(No Model.)

A. J. KLETZKER & C. H. COURT.

FOUNTAIN PEN.

No. 297,420. Patented Apr. 22, 1884.

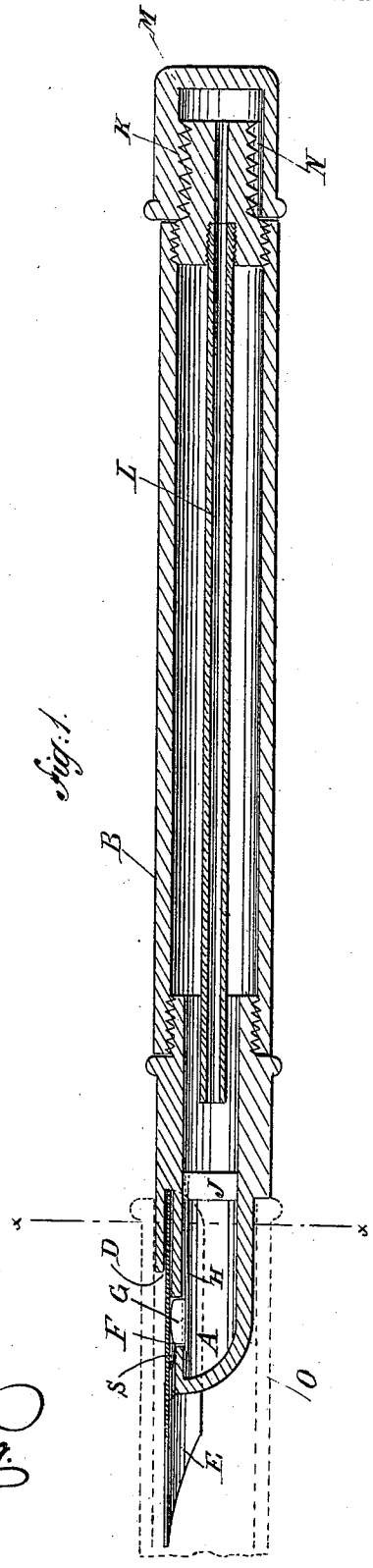


Fig. 1.

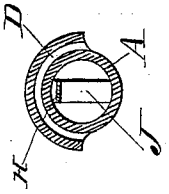


Fig. 2.

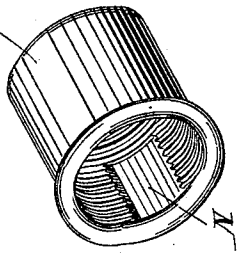


Fig. 3.

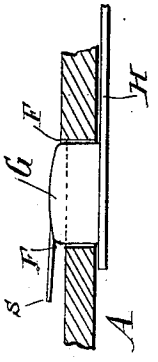


Fig. 4.

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UNITED STATES PATENT OFFICE.

ALBERT J. KLETZKER, OF NEW YORK, N. Y., AND CHARLES H. COURT, OF JERSEY CITY, N. J.; SAID COURT ASSIGNOR OF ONE-HALF HIS RIGHT TO SAID KLETZKER.

FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 297,420, dated April 22, 1884.

Application filed February 17, 1882. (No model.)

To all whom it may concern:

Be it known that we, ALBERT J. KLETZKER, of the city, county, and State of New York, and CHARLES H. COURT, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and Improved Fountain-Pen, of which the following is a full, clear, and exact description.

The invention consists in a fountain-pen constructed with a point-section provided with an aperture below the pen, which aperture is closed by a loosely-fitting plug provided with a tongue, and adapted to be vibrated by the pen during writing, and cause a flow of ink, as hereinafter fully described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal sectional elevation of our improved fountain-pen. Fig. 2 is a cross-sectional elevation of the same on the line *x x*, Fig. 1, the slitted pen being removed. Fig. 3 is an inside perspective view of the screw-cap on the end of same. Fig. 4 is a longitudinal elevation of the plug and part of the point-section.

The point-section A is screwed into the lower end of a reservoir-holder, B, adapted to receive the ink or writing-fluid. This point-section A is provided on its upper surface with a curved recess, D, adapted to receive and hold the rear end of a slitted writing-pen, E, of any suitable construction. The point-section A is provided in its upper surface, in front of the pen-holding recess D, with an aperture, F, of any desired shape, which aperture extends through the thickness of the point-section. A plug or block, G, provided with a wire tongue or strip, S, fits loosely in this aperture, and is attached at its under end to a spring-strip, H, attached to or made integral with a transverse piece, J, in the point-section A, at or near the rear end of the same. This spring-strip H holds the plug or block G loosely in the aperture F. However, any other suitable spring—for instance, a spiral spring—may be used to hold the plug or block G in the aperture F. The upper surface of the plug or block G must project slightly above the surface of the point-section A, as is clearly shown in Fig. 4. A longitudinally-apertured piece, K, is screwed into the upper end of the reservoir-holder B—that is, in the end opposite the one into which the point-section A is screwed—and to this piece K an air-tube, L, of much smaller diameter than the reservoir-holder B, is attached in such a manner that this air-tube extends longitudinally through the reservoir-holder and into the rear or inner end of the point-section A, as is shown in Fig. 1. This piece K is threaded externally, and is adapted to receive an internally-threaded cap, M, which can be screwed on the piece K, to close the outer end of the aperture of the same, and to prevent air from passing through the aperture of the piece K and the air-tube L into the reservoir-holder B or the point-section A. A groove, N, of greater or less width or depth, is cut transversely through the internal threads of the cap M—that is, a part of the threads of the cap are removed. Thus, if the cap M is partly unscrewed, the air can pass through the groove N, the aperture of the piece K, and the air-tube L into the reservoir-holder B and the point-section A.

A protecting-cap, O, (shown in dotted lines in Fig. 1,) is adapted to be placed over the point-section when the fountain-pen is not in use, for the purpose of protecting the point of the slitted writing-pen E, and to prevent the ink from soiling the pocket in which the fountain-pen is carried or the finger of a person seizing the pen.

The operation is as follows: To use the pen, the cap O is removed, and the cap M is partly unscrewed to admit air into the reservoir-tube B and the point-section A. In writing, a greater or less pressure is alternately exerted on the pen, and the middle of the pen—that is, the part of the pen directly over and resting against the outer surface of the plug G—will alternately be raised or lowered—that is, it will be vibrated. As the inner surface of the pen rests against the outer surface of the plug or block G, it will cause a corresponding vibratory movement of the plug G, and this vibratory movement of the plug G will cause a quantity of ink or writing-fluid to pass through the minute space between the edges of the aperture and of the plug to the inner surface of the

pen, and this ink or writing-fluid flows down the inner surface of the pen to the points of the same, and from thence upon the paper or other material to be written upon, the flow of the ink to the point of the pen being facilitated by the tongue or strip attached to the block and resting against the under side of the pen. When the pen is not being used, the plug G is at rest, and closes the aperture F sufficiently to prevent a flow of ink or writing-fluid from this aperture. The air that passes through the air-tube into the reservoir-tube permits the ink or writing-fluid to flow from the aperture F. When the fountain-pen is not in use, the cap M is screwed down tightly. The reservoir B may be made large or small, as may be required.

We are aware that a spring provided with a plug projecting into an aperture of the point-section or feeding-tube of a fountain-pen has heretofore been employed, and we therefore do not claim such invention.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. In a fountain-pen, the combination, with the apertured point-section A, of a spring-pressed block or plug projecting into the aperture and provided with a tongue, substantially as herein shown and described, whereby the block or plug is adapted to be vibrated by the pen to cause the flow of ink, and the ink conducted to the point of the pen, as set forth.

2. In a fountain-pen, the combination, with the point-section A, provided with pen-recess D and the aperture F, of the transverse piece J, the spring H, secured to the said piece, and the block or plug G, provided with the tongue S, and adapted to be vibrated by the pen, substantially as and for the purpose set forth.

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Witnesses:
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