(No Model.)

P. E. WIRT.

FOUNTAIN PEN.

No. 266,247. Patented Oct. 17, 1882.

Fig. 1.

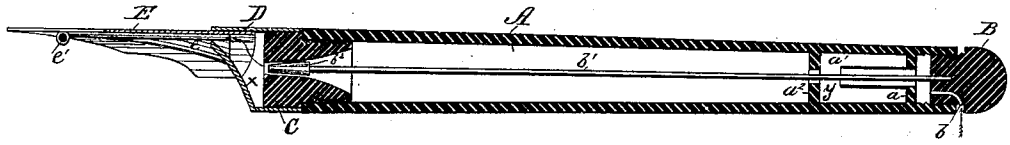

Fig. 2.

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FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 266,247, dated October 17, 1882.

Application filed April 5, 1882. (No model.)

To all whom it may concern:

Be it known that I, PAUL E. WIRT, of Bloomsburg, Columbia county, State of Pennsylvania, have made a new and Improved Fountain-Pen; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a longitudinal section. Fig. 2 is an inverted plan view of the pen.

This invention relates to that class of writing-instruments in which a nib-pen is employed in connection with a reservoir or fountain; and it consists mainly in a duct and valve formed upon the nib of the pen for controlling the flow of ink at the pen, as hereinafter more fully set forth.

It further consists in certain details of construction, which, in connection with the foregoing, will be fully described hereinafter.

In the drawings, A represents the body portion of the pen, consisting of a hollow cylinder, preferably of hard rubber, which is provided at its rear end with an internal-threaded portion adapted to take the corresponding portion of the screw-head B, and at its front end with a threaded portion adapted to take the corresponding portion of the screw end C, as shown.

a represents a partition located near the rear end of the cylinder A, which is provided with a central opening communicating with the tube *a'*, as shown.

a^2 also represents a partition having a central opening which communicates with the interior space of the cylinder forming the reservoir or fountain.

B represents the screw-head before referred to, which is provided with the aperture *b*, through which air is admitted to the pen at the proper time.

b' represents a shaft rigidly secured at its rear end to the head B, the front end of which is provided with a cone-shaped enlargement or valve, b^2, as shown.

C represents the screw end, before referred to, made preferably of hard rubber, which is provided with a conical aperture corresponding in form with the conical head b^2 of the shaft b', as shown.

D represents a metallic holder fitted to the screw end, and permanently attached thereto, and E the pen, which is permanently secured to the holder.

c represents a space or passage-way formed upon one of the nibs of the pen, which communicates above with the space *x* in the holder between the end of the pen and the front wall of the screw end, and below with the duct or tube *e'*, as shown.

e^2 represents a valve or stopper upon the other nib in line opposite to the mouth of the duct or tube, which consists of a cylinder holding a soft-rubber plug.

The pen may be filled, the head B having first been screwed down, by removing the screw end C from the reservoir, the latter being then supplied with ink by a filling-tube or other proper means.

The operation is substantially as follows: The pen having been filled, as before described, it may be employed for writing by simply unscrewing the head B and admitting air into the reservoir. By unscrewing the head B the enlargement or valve b^2 is drawn in a rearward direction, and the ink in the reservoir is thereby permitted to flow through to the pen. By the contact of the pen with the paper the nibs are separated more or less, according to the pressure, and consequently the ink will be permitted to flow from the point of the pen, the valve e^2 being removed by the separation of the nibs from the mouth of the duct.

If desired, the metallic holder may be dispensed with, the screw end in this case being modified to hold the pen.

Some of the advantages of this construction are as follows: By the employment of the duct-valve on the nibs of the pen itself the flow is regulated precisely according to the necessities of the case, a heavy pressure giving an increased flow to form a broad line and a lighter pressure a less flow to form a narrow line. By the employment of the tube a' in the manner described the small globules of ink which may pass through the partition a^2 will be caught in the chamber *y* instead of being permitted to pass back through the tube, the same being afterward released by the air-pressure to the reservoir. The improper discharge of ink from the rear end of the pen is thus effectually pre-

vented. When the pen is closed it is impossible for the ink to escape or the air to enter.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A fountain-pen having an ink-duct upon one nib and a valve upon the other, substantially as described.

2. The pen E, having the passage-way *e*, communicating above with the fountain and below with the tube *e'*, and the valve e^2, adapted to close the opening into tube *e'*, as described.

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Witnesses:
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