

RESERVE COPY PATENT SPECIFICATION

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PROVISIONAL SPECIFICATION

Improvements in and relating to Fountain Pens

I, ERIG ERNEST SAMUEL WADE, of 13, Hope Street, Liverpool, a British Subject, do hereby declare the nature of this invention to be as follows:—

5 This invention relates to fountain or reservoir pens with more especial reference to those in which the ink contained in the reservoir is visible.

10 Customarily, to obtain ink visibility, the barrel of the pen or some part thereof is made of transparent or translucent material and customarily such pens, when of the sac self-filling type, call for a plurality of operations when filling.

15 In a fountain or reservoir pen providing ink visibility according to the present invention, the nib section is fabricated of translucent or transparent material and is secured in any usual or appropriate manner in the barrel, the front or nib end of such section receiving a sleeve or bush of vulcanite or the like mounting the nib and feed, thus leaving the rear portion of the transparent section clear for an unobstructed view of the ink within the reservoir.

20 Preferably, the transparent section is formed with an internal ledge or shoulder limiting the distance which the opaque nib and feed mounting sleeve or bush may be inserted, the front or nib ends of both section and sleeve being coincident, or, alternatively, a collar or shoulder may be furnished on the front end of the sleeve to serve as an abutment limiting its insertion in the transparent section.

30 The transparent section may be fabricated from unbreakable celluloid and may be screwed in or may be a push fit in the front end of the barrel, or it may even, if desired, be cemented thereto, and in embodiments of the invention applied to sac self-filling fountain pens the transparent section may have a rearward extension within the barrel to carry the open end of the sac, although it will be understood

that the transparent section is equally applicable to fountain pens of the plunger filling or regular non-self-filling type.

50 According to one specific embodiment of the invention applied to a sac self-filling fountain pen which may have the actuating mechanism described in Specification No. 442,262, a nib section of transparent unbreakable celluloid is screwed into the barrel and has a rearward cylindrical extension therewithin carrying the sac.

The external surface of the section conforms with the barrel and its internal bore which provides the ink communication between the sac and the nib feed and in which the ink is visible, is enlarged at the front end to receive the aforementioned sleeve or bush of vulcanite mounting the nib feed.

60 The vulcanite sleeve is a push fit in the enlarged portion of the section bore and is co-terminous with the front end of the section, extending some $\frac{1}{2}$ " therealong and leaving approximately $\frac{1}{2}$ " of the section clear and unobstructed for the contents of the pen to be viewed.

70 While the opaque vulcanite sleeve is advantageously a push fit in the transparent section, it may be screwed thereinto, if desired, and in either case the section made of unbreakable material may be lined with glass or otherwise internally treated so as to prevent the corrosive action of the ink impairing the visibility characteristic.

80 By the present invention an improved construction of fountain or reservoir pen, the ink contents of which can be ascertained at sight, is obtained.

Dated this 10th day of June, 1936.
O'DONNELL, LIVESEY & CO.,
Chartered Patent Agents,
47, Victoria Street, Westminster,
London, S.W.1,
Agents for Applicant.

COMPLETE SPECIFICATION

Improvements in and relating to Fountain Pens

I, ERIG ERNEST SAMUEL WADE, of 13, Hope Street, Liverpool, a British Subject, do hereby declare the nature of this invention
[Price 1/-]

tion 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 fountain or reservoir pens with more especial reference to those in which the ink contained in the reservoir is visible.

Customarily, to obtain ink visibility, the barrel of the pen or some part thereof is made of transparent or translucent material and in one prior proposal of sac self-filling type, a composite ink section is made up of a fore part of vulcanite and a rear part—inwardly of the ink feed—of transparent material, the two parts being cemented or otherwise secured together.

The present invention has for its object to provide an improved and durable construction of visible ink pen which may be more cheaply manufactured.

In a fountain or reservoir pen providing ink visibility according to the present invention, the nib section is fabricated of translucent or transparent material and is secured in any usual or appropriate manner in the barrel, the front or nib end of such section receiving a sleeve or bush of vulcanite or the like mounting the nib and feed, thus leaving the rear portion of the transparent section clear for an unobstructed view of the ink within the reservoir.

Preferably, the transparent section is formed with an internal ledge or shoulder limiting the distance to which the opaque nib and feed mounting sleeve or bush may be inserted, the front or nib ends of both section and sleeve being coincident, or, alternatively, a collar or shoulder may be furnished on the front end of the sleeve to serve as an abutment limiting its insertion in the transparent section.

The transparent section may be fabricated from unbreakable celluloid and may be screwed in or may be a push fit in the front end of the barrel, or it may even, if desired, be cemented thereto, and in embodiments of the invention applied to sac self-filling fountain pens the transparent section may have a rearward extension within the barrel to carry the open end of the sac, although it will be understood that the transparent section is equally applicable to fountain pens of the plunger filling or regular non self-filling type.

Advantageously when applied to sac self-filling pens, the nib feed includes an air tube extending through the transparent or translucent section to facilitate filling the whole of the ink reservoir by repeated collapse and dilation of the sac.

The invention will be further described with reference to the accompanying drawings, which illustrate by way of example, two embodiments of ink visible fountain pen, and in which:—

Figs. 1 and 2 are cross sections of a sac self-filling embodiment, Fig. 1 with the sac dilated and Fig. 2 with the sac collapsed during the filling operation.

Fig. 3 is a similar view of a regular pen, the ink contents whereof are rendered visible by the provision of a transparent section according to the invention.

Referring now to the drawings, but first more particularly to Figs. 1 and 2, the pen barrel 1 is of conventional form and houses a sac 2 and sac actuating mechanism comprising a presser bar 3 and spring bar 4 engaged by an actuating button 5 in the rear end of the barrel, which button is normally covered and protected by a removable end cover 6, all as customary, it being understood that the particular form of the pen or filling mechanism forms no part of the present invention, which may be applied to fountain pens of the plunger filling or of the regular type, as exemplified in Fig. 3.

At its front open end 7 the pen barrel 1 is internally screw threaded to receive the nib section 8 which is made wholly of unbreakable celluloid, or some other transparent or translucent material, and which, at the nib end, receives the sleeve or bush 9 of vulcanite or the like, mounting the nib 10 and feed 11.

The bore of the transparent section 8 is open to receive the sleeve or bush 9 thus providing a ledge or stop 12 limiting the extent of insertion of the bush and leaving the rear portion of the transparent section between such sleeve and the front end 7 of the barrel clear for an unobstructed view of the ink within the pen reservoir comprising the sac 2 and the bore of the section. The front or nib ends of both section 8 and the sleeve 9 are coincident.

In Figs. 1 and 2 the nib feed 11 is furnished with an air tube 13 extending through the bore of the section 8, thus making the pen of the so-called "vacuum" type and facilitating its complete replenishment by repeated operation of the sac in the known manner.

In Figs. 1 and 2 the transparent section 8 terminates in a shank 14 carrying the open end of the sac 2, although in Fig. 3 the shank is omitted as superfluous there being no sac, the construction of the transparent section 8 affording the pen ink visibility being otherwise similar to that of the preceding figures and the barrel 1 being filled in the historic manner by removing the section 8.

It will be appreciated that the barrel 1 may be fabricated of vulcanite, celluloid or other pyroxyl in base material bearing any desired pattern or ornamentation, a surprising feature of the transparent section according to the invention being the

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aesthetic improvement in the appearance of the vulcanite sleeve 9 carrying the nib and feed due to its encasement in the transparent or translucent fore-part of the section proper.

While the opaque vulcanite sleeve 9 is advantageously a push fit in the transparent section, it may be screwed thereinto if desired and in either case the section may be lined with glass or otherwise internally treated so as to prevent the corrosive action of the ink impairing the visibility characteristic.

By the present invention there is obtained an improved construction of fountain or reservoir pen, the ink content of which can be ascertained at sight.

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 or reservoir pen providing ink visibility wherein the nib section is fabricated of translucent or transparent material and is secured in any usual or appropriate manner in the barrel, the front or nib end of such section receiving a sleeve or bush of vulcanite or the like mounting the nib and feed, thus leaving

the rear portion of the transparent section clear for an unobstructed view of the ink within the reservoir.

2. A fountain or reservoir pen according to Claim 1 wherein the transparent section is formed with an internal ledge or shoulder limiting the distance which the opaque nib and feed mounting sleeve or bush may be inserted, the front or the nib ends of both section and sleeve being coincident.

3. A fountain or reservoir pen according to either of the preceding claims wherein the transparent section has a rearward extension within the barrel to mount the open end of the sac.

4. A fountain or reservoir pen according to Claim 3 wherein the feed includes an air tube extending through the transparent section for the purpose specified.

5. A fountain or reservoir pen constructed and arranged for use substantially as described with reference to the accompanying drawings.

Dated this 10th day of June, 1937.

O'DONNELL, LIVESEY & CO.,
Chartered Patent Agents,
47, Victoria Street, Westminster,
London, S.W.1,
Agents for Applicant.

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

FIG. 1.

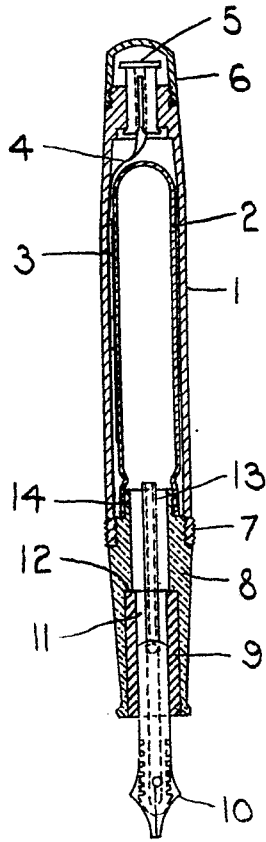


FIG. 2.

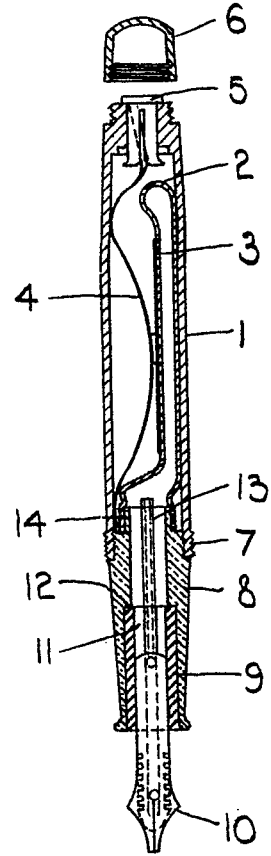


FIG. 3.

