A. G. Day,
Fountain Pen,

No. 15,417. Patented July 29, 1856.

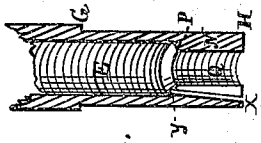

Fig. 4.

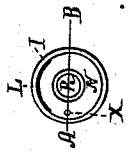

Fig. 6.

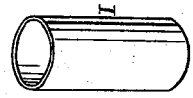

Fig. 5.

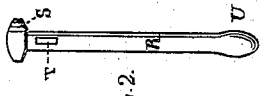

Fig. 2.

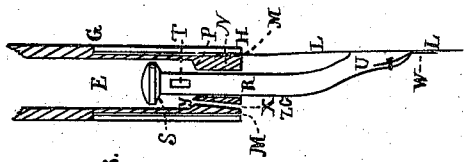

Fig. 3.

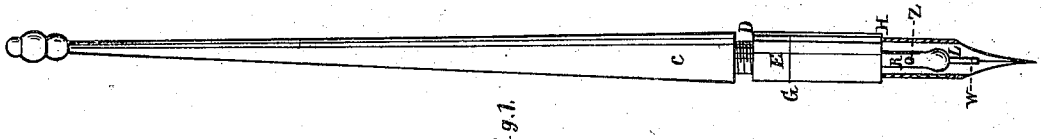

Fig. 1.

UNITED STATES PATENT OFFICE.

AUSTIN G. DAY, OF SEYMOUR, CONNECTICUT.

IMPROVED FOUNTAIN-PEN.

Specification forming part of Letters Patent No. **15,417**, dated July 29, 1856.

To all whom it may concern:

Be it known that I, AUSTIN G. DAY, of Seymour, in the county of New Haven and State of Connecticut, have invented an Improvement in Fountain-Pens; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, and to the letters of reference marked thereon.

My fountain-pen is so constructed that the ink will flow freely when it is wanted, while it is effectually prevented from issuing from the feed-aperture when the pen is not in use. This is accomplished by means of a sliding feed-tube, which, together with the air passage or vent, constitutes the main feature of my invention, which I will now proceed to describe.

Figure I shows the external appearance of the pen when ready for use; Fig. II, sliding feed-tube; Fig. III, sliding feed-tube and valve-seat; Fig. IV, longitudinal section on line A B, Fig. VI; Fig. V, hollow tube which forms the sheath or support for the metallic pen; Fig. VI, section at end of the holder where the pen enters the sheath.

The same letters refer to the same parts in the several figures.

The tube or handle C that contains the ink is closed at its upper end and has at its lower end a screw D, which fits into the lower cylinder or chamber E, which is of about the same diameter as the lower end of the handle C. This part of the tube is about two inches long, and about two thirds of its length at the lower end, as at G H, is made one-sixteenth of an inch less in diameter than its upper end, the difference in diameter being for the purpose of allowing a very thin hollow cylinder I to be placed upon it and leave room for receiving a common metallic pen L, which is slipped into the circular opening or space M thus formed. The walls or sides of about one-fourth of an inch of the lower end of the chamber E are thicker, as at N, than they are for the remainder of its length, and are so formed at the top as to make a conical valve-seat P, below which is the aperture Q, about one-tenth of an inch in diameter. A small tube R is placed in this opening, being so fitted that it can slide freely back and forth about a quarter of an inch. The top of this tube is closed and is of a bulbous form, the lower side of the bulb where it joins the tubular part being conical, as at S, so as to form a valve and fit the valve-seat P. Below the valve S there is a small slot or opening T, cut through the walls of the tube to afford a passage through which the ink may flow from the chamber E into the sliding tube R, and thence through an opening U at the lower end of the tube into the pen L. The part of the sliding tube that traverses in the lower part of the chamber E is straight, but at a point a little lower down it is slightly curved, in order that the lower aperture U may be in contact, or nearly so, with the inside of the pen. Upon the back of this bent sliding tube there is affixed a a small knob or pin Z, by which the tube is readily thrust back and forth.

An elastic tongue or spring W may extend from the opening U about a quarter of an inch and rest in contact with the inside of the pen.

An air hole or vent X extends from the lower end of the chamber E and within the thickened part of the walls of the chamber, (about half-way between the aperture Q for the sliding tube and the outside of the main tube,) and opens, as at Y, upon the valve-seat. This vent is therefore closed whenever the valve S is in its seat.

To use the pen, take off the tube or holder C, fill it with ink, and screw it onto the chamber at D. Then by means of the knob Z thrust the sliding or feed tube upward. This opens the orifice Y of the air-vent and at the same time brings the slot or aperture T above the valve-seat and within the ink-chamber. The sliding tube fills with ink, which escapes into the pen through the opening U at its lower end.

What I claim is—

1. The sliding feed-tube having an aperture near its upper end through which the ink flows when the pen is in use, the aperture being closed and the ink excluded from the feeding-tube by drawing it downward into the lower end of the ink-chamber.

2. The combination of the air hole or vent with the sliding feeding-tube, the enlarged end of which closes the vent-hole when the feeding-tube is drawn down to stop the flow of ink to the pen.

AUSTIN G. DAY.

In presence of—
EDWD. A. STANSBURY,
EDWARD WILLIAMS.