

PATENT SPECIFICATION

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PROVISIONAL SPECIFICATION.

Improvements in or relating to Fountain Pens.

I, ARTHUR STANLEY JONES, a British subject, of 8, Prebend Street, Islington, London, N. 1, do hereby declare the nature of this invention to be as follows:—

5 This invention relates to, and has for its object the provision of improvements in fountain pens.

10 The invention consists broadly of a fountain pen feed in which the ink channel turns back upon itself for a space between its two ends in such a way as to provide a "liquid trap".

15 Preferably the ink channel runs in the form of a groove from the rear end of the ink feed along the under side thereof to a point near the forward end. From this point it turns back in the form of a rearwardly sloping bore hole and runs through said ink feed to a point at the upper side thereof near the rear end, whence it runs as a groove along said upper side to the forward end where it feeds the nib.

20 The "liquid trap" formed by this construction prevents ink from being readily splashed should the pen be jerked and also ensures that a certain quantity of ink will always be ready in the forward part of the channel however long the pen has been in the upright position.

25 It will be quite clear that the exact course of the channel may be varied in a large number of ways. For example the backwardly sloping part of the channel instead of running through the ink feed

may run along and around the surface thereof in the form of a groove. A substantially similar arrangement to this can be obtained by grooving the inner surface of the section or feed holder instead of the surface of the feed itself. In this case, the first part of the channel from the rear end, and also the backwardly sloping part of said channel and about half of the third part of said channel is formed by grooves in said section; only the final half of the third part is formed in the ink feed itself.

As another alternative to the arrangement first described the first part of the channel from the rear end instead of running in the form of a groove along the under side of the ink feed, may run axially through the centre thereof.

Further, in the said arrangement first described the backwardly sloping part of the channel may be constituted by making the feed in two portions divided in a plane passing through said backwardly sloping channel part, the channel part itself being constituted (either as a single hole or a plurality of holes) by the inter-engagement of one or more tongues and grooves on said two portions.

Dated this 7th day of June, 1927.

A. A. THORNTON,
Chartered Patent Agent,
Quality Court, Chancery Lane, London,
W.C. 2.

For the Applicant.

COMPLETE SPECIFICATION.

Improvements in or relating to Fountain Pens.

65 I, ARTHUR STANLEY JONES, a British subject, of 8, Prebend Street, Islington, London, N. 1, 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:—

70 This invention relates to, and has for its object the provision of improvements in fountain pens.

75 The invention consists broadly of a fountain pen feed in which the ink channel turns back upon itself for a space between

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its two ends in such a way as to provide a "liquid trap".

In order that the invention may be the more clearly understood an example of a pen in accordance therewith and also certain modifications of said example will now be described reference being made to the accompanying sectional drawing.

Thus referring to said drawing the pen therein illustrated comprises the usual feed-bar 1 which fits tight together with the nib 2 into the feed-bar holder or "section" 3. Said "section" 3 has

the rear end thereof secured to the ink sac 4 (the pen being of the usual self filling type) and also fits friction tight into the open end of the barrel 5 which encloses and protects said sac and carries the filling lever (not shown) for compressing said sac 4.

The present invention as above stated is concerned with the ink channel by which ink is conveyed from the ink sac 4 to the nib 2. This channel instead of running straight along the upper side of the feed bar 1 runs zig-zag first in the form of a groove 6a from the rear end of said feed bar along the under side thereof to a point towards the forward end; next backwardly and upwardly from this point in the form of a hole 6b through said feed bar to a point at the upper side thereof towards the rear end and finally in the form of a groove 6c along the upper side of said feed bar to the forward end thereof where it feeds the nib 2 in the usual way.

The "liquid trap" formed by this construction prevents ink from being readily splashed should the pen be jerked and also ensures that a certain quantity of ink will always be ready in the forward part of the channel however long the pen has been in the upright position.

It will be quite clear that the exact course of the channel may be varied in a large number of ways. For example the backwardly sloping part 6b of the channel instead of running through the feed bar may run around the surface thereof in the form of a groove.

A somewhat similar arrangement to this can be obtained by grooving the inner surface of the section or feed bar holder instead of the surface of the feed itself. In this case the first part 6a of the channel from the rear end, and also the part 6b of said channel and about half of the part 6c is formed by such grooves in said section; only the final half of the part 6c or the part immediately adjacent the nib is formed in the ink feed itself.

As another alternative to the arrangement illustrated the part 6a of the channel instead of running in the form of a groove along the under side of the feed bar 1 may take the form of a hole parallel to the axis near to said under side.

In the arrangement illustrated the hole 6b may be constituted by making the feed bar in two portions divided in a plane containing said hole 6b said two parts being connected together by means of a

tongue and groove connection and the hole itself being constituted by a groove in the tongue.

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

1. A fountain pen feed in which the ink channel turns back upon itself for a space between its two ends in such a way as to provide a "liquid trap".

2. A fountain pen feed according to Claim 1, wherein the feed is of the ordinary feed bar type and the ink channel runs zig-zag first in the form of a groove from the rear end of said feed bar along the under side thereof to a point towards the forward end; next backwardly and upwardly from this point in the form of a hole through said feed bar to a point at the upper side thereof towards the rear end and finally in the form of a groove along the upper side of said feed bar to the forward end thereof where it feeds the nib in the usual way.

3. A modification of the feed claimed in Claim 2, wherein the first part of said ink channel, instead of running as a groove along the underside of the feed bar runs as a hole longitudinally into said feed bar, substantially as described.

4. A modification of the feed claimed in Claim 2 wherein, instead of the second part of said channel running in the form of a hole through said feed bar runs as a groove around said feed bar, substantially as described.

5. A feed according to Claim 2, wherein said hole is constituted by making the feed bar in two portions divided in the plane of said hole substantially as described.

6. A feed according to Claim 1, wherein the feed is of the ordinary feed bar type and the ink channel, except for the part immediately adjacent the nib which is constituted by a channel in the feed bar in the usual way, is constituted by a zig-zag channel in the inner surface of the section or feed bar holder.

7. A fountain pen feed substantially as herein specified with reference to the accompanying drawings.

Dated this 5th day of April, 1928.

A. A. THORNTON,
Chartered Patent Agent,
Quality Court, Chancery Lane, London,
W.C. 2.
For the Applicant.

[This Drawing is a full-size reproduction of the Original.]

