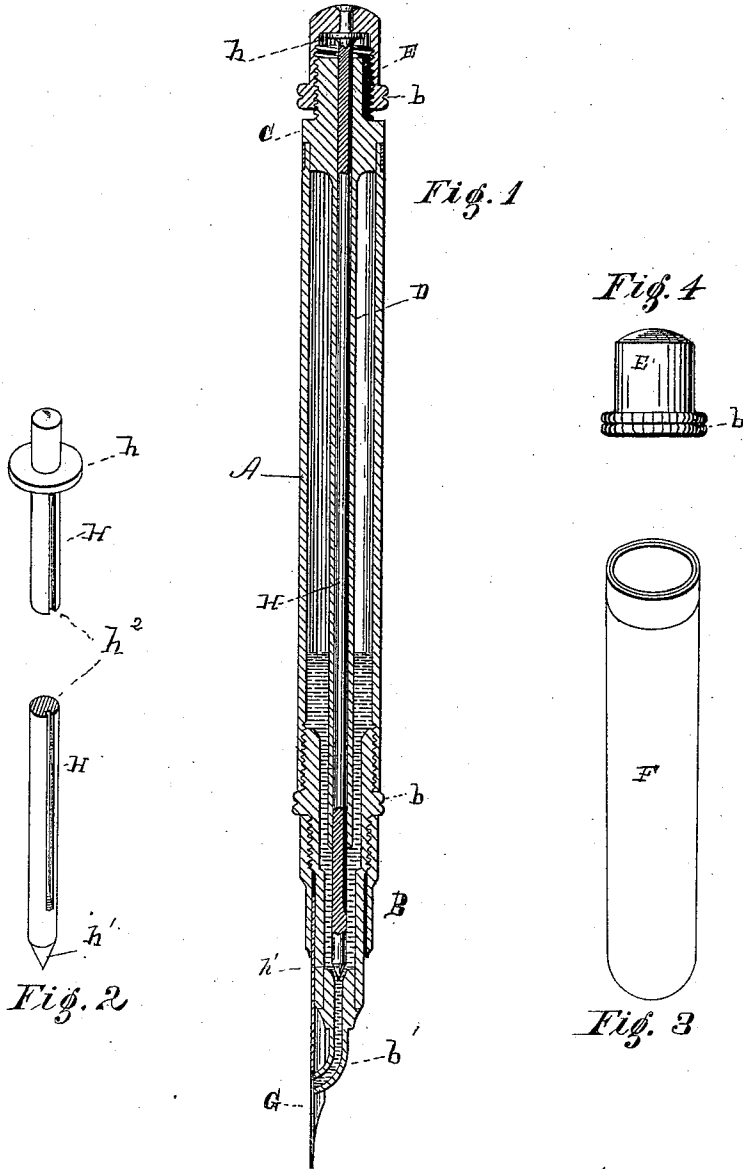


(No Model.)

J. HOLLAND.  
FOUNTAIN PEN.

No. 298,582.

Patented May 13, 1884.



Attest  
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 Atty

# UNITED STATES PATENT OFFICE.

JOHN HOLLAND, OF CINCINNATI, OHIO.

## FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 298,582, dated May 13, 1884.

Application filed April 16, 1883. (No model.)

*To all whom it may concern:*

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

This invention relates to that class of fountain-pens in which the common writing-pen is supplied with ink from a reservoir within the handle by the act of writing. The supply of ink is cut off as soon as the pen-point is taken from the paper.

The object of this invention is to insure a steady supply of ink to the writing-point when in use, and to prevent leakage at the air-cap and the supply-port when not in use. Its object is also to insure a steady supply of air to the fluid when the air-cap is raised.

With these objects in view my invention consists in providing the holder with a grooved rod or slotted tube, which is secured at one end to the vent-cap, and provided at the opposite end with a valve. This valve will be closed upon a seat in the point-section when the air-cap is closed, and will be lifted from its seat when the air-cap is raised, thus automatically closing off the supply of ink to the pen by the act of closing the air-cap and automatically opening the supply-port by the act of opening the air-cap. The grooved rod moves through a snugly-fitting stationary tube, which prevents the ink from working up the air-cap.

In the accompanying drawings, forming part of this specification, in which similar reference-letters indicate like parts wherever they occur, Figure 1 is a central longitudinal section of a fountain-pen having my improvements. Fig. 2 is an enlarged perspective view of my air-vent and valve-rod. Fig. 3 is an enlarged view of the point-cover, and Fig. 4 is a similarly-enlarged view of the vent-cap.

The reservoir-holder A, point-section B, plug C, with its downwardly-extending tube D, the vent-cap E, point-cover F, and pen G are of ordinary construction, except that the cap and point-section are provided with double knurls *b*, to give a greater bearing for the fingers in unscrewing the parts, which are

liable to stick by reason of ink getting on the screw-threaded parts; but the double knurl on the cap E is unnecessary in my pen.

The rod H, which snugly fits the perforation in plug C and tube D, is secured at its upper end to the vent-cap E. For the purpose of rigidly securing it to the cap it has a collar, *h*, secured upon it a short distance below its upper end. The portion of the rod above the collar passes through a central perforation in the cap E, the upper part of which perforation is countersunk from the top, so that when the end of the rod H is inserted through the perforation and riveted down the rod is firmly secured to the cap by the "upset" portion on top, and the collar *h*, which bears upon the inner end of the cap E. The lower end of the rod H is turned conical in shape to form a valve, *h'*, which, when the cap E is screwed down, is pressed upon a correspondingly-shaped seat in the point-section to close off the supply of ink to the curved delivery-tube *b'*, in which the point-section terminates, and when the cap E is unscrewed it is lifted from its seat to open communication between the reservoir A and the supply-tube *b'*. The rod H has a longitudinal groove, *h<sup>2</sup>*, through which air is admitted to the fluid in the reservoir, when the vent-cap is raised to promote a flow of ink to the pen G through delivery-tube *b'*.

The purpose of using the grooved rod to supply air to the fluid in holder A, instead of the hollow tube perforated at top and bottom, as shown in my application filed April 4, 1883, is to prevent clogging of the air-duct and for convenience in cleansing it should it become clogged.

Instead of the grooved rod a slotted tube might be used; but I prefer the rod, because it is made stronger and can be more easily cleaned than a tube.

I do not claim, broadly, a valve-rod extending from a cap at the top of the holder to a valve-seat in the point-section, as I am aware that such an arrangement is not new.

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

In a fountain-pen of the character described, the combination, substantially as be-

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fore set forth, of the reservoir-holder provided at the top with a plug having a centrally-arranged tubular extension reaching to near the lower end of the holder, the point-  
5 section provided with a valve-seat, the air-cap, and a grooved valve-rod fitting snugly within the plug and its tubular extension and secured to the air-cap, whereby the valve may be lowered to or raised from its seat by the lowering or raising of the air-cap.

JOHN HOLLAND.

Witnesses:

GEO. J. MURRAY,  
JACOB J. GESSERT.