

No. 659,925.

Patented Oct. 16, 1900.

LE ROY HOOKER.
FOUNTAIN PEN.

(Application filed Aug. 31, 1899.)

(No Model.)

Fig. 1.

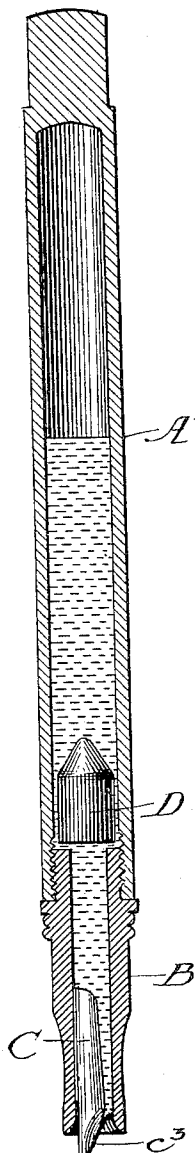


Fig. 2.

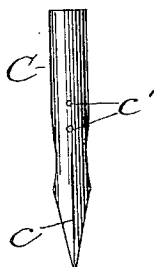


Fig. 3.

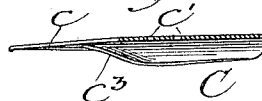
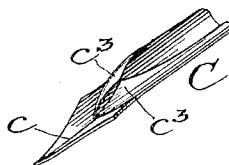


Fig. 4.



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UNITED STATES PATENT OFFICE.

LE ROY HOOKER, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE RAND,
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FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 659,925, dated October 16, 1900.

Application filed August 31, 1899. Serial No. 729,141. (No model.)

To all whom it may concern:

Be it known that I, LE ROY HOOKER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Fountain-Pens, of which the following is a specification.

The object of the present invention is to provide a practical fountain-pen of simple construction; and to this end the invention consists in the features of novelty that are herein described.

In the accompanying drawings, which are made a part of this specification, Figure 1 is a longitudinal section of a fountain-pen embodying the invention. Figs. 2, 3, and 4 are respectively an elevation, a longitudinal section, and a perspective view of the pen proper.

The barrel or reservoir may be of any desired construction. As shown in the drawings it consists of a tubular part A, permanently closed at one end and open at the other, and a second tubular part B, open at both ends and having at one end threads for engaging corresponding threads on the part A, whereby the two parts are secured together. The cavity of the part A above the part B is known as the "reservoir," and the cavity or passage of the part B, which is somewhat contracted as compared with the cavity of the part A, is known as the "throat."

C represents the pen proper, which may be of any desired material or any desired length, though preferably not sufficiently long to extend into the reservoir. Its novel characteristics are a shank which fits the throat snugly and which preferably embraces about two hundred and forty degrees of a circle, and a pair of tongues c^3 , which join the shank above the slit c , separating the nibs, and which are bent inward, so that one lies against the under side of each nib, the tongues being of sufficient length to project downward past the upper end of the slit c . In practice the shank of the pen is inserted in the throat far enough to carry the upper end of the slit c into the throat. In this position the tongues c^3 form a pocket or barrier which partially closes the throat (within the compass of the shank) and effectually prevents ink from flowing out of the throat under the influence of gravity, al-

though it does not prevent the free flowing of ink under the combined influences of gravity and capillary attraction when in the process of writing the nibs demand a supply of ink. Actual practice has shown that with this pocket or barrier partially closing the throat, leaving, however, a sufficient space for the admission of air to the throat, the supply of ink to the nibs of the pen is exactly equal to the quantity demanded. The quantity demanded depends, of course, upon the degree of pressure upon the pen, and consequently the extent to which the nibs are spread, and it is because of the constant presence of an abundant supply of ink in immediate contact with the under side of the nibs at their upper parts that the supply to the points of the nibs is automatically regulated and accommodates itself to their varying demands.

It will be observed that the tongues c^3 join the pen at a point where it is practically inflexible (preferably above the slit c) and that they are deflected inward, so as to lie immediately beneath and in close proximity to the upper portions of the nibs. With this arrangement they do not partake of the movement of the nibs, but, on the contrary, as the nibs move in the process of writing the interspace between them and the tongues varies. Excepting for these tongues and the shank of the pen, which conforms closely to the inner wall of the throat, so that no ink can pass downward on the top side of the pen, the throat is entirely open and unobstructed. These tongues are therefore the only means for preventing the ink from flowing out of the throat under the influence of gravity alone. In order that they may accomplish this result, it is necessary that the pen be inserted far enough to enable them to partially close the throat. In the drawings I have shown the pen as being inserted to such a point that the bases of the tongues are within the throat, while their free ends are below the throat; but within the range above suggested this position may be departed from.

It will be observed that the tongues are the result of slits cut in the blank and that they join the shank at practically diametrically opposite points.

By making the shank of the pen conform

to the throat the ink is prevented from flowing downward on the top of the pen and the entire throat is left practically unobstructed excepting for the tongues *c*³, as already described.

D is a loose piston placed in the reservoir. It may be of wood, cork, metal, soft rubber, or other material (preferably soft rubber) and may be of the same or of greater or less specific gravity than the ink. It is believed that this loose piston controls and regulates the exchange of ink for air in the process of writing, especially when the reservoir contains only a small quantity of ink.

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

1. A fountain-pen having, in combination, a reservoir, a throat, and a pen, said pen having a shank occupying the throat, nibs separated by a slit, and a pair of tongues joining the pen at a point where it is practically inflexible so that they do not partake of the movement of the nibs, said tongues being bent inward so that they lie immediately beneath the upper portions of the nibs and form a pocket or barrier, the pen being so disposed that said pocket or barrier partially closes the throat, substantially as set forth.

2. A fountain-pen having, in combination, a reservoir, a throat, and a pen, said pen having a shank occupying the throat, nibs separated by a slit, and a pair of tongues joining the shank above the slit and extending downward past the upper end of the slit, said tongues being bent inward so that they lie immediately beneath the upper portions of the nibs and form a pocket or barrier, the pen being so disposed that said pocket or barrier partially closes the throat, substantially as set forth.

3. A fountain-pen having, in combination, a reservoir, a throat, and a pen, said pen hav-

ing a shank occupying the throat, nibs separated by a slit, and a pair of tongues joining the shank above the slit at practically diametrically-opposite points and extending downward past the upper end of the slit, said tongues being bent inward beneath the upper portions of the nibs so as to form a pocket or barrier, the pen being so disposed that said pocket or barrier partially closes the throat, substantially as set forth.

4. A fountain-pen having, in combination, a reservoir, a throat, and a pen, said pen having a shank occupying and conforming closely to the throat, nibs separated by a slit, and a pair of tongues joining the shank above the slit and extending downward past the upper end of the slit, said tongues being bent inward beneath the upper portions of the nibs so as to form a pocket or barrier, the pen being so disposed that the said pocket or barrier partially closes the throat, substantially as set forth.

5. A fountain-pen having, in combination, a reservoir, a throat, and a pen, said pen having a shank occupying the throat and conforming closely to the inner wall thereof, and embracing at least one hundred and eighty degrees of a circle, nibs separated by a slit, and a pair of tongues joining the shank above the slit at practically diametrically-opposite points and extending downward past the upper end of the slit, said tongues being bent inward beneath the upper portions of the nibs so as to form a pocket or barrier, the pen being so disposed that the said pocket or barrier partially closes the throat, substantially as set forth.

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Witnesses:

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