

No. 646,127.

Patented Mar. 27, 1900.

W. E. McKEE.  
FOUNTAIN PEN.

(Application filed May 25, 1899.)

(No Model.)

Fig. 1.

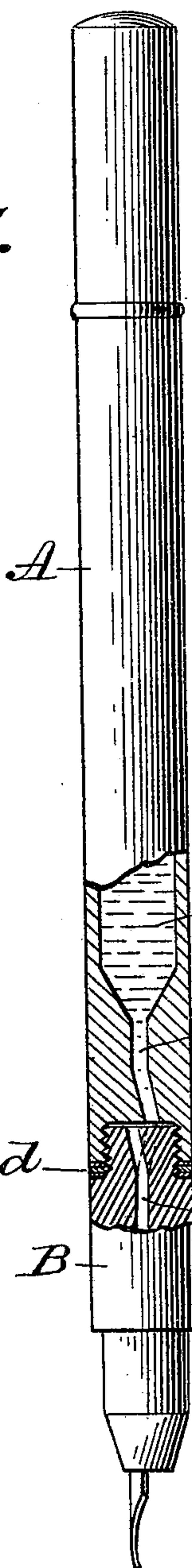


Fig. 5.

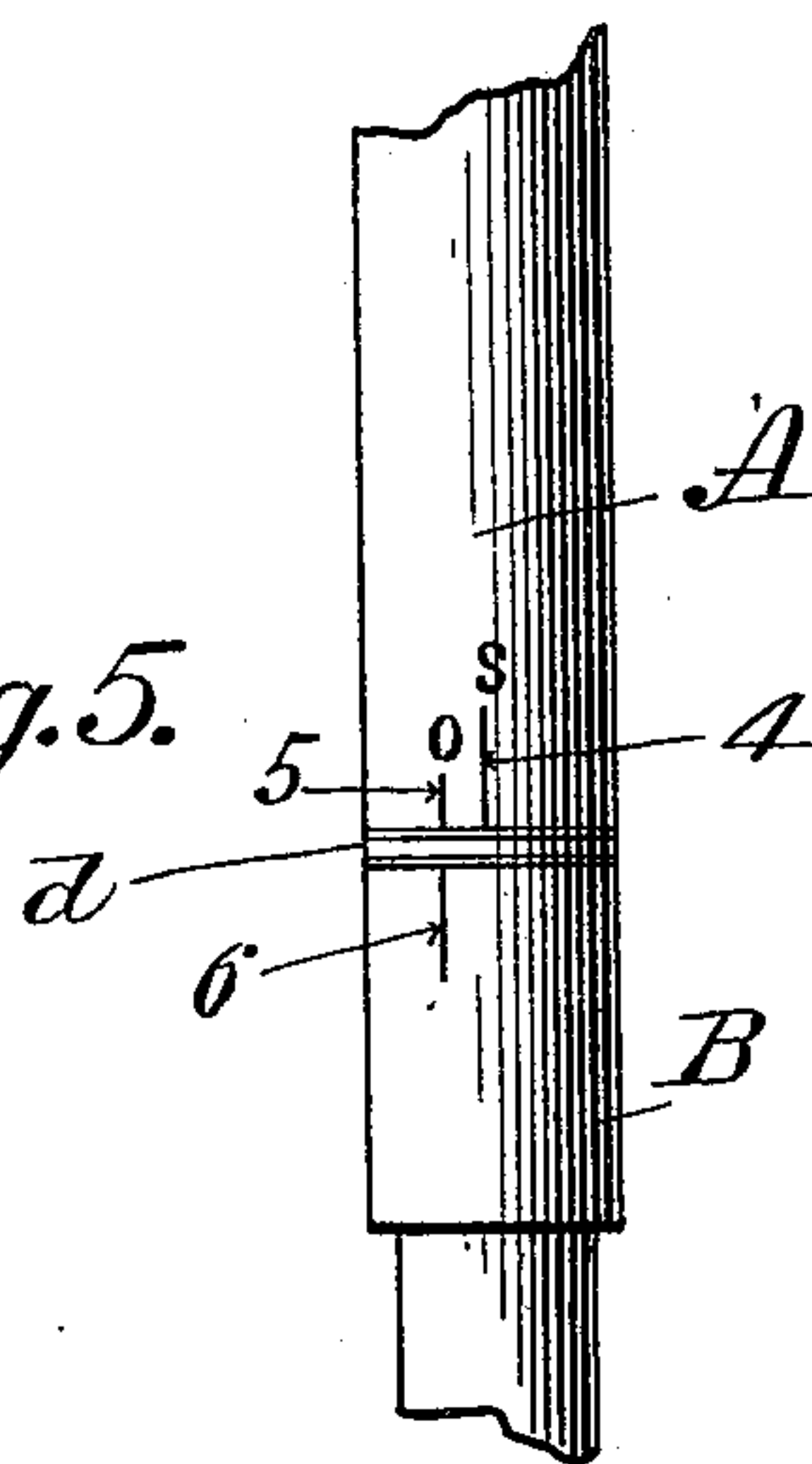


Fig. 2.

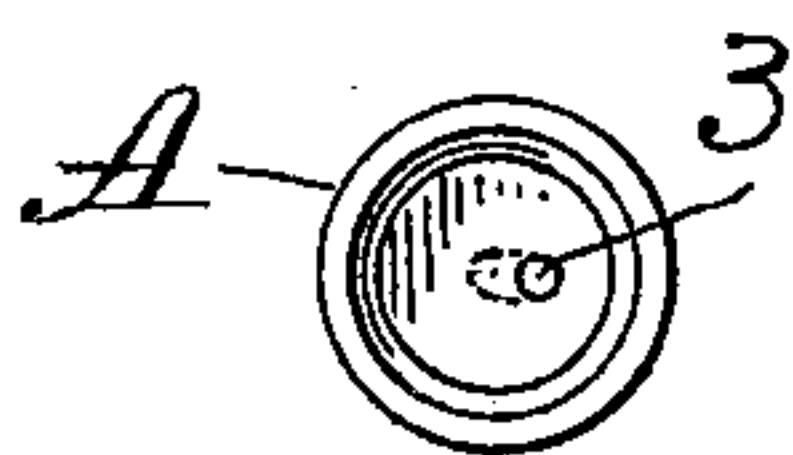
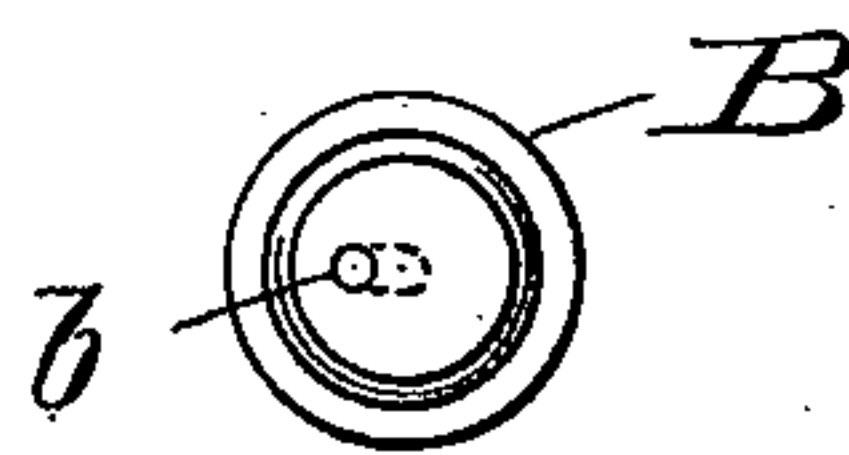


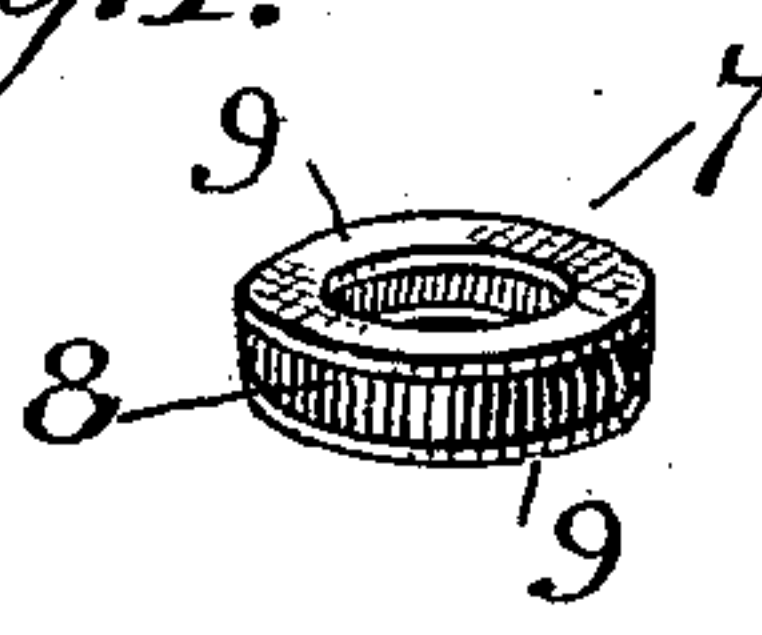
Fig. 3.



Witnesses:

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Fig. 4.



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# UNITED STATES PATENT OFFICE.

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## FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 646,127, dated March 27, 1900.

Application filed May 25, 1899. Serial No. 718,276. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM E. MCKEE, a citizen of the United States of America, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Fountain-Pens, of which the following is a specification.

This invention relates to fountain-pens, the object being to provide an improved construction of this class of pens whereby the escape of ink from the reservoir thereof is wholly shut off, except when the tip-section carrying the pen is in a certain position relative to said reservoir for writing, thereby obviating the inconvenience due to the leakage of ink from the pen or reservoir when not in use or when carried in the pocket; and the invention consists in the peculiar construction of the connecting parts of the said reservoir and tip-sections and the ink-ducts therein, whereby said object is attained, all as hereinafter fully described, and more particularly pointed out in the claims.

Referring to the drawings forming part of this specification, Figure 1 is a side elevation, partly in section, of a fountain-pen embodying my improvements. Figs. 2 and 3 are end elevations of those parts of the ink-reservoir and pen-holding tip of the pen at which the ink-ducts of those parts interconnect. Fig. 4 is a perspective view, somewhat enlarged, of a washer which is interposed between the bearing-surfaces of said ink-reservoir and tip-section. Fig. 5 is a side elevation of said reservoir and tip-sections at and near their screw-connected ends.

Referring to the drawings, A indicates the ink-reservoir, having the ink-chamber 2 therein and a duct 3 leading therefrom to the lower end thereof opposite the tip-section B, which contains the duct *b*, extending from its upper end to the pen, as usual. Said reservoir and tip-sections are screw-connected, as shown, in such manner that circular shoulders thereon are brought opposite to each other at *d*; but instead of permitting said shoulders to bear one against the other when said parts are screwed together, as usual heretofore, the said shoulders are normally retained in separated relations of varying degree, as shown, for the purposes below set forth. It will be noted that the lower or de-

livery end of said ink-duct 3 of the reservoir opposite the end of said tip or pen-carrying section B has its lower end terminating to one side of a longitudinal center line between the sides of said reservoir, and that the ink-duct *b* in said tip-section likewise terminates to one side of a longitudinal center line between the sides thereof and to a degree coinciding with the eccentric position of that of said reservoir. The purpose of the described positions of said ink-ducts 3 and *b* is that when the said tip and reservoir sections occupy the positions shown in Fig. 1 the said two ducts shall not "register," so to speak, and therefore no ink can pass from the reservoir to the pen; but by turning one or both of said sections A and B slightly more than the measure of the diameter of either of the adjoining ends of said ducts the flow of ink from the reservoir is either established or cut off. In practice the screwing more closely together of said reservoir and tip to separate the extremities of said ducts, as aforesaid, brings the end of the screw-threaded part of the tip B to a bearing against the base of the screw-threaded socket of the reservoir A, and thereby substantially stopping the escape of ink into the said screw-threaded parts. The separating element between said shoulders at *d*, Fig. 1, consists of an elastic washer 7, (see Fig. 4,) having a central or body part 8, of non-absorbent elastic material, as soft rubber or other similar substance, and surface-covering sections 9 9, of waxed or oiled cloth or paper, whereby when said washer shall be compressed between said shoulders by screwing said pen-tip and reservoir together, as in Fig. 1, the surface parts thereof are held closely against said shoulders at *d*, so that should any ink pass from said reservoir-duct 3 to the screw parts of the tip and reservoir it cannot escape between the said shoulders of the latter to the outside of the parts and soil the same. Furthermore, the elastically-dilating action of said washer when either the reservoir A or the tip-section B is turned slightly one upon the other to bring said duct extremities to juxtaposition, as aforesaid, tends to keep the washer-surfaces in such close contact with the surfaces of said shoulders at *d* as to prevent any leak of ink. The rotary movement of said reservoir or said



tip required to cause the ink to flow or to cease flowing is, as aforesaid, only slightly more than the diameter of the ducts 3 and 6, and hence the dilation and compression of said washer would be very slight. To aid a person in determining at a glance whether or not the said ink-ducts are in operative communication with the pen, gage-line marks 4 and 5 are applied to the surface of the reservoir A and a like mark 6 is applied to the surface of the pen-tip B. Over said marks 4 and 5, respectively, are the letters "S" and "O," the former signifying "Shut" and the latter "Open." When the pen-tip B shall be turned so that the said line 6 thereon registers with said line 4 on the reservoir, that signifies that the ink is shut off from the pen; but when the said tip shall be turned to bring the line 6 thereon to the position relative to the line 5 on the reservoir that indicates an open ink-passage from the reservoir to the pen.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a fountain-pen; an ink-reservoir, having an ink-chamber therein, and a duct or channel leading from the lower end of the chamber, the lower end of the duct being deflected from a straight line, combined with

the tip-section having a duct extending there- through, the upper end of the duct being also deflected from a straight line, and a washer placed between the reservoir and the tip-section; the tip-section and the reservoir being screw-threaded upon their connecting ends and adapted to be rotated so as to separate the ends of the two parts or bring them together, substantially as shown.

2. In a fountain-pen, the reservoir and tip sections thereof screw-connected for free reciprocally-rotary movements one upon the other, whereby their united ends approach and recede toward and from each other, an elastic packing interposed between said sections whereby the ink contained in said reservoir is there retained during said approaching and receding movements, and ink-ducts in said sections terminating at the adjoining extremities thereof eccentrically each to the other, but brought to interconnecting or to separated positions by a limited rotary movement of either said reservoir or tip, substantially as described.

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Witnesses:

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