

A Pen or Similar Object with an Improved Holding Clip.

The present invention relates to a writing pen or similar object, with an improved clip.

"Pen" or "Writing Pen" should be taken to include all writing implements such as, in particular, fountain pens, ball-point pens, propelling pencils, scribes, felt-tip pens or the like, which comprise a body and a rigid holding clip which is movable relative to the said body. The body in question may be formed either by the pen itself or, for example, by a removable cap.

10 The similar objects may be any objects which have a clip which allows them to be attached, for example, to a pocket in clothing.

The pen clips of a known type are either folding or pivoting or they are attached to the body in a fixed manner. In the latter case the clip functions owing to its inherent elasticity, which may give rise to various disadvantages. In particular, it is difficult to ensure that this clip may be adapted to clothing pockets with different thicknesses.

20 On the other hand, the known folding clips and pivoting clips have the disadvantage that they comprise a mechanism which is often complicated and fragile, located inside the pen. As a result some of the space inside the pen is thus occupied and cannot be used for storing ink, for accommodating the mechanism which allows the writing implement

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to be taken out and put away again, or for accommodating a sealing element in the case of a clip mounted on the cap of a fountain pen or felt-tip pen.

An object of the invention is to remedy these disadvantages by providing a pen with a rigid pivoting clip which does not have a complicated mechanism and all the component parts of which are furthermore arranged on the outside of the pen.

According to the invention, in a pen or similar object comprising a body and a rigid fastening clip extending along the outside of the body, said clip having a mounting end and a free end, and mounting means rigid with and outside said body for pivotally connecting said mounting end of said clip to said body for pivotal movement about an axis, a leaf spring is provided for urging said clip toward said body, said spring having a first end secured to said fastening clip near the free end of the clip, and a second end spaced from the first end, and means rigid with and outside said body and having an opening near said axis and between said axis and the free end of said clip are provided, for receiving said second end of said leaf spring to connect said second end to said body, said opening being slightly greater than the second end of said leaf spring.

Conveniently, said means for pivotally connecting said clip to said body may comprise a ring encircling the body and a pin connecting the clip to the ring, in which case said opening may comprise means to permit slight pivoting movement of the second end of the spring.

The clip may be solid and have an elongated groove in which the leaf spring is housed, in which case said spring may comprise an elongated spring within said groove.

In one form of the writing pen said clip may comprise a clip formed from sheet metal and having sides bent from the metal of the clip to form a groove, said leaf spring may comprise a leaf spring within said groove, and at least one tab may be bent across said groove to retain said spring in the groove.

Other characteristics and advantages of the invention will become apparent from the following description, given by way of non-limitative example, of one embodiment of the invention.

In the attached schematic drawings

Figure 1 is a side view of a pen according to the invention.

Figure 2 is a partial axial section of the pen in Figure 1, showing the clip in its retracted position.

Figure 3 is a similar view to Figure 2, showing the pen clip in its position opened out from the body of the pen.

Figure 4 is a sectional view along the line IV - IV in Figure 2.

Figure 5 is a sectional view along the line V - V in Figure 2, and

Figure 6 is a sectional view along the line VI - VI in Figure 2.

- 5 The pen according to the invention shown in Figures 1 to 6 comprises basically a body 1 and a clip 2.

The clip 2 is mounted so that it pivots at its upper end around an axle 3 borne by a part 4 in the form of a ring which encircles the body 1 of the pen.

- 10 As shown in Figure 4, the part 4 comprises an extension 5 in which the axle 3 engages. The clip 2 comprises two wings 6 equipped with holes which enable it to hold the ends of the axle 3.

- 15 Furthermore, another element 7 in the form of a ring is arranged on the body 1 of the pen near to the part 4 and underneath it, i.e. in an intermediate area between the two ends of the clip 2.

As shown in Figure 5, the element 7 comprises an extension 8 with a hole 9.

- 20 The clip also comprises a leaf spring 10. The clip 2, which is solid, comprises a recess inside which this leaf spring 10 is housed. One of the ends of the

spring 10 is crimped at 11 on the side of the cavity in the clip 2, while its other end is engaged in the hole 9 in the element 7. A small amount of play is provided between this end of the leaf spring 10 and the edge of the hole 9, allowing a certain amount of pivoting, after which wedging occurs (Figure 3) restricting the pivoting movement.

Figure 3 shows the functioning of the clip 2 in the pen according to the invention.

When the lower end of the slip 2 is opened out away from the body 1 of the pen, the clip 2 pivots around the axle 3 borne by the part 4. During this movement, the leaf spring 10, which is held by being crimped onto the clip 2 at one end and also by its end which is engaged in the hole 9 in the element 7, is stressed. The return force thus initiated urges the clip 2 back towards the body 1 of the pen so that if, for example, a clothing pocket is introduced between the lower end of the clip 2 and the body 1 of the pen it is firmly held.

It will thus be appreciated that the invention provides a pen with a rigid clip while eliminating, if such is required, any internal return mechanism. Moreover, the return leaf spring is arranged inside the clip so that it remains invisible.

Furthermore, while having a limited outwards curve, the clip allows the pen or the object to which it is attached to be attached to a clothing pocket, whatever the thickness of the material of this may be.



CLAIMS

1. A writing pen or similar object comprising a body, a rigid fastening clip extending along the outside of the body, said clip having a mounting end and a free end, and mounting means rigid with and outside said body for pivotally connecting
5 ing said mounting end of said clip to said body for pivotal movement about an axis, wherein a leaf spring is provided for urging said clip toward said body, said spring having a first end secured to said fastening clip near the free end of the clip, and a second end spaced from the first end, and
10 means rigid with and outside said body and having an opening near said axis and between said axis and the free end of said clip are provided, for receiving said second end of said leaf spring to connect said second end to said body, said opening being slightly greater than the second end of said
15 leaf spring.

2. A writing pen according to Claim 1, wherein said means for pivotally connecting said clip to said body comprises a ring encircling the body and a pin connecting the clip to the ring.

20 3. A writing pen according to Claim 2, wherein said opening comprises means to permit slight pivoting movement of the second end of the spring.



4. A writing pen according to Claim 1, 2, or 3, wherein said clip comprises a solid clip having an elongated groove, and said spring comprises an elongated spring within said groove.

5 5. A writing pen according to Claim 1, wherein said clip comprises a clip formed from sheet metal and having sides bent from the metal of the clip to form a groove, said leaf spring comprises a leaf spring within said groove, and at least one tab is bent across said groove to retain said
10 spring in the groove.

1 6. A writing pen or similar object substantially as hereinbefore described with reference to and as shown in Figures 1 - 6 of the accompanying drawings.

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