N° 16,979 A.D. 1911

Date of Application, 25th July, 1911

Complete Specification Left, 25th Jan., 1912—Accepted, 25th July, 1912

PROVISIONAL SPECIFICATION.

Improvements in or relating to Fountain or Reservoir Pens.

We, HARRY CLEMENT JOHNSON, of 13, Hope Street, Liverpool, in the County of Lancaster, Jeweller, and ERNEST MACAULEY WADE, of 13, Hope Street, Liverpool, in the County of Lancaster, Manufacturer, do hereby declare the nature of this invention to be as follows:—

This invention relates to fountain or reservoir pens of the self filling type, that is, of the type in which the barrel or reservoir for containing the ink is filled or charged by liquid induction means, as a plunger within it, said plunger being actuated by a rod or bar adapted to be connected therewith.

In a fountain or reservoir pen embodying our improvements, there is secured to the plunger in any convenient manner a rigid or non-collapsible sheath or casing constructed of suitable material impervious to ink—as vulcanite—closed at its inner end. Said sheath or casing is adapted to receive and contain the plunger actuating rod or bar which is adapted to pass through a slot in the plunger; and, for the purpose of receiving the inner portion of said sheath or casing when the plunger is pushed inwardly preparatory to filling or charging the pen with ink, in order that the stroke of the plunger may be as long as practicable, if the length of the "feed" or "feeder" (as customarily employed in fountain or reservoir pens for the purpose of conducting ink from the reservoir to the pen nib) renders it necessary or desirable, said feed is provided with a longitudinal cavity or recess. Suitable ink ducts connect said cavity—the mouth of which may be flared or bell shaped—with the outer portion of the feed.

Said plunger actuating rod or bar is, as stated, adapted to pass through the plunger, but is prevented from being pulled entirely out of engagement therewith: any simple plunger rod locking arrangement may be employed whereby in one position the actuating rod is free to pass through the plunger and into said sheath or casing connected thereto, and when withdrawn to its fullest permissible extent, and, say, turned through 180 degrees, locks to the plunger, which may then be forced into the reservoir or barrel by it.

Preferably said plunger actuating rod or bar is connected in a revoluble manner to a cap which is adapted to be screwed or pushed on to or into the body of the pen.

Dated this 24th day of July, 1911.

JOHN HINDLEY WALKER,
139, Dale Street, Liverpool,
Agent for the Applicants.

COMPLETE SPECIFICATION.

Improvements in or relating to Fountain or Reservoir Pens.

We, HARRY CLEMENT JOHNSON, of 13, Hope Street, Liverpool, in the County of Lancaster, Jeweller, and ERNEST MACAULEY WADE, of 13, Hope Street,

[*Price 8d.*]

Improvements in or relating to Fountain or Reservoir Pens.

Liverpool, in the County of Lancaster, Manufacturer, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to self-filling fountain or reservoir pens of the type in which the barrel or reservoir for containing the ink is filled or charged by a plunger within it; and refers more particularly to that kind of such pen in which there is attached to the plunger an imperforate sheath wherein the plunger actuating rod or bar—which is normally not detachable from the plunger—is adapted to lie until it is required to actuate said plunger.

In a fountain or reservoir pen embodying our improvements there is secured to the plunger, in any convenient manner, a sheath or casing constructed of suitable material impervious to ink—as vulcanite—and closed at its inner or lower end, and which essentially extends below, or beyond the inner end of, the plunger.

Said sheath or casing is adapted to receive and contain the plunger-actuating rod or bar; and, if necessary or desirable, the "feed" or "feeder" of the pen is provided with a longitudinal cavity or recess for the purpose of receiving the inner portion of said sheath or casing when the plunger is pushed inwardly preparatory to the filling or charging of the pen with ink, in order that the stroke of the plunger may be as long as practicable.

Suitable ink ducts connect said cavity—the mouth of which may be flared or bell shaped—with the outer portion of the feed or feeder.

For the purpose of preventing said plunger-actuating rod or bar from being detached from the plunger or the sheath connected therewith, any simple locking arrangement may be employed whereby in one position the actuating rod is free to pass into said sheath or casing, and when withdrawn to its fullest permissible extent, and, say, turned through 90 degrees, is so locked that the plunger may be forced into the reservoir or barrel by it.

Preferably, said plunger-actuating rod or bar is connected in a revoluble manner to a cap which is adapted to be screwed or pushed on to or into the body of the pen.

In the annexed drawing:—

Fig. 1 is a longitudinal section of a self-filling fountain or reservoir pen, according to our invention.

Fig. 2 is a detached view of the sheath or casing with plunger, and the actuating rod or bar with cap revolubly connected therewith.

Fig. 3 is a transverse section, taken as on line A—B, Fig. 1.

Fig. 4 is a plan view taken as on line C—D, Fig. 1.

Fig. 5 is a detached view of the ink feed or feeder.

a represents the body or barrel of the pen, and *b* the plunger which is secured to a rigid or non-collapsible sheath or casing *c* closed at its lower or inner end c^1. *d* is the feed or feeder provided with a cavity or recess d^1 adapted to receive the inner or lower portion (*i.e.* the part which extends below the plunger) of said sheath or casing *c*.

To the upper end of said sheath or casing *c* is screwed a stop piece *e* provided with a passage *f* f^1, the lower portion f^1 whereof is of greater width in one direction than in the other (Fig. 3).

g g^1 is a metal plunger-actuating strip or rod which is adapted to make a sliding fit with the lower portion f^1 of said passage *f* f^1 of stop piece *e*; the lower end of said strip or rod is reduced at g^1 and is provided with a cylindrical guide-stop *h*, which prevents said strip *g*, g^1 from being pulled completely out of sheath *c*.

The upper end of said strip or rod is detachably secured to an inner cap *i* by means of a tongue j^1 formed out of a metal disc *j* adapted to lie upon said cap *i*, which tongue j^1 passes through an aperture *k* formed in the upper end of said strip or rod *g* g^1.

Said inner cap *i* fits in a friction tight manner within an outer cap *l*, the friction grip between the two caps being only such as will ensure the partial rotation or turning of said strip or rod *g* g^1 when said cap *l* is turned by the fingers, but is not sufficient to interfere with or retard the screwing of cap *l* to the upper end of the pen barrel.

m *n* indicate stop rings provided for the purpose of limiting the upward travel of said plunger within barrel *a*, and for maintaining the inner cap *i* in position within the outer cap *l*.

As illustrated in Fig. 1 of the drawings, plunger *b* has been forced downwardly within barrel *a*—preparatory to the charging of the pen with ink—by said actuating strip or rod *g* g^1 through the contact or engagement of the shoulders *o* thereof with the shoulders *p* of the stop piece *e*; when plunger *b* has been raised on the filling of the pen said strip or rod *g*, g^1 is turned through a right angle and passed into said sheath or casing *c*, and cap *l* is screwed on to the upper end of the barrel *a*.

Having now particularly described and ascertained the nature of our said invention, and in what manner the same is to be performed, we declare that what we claim is:—

1. In a self-filling fountain or reservoir pen, a sheath or casing attached to the plunger, adapted to receive a plunger-actuating rod or bar and protect it from ink, and which sheath or casing essentially extends below, or beyond the inner end of, the plunger; substantially as described.

2. In a self-filling fountain or reservoir pen as characterised by the preceding claim, an ink "feed" or feeder provided with a cavity or recess adapted to receive the lower or inner end of the sheath or casing referred to; substantially as described.

3. The self-filling fountain or reservoir pen substantially as described and illustrated in the drawing annexed hereto.

Dated this 24th day of January, 1912.

JOHN HINDLEY WALKER,
139, Dale Street, Liverpool,
Agent for the Applicants.

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JOHNSON & *another's* COMPLETE SPECIFICATION.

(1 SHEET)

[This Drawing is a reproduction of the Original on a reduced scale.]

FIG. 1.

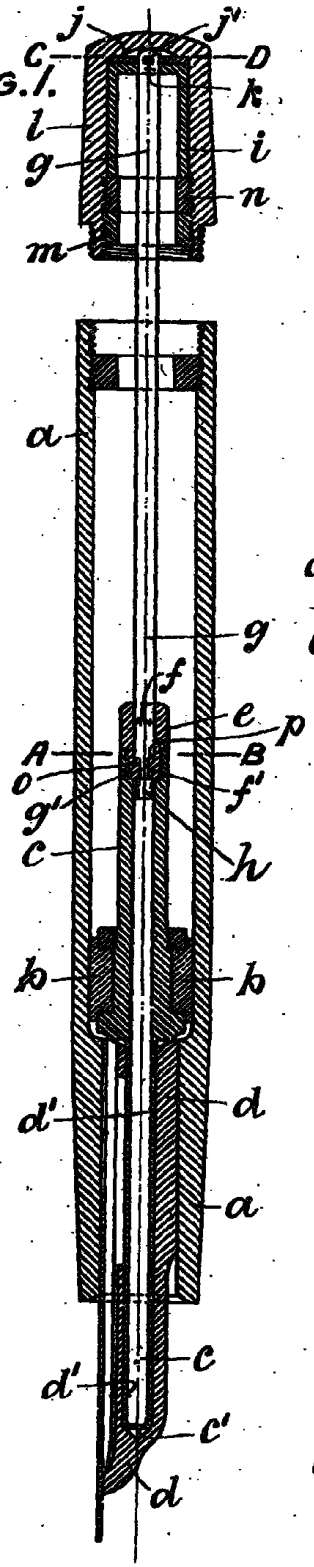


FIG. 4.

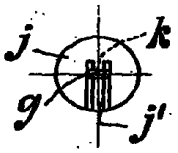


FIG. 3.

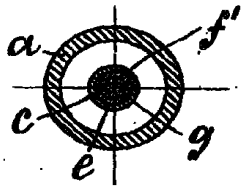


FIG. 5.

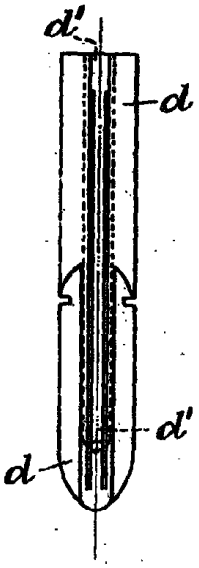
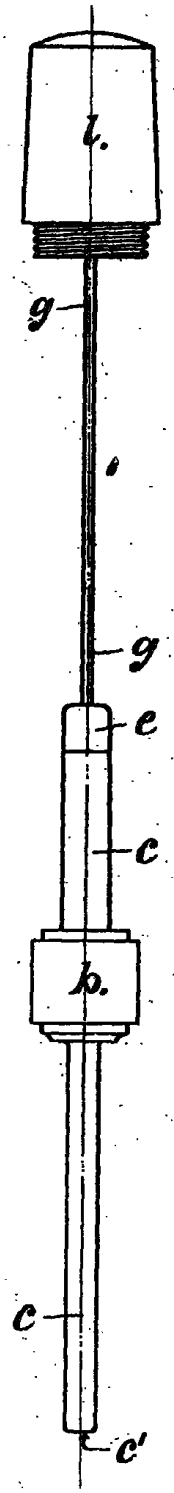


FIG. 2.



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