

(No Model.)

J. HOLLAND.
FOUNTAIN PEN.

No. 485,795.

Patented Nov. 8, 1892.

FIG. 1.

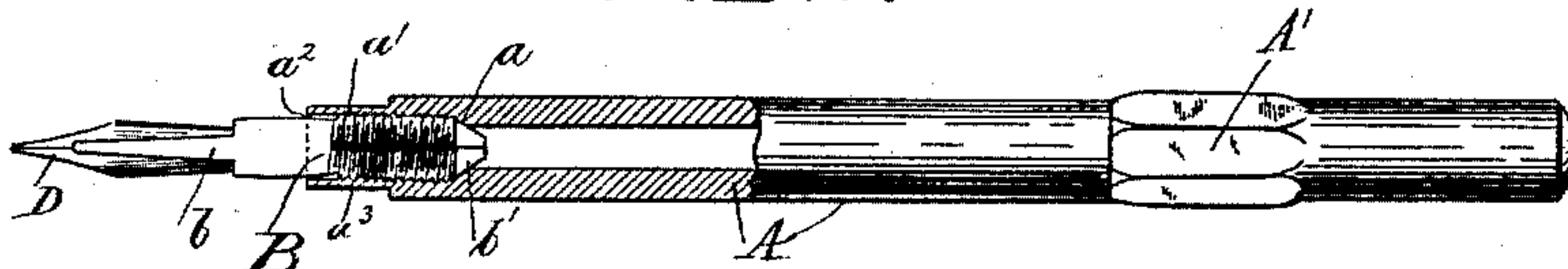


FIG. 2.

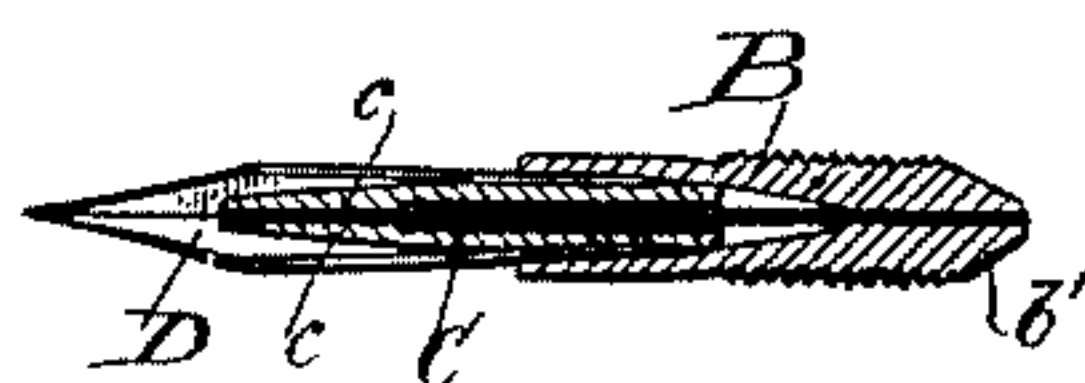
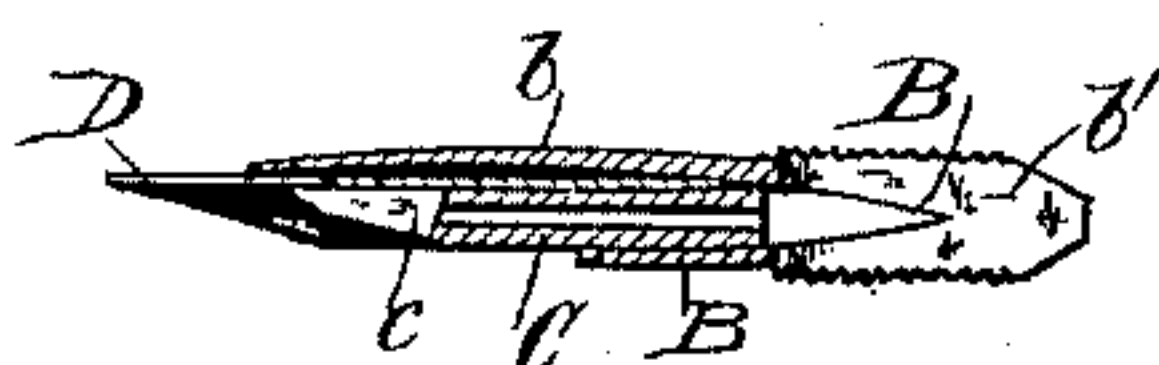


FIG. 3.



FIG. 4.



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UNITED STATES PATENT OFFICE.

JOHN HOLLAND, OF CINCINNATI, OHIO.

FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 485,795, dated November 8, 1892.

Application filed February 29, 1892. Serial No. 423,115. (No model.)

To all whom it may concern:

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

The object of my invention is to provide a simple and effective means to regulate the flow of ink to the writing-point in that class of "fountain-pens" in which the ordinary pen-point is held by and automatically supplied with ink from a reservoir-holder and also to absolutely cut off the supply, so that the pen may be safely carried in the pocket without danger of soiling the clothing. In fountain-pens of this class, especially those manufactured by me, the feed for the ink is made, as it necessarily must be in a good fountain-pen, very sensitive, so that just the requisite amount of ink will feed down when the pen is carefully used; but when so made any sudden jerk or quick movement of the penholder tends to force the feed, so that any violent action of the body or any quick movement of the vest in undressing or dressing causes a flow of the ink into the point-cover, especially if the pen is carelessly placed in the upper pockets point downward or is carried horizontally in the lower side pockets of the vest. Attempts have heretofore been made to regulate the flow of ink by valves, but not successfully. Those in which the valves were formed by diminishing the lower end of the reservoir rendered the device too weak to withstand ordinary use, and those with a plug-valve transversely through the ink-duct would leak at the valve and the plug was liable to drop out if made loose enough to be operative, and if the valves were made to fit closely they would stick and render the pen worthless.

Another defect which my invention overcomes is the sticking of the point-section, so that it is difficult to remove it for the purpose of supplying the reservoir. This sticking is caused by the ink (especially copying-ink) getting into the joint, which when the parts of the joint were forced together cemented the parts together when the ink became dry. In

my construction there are no closely-jointed parts that are not in contact with the body of the ink in the reservoir, so that the ink cannot harden and cement the parts together.

The invention consists in the means illustrated in the accompanying drawings, in connection with which it will be first fully described, and then pointed out and referred to particularly in the claims.

Referring to the drawings, in which like parts are indicated by similar reference-letters wherever they occur throughout the various views, Figure 1 is a view, partly in elevation and partly in diametrical section, of a penholder provided with my improvements. Fig. 2 is a central longitudinal sectional view of my point-section and pen-point in position. Fig. 3 is an end view of the inner end of the joint-section. Fig. 4 is a central longitudinal sectional view taken in a plane at right angles to the view shown in Fig. 2.

The reservoir-holder A is counterbored at its forward end to form the inclined valve-seat or shoulder a and the screw-threaded portion a' . The mouth of the tube is also counterbored back to the screw-threaded portion, as seen at a^2 . The forward end is also reduced, forming the neck a^3 to receive the point-cover A'. The point-section B is bored from the forward end back a sufficient distance to receive the tubular feeder C and the writing-point D between the feeder and the point-section. The feeder is centrally bored from the inner end and longitudinally slotted from the forward end into the central bore to form the feeding-fingers $c c$ in the usual manner. The point-section B, as shown, is provided with a feeding-finger b to bear upon the back of the pen; but this finger may be omitted. The enlarged rear portion of the point-section is screw-threaded to engage an internal screw-thread in the forward end of the reservoir-holder, and the extreme inner end of the point-section is turned down in the form of the frustum of a cone, as seen at b' . The point-section is diametrically slotted from the inner end to about the forward end of the screw-threaded portion, the slot being slightly enlarged from the base of the cone part b' to the

inner end of the slot, so that the opposite sides of the slotted portion may be sprung together when the point-section is screwed inwardly against the inclined shoulder *a* to force the
 5 opposite halves of the cone part *b'* together and cut off the supply of ink from the reservoir to the pen-point.

When the point-section is screwed in tightly, as seen in Fig. 1, the supply of ink is cut off.
 10 A reverse turn of the point will draw the cone-shaped part *b'* away from the shoulder *a*, when the halves of the point-section will spring apart, as clearly shown in Fig. 2, and permit a flow of ink from the reservoir through the
 15 feeder and deliver it to the pen-point. It is therefore evident that the supply of ink may be regulated to a nicety. If a limited supply is required, it will be furnished by a very slight reverse movement of the point-section,
 20 while if a full supply is required the point-section is reversed until the cone part *b'* is entirely freed from the shoulder *a*.

The counterbored forward end of the holder, which leaves the space *a²* between it and the
 25 point-section, prevents any ink that might leak through the slot in the rear portion of the point-section from cementing the parts together, and the protruding smooth portion of the point-section enables the user to turn it
 30 either in or out without soiling his fingers.

I have described what I believe to be the best form of embodying my invention; but it is obvious that many mere mechanical changes may be made without varying its spirit or

scope, and I therefore do not desire to be limited to the specific features shown. 35

I claim—

1. In a fountain-pen, the combination of the holder having an internal shoulder near its forward end, the point-section having its inner end cone-shaped and longitudinally slot-
 40 ted to meet the ink-duct in said section, whereby the flow of ink is cut off when the point-section is screwed inward and opened by the reverse movement, substantially as shown
 45 and described.

2. The combination, substantially as hereinbefore set forth, of the holder A, having shoulder *a*, screw-threaded portion *a'*, and enlarged bore *a²*, and the point-section B, hav-
 50 ing its rear end cone-shaped, slotted, and exteriorly screw-threaded and its forward end reduced exteriorly and perforated interiorly to meet the slot in the rear end.

3. A point-section for fountain-penholders, consisting, substantially as hereinbefore set forth, of the cylindrical part B, exteriorly screw-threaded, diametrically slotted from the rear to the ink-duct, forming a collapsible
 60 valve adapted to close when forced within the holder and opened when retracted, whereby the supply of ink to the point-section may be regulated or entirely cut off.

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Witnesses:

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