

N° 9818



A.D. 1908

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Complete Specification Left, 26th Sept., 1908—Accepted, 21st Jan., 1909

PROVISIONAL SPECIFICATION.

“Improvements in and relating to Fountain Pen Nibs.”

I, DUNCAN CAMERON, Managing Director of MacNiven and Cameron Limited, of Waverley Pen Works, Blair Street, Edinburgh, Manufacturers, do hereby declare the nature of this invention to be as follows:—

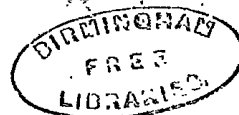
5 This invention relates to nibs for use in connection with fountain pens. The usual methods of feeding or supplying the ink from the reservoir to the nib are either the underfeed or the twin-feed. In the former case a single grooved or channelled feed-bar is arranged along the underside of the nib and extends well forward under the slit and point, but with this method of feeding the ink, it is not possible to employ a flexible nib owing to the fact that the
10 rising or yielding of the nib under the pressure of the hand in writing, would cause the underside to move away from the feed-bar, and thus the continuity of the ink-flow would be temporarily broken. In the twin-feed method, top and bottom bars are employed, the nib coming between them, but owing to the top-bar being comparatively rigid, it does not allow of the nib readily
15 yielding to pressure, and the only flexibility is that derived from the end of the nib forwards of the top feed, and which is obtained by the wide-slitting of the points or by reducing the thickness of the metal.

The object of the present invention is to obviate these disadvantages, and to provide an improved form of nib and ink-feed device which is capable of
20 being made exceedingly flexible, equal, in fact, to the flexibility of any steel pen, and at the same time ensuring a perfect and continuous flow of ink to the nib under all conditions, notwithstanding the extent to which the pen may yield when writing.

This object it is proposed to attain by employing a flexible top feed-bar which
25 is attached at its inner end to the body of the nib, preferably being similar in construction to that described in my previous Letters Patent No. 8313 of 1907, and forming behind the ordinary pierce hole or slit of the nib, one or more independent piercings or openings, leading from the channel or ink-duct in the bottom feed-bar, to the underside of the top bar, by which means a much
30 shorter under-bar can be employed. Thus when the nib yields to pressure, not only is the underside less liable to move away from the short feed bar owing to the comparatively small angular movement made by the inner end of the nib, but even if this should happen, the ink can still flow through the auxiliary piercing or opening to the top feed-bar, which latter thus maintains the supply
35 of ink to the pen.

Thus according to one form of this invention in which the point of the nib is slit without being provided with a pierce-hole, to the rear of the inner end of the slit, a piercing is formed, which is quite separate and independent of the slit, and is situated towards the rear, being behind the position correspond-
40 ing to the ordinary pierce hole. The bottom feed-bar can thus be made considerably shorter than usual. The top bar consists of a long flexible metallic tongue which covers said piercing, and extends forwardly to the point of the nib, whilst the rear end is suitably secured to the body of the nib by any suitable means, such as by an ear, or pair of ears at the opposite sides, which

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Cameron's Improvements in and relating to Fountain Pen Nibs.

are passed through a slit or slits in said body and clenched over on the underside, and so that the front end is left free and flexible whereby it can yield or flex itself in unison with the movements made by the point of the nib when the pen is in use.

The top tongue may be further secured by a small tongue at about the middle of its length which is passed through a hole in the nib and clenched over, similarly to that shown and described in my aforesaid previous Letters Patent.

During ordinary writing the ink is supplied to the underside of the nib directly from the bottom feed-bar, and also through the auxiliary piercing to the underside of the top feed-bar, from whence it is led along the slit of the nib to the point. Should now the nib be bent back from the under feed-bar due to the pressure of the hand, the direct flow to the underside of the nib will be temporarily arrested, but the ink will still continue to flow through the piercing to the top bar, which keeps up the supply to the nib.

When the ordinary pierce hole is employed at the inner end of the slit, the auxiliary piercing is formed at the rear of this pierce hole, and is entirely separate and independent of same.

Also instead of a single piercing being employed, two or more may be formed, but in every case they are quite independent of the ordinary pierce hole or slit, and are situated to the rear.

The top feed bar may also be secured to the body of the nib by two ears at the sides which are clenched over the opposite edges of the nib, preferably within gaps or recesses in the latter.

Dated this 5th day of May 1908.

DUNCAN CAMERON.

By Henry Skerrett,
Agent for Applicant.

COMPLETE SPECIFICATION.

"Improvements in and relating to Fountain-pen Nibs."

I, DUNCAN CAMERON, Managing Director of MacNiven and Cameron Limited, Waverley Pen Works, Blair Street, Edinburgh, Manufacturers, 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 nibs for use in connection with fountain pens. The usual methods of feeding or supplying the ink from the reservoir to the nib are either the underfeed or the twin-feed. In the former case a single grooved or channelled feed-bar is arranged along the underside of the nib and extends well forward under the slit and point, but with this method of feeding the ink, it is not possible to employ a flexible nib owing to the fact that the rising or yielding of the nib under the pressure of the hand in writing, would cause the underside to move away from the feed-bar, and thus the continuity of the ink-flow would be temporarily broken. In the twin-feed method, top and bottom bars are employed, the nib coming between them, but owing to the top-bar being comparatively rigid, it does not allow of the nib readily yielding to pressure, and the only flexibility is that derived from the end of the nib forwards of the top feed, and which is obtained by the wide-slitting of the points or by reducing the thickness of the metal.

The object of the present invention is to obviate these disadvantages, and

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to provide an improved form of nib and ink-feed device which is capable of being made exceedingly flexible, equal, in fact, to the flexibility of any steel pen, and at the same time ensuring a perfect and continuous flow of ink to the nib under all conditions, notwithstanding the extent to which the pen may

5 yield when writing.

This object it is proposed to attain by employing a flexible top feed-bar which is attached at its inner end to the body of the nib, preferably being similar in construction to that described in my previous Letters Patent No. 8313 of 1907, and forming behind the ordinary pierce hole or slit of the nib, (which latter

10 has the point provided with the ordinary single longitudinal middle slit) one or more independent piercings or apertures situated towards the rear of the nib body, leading from the channel or ink-duct in the bottom feed-bar to the underside of the top bar, said apertures being formed behind the position usually occupied by the ordinary pierce-hole, by which means a much shorter under-

15 bar can be employed. Thus when the nib yields to pressure, not only is the underside less liable to move away from the short feed bar owing to the comparatively small angular movement made by the inner end of the nib-head, but even if this should happen, the ink can still flow through the auxiliary piercing or opening to the top feed-bar, which latter thus maintains the supply

20 of ink to the pen.

Figure 1 of the accompanying drawings represents a pen nib in side elevation constructed in accordance with this invention, and shown as fitted to a fountain pen. This view shows the application of the invention to a nib having an ordinary pierce hole at the inner end of the slit.

25 Figure 2 is a longitudinal section through the nib and feed bar.

Figure 3 is a transverse section on line *x* Figure 2.

Figure 4 shows an underside plan of the nib removed from the pen body.

Figure 5 is a top-side plan of said nib.

Figure 6 shows said nib and the top feed bar, separated from one another.

30 Figure 7 is a longitudinal section showing the application of the invention to a nib, the point of which is slit without being provided with the ordinary pierce hole.

Figure 8 shows in plan said nib and the top feed bar separated from one another.

35 Figure 9 is a section of a modified form of nib.

Figure 10 shows same in underside plan.

The same letters of reference indicate corresponding parts in each of the figures of the drawings.

Referring to Figures 1 to 6, the nib *a* is provided with a pierce hole *b*, and the point is slit at *a*¹ as usual. To the rear of the inner end of said pierce hole a piercing or aperture *c* is formed, which is quite separate and independent of said hole *b*, and is situated towards the rear of the head of the nib, so that the bottom feed-bar *d*, whose ink-duct extends under said aperture *c* can be made considerably shorter than usual. The top feed bar *e* consists of a long

45 flexible tongue which covers said piercing *c*, and extends forwardly to or near the point of the nib, whilst the rear end is suitably secured to the shank or body of the nib by any suitable means, such as by a pair of ears *e*¹ at the opposite sides, which are passed through slits *a*² in said shank, and clenched over on the underside, and so that the front end is left free and flexible whereby

50 it can yield or flex itself in unison with the movements made by the point of the nib when the pen is in use. The top tongue *e* may be further secured by a small tongue *e*² at about the middle of its length which is passed through the pierce-hole *b* in the nib and clenched over, said tongue *e*² being preferably formed out of the body of said tongue *e* so as to leave the pierce hole *e*³, similarly

55 to that shown and described in my aforesaid previous Letters Patent.

That portion of the nib between the pierce hole *b* and the aperture *c* may be slightly sunken or recessed, as at *a*³, so as to assist the flow of ink.

Cameron's Improvements in and relating to Fountain Pen Nibs.

During ordinary writing the ink is supplied to the underside of the nib directly from the bottom feed-bar *d*, and also through the pierce hole *b* and auxiliary piercing or aperture *c*, or aperture *c* alone, to the underside of the top feed-bar *e*, from whence it is led along the slit of the nib to the point. Should now the nib be bent back from the under feed bar due to the pressure of the hand, the direct flow to the underside of the nib and to the pierce hole *b*, will be temporarily arrested, but the ink will still continue to flow through the aperture *c* to the top bar, which keeps up the supply to the nib. 5

Instead of a single piercing or aperture *c* being employed, two or more may be formed. 10

The top feed bar may also be secured to the body of the nib by two ears at the sides which are clenched over the opposite edges of the nib, preferably within gaps or recesses in the latter.

In the form shown in Figures 7 and 8, the point of the nib is slit at *a*¹ without being provided with the ordinary pierce-hole. The aperture *c* is formed to the rear of the end of the slit, and is quite independent of the latter. The top feed *e* is secured by passing the tongue *e*² through a small hole *b* formed at the end of the slit, and clenching same on the underside of the nib. 15

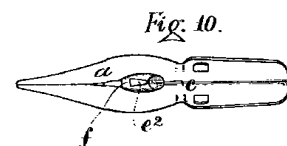
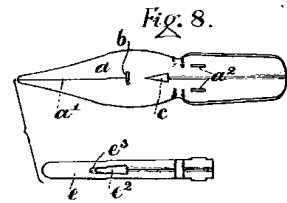
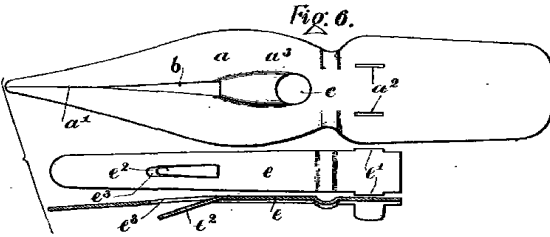
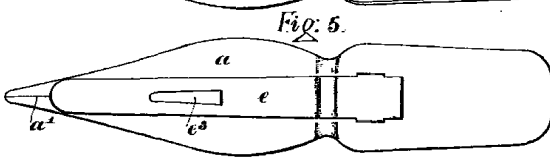
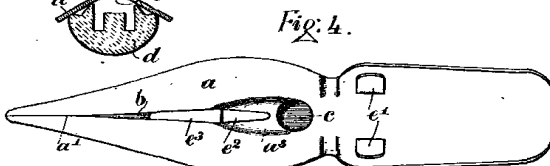
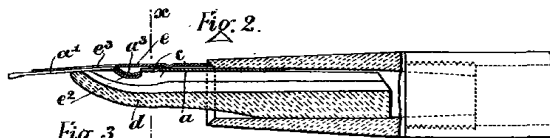
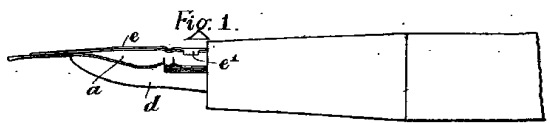
As represented in Figures 9 and 10, a special piercing *f* may be provided for receiving the tongue *e*² of the top feed bar *e*, said piercing *f* coming between the pierce hole *b* and the aperture *c*. 20

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:—

In fountain pens in which the ink is fed to the nib by capillary attraction; the employment of a nib having the point provided with the usual single longitudinal middle slit, and having one or more separate and independent apertures situated behind the inner end of the slit or pierce hole and towards the rear of the nib body in a position behind that usually occupied by the ordinary pierce-hole, said aperture or apertures leading from the bottom feed bar to the underside of a flexible feed bar or tongue carried upon the top of the nib, and adapted, when the front end of said nib with the slit or pierce-hole moves away from the bottom feed-bar, to still maintain the direct flow of ink to the top feed-bar, substantially as described. 25 30

Dated this 25th day of September 1908. 35

DUNCAN CAMERON.
By Henry Skerrett,
24, Temple Row, Birmingham,
Agent for Applicant.



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

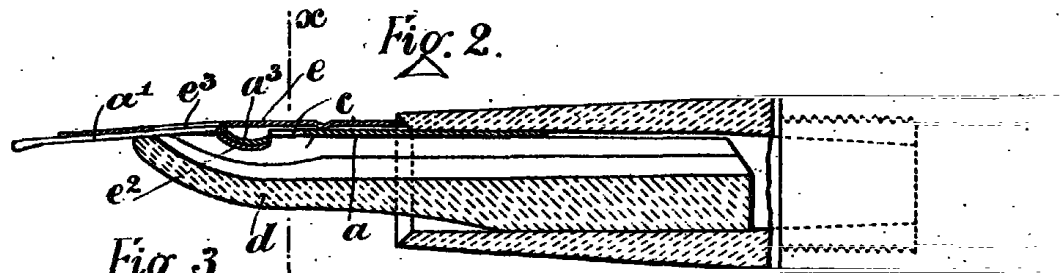
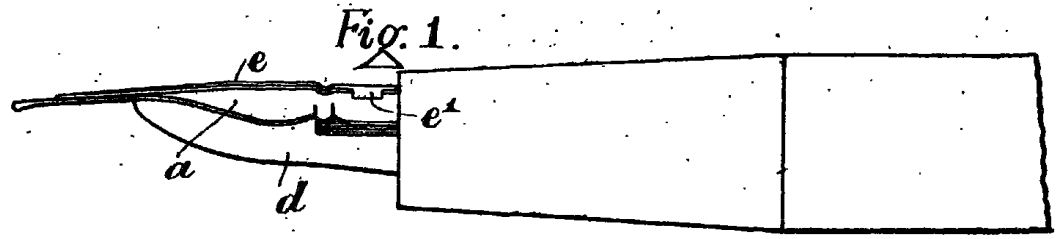


Fig. 4.

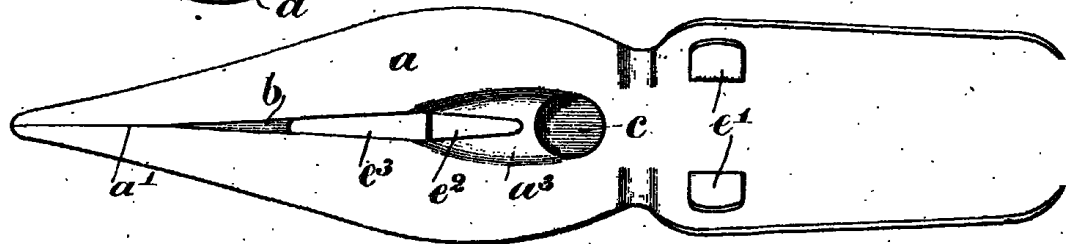


Fig. 5.

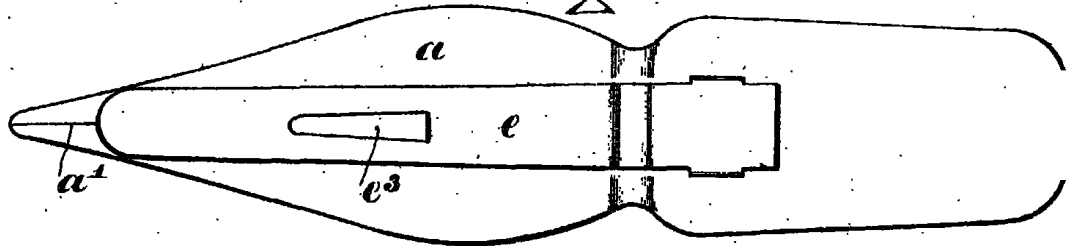
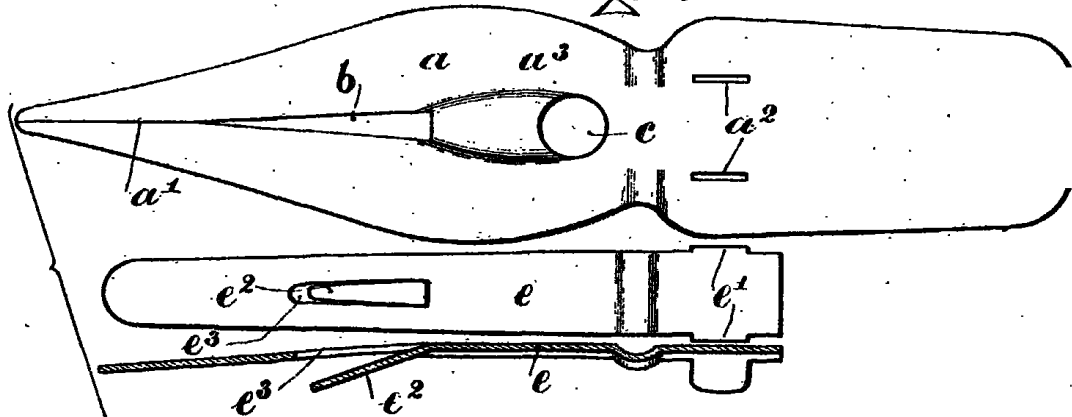


Fig. 6.



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

Fig. 7.

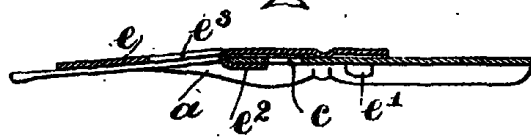


Fig. 8.

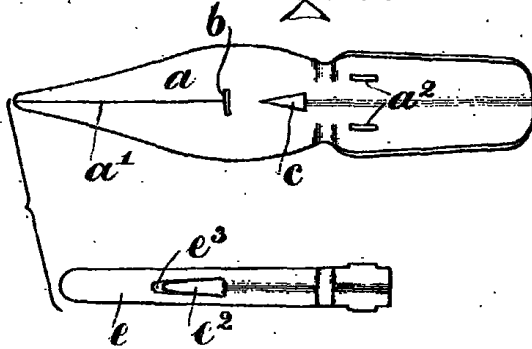


Fig. 9.

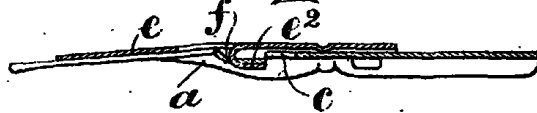


Fig. 10.

