(Model.)

O. E. WEIDLICH.

FOUNTAIN PEN.

No. 422,474. Patented Mar. 4, 1890.

Fig. 1.

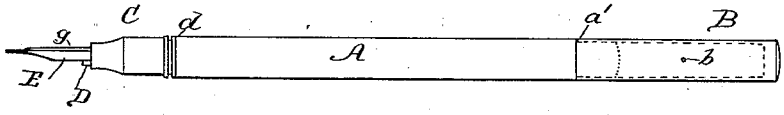


Fig. 2.

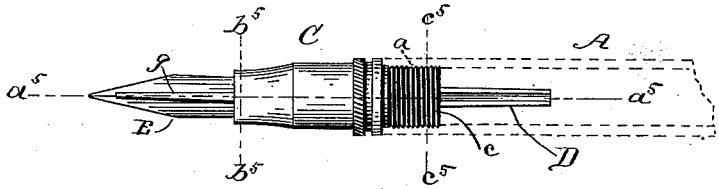


Fig. 3.

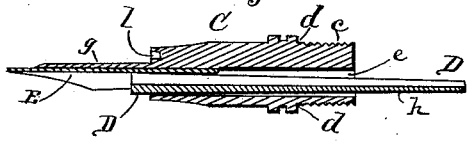


Fig. 4.

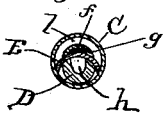


Fig. 5.

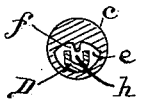


Fig. 6.

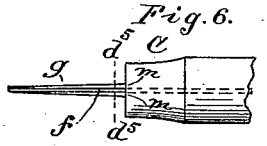


Fig. 7.

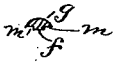
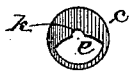


Fig. 8.



Witnesses
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Frank B. Marlow,

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By his Attorney
Chas. F. Benjamin

UNITED STATES PATENT OFFICE.

OTTO E. WEIDLICH, OF CINCINNATI, OHIO.

FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 422,474, dated March 4, 1890.

Application filed September 27, 1889. Serial No. 325,250. (Model.)

To all whom it may concern:

Be it known that I, OTTO E. WEIDLICH, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Fountain-Pens; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to top-feed fountain-pens, and its object is to improve the action and simplify the construction of the feeding arrangements of such pens.

In the accompanying drawings like letters represent like parts.

Figure 1 is a side elevation of a fountain-pen embodying my invention; Fig. 2, an enlarged top view of the point-section of the same; Fig. 3, a central vertical section on the line a^5 a^5 of the preceding view; Fig. 4, a cross vertical section on the line b^5 b^5 of the second view; Fig. 6, an enlarged bottom view of the front portion of the point-section; Fig. 7, a cross vertical section on the line d^5 d^5 of the preceding view, and Fig. 8 an end view of a modification of the interior of the point-section.

A is the ink-barrel, serving also as the pen-holder. It has a screw-thread *a* cut on the interior, at the open end, to receive and hold the point-section, and a shoulder *a'* to receive the cap B when the pen is in use. This cap has the usual vents *b* for escape of air, so that it may fit closely upon the end of the barrel and serve as an extension of the pen-holder.

C is the point-section, having a spiral threaded shank *c* to correspond with the screw-thread of the barrel, and a collar *d* to make a tight joint with the barrel when the two parts are screwed together. A bore *e* is formed lengthwise through the point-section, as shown in Figs. 3 and 5, said bore being semicircular in shape. Midway of the diameter-line of the bore is a ridge *f*, as shown in Fig. 5, which ridge projects beyond the front end of the point-section, as shown in Fig. 6. This ridge is backed by a slightly-curved feed-tongue *g* of the form shown in Figs. 1, 2, and 6, the ridge and tongue blending into a common point, as shown in Fig. 6.

The ink proceeding from the barrel A into and through the point-section C flows along the feed-tongue on both sides of the ridge (see Fig. 6) and is delivered upon the top of the pen, near the nib-points, from the end and sides of the feed-tongue. A plug D is provided semicircular in cross-section (see Fig. 5) and tapering throughout its length, (see Fig. 3,) and this is used to wedge the pen, as shown in Figs. 3 and 4, and to hold it in place by pressing it against the ridge and feed-tongue. When in use, the larger end of the plug should project beyond the front end of the point-section, (see Figs. 1 and 3,) and there is a groove or channel *h* cut along the entire length of the plug to serve as an air-vent, as shown in Fig. 4. The plug projects backward from the point-section, (see Figs. 2 and 3,) so that it may be grasped by the fingers and withdrawn to release the pen or to clean the point-section.

E represents the pen, which is to be of any ordinary shape and size adapted to the point-section. In using the pen the nib-points should extend a little beyond the feed-tongue, (see Figs 1 and 2,) and the farther they so extend within practicable limits the heavier will be the writing.

No separate feed-tube is used, the ink being put into the barrel and flowing thence directly into and through the point-section along the sides of the ridge.

I may prefer, as shown in Fig. 8, to replace the ridge *f* by an equivalent groove *k*, extending through the point-section and along the feed-tongue nearly to the point thereof. In that modification of the device the ink would flow along and in the groove and would discharge thence upon the pen near the end of the feed-tongue, which would project as now from the point-section.

A narrow annular seat *l* is formed in the front face of the point-section, and the feed-tongue has a double shoulder *m* at its base. These arrangements form a circular channel which receives any overflow of ink at the begining and tends to prevent blotting of the paper by an excess of ink-supply.

I claim as follows:

1. In a fountain-pen, the point-section C when provided with the bore *e*, the ridge *f*, and the feed-tongue *g*, substantially as herein described, for the purpose of supplying a flow of ink to the pen.

2. The combination, in a fountain-pen, of the point-section C, having a bore *e*, a ridge *f*, and a feed-tongue *g*, with the plug D, having a groove *h*, for the purpose of holding the pen in place and securing a flow of ink to the same.

3. A top-feed fountain-pen consisting in a combination of the following parts: the barrel A, having a screw-thread *a*, the point-section C, having a threaded shank *c*, a collar *d*, a bore *e*, a ridge *f*, and a feed-tongue *g*, the plug D, having a groove *h*, and an ordinary nibbed pen E, all substantially as and for the purposes described.

4. A portable top-feed fountain-pen consisting in a combined arrangement and operation of the following parts: the barrel A, having a screw-thread *a*, the point-section C, having a threaded shank *c*, a collar *d*, a bore *e*, a ridge *f*, and a feed-tongue *g*, the plug D, having a groove *h*, an ordinary nibbed pen E, and the cap B, having the vents *b*, all substantially as and for the purposes described.

In testimony whereof I affix my signature in presence of two witnesses.

OTTO E. WEIDLICH.

Witnesses:

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J. WILLIAM FLYNN.