

UNITED STATES PATENT OFFICE.

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FOUNTAIN-PEN.

No. 885,753.

Specification of Letters Patent.

Patented April 28, 1908.

Application filed September 18, 1907. Serial No. 393,498.

To all whom it may concern:

Be it known that I, JOHN A. HOLLAND, a citizen of the United States of America, and resident of Cincinnati, county of Hamilton, State of Ohio, have invented certain new and useful Improvements in Fountain-Pens, of which the following is a specification.

The object of my invention is a fountain pen which will not leak, whether it be placed in an upright or in an inverted position in a person's pocket, and which at the same time is provided with an efficient means for supplying ink to the pen when writing.

Referring to the accompanying drawings, in which like parts are indicated by similar reference letters, Figure 1 is a longitudinal central sectional view of the barrel, the plug, the feeder and the pen point, and in elevation of the cap, of a pen embodying my invention, the plug and the cap being removed from the barrel. Fig. 2 is a top plan view of a pen embodying my invention, the pen cover being omitted. Fig. 3 is a detail sectional view of the lower end of the barrel and of the rotating plug mounted therein. Fig. 4 is a sectional view of the pen point cover.

Referring to the parts: The barrel, A, consists of a cylindrical tube internally screw-threaded at its upper end to receive the cap, B, and having near its lower end an internal annular groove, *a*, to receive the collar, *c*, upon the plug, C, so that when the collar is seated in the groove, *a*, the plug may be revolved in the end of the barrel. This revolution is limited by pin, *c'*, which fits into a slot, *a'*, of the barrel. To place the plug in its operative position, the lower end of the barrel, A, is heated, so that the rubber thereof may be expanded so as to pass over the collar, *c*, to permit it to enter the groove. Pin, *c'*, is then inserted in the block, C, through the slot, *a'*. Then the end of the barrel is smoothed out and finished so that the end of the plug rotates smoothly within the end of the barrel. Adjacent to the end of the plug, C, barrel, A, has a transverse partition, *a²*, and a soft rubber washer, *a³*, which is cemented to the partition, *a²*, through the washer and the partition an eccentric port *a⁴*, is formed.

Plug, C, has a central recess, *c²*, within which is seated the ink feeder, D, between which and the wall of the plug, pen point,

E, is held. Through the plug, C, a channel, *c³*, extends into recess, *c²*, adjacent to the end of the feeder, D. The upper end of the channel, *c³*, is at the same distance from the axis of the plug, that the perforation, *a⁴*, is from the axis of the barrel. The pin, *c'*, is located upon the plug in a position such that when it engages the end, *a⁵*, of the slot, *a'*, the outer end of the channel, *c³*, will register with the perforation, *a⁴*, and that when the pin, *c'*, engages the opposite end, *a⁶*, of the slot, *a'*, the end of the channel, *c³*, abuts against an imperforate part of the washer, *a³*. Plug, C, has near its lower end an external screw-threaded collar, *c⁴*. Pen point cover, F, has upon its interior a screw-threaded collar, *f*, which when the cover is placed upon the operative end of the pen, engages the screw-threaded collar, *c⁴*.

The operation is as follows: The barrel is to be filled with ink from the upper end by removing the cap, B. The screw-threads, *c⁴*, and *f*, are cut so that in unscrewing the point-cover, F, the plug will be rotated to a position to bring the pin, *c'*, against the end, *a⁵*, of the slot so that the channel, *c³*, will register with the perforation, *a⁴*. Therefore, when the cover has been removed, the parts of the pen are in position for writing, since the ink will then feed from the channel, *c³*, to the feeder, D, and thence to the pen-point. When the pen point cover, F, is re-placed over the plug, C, the operation of screwing it into position carries the pin, *c'*, into contact with the end, *a⁶*, of the slot, *a'*. Therefore, no ink may pass through the partition, since the perforation, *a⁴*, will be closed by an imperforate part of the plug, C.

While I have illustrated the invention as having a point protector whose removal and replacement rotates the plug, C, it is obvious that a pen-point protector which simply slipped upon the barrel might be used, in which case the plug could be rotated by hand, to bring it to open or close the barrel.

What I claim is:

In a fountain pen the combination of a barrel having near its front end an eccentrically bored partition and an internal annular groove in front of the partition, a disk of yielding material with a bore to register with the aforesaid bore and being secured upon the front of the partition, a

plug journaled in the front end of the barrel and having an external collar fitting within the groove of the barrel and holding the rear end of the plug firmly but yet rotatably against the disk, the plug having a longitudinal channel adapted to be brought in and out of register with the bore of the disk

at one end and to lead at the other end to a pen point.

JOHN A. HOLLAND.

Witnesses:

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