PATENT SPECIFICATION

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679,065

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Index at acceptance:—**Class 44,** E4b9.

COMPLETE SPECIFICATION

Improvements in Pocket Clips for Fountain Pens, Pencils and the like

We, THE LANG PEN COMPANY LIMITED, a Body Corporate duly organised under the Laws of Great Britain, of 13, Hope Street, Liverpool, 1, in the County of Lancaster, England, 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 relates to pocket clips for articles such as fountain pens, pencils and the like and has more especial reference to those mounted at one end of the instrument, usually on the end of the cap or nib cover in the case of a fountain pen, the invention being an improvement in, or modification of, the clip assembly described in Patent Specification No. 621,354.

In Patent Specification No. 636,823 an improved pocket clip assembly for a fountain pen or like article is described wherein the clip proper is formed with a retaining ring which is in line with, or in the same plane as, the arm of the clip and is adapted to be received in a slot formed for the purpose in the end of the article and to be prevented from outward displacement by an eye-bolt pivotally attached to the ring and carrying an abutment co-operating with the rear or interior of the slotted end of the article, and wherein a compression spring is interposed between the abutment and the interior of the slotted end portion of the article in such manner that additional resilience is afforded to the arm of the clip movement of which away from the wall of the cap compresses the spring. In the preferred form of this assembly the abutment is a nut screwed on to the eye-bolt and the retaining ring is formed on a cranked end portion of the clip proper, the free end of which acts as a fulcrum about which the clip and eye-bolt can move in relation to the article against the resistance of the spring.

According to the present invention the free end of the eye-bolt and the abutment instead of being screw-threaded, are formed with an enlarged head or flange and the other with a complementary shoulder adapted to engage the rear of such head or flange. One or each of these elements is resilient so as to permit assembly by a single rapid operation in which the shouldered portion of one element is forced or sprung over the head or flange of the other element.

Apart from increased ease and speed of assembly, this arrangement reduces machining and production costs by eliminating the two screw-threads of the aforementioned earlier construction.

In a preferred embodiment the eye-bolt is formed with a rigid enlarged mushroom head, while the abutment is a short tube, longitudinally split, e.g. in four places to provide the necessary resilience, having a step in the split part of its bore to provide the shoulder and an annular end flange to seat a coil spring surrounding the abutment and the eye-bolt. This arrangement may, if desired, be reversed, the eye-bolt being of hollow tubular construction while the abutment is formed with the enlarged head, and it will also be appreciated that in either case the head may be longitudinally split to provide resilience instead of the tubular element being split.

The assembly may be mounted on a separate fitment adapted for attachment to the article. Preferably, however, in the case of a cap for a fountain pen, the cap is a unitary metal shell having a rounded end formed with the cross slot

for receiving the cranked end portion of the clip and carrying an internal liner or insert housing and guiding the spring and movable abutment.

The invention will be further described with reference to the accompanying drawings in which it is illustrated by way of example and in which;

Fig. 1 is an elevational view partly in section of a fountain pen cap having a separate end fitment mounting the clip and

Fig. 2 is a vertical section of such fitment showing also how it may be used as an insert for a cap formed as a unitary metallic shell.

Figs. 3 to 6 are detail views of the other components of the clip assembly to the same scale.

Referring now to the drawings, 1 generally designates the nib cap or cover consisting of a tube of vulcanite, ebonite or other plastic material, arranged to be a push fit on, or to be screwed on to, a pen body or barrel so as to cover the writing point when the pen is not in use.

The upper end of the cap 1 is formed as a separate fitment 2 interiorly screw-threaded at 3 to screw on to a complementary threaded portion 4 of the cap, and providing the anchorage for a pocket clip generally designated 5 by which the article may be retained in the pocket.

As in the construction according to the parent Patent Specification No. 621,354 the clip 5 is bent up from sheet metal to channel section and has a cranked portion 6 shaped to occupy a diametrical slot 7 in the domed end 8 of the fitment 2.

An axial aperture or bore 9 connects the slot 7 with a hollow cylindrical portion or cavity 10, there being an annular abutment 11 or shoulder between the bore 9 and the cavity.

The channel walls of the cranked portion 6 of the clip 5 are perforated to take a pin 15 which mounts between said channel walls an eye 16 of a retaining bolt 17, the stem whereof passes through the axial hole 9 and carries a coil compression spring 18 and abutment member 19.

In contradistinction to the arrangements shown in the parent Patent Specification and in Specification No. 636,823 where the bolt is threaded to mount a nut forming an abutment, the abutment member 19 according to the present invention automatically engages a mushroom head 20 formed on the retaining bolt 17 when the abutment is pushed home to position during assembly.

As is shown more clearly in Figs. 5 and 6 the abutment member 19 includes a tubular portion 21 which is longitudinally split at 22 in four places to provide the necessary resilience and is stepped at 23 to provide the shoulder which springs over the head 20 of the bolt 17, the short tubular portion of the abutment also serving to centralise the coil spring 18 which operates between the movable abutment 19 on the retaining bolt 17 and the annular abutment surface 11 at the inner end of the cylindrical recess 10.

In use when the arm of the clip 5 is moved away from the wall of the cap 1 the spring 18 is compressed and tends to urge the arm back to the position shown in Fig. 1 owing to the end 24 of the cranked portion 6 of the clip bearing on base of the slot 7.

As is shown in Fig. 2 the fitment 2 may be formed as a liner or insert adapted to be received within a unitary metal shell 25 forming the cap, such shell being provided with a diametrical slot 26 across its domed end coinciding with the slot 7 in the fitment and the tapped portion 3 of the latter being adapted to receive and mount, after assembly of the clip, a shut-off element or inner cap sealing the nib end of the pen when the cap or cover is in place.

As shown in Fig. 1. the cranked portion of the clip is curved to a similar contour to that of the cap end so as to lie flush in the cross slot and provide a robust construction of pleasing appearance.

What we claim is:—

1. An improvement in or modification of the pocket clip for a fountain pen or the like according to Patent Specification No. 621,354 wherein the member carrying the abutment and such abutment are formed, the one with an enlarged head or flange and the other with a complementary shoulder adapted to engage the rear of such head or flange.

2. A pocket clip for a fountain pen or like article according to the preceding claim wherein at least one of the complementary elements is resilient so as to permit assembly by a single rapid operation in which the shouldered portion of one element is forced or sprung over the head or flange of the other element.

3. A pocket clip for a fountain pen or like article according to either of the preceding claims wherein the member is an eyebolt formed at its free end with a rigid enlarged mushroom head and the abutment is a longitudinally split tube sprung over such head.

4. A pocket clip for a fountain pen or like article according to any of the preceding claims including a coil compression spring interposed between the abutment and the interior of the slotted end portion in such manner that movement of

the clip arm away from the wall of the article compresses the spring.

5. A pocket clip for a fountain pen or like article according to any of the preceding claims applied to a cap or nib cover which is a unitary metal shell having a rounded end formed with a cross slot for receiving the cranked portion of the clip including an internal liner or insert mounting and guiding the retaining bolt and movable abutment.

6. A pocket clip for a fountain pen or like article constructed and adapted to operate substantially as described with reference to the accompanying drawings.

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PROVISIONAL SPECIFICATION

Improvements in Pocket Clips for Fountain Pens, Pencils and the like

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This invention relates to pocket clips for articles such as fountain pens, pencils and the like and has more especial reference to those mounted at one end of the instrument, usually on the end of the cap or nib cover in the case of a fountain pen, the invention being an improvement in, or modification of, the clip assembly described in Patent Specification No. 621,354.

In Patent Specification No. 636,823 an improved pocket clip assembly for a fountain pen or like article is described wherein the clip proper is formed with a retaining ring which is in line with, or in the same plane as, the arm of the clip and is adapted to be received in a slot formed for the purpose in the end of the article and to be prevented from outward displacement by an eye-bolt pivotally attached to the ring and carrying an abutment co-operating with the rear or interior of the slotted end of the article, and wherein a compression spring is interposed between the abutment and the interior of the slotted end portion of the article in such manner that additional resilience is afforded to the arm of the clip, movement of which away from the wall of the cap compresses the spring. In the preferred form of this assembly the abutment is a nut screwed on to the eye-bolt and the retaining ring is formed on a cranked end portion of the clip proper, the free end of which acts as a fulcrum about which the clip and eye-bolt can move in relation to the article against the resistance of the spring.

According to the present invention the free end of the eye-bolt and the abutment, instead of being screw-threaded, are formed the one with an enlarged head or flange and the other with a complementary shoulder adapted to engage the rear of such head or flange. One or each of these elements is resilient so as to permit assembly by a single rapid operation in which the shouldered portion of one element is forced or sprung over the head or flange of the other element.

Apart from increased ease and speed of assembly, this arrangement reduces machining and production costs by eliminating the two screw-threads of the aforementioned earlier construction.

In a preferred embodiment the eye-bolt is formed with a rigid enlarged mushroom head, while the abutment is a short tube, longitudinally split, e.g. in four places to provide the necessary resilience, having a step in the split part of its bore to provide the shoulder and an annular end flange to seat a coil spring surrounding the abutment and the eye-bolt. This arrangement may, if desired, be reversed, the eye-bolt being of hollow tubular construction while the abutment is formed with the enlarged head, and it will also be appreciated that in either case the head may be longitudinally split to provide resilience instead of the tubular element being split.

The assembly may be mounted on a separate fitment adapted for attachment to the article. Preferably, however, in the case of a cap for a fountain pen, the cap is a unitary metal shell having a rounded end formed with the cross slot for receiving the cranked end portion of the clip and carrying an internal liner or insert housing and guiding the spring and movable abutment. The liner or insert may also have a tapped extremity of greater diameter than its bore and constituting an extension thereof beyond the movable abutment, such tapped extension being adapted to receive and mount, after

assembly of the clip, a shut-off element or inner cap adapted to seal the nib end of the pen.

Furthermore, the clip, with its arm and cranked portion, is preferably of channel section bent up from sheet metal, the cranked portion being curved to a similar contour to that of the cap end so as to lie flush in the cross slot and provide a robust construction of pleasing appearance.

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679,065 COMPLETE SPECIFICATION
1 SHEET

This drawing is a reproduction of the Original on a reduced scale.

FIG. 1

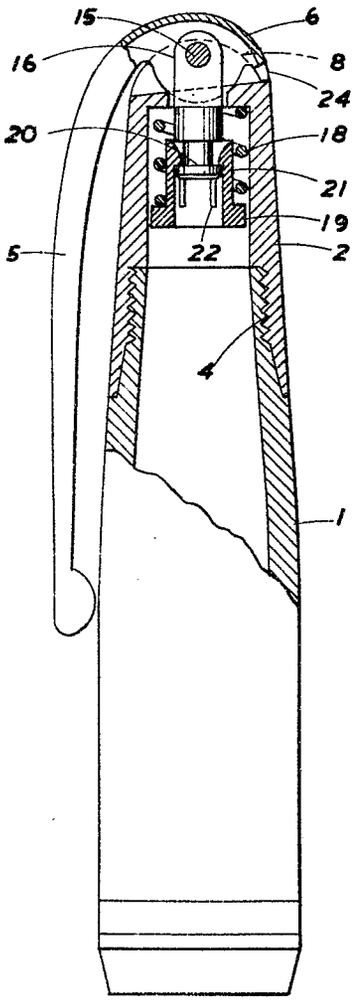

FIG. 2

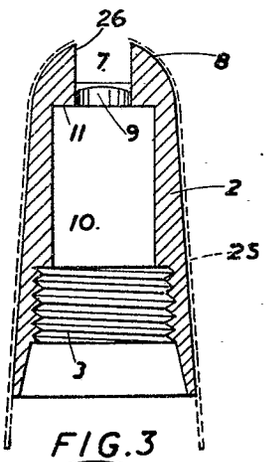

FIG. 3

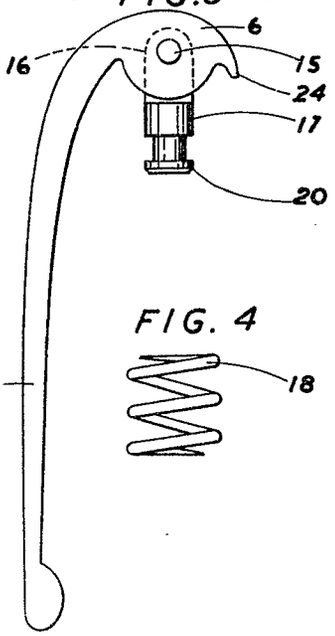

FIG. 4

FIG. 5

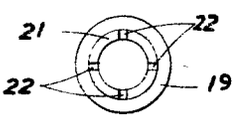

FIG. 6