A. L. WATTS.

FOUNTAIN PEN.

APPLICATION FILED APR. 4, 1911.

1,020,237. Patented Mar. 12, 1912.

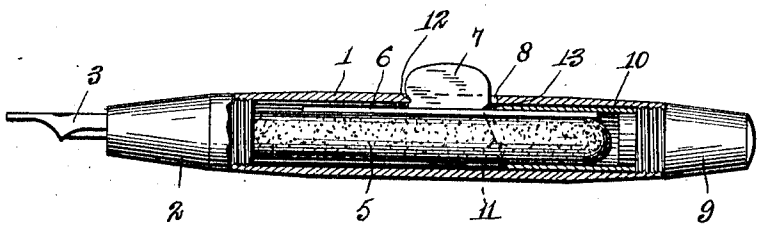

Fig. 1.

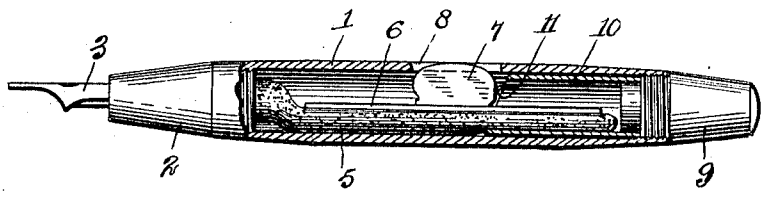

Fig. 2.

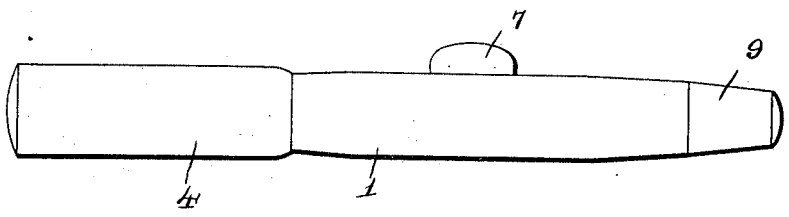

Fig. 3.

Witnesses:

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UNITED STATES PATENT OFFICE.

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FOUNTAIN-PEN.

1,020,237. Specification of Letters Patent. Patented Mar. 12, 1912.

Application filed April 4, 1911. Serial No. 618,905.

To all whom it may concern:

Be it known that I, ALVIN L. WATTS, a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Fountain-Pens, of which the following is a specification.

My invention relates to a fountain-pen, and more specifically to that class thereof generally known as "self-filling."

The object of my invention is the production of a fountain-pen of the character mentioned which will be of improved construction and efficient in operation.

Other objects will appear hereinafter.

With these objects in view, my invention consists in a fountain-pen characterized as above mentioned and in certain details of construction and arrangement of parts, all as will be hereinafter more fully described and particularly pointed out in the appended claims.

My invention will be more readily understood by reference to the accompanying drawing forming a part of this specification and in which,

Figure 1 is a sectional side elevation of a fountain-pen embodying the invention, the ink-reservoir being shown in distended condition, Fig. 2 is a similar view showing the ink-reservoir in collapsed condition, and Fig. 3 is a side elevation of the pen with its cap attached.

The preferred form of my construction as illustrated in the drawing comprises a barrel 1 in one end of which is arranged the plug 2 which is in threaded connection therewith. Fitted in the outer end of the plug 2 is the usual pen 3, 4 indicating the removable cap which serves as a protector for said pen.

Arranged within the barrel 1 in communication with the inner end of the plug 2 is the collapsible ink-reservoir 5, the same communicating with the pen 3 through the usual duct formed through the plug 2. The reservoir 5 is formed of such material that the same will normally remain in distended condition, rubber being preferably used because of its properties which peculiarly adapt it for employment in this capacity. Also arranged within the barrel 1 is a presser-bar 6 which rests against the outer side of said reservoir, said bar being of such dimensions that, when the same is pressed inwardly, the same will effect collapse of the reservoir as shown in Fig. 5. Such movement of said presser-bar is effected through the medium of a medially positioned rib 7 which is formed upon said bar, said rib projecting exteriorly through a slot 8 provided in the barrel 1. With this arrangement the bar 6 will normally be held in its outer position by reason of the position normally assumed by the reservoir, the rib 7, when said bar is so positioned, projecting exteriorly considerably beyond the lateral surface of said barrel, as clearly shown in Fig. 1. When it is desired to collapse the reservoir in order to effect filling of the fountain-pen in the manner well known, said rib needs only to be depressed by the finger to the position shown in Fig. 2. Threaded in the opposite end of the barrel 1 is a plug 9 and secured to the inner extremity of said plug is an inwardly projecting tube 10, the arrangement being such, that when said plug is rotated said tube will be simultaneously rotated therewith. Said tube 10 is of such a length as to adapt the inner extremity 11 thereof to contact with the adjacent extremity of the rib 7. Said extremity 11 of said tube is inclined as will be observed so as to constitute a cam surface, the arrangement being such, that when said tube is in the position shown in Fig. 1, the edge 11 engaging with the rib 7 will force the latter longitudinally against the remote end of the slot 8 so as to effect the locking of said rib in position preventing inward pressing or movement thereof. Further, the construction is such that when said tube is positioned as shown in Fig. 2, the edge 11 will be positioned out of engagement with said rib so as to permit of free inward movement thereof. With this construction then, it will be observed, that locking of the rib 7 and hence the presser-bar 6 may be effected by simply manipulating the plug 9 so as to effect the engagement of the projecting portion of the edge 11 with said rib; and that by slight retrograde rotation of said plug, said edge 11 may be turned to release said rib so as to permit of operation thereof, the construction being such that said plug needs only to be rotated through ninety degrees in order to release said rib for the purpose mentioned. In order to insure positive locking of said rib in inoperative or outward position, the extremities thereof are undercut at 12 and 13 for engagement respectively with the end of the slot 8 and the edge 11.

With a construction then as set forth, simple and economical means will be provided for effectually locking the presser-bar in outward position. Moreover, the construction is such as to permit of ready and expeditious manipulation to effect locking and unlocking of the presser-bar.

The pen is of neat and finished appearance and the entire construction, because of its simplicity and practicability is such as that the same is not susceptible to readily becoming inoperative.

While I have illustrated the preferred construction for carrying my invention into effect, this is capable of variation or modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction as set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

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

1. A self-filling fountain-pen comprising a barrel having a slot; a collapsible ink-reservoir in said barrel; a presser-bar having a rib projecting through said slot; and rotatable means mounted in said barrel and having a cam surface contacting with said rib for forcing said rib lengthwise against one end of said slot, substantially as described.

2. A self-filling fountain-pen comprising a barrel having a slot; a collapsible ink-reservoir in said barrel; a presser-bar having a rib projecting through said slot; and a rotatable tube having a cam surface contacting with said rib and adapted to engage said rib whereby the latter may be moved lengthwise against one end of said slot, substantially as described.

3. A self-filling fountain-pen comprising a barrel having a slot; a collapsible ink-reservoir in said barrel; a presser-bar having a rib projecting through said slot; and a rotatable tube threaded in said barrel and having its inner extremity engaging one extremity of said rib, said extremity of said tube being inclined so that by rotating said tube said end may be forced into engagement with said rib to move the latter lengthwise against one end of said slot, substantially as described.

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

ALVIN L. WATTS.

Witnesses:

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JOSHUA R. H. POTTS.