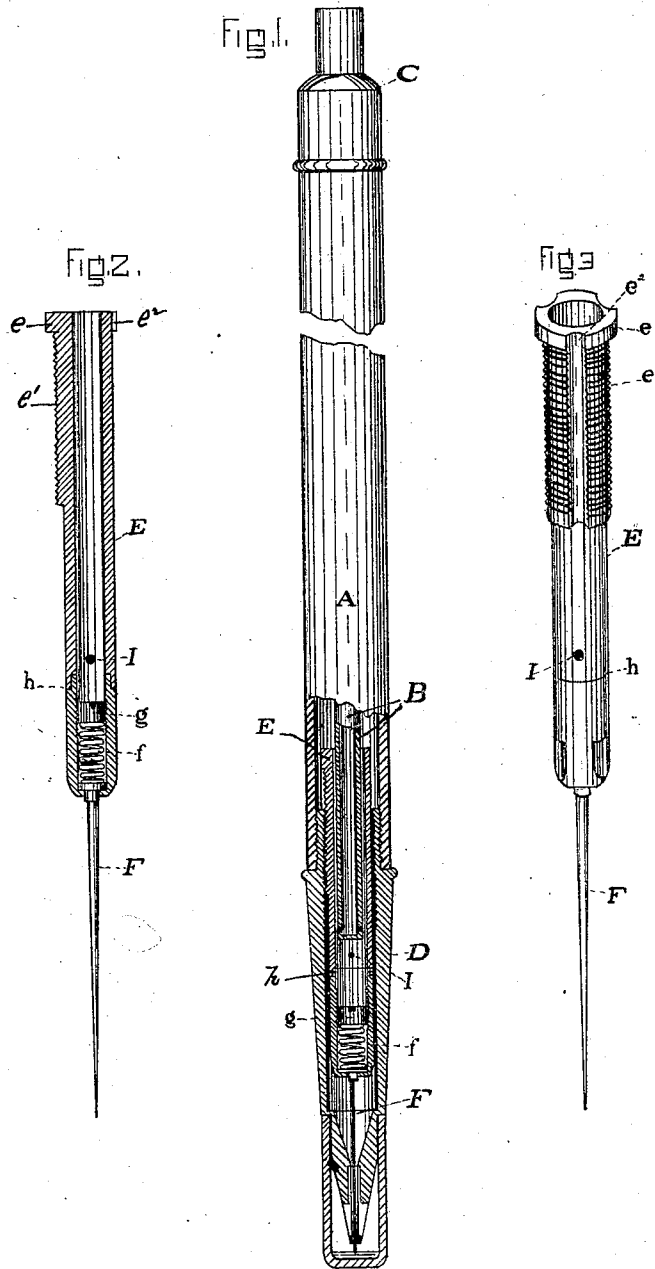
(No Model.)

J. HOLLAND.

STYLOGRAPHIC FOUNTAIN PEN.

No. 275,912.

Patented Apr. 17, 1883.



WITNESSES

INVENTOR

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STYLOGRAPHIC FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 275,912, dated April 17, 1883.

Application filed October 11, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN HOLLAND, of the city of Cincinnati, county of Hamilton, State of Ohio, have invented certain new and useful Improvements in Stylographic Fountain-Pens, of which the following is a specification.

This invention relates to that class of writing-instruments in which the handle serves as a reservoir for ink, the flow of which is controlled by a needle protruding through the writing-point.

The objects of the invention are to provide a convenient means for adjusting the needle, and to insure a regular flow of the ink when in use.

The invention will be first fully described, referring to the accompanying drawings, and particularly pointed out in the claims.

Figure 1 is a central vertical sectional view of the lower part of a pen containing my improvements, the upper portion of the pen, which is common and in general use, being shown in elevation. Fig. 2 is a central vertical section of the needle-holder and its attachments. Fig. 3 is a perspective view of the needle and needle-holder.

Similar reference-letters indicate the same parts wherever they occur.

The holder A, air-tube B, point-section D, and vent-cap C are the same as those in common use, and need no particular description here.

The point-section D has an internal screw-thread to receive a thread upon the needle-holder E. The needle-holder is a tube, preferably of hard rubber, the upper end being open to receive the lower end of the air-tube B. The lower end of needle-holder E has a central perforation, through which the spindle or needle F protrudes. The needle has an enlargement or head within the tube E, between which and the screw-plug *g* is compressed a spiral spring, *f*. On the exterior of tube E, near the top, is a collar, *e'*, which is screw-threaded to engage the screw-thread within the point-section. By this means the needle is adjusted in the writing-point. A burr, *e*, at the top of the holder E is for convenience in turning the holder to protrude or retract the needle with relation to the writing-point.

Through the collar *e'* and burr *e* are channels *e²*, to admit ink from the handle A into the point-section D around the diminished lower end of the needle-holder E. Transverse perforations I in the lower end of needle-holder E admit air from tube B to the point-section D. By this means I am enabled to admit the air nearer the writing-point, which insures a more uniform flow of ink in use and prevents leakage when not in use. By my arrangement of the adjustable needle-holder in the point-section I am enabled to readily adjust the needle with relation to the writing with great nicety, and in case the needle sticks or clogs with ink it is easily freed by moving it back and forth through its holder E. While I have shown a screw-joint between the point-section and needle-holder, as it allows of more accurately adjusting the needle-valve, a friction-joint could be made to answer the purpose. The holder E is separable by a joint at *h*, to afford access to the screw-plug *g* to loosen or compress the spring *f* when desired.

It will be seen that in my pen the needle-point is readily adjustable to suit the hand of the writer. For instance, if the writer's habit is to hold a pen perpendicularly, or nearly so, the point is retracted, so as to leave but a small portion of it protruding through the writing-point; or, if it is desired to write with the holder much inclined, the needle is protruded farther to insure the opening of the valve. Again, some writers desire a "hard" point, like a pencil, in writing, while others require some elasticity or spring, like the common pen. My pen can be readily adapted to the hand of either. If the hard touch is required, the plug *g* is unscrewed to slacken the spring *f*, so that the needle will be pushed back in writing without appreciable pressure. If the plug *g* is driven down and the spring compressed hard between the head of the needle and plug, the pressure of the spring will be plainly felt in writing.

I claim—

1. The combination, substantially as before set forth, of the handle A, the point-section D, and the holder E, carrying the spring-pressed needle, and extending above the point-section, to afford a convenient means to adjust the nee-

dle with relation to the writing-point when the point-section is removed.

5 2. The combination, substantially as before set forth, of the handle A, the point-section D, the longitudinally-grooved needle-holder extending above and adjustably secured by the point-section, and provided with a perforation,

I, and the air-tube B, the perforated lower end of which extends within the needle-holder.

JOHN HOLLAND.

Witnesses:

JOHN LUERS,
J. J. KING.