

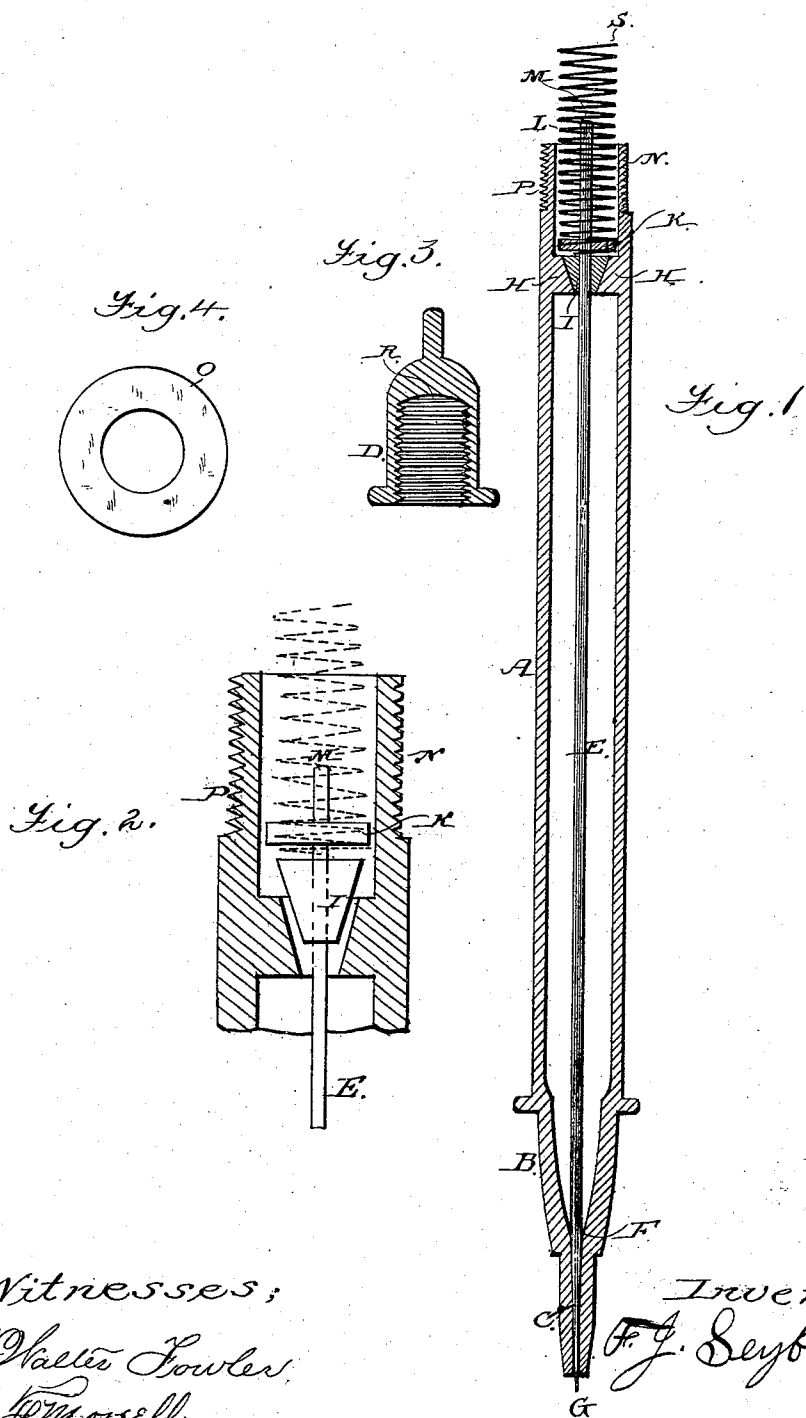
(No Model.)

2 Sheets—Sheet 1.

F. J. SEYBOLD.
Stylographic Fountain Pen.

No. 229,336.

Patented June 29, 1880.



Witnesses;
J. Walter Fowler
W. H. Morsell

Inventor;
F. J. Seybold

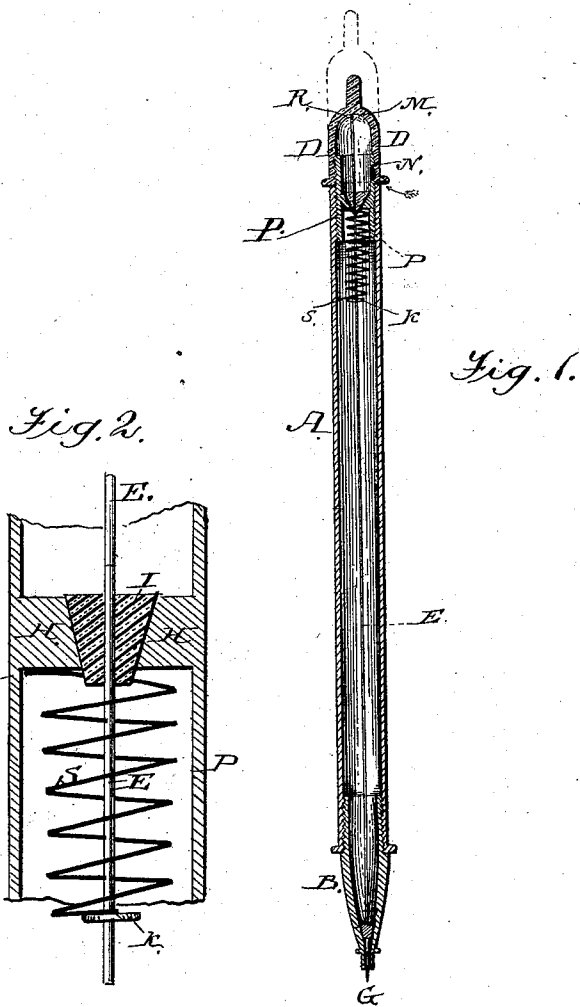
(No Model.)

2 Sheets—Sheet 2.

F. J. SEYBOLD.
Stylographic Fountain Pen.

No. 229,336.

Patented June 29, 1880.



Witnesses;
H. Walter Fowler,
Jos. L. Coudron.

Inventor;
F. J. Seybold.
F. J. Erick

UNITED STATES PATENT OFFICE.

FREDERICK J. SEYBOLD, OF CHICAGO, ILLINOIS.

STYLOGRAPHIC FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 229,336, dated June 29, 1880.

Application filed April 23, 1880. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK J. SEYBOLD, of the city of Chicago, county of Cook, and State of Illinois, have invented a new and useful Improvement in Stylographic Fountain-Pens, which improvement is fully set forth in the following specification and accompanying drawings, which are a part of the same, in such full and explicit manner as to enable those skilled in the art to make the same.

On account of ease and cheapness of construction it may be considered preferable to construct the pen, as to minor details, as shown in drawings on Sheet No. 1, while for some other reasons the manner of construction and arrangement of details as shown on Sheet No. 2 may be preferred.

On Sheet No. 1, Figure 1 represents a vertical section of my pen. Figs. 2, 3, and 4 show details.

In the figures, A is the pen-stock and ink-chamber. B is a part of the same formed on or attached to the stock A. C is also a part and the point of the stock A, and is constructed in such shape as to serve as a valve-seat, the aperture through which is closed by the valve F, which is formed on or attached to the plunger or needle E. D is an adjustable head on the stock A. E is the plunger or needle that operates the valves I and F. F is a valve on the needle E. G is the point of the needle E. H is a valve-seat. I is a valve. K is a washer fitting snugly the needle E, and holding in position the spring L. L is a spring. M is the top of the needle E. N is a flattened or grooved portion of screw-thread P on stock A. P is a screw-thread on stock A. O is a washer, made of a soft or smooth-surfaced substance. R is the top of the cavity in D. S is top of spring L.

The needle E has a valve, I, and a valve, F.

The cap D, being placed on the portion P of stock A, presses downward spring L, which, being attached to needle E, carries downward needle E, closing the valves I and F onto the valve-seats H and B. Pressure on the point G raises the needle E and opens valves F and I, allowing ink in chamber A to flow out at G, and allowing air to flow into A, on top of ink,

along passage N, and through valve-seat H. On removing the pressure from point G, (that is, on raising the pen in writing,) the spring L at once pushes downward the needle E, closing valves I and F, preventing an outflow of ink and an inflow of air.

When the pen is not in use cap D is adjusted fully down onto A till part R of cap D rests on point M of needle E, thus holding closed both valves, I and F, preventing the possibility of the escape of ink.

When stock A contains ink, all that is necessary to prepare the pen to write is a slight upward adjustment of the cap D, thereby allowing of the upward movement of the needle E, when pressure is applied at G, the automatic closure of the valves F and I being maintained meanwhile by the spring L.

Fig. 2 gives a clear view of valve I and its seat H.

This pen may be made of any suitable material desired.

Spring L may be attached in any suitable manner desired.

Valve I may rest on top of valve-seat H, if desired, instead of fitting into it, as shown in drawings. When valve I rests on top of valve-seat H washer O may be interposed between them, if desired, O being of a soft or flexible material, so as to form a packing.

The modification of the pen shown in Sheet 2 differs from that in Sheet 1 only in that in Sheet 2 the spring that holds the writing spindle or needle down is beneath the valve-seat and abuts against it below, while in Sheet 1 the spring is above valve-seat H and abuts against it from above.

In Sheet 2 the valve K is an enlargement of needle E, while in Sheet 1 the valve F is a tapering of the needle E. In Sheet 2 the needle E, below valve K, is straight, while in Sheet 1 the point of needle E is a regular diminishing taper, forming a valve.

What I claim as new, as my invention, and desire to secure by Letters Patent, is—

1. In a fountain-pen, the needle E, extending the entire length of the interior of the pen, and provided at or near its upper end with the air-valve I and at its lower end with the ta-

per ink-valve F, substantially as described, in combination with the pen-case A, provided with the valve-seats H and C, all substantially as described.

- 5 2. In a fountain-pen, the ink-chamber and needle provided with the air-valve I and the taper valve-point F, in combination with a cap, D, constructed substantially as shown, whereby the cap, when closed, presses on top of the
10 needle, holding the air-valve and the taper

valve-point of the needle closed, preventing the outflow of ink and the inflow of air.

In witness whereof I hereunto set my hand and seal this 12th day of April, A. D. 1880, at Philadelphia, Pennsylvania.

FREDERICK J. SEYBOLD. [L. s.]

Witnesses:

JOS. C. MOORE,
H. T. CLAY.