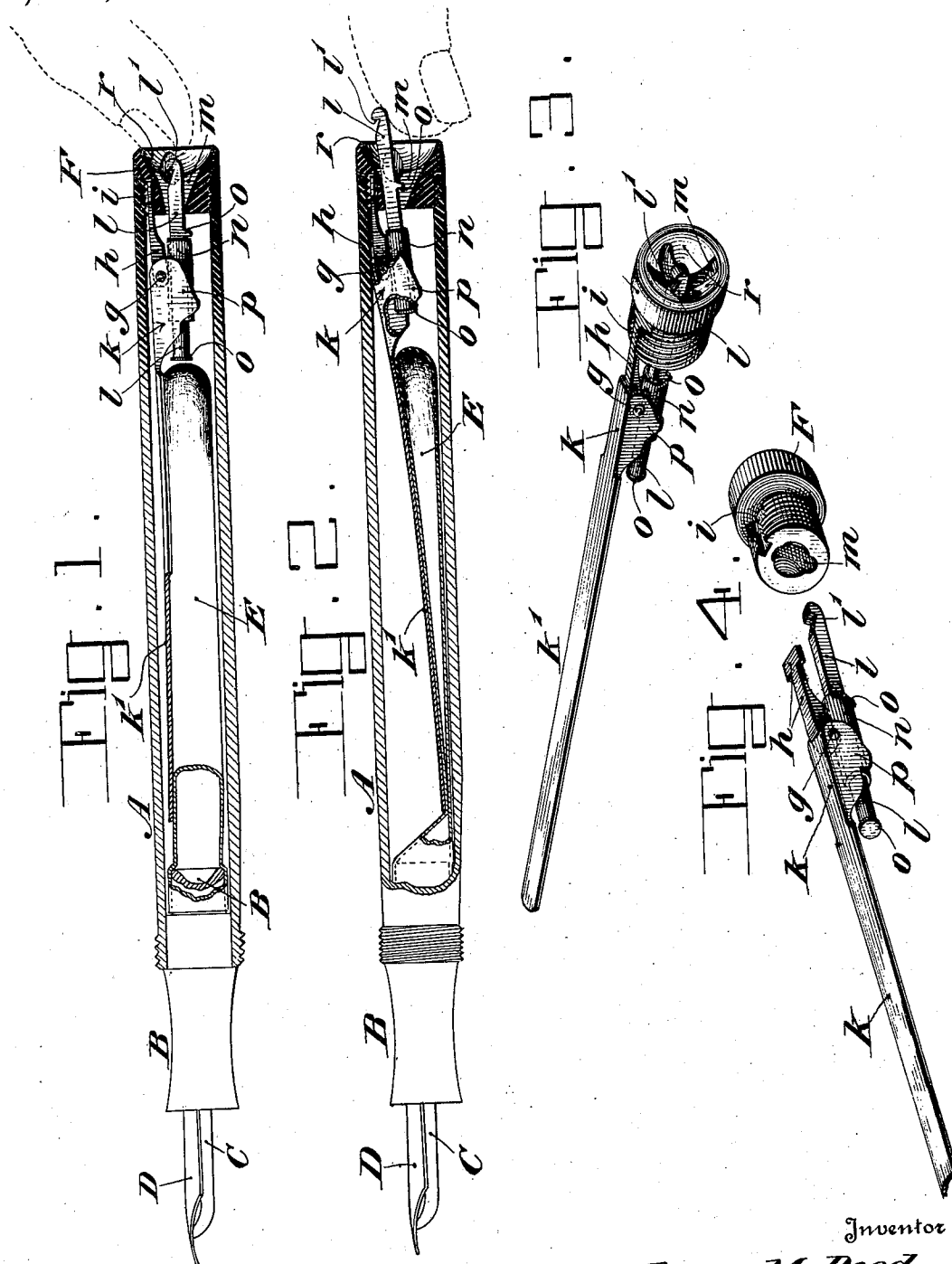


J. M. REED.  
 FOUNTAIN PEN.  
 APPLICATION FILED DEC. 6, 1916.

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1,216,732.



Witnessed

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# UNITED STATES PATENT OFFICE.

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## FOUNTAIN-PEN.

1,216,732.

Specification of Letters Patent.

Patented Feb. 20, 1917.

Application filed December 6, 1916. Serial No. 135,458.

To all whom it may concern:

Be it known that I, JAMES M. REED, a citizen of the United States, and a resident of Brooklyn, in the county of Kings, State of New York, have invented a certain new and useful Improvement in Fountain-Pens, of which the following is a specification.

My invention relates to self-filling fountain pens so-called and it consists of a novel construction and arrangement of the parts which constitute the presser movement, which will first be described in connection with the accompanying drawings, forming part of this specification, and will then be more particularly pointed out in the claims.

In said drawings—

Figure 1 is a longitudinal axial section, partly in elevation, of a fountain pen embodying my invention in its preferred form, showing the parts of the self-filling movement in normal position.

Fig. 2 is a similar section, partly in elevation, of the same with the parts in the position they assume when the presser bar is forced inwardly to compress the ink bag.

Fig. 3 is a perspective view of the presser movement consisting of the presser-mechanism-proper and the plug on which it is mounted, showing the two associated and fitted together as they are when they are as a whole applied to or removed from the rear end of the pen handle.

Fig. 4 is a perspective view of the presser-mechanism-proper and the plug detached from one another.

The tubular handle A is of the usual construction, and is provided with the usual nozzle B which holds the feed bar C and pen D; within the handle is the collapsible ink bag E of vulcanized soft rubber or other suitable material fitted upon the rear end of the nozzle B. Thus far there is nothing new in the pen.

The rear end of the pen handle is closed by a plug F removably fitted and connected thereto in suitable manner, in this instance by a screw connection as shown, the plug having an external screw thread to engage a corresponding internal thread in the open rear end of the pen handle. The self-filling movement is carried by this plug F.

The self-filling movement consists of an operating lever  $kl$  of the first order pivoted at  $g$  to a metallic support  $h$  detachably applied to and connected with the plug F, said

detachable connection being provided for in the present instance by a baseplate  $h$  of T-shape and, in the screw threaded exterior of the plug, a recess  $i$  of corresponding form to receive the cross bar and shank of the support  $h$  so that it will lie in said recess, flush with the bottom of the screw threads in the plug, and will thus be held tightly in place between the plug and the pen handle when the plug is screwed home in the latter.

The inner arm  $k$  of the operating lever carries the presser bar for squeezing the ink bag, which presser bar may be of any suitable kind, either a bar separate from the arm and pivoted or otherwise secured to the same, or, as shown in the present instance in the drawing, an elastic metallic prolongation  $k'$  of the arm  $k$ . The outer arm  $l$  of the lever forms the handle, and extends through and beyond the plug F through a slot  $m$  formed for that purpose in it of the requisite dimensions to permit the needed vibratory play to the operating handle.

In order to provide increased leverage for operating the presser bar end of the movement, the operating handle end  $l$  is made extensible, for which purpose it is mounted in a sleeve  $n$  in which it can slide back and forth within the limits prescribed by the stops  $o$  on said handle end. The sleeve  $n$ , which extends fore and aft of the lever, is rigidly secured between the same ears  $p$  on the arm  $k$  of the lever through which the pivot  $g$  passes. The rear end of the plug F through which the operating handle end  $l$  of the lever projects, is dished as shown at  $r$  so that the end of the handle when pushed in will be contained in the recess thus formed and will not project beyond the plane of the rear end of the plug. A finger nail notch  $v$  in the outer end of the arm  $l$  is provided to facilitate the operation of pulling it out to extend its operative length.

Under this arrangement, it will be noted that while the presser-mechanism-proper and plug can be readily applied to and removed from the pen handle as a whole, yet when thus removed, the presser-mechanism-proper can be readily detached from the plug for renewal, repairs, or other purposes. It will also be noted that while the handle arm  $l$  can readily be extended to increase the leverage, as shown in Fig. 2, it can, when not in use, be pushed inwardly so as not to project beyond the dished portion or recess

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 7 in the rear end of the plug, as shown in Fig. 1.

5 Having described my improvement and the best way now known to me of carrying the same into practical effect, I state in conclusion that I do not limit myself narrowly to the structural details hereinbefore shown and set forth in illustration of my invention, since manifestly the same can be varied to  
 10 some extent without departure from the spirit of the invention; but what I claim herein as new and desire to secure by Letters Patent is as follows:

15 1. In a self-filling fountain pen the combination with the pen barrel of a presser movement consisting of a plug formed with an internal slot extending lengthwise of and through it from end to end and detachably secured to the rear end of the pen barrel,  
 20 and a presser-mechanism-proper comprising a pivoted lever of the first order detachably mounted on and carried by the plug, a presser bar connected to its front end, and its rear end protruding through the slot in  
 25 the plug to provide an operating handle, the plug and presser-mechanism-proper being removable as a whole from the pen barrel, and the presser-mechanism-proper being removable as a whole from the plug,  
 30 substantially as and for the purposes hereinbefore set forth.

35 2. In a self-filling fountain pen the combination with the pen barrel of a presser movement comprising a plug detachably applied to the end of the pen barrel and formed with an internal slot extending lengthwise of and through it from end to end; a base plate detachably applied to and fitting in a recess formed in the exterior of  
 40 the part of the plug which enters the pen barrel and provided with projections which interlock with corresponding portions of said recess, said base plate being held in position between the contiguous faces of the  
 45 pen barrel and plug when the latter is inserted in the pen barrel; a lever of the first order pivoted to said base plate; a presser bar connected to the front end of said lever,

and the rear end of said lever extending through and beyond the slotted plug to furnish an operating handle, substantially as and for the purposes hereinbefore set forth. 50

3. The combination with the pen barrel and the longitudinally slotted plug removably fitted to said pen barrel and provided with a dished rear end, of an operating lever of the first order mounted on said plug and formed in two parts—a front arm which carries the presser bar, and a rear arm separate from the front arm and projecting through the slotted plug to provide an operating handle; and a sleeve secured to and extending lengthwise of the lever at or near its pivotal point in which said rear arm is mounted and can slide, between limits provided by projections on said rear arm, whereby the operative length of said arm can be lengthened and shortened as desired, substantially as and for the purposes hereinbefore set forth. 55 60 65

70 4. In a self-filling fountain pen, the combination with a tubular pen handle having a dished rear end, a nozzle, a collapsible ink bag and a presser bar interposed between the ink bag and handle; of an operating lever extending within and lengthwise of the handle and pivoted between its two ends in the rear portion of the handle and consisting of two separate parts, a front arm which carries the presser bar, and a rear arm which projects through a cross slot in the dished rear end of the pen handle to provide an operating handle for the lever; a sliding connection between the two arms of the lever to permit the rear arm of the lever to have lengthwise sliding movement, whereby the operative length of said arm can be lengthened and shortened as desired, and the exposed end of said arm when shortened contained within the compass of the recess in the dished end of the pen handle; and means for limiting the sliding movement of said arm, substantially as and for the purposes hereinbefore set forth. 75 80 85 90

In testimony whereof I affix my signature. 95  
 JAMES M. REED.