

# PATENT SPECIFICATION



688,902

Date of filing Complete  
Specification : Sept. 11, 1950.

No. 23453/49.

Application Date: Sept. 10, 1949.

Complete Specification Published : March 18, 1953.

Index at acceptance :—Class 146(iii), A9e4, A11(d1:g).

## COMPLETE SPECIFICATION.

### Improvements relating to Fountain Pens.

We, H. BURNHAM & SONS LIMITED, a British company, of Selhurst Road, South Norwood, London, S.E.25, and JOHN GEORGE BURNHAM, a British subject, of 163, Woodcote Valley Road, Purley, Surrey, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention concerns improvements relating to fountain pens of the kind having nibs with a substantially tubular formation.

According to the present invention, a fountain pen having a nib which consists of a substantially tubular portion and a projecting point is provided with a metal supporting or reinforcing member comprising a substantially tubular part embracing the nib and a projecting part which overlies a portion of the nib point and conforms to or follows the outline of the said point. The supporting member may serve for adjusting the flexibility of the point to a required value and/or for limiting the amount by which the point can be flexed, as well as for strengthening the nib and preventing damage to it or displacement of it from its proper seating on the usual feed bar.

The nib and supporting member may be designed so that a small reservoir or pocket is formed between them in which ink collects. The presence of such a reservoir so close to the point of the nib improves the action of the pen, particularly in ensuring prompt ink flow. Furthermore, any excessive ink flow due to expansion when a pen is first picked up by a warm hand is taken up by the reservoir, as well as by a further pocket which may be formed substantially between the end section of the pen body and the nib-supporting member.

One embodiment of the invention by way of example will now be more fully described with reference to the accompanying drawing, in which:—

Figure 1 is a longitudinal section of the nib-holding portion of a fountain pen, looking down upon the nib, and

Figure 2 is a similar section at right

angles to that of Figure 1.

The plastic nib-supporting end section 1 of the body of the pen and the ink-feed bar 2 of the pen are shown schematically only. Their precise form, as also that of the nib 3, 50 will naturally depend upon the design of the pen in any particular case. The precise form of the nib-supporting or reinforcing member 4 will in turn depend upon the shape and type of the nib. The nib 3 consists of a 55 substantially tubular portion 3<sup>1</sup> accommodated within the extremity of the end section 1 and a point 3<sup>2</sup> projecting therefrom. The supporting member 4, which is made of non-corrodible metal such as gold or stain- 60 less steel, comprises a substantially tubular part 4<sup>1</sup> which is formed to embrace the nib 3 assembled on the feed bar 2 and a projecting part 4: which overlies a more or less large portion of the projecting point 3<sup>2</sup> of the nib 65 and which conforms to or follows the outline of the said point. The tubular part 4<sup>1</sup> clamps the nib to the feed bar 2 and is received in the end section 1 of the pen body.

As will be appreciated, the longitudinal 70 position of the supporting member 4 will control the flexibility of the nib point 3<sup>2</sup>. This position can therefore be selected or adjusted to give a required degree of flexibility. 75

The radial dimensions of the nib 3 and supporting member 4 are designed to form between them a small ink reservoir 4<sup>2</sup> which facilitates prompt ink flow and also serves to take up excessive ink flow, as already 80 mentioned. The latter purpose is assisted by a larger annular ink pocket 6 formed behind the member 4 between the tubular nib part 3<sup>1</sup>, the feed bar 2 and the end section 1. A gap or channel 7 may be provided in 85 the underside of the tubular part 4<sup>1</sup> in order to permit or facilitate the self-filling of the pen in *per se* known manner. Also a small portion 8 is cut away from the middle of the rear edge of the part 4<sup>2</sup> so as to leave 90 uncovered the usual hole 9 pierced in the nib and communicating with the channel 10 in the bar 2.

What we claim is:—

1. A fountain pen having a nib which 95

- consists of a substantially tubular portion and a projecting point and is provided with a metal supporting or reinforcing member comprising a substantially tubular part
- 5 embracing the nib and a projecting part which overlies a portion of the nib point and conforms to or follows the outline of the said point.
2. A pen as claimed in claim 1, in which
- 10 the nib and supporting member are shaped so that a small ink reservoir or pocket is formed between them for the purpose set forth.
3. A pen as claimed in claim 1 or 2, in
- 15 which an annular ink pocket is formed behind the supporting member between the nib and the end section of the pen.

4. A pen as claimed in any one of claims 1-3, in which a gap or channel is provided in the underside of the supporting member for

20 permitting or facilitating self-filling.

5. A pen as claimed in any one of claims 1-4, in which a small portion is cut away at the rear edge of the supporting member to leave uncovered the usual hole pierced in the

25 nib.

6. A pen having a nib provided with a supporting or reinforcing member substantially as hereinbefore described with reference to the accompanying drawing.

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#### PROVISIONAL SPECIFICATION.

### Improvements relating to Fountain Pens.

We, H. BURNHAM & SONS LIMITED, a British company, of Selhurst Road, South Norwood, London, S.E.25, and JOHN GEORGE BURNHAM, a British subject, of 163, Woodcote

35 Valley Road, Purley, Surrey, do hereby declare the nature of this invention to be as follows:—

This invention concerns improvements relating to fountain pens of the nib type, particularly but not exclusively pens having

40 nibs with a tubular formation.

According to the present invention, a fountain pen nib is provided with a supporting or reinforcing member in the form of a

45 substantially tubular piece covering or enclosing a part of the nib and controlling the flexibility of the nib. Thus the supporting member may serve for adjusting the flexibility of the nib to a required value and/or

50 for limiting the amount by which the nib can be flexed, as well as strengthening the nib and preventing damage to it or displacement of it from its proper seating on the usual feed bar.

55 Preferably the radii of the nib and supporting member are varied or their parts are otherwise designed so that a small reservoir or pocket is formed between them in which ink collects. The presence of such a

60 reservoir so close to the point of the nib improves the action of the pen, particularly as regards so-called "instant starting." Furthermore, any excessive ink flow due to expansion when a pen is first picked up by a

65 warm hand is taken up by the reservoir as well as by a further pocket which may be formed between the end section of the pen body, the feed bar and the tubular parts of the nib and supporting member.

70 One embodiment of the invention will now be more fully described by way of

example:—

The design of the supporting member, which may be made of non-corrodible metal, such as gold or stainless steel, will

75 naturally depend upon the shape and type of the nib. In the case of a nib consisting of a tubular part with a projecting point, the supporting member will comprise a tubular part, formed to produce a tight fit

80 around the nib assembled on the feed bar, and a projecting part overlying a portion of the projecting point of the nib and conforming to or following the outline of its shape. The tubular part of the supporting

85 member clamps the nib to the feed bar and is received in the plastic end section of the pen body. As will be appreciated, the longitudinal position of the supporting member will control the flexibility of the nib and

90 this position can be selected or adjusted to give a required degree of flexibility.

The diametrical dimensions of the nib and supporting member are designed to form a small ink-reservoir between them. A further

95 annular ink pocket is also formed behind the said member between the tubular part of the nib, the feed bar, and the end section of the pen. A gap is provided in the underside of the tubular part of the supporting member

100 in order to facilitate the filling of the pen with ink, as in normal self-filling pens. Also a small portion is cut away from the middle of the rear end of the supporting member so as to leave uncovered the usual hole

105 pierced in the nib.

Dated the 10th day of September 1949.

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FIG. 2

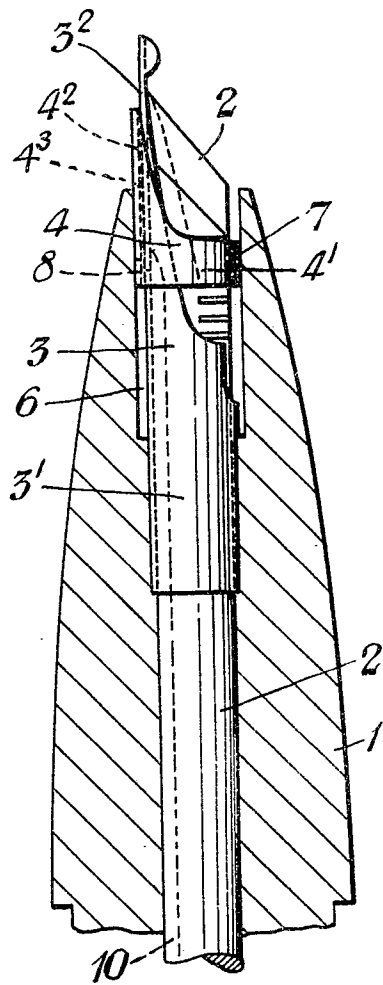


FIG. 1

