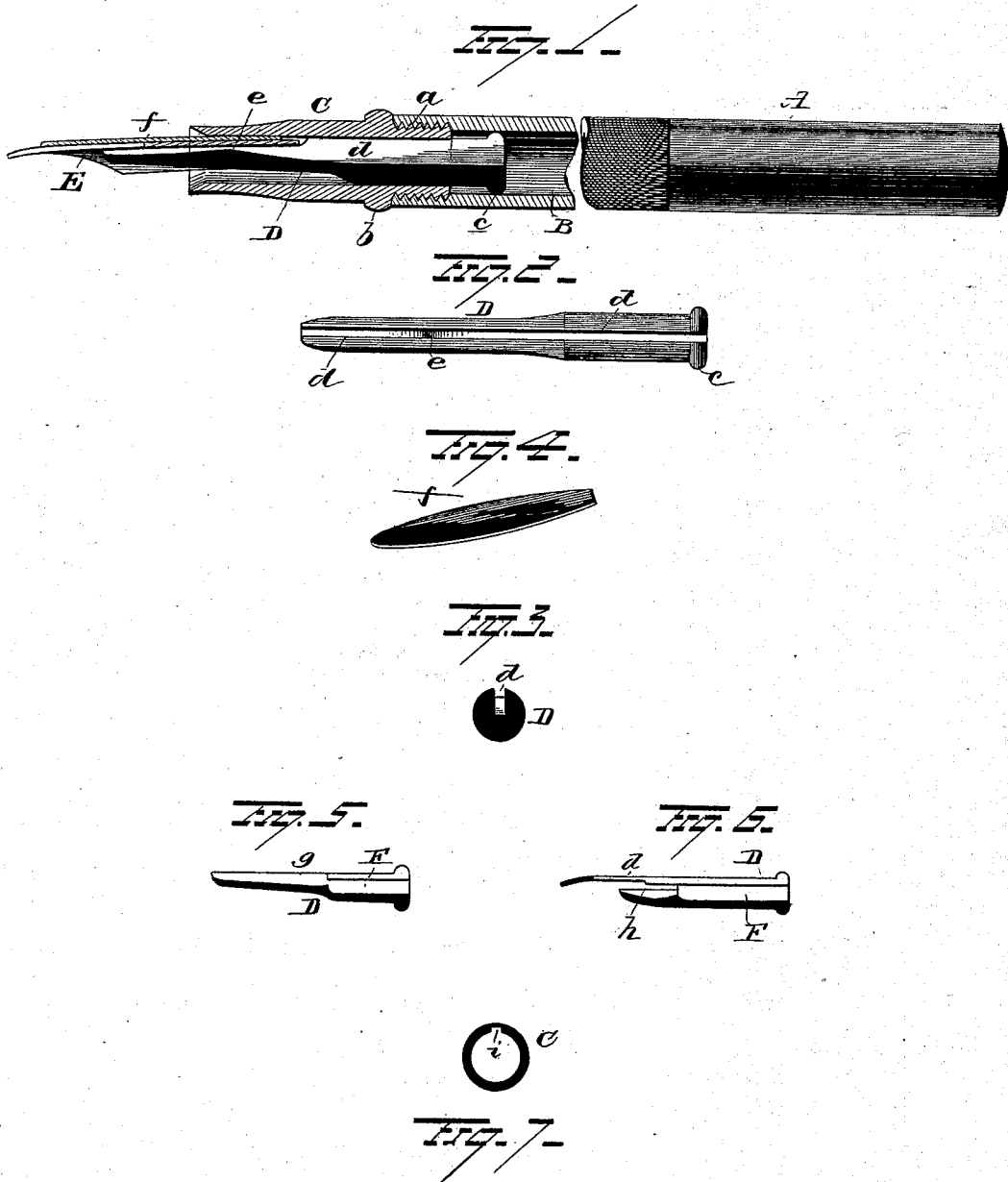


(No Model.)

G. S. PARKER.
FOUNTAIN PEN.

No. 416,944.

Patented Dec. 10, 1889.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE SAFFORD PARKER, OF JANESVILLE, WISCONSIN, ASSIGNOR TO THE SAFFORD FOUNTAIN PEN COMPANY, (LIMITED,) OF SAME PLACE.

FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 416,944, dated December 10, 1889.

Application filed December 4, 1888. Serial No. 292,653. (No model.)

To all whom it may concern:

Be it known that I, GEORGE SAFFORD PARKER, of Janesville, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Fountain-Pens; and I do hereby 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.

My invention relates to an improvement in fountain-pens.

The market has been supplied with fountain-pens of a more or less imperfect character, to which, owing to the irregular, sluggish, or excessive flow of ink, great objection has been found.

It is the object of my present invention to correct these faults and imperfections, and in so doing produce at a comparatively low initial cost a fountain-pen of prompt action, emitting a steady, reliable, and constant flow of ink.

A further object is to provide a fountain-pen in which the ordinary gold or steel pens may be used, and one in which the general arrangements of parts shall be simple and effective, and one which shall have a neat appearance.

With these ends in view my invention consists in certain features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of the complete pen. Fig. 2 is a top plan view of the feed-plug. Fig. 3 is a transverse vertical section of the same. Fig. 4 is a detached view of the priming-finger. Figs. 5 and 6 are vertical longitudinal sectional views of a modified form of plug. Fig. 7 is a transverse section through a modified form of pen-holding section.

A represents the handle of the pen, having the usual ink-reservoir B in its interior. A pen-holding section C, of hollow formation, and preferably having slightly-tapered exterior, is provided at the opposite end with a screw-threaded tap *a*, adapted to engage similar female threads in the handle to form an ink-tight joint, the milled boss *b* being lo-

cated on the section, whereby it is easily turned into place. Feed-plug D, as shown in Fig. 2, is the preferred form, and it consists of a piece of suitable material shaped at one end to fit the pen-holding section and tapered at the other end to give it the proper finish, and in order that it shall not be any more conspicuous than necessary. On the opposite end of this plug is a head *c*, by which the plug is held while it is being adjusted. This plug is about straight along its upper edge, and is provided with a groove or channel *d* throughout its length which communicates with the reservoir B, and is designed to conduct ink therefrom to the pen. About midway between the ends of the plug a rib *e* is formed in the groove or channel *d*, and the pen E is held between this plug and the pen-holding section, the rear end of the pen extending back about to this rib *e*, so that the feed of ink in the groove or channel is directed or divided, as it were, in two courses by the rib—one over the pen and the other beneath it. The plug always regulates the feed beneath the pen by keeping a constant supply always in contact with it, while a removable flexible priming-finger *f* over the pen forms a capillary space over the pen, which holds the thinner and more watery portion of the ink and always keeps the pen inked from above for immediate use. Thus through this one plug ink is kept in constant supply on both sides of the pen, where it is conducted largely through capillary attraction or owing to the attraction of liquids to solids.

The pen may be taken apart and readjusted at a moment's notice, owing to the fact that the pen, pen-holding section, plug, and priming-finger are all in separate parts.

In the modification shown in Fig. 5 a plug is shown having a construction very similar to that just described. In this, however, the groove or channel is merged at its rear end into an ink-cavity F, which holds a larger supply of ink from the reservoir, while the other end *g* is deeper and wider from the end of the cavity outward to the extreme end, where it is made small and rectangular to serve as an air-hole and also permit ink to flow out.

In the modification shown in Fig. 6 the

groove *d* extends slightly into the priming-finger *f*, which in this instance is an integral part of the plug itself. In this construction a space *h* is formed beneath the priming-finger, and the groove or channel is divided, so as to conduct ink from the cavity *F* to both sides of the pen. This plug may be made of different kinds of material, the lower half of silver, gold, or other non-oxidizable material and the upper half of vulcanized rubber. By this means a more lasting and reliable article is furnished.

In some instances it has been found desirable, in order to increase the size of the capillary space, to form a recess *i*, as shown in Fig. 7, in the pen-holding section. This always insures ample space for the ink and is found of advantage.

The first form of plug is preferred as being cheap and easily made when pens as large or larger than the ordinary No. 4 are used; but when it is desired to employ a smaller fountain-pen the other construction is preferable.

By grooving or channeling the third form of plug *D*, to obtain the same results as from the other construction, the former has decided advantages over the latter in the hands of the consumers less skilled in the use and handling of fountain-pens, as the feed-plug parts or all of the pen may be made of silver, gold, or other non-oxidizable material, thereby producing a very lasting and serviceable fountain-pen. This last-mentioned feature would obviate much of the repairing incidental to the manufacture and sale of fountain-pens to a large class of consumers not sufficiently familiar with the fragile character of the vulcanized rubber.

These pens have been fully tested, and it is apparent that they combine efficiency with simplicity and durability.

It is evident that slight change might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention. Hence I do not wish to limit myself to the exact construction herein set forth; but,

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

1. In a fountain-pen, the combination, with a pen-holding section, a removable priming-finger, and pen, of a feed-plug fitted to the section, said plug having an ink-channel therein, and said channel being formed to deflect a portion of the ink over the entire upper surface of the pen, substantially as set forth.

2. In a fountain-pen, the combination, with a pen-holding section, of a removable plug made cylindrical throughout a portion of its length, and having a flattened face throughout the remainder of its length, said plug being provided with an ink-cavity in its cylindrical portion and a groove in its flattened portion, and a rib projecting into said groove whereby the ink flowing through the plug is retarded and caused to feed to both faces of the pen, substantially as set forth.

3. In a fountain-pen, the combination, with a pen-holding section, a pen, and removable priming-finger, of a feed-plug having an ink-channel therein, and a ridge in said channel for deflecting a portion of the ink over the upper surface of the pen, substantially as set forth.

4. The combination, with a handle, a pen-holding section, a pen, and removable priming-finger, of a feed-plug having a cylindrical portion fitted to the pen-holding section, and a flattened portion between which and the section the pen and priming-finger are held, said feed-plug having an ink-channel therein, and a ridge in the channel beneath the flattened portion of the plug for deflecting a portion of the ink over the pen from the heel to the point, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

GEORGE SAFFORD PARKER.

Witnesses:

JOHN MENZIES,

JOHN M. WHITEHEAD.