(No Model.)

M. C. STONE.

FOUNTAIN PEN HOLDER.

No. 255,205. Patented Mar. 21, 1882.

Fig. 1.

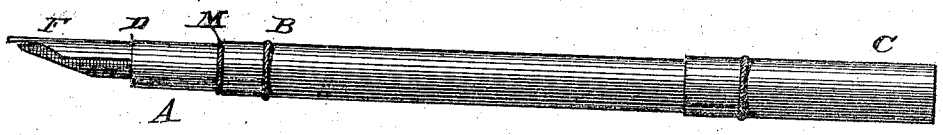


Fig. 2.

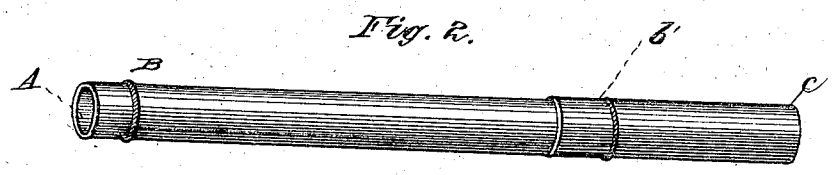


Fig. 3.

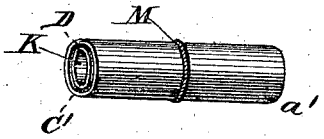


Fig. 4.

Fig. 5.

Fig. 6.

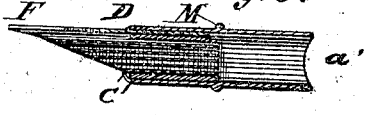
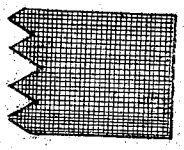


Fig. 7.



WITNESSES

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FOUNTAIN PEN-HOLDER.

SPECIFICATION forming part of Letters Patent No. 255,205, dated March 21, 1882.

Application filed August 30, 1881. (No model.)

To all whom it may concern:

Be it known that I, MARVIN C. STONE, a citizen of the United States, residing at Falls Church, in the county of Fairfax and State of Virginia, have invented a new and useful Fountain Pen-Holder, of which the following is a specification.

My invention relates to improvements in fountain pen-holders in which the pen-holders are hollow and used as a reservoir for the ink and are provided with some contrivance for admitting air to the reservoir and feeding ink to the pen; and the invention consists in the construction hereinafter described, and specifically pointed out in the claim. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side view of the entire pen-holder, ink-feeder, inserted pen, and cap. Fig. 2 is a perspective view of the hollow pen-holder proper without attachments, except the cap. Fig. 3 is a perspective view of the pen and feeder holder. Fig. 4 is a side view of the wire-gauze ink-feeder which conducts the ink from the fountain to the pen and admits air into the reservoir-chamber. Fig. 5 is a perspective view of the cap, which may be attached to either end of the fountain pen-holder. Fig. 6 is a sectional view of the pen, feeder, and pen and feeder holder. Fig. 7 is a plan view of the wire-gauze blank, which when rolled up forms the ink-feeder.

Similar letters refer to similar parts throughout the several views.

In Fig. 2 A is the open end of the chamber, which extends to the closed end of the hollow pen-holder at the point *b'*. Into this open end the ink is poured in the process of filling the reservoir. B is a welt raised upon the surface of the hollow reservoir to prevent the cap, Fig. 5, from slipping too far when placed upon it.

The hollow pen and feeder holder, Fig. 3, is open at both ends to allow the passage of ink through it, and is inserted by the end *a* into the open end A of the hollow cylinder, Fig. 2 until it reaches the welt M on the ink and feeder holder.

Fig. 3 has a second and shorter hollow cylinder within it, D, which extends to the welt M, and is enough smaller than the outer cylinder to enable an ordinary pen to be inserted and held in the space between at C'. This is also shown in the sectional view of the same, Fig. 6. Into the open end of this smaller hollow cylinder D, at the point K, is inserted the wire-gauze ink-feeder, Fig. 4, which brings the same in close proximity to the under side of the pen F.

The ink-feeder, Fig. 4, composed of fine wire-gauze and rolled up in the manner shown, has one side straight, which side is brought in a line with the concave part of the pen and touches it. In Fig. 5 the cap is closed at the end C and open at the end L, and of such size as to fit over the fountain proper, making a nearly tight joint. This, when placed over the pen, prevents the ink from evaporating when not in use.

In the process of writing the ink is drawn out of the reservoir into the wire-gauze feeder by the force of gravity and capillary attraction combined whenever the pen is used in writing, the ink-feeder becoming thoroughly saturated with the ink. The ink is then held in position by the pressure of air upon that portion of it which is in the feeder. The pen, which partly incloses and lies upon the feeder, draws ink slowly from the latter until it has acquired a small quantity of it, when the ink in the pen is held in position in the same manner as that in the feeder. As soon as the pen is used in writing the ink which flows off from its nibs forms a current of ink from the reservoir through the feeder and off from the pen. As this current of ink reduces the amount in the reservoir, it forms a partial vacuum in the same, and this disturbance would stop the flow of ink were it not for the fact that air bubbles constantly find their way through the meshes of the wire-gauze feeder into the reservoir to supply the requisite quantity of air and maintain the equilibrium. This wire-gauze ink-feeder, by allowing the ink to flow from it only in the process of writing, by holding it suspended when not in use, and by allowing the air to pass through its meshes into the ink-chamber whenever the loss of ink requires it, compels the automatic flow of ink and supply of air necessary to the perfection of fountain-pens, and in a very simple and inexpensive manner. Any ordinary metallic pen can be used, and can be removed and replaced by another at any time in the

same manner as with ordinary pen-holders without removing the ink-feeder, or both can be removed together by taking out the portion, Fig. 3, which contains both, as in filling the reservoir.

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

A fountain pen-holder constructed substantially in the manner described, having a wire-gauze ink-feeder to provide for the automatic flow of ink to the pen and air to the reservoir, substantially as shown and described.

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Witnesses:
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