UNITED STATES PATENT OFFICE.

JOSEPH A. VOGELMANN, OF BROOKLYN, NEW YORK.

SELF-FILLING FOUNTAIN-PEN.

1,007,619.


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To all whom it may concern:

Be it known that I, JOSEPH A. VOGELMANN, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Self-Filling 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.

This invention relates to improvements in self-filling fountain pens.

The object of the invention is to provide an improved construction of fountain pen having means whereby ink may be readily drawn into the barrel of the pen and means whereby the feed of the ink from the barrel is controlled.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings: Figure 1 is a side view of a fountain pen constructed in accordance with my invention: Fig. 2 is a longitudinal sectional view of the same, and Fig. 3 is a vertical cross section on the line 3–3 of Fig. 2.

In the embodiment of the invention I provide a tubular barrel 1, the inner walls of the opposite ends of which are threaded as shown at 2. Arranged in the tubular barrel 1 is an ink holding tube 3 of rubber or similar elastic material. One end of the tube 3 is secured in the outer end of the tube 1 by a plug 4 which is screwed into the threaded outer end of the barrel. The end of the tube is tightly clamped between the threaded surfaces of the end of the barrel and the plug as shown. The plug 4 is provided with a head 5 whereby the same may be readily operated. In the opposite end of the barrel is adapted to be screwed a feed nipple 6 having a reduced extension 7 adapted to fit the end of the barrel. Between the extension 7 and the adjacent end of the barrel is secured the inner end of the ink holding tube 3. By thus securing the opposite ends of the tube 3, said ends are made fluid tight.

The feed nipple 6 is provided with a feed passage 8 in the outer end of which is secured a pen and a suitable ink feeding device, as shown. In the inner end of the feed passage 8 is formed a valve seat 9 adapted to receive a plug valve 10 which is secured to the end of a valve stem 11. The opposite end of the valve stem 11 is secured to the plug 4 whereby when the latter is turned slightly in one direction or the other the valve 10 will be opened or closed as desired to regulate or stop the flow of ink to the feed passage in the nipple.

Arranged in the barrel 1 on opposite sides of the ink tube 3, are segmental compression plates 12 which preferably extend to near the closed ends of the tube. The plates 12 extend down and around the rubber tube as shown, and on said plates midway their ends, are formed outwardly projecting lugs 13 which project through slots 14 formed in the opposite sides of the pen barrel as shown. The side edges of the slots 14 are cut away to permit the lugs 13 to be readily engaged by the thumb and finger. As clearly shown the segmental plates are of sufficient length to be freely forced against the elastic ink receiving tube 3 at a sufficient distance from its connected ends and is separated from the barrel 1 by said plates. By means of the thumb and finger lugs 13 the plates 12 may be forced inwardly thereby compressing the ink tube which when released will again expand and thereby draw ink up into itself, when the outer end of the nipple is inserted in the ink and the valve 10 opened.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention, as defined in the appended claim.

Having thus described my invention, what I claim is:

In a fountain pen the combination of a barrel, the opposite ends of which are threaded, an elastic ink receiving tube arranged therein, a plug having a threaded engagement with one end of the barrel, a tubular feed nipple having a threaded extension adapted to be secured into the oppo...
site end of the barrel, the opposite ends of said tube being secured in position by the plug and nipple, segmental plates arranged on opposite sides of the elastic tube, the ends of which are located a suitable distance from the connected ends of the tube, and lugs forming a part of said plates and projecting freely through slots formed in the barrel, whereby said tube is held out of contact with the barrel and in perfect alinement therewith.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSEPH A. VOGELMANN.

Witnesses:

HAROLD J. CLEARY,
HENRY M. WALTER.