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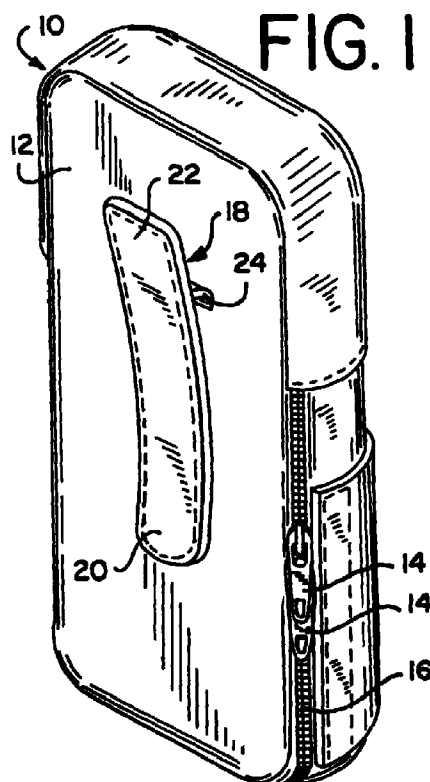
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(54) **Portable electronic device holder**

(57) There is disclosed a portable electric device holder. In a preferred embodiment there is disclosed a leather cellular phone case for protecting a cellular telephone. The case (10) includes a clip (18) for attaching and removing the case (10) and phone from a belt and the like. The clip (18) includes a lower portion (20), which is biased against the back of the case (18), and an extension portion (22) which extends past a fulcrum point in the clip (18). By pressing on the extension (22) with a finger while holding the case (18) in the same hand, the lower portion (20) of the clip (18) opens to facilitate attachment and/or removal from a belt and the like.



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Description

Background of the Invention

[0001] The present invention relates generally to a case or a holster used with portable electronic products and more particularly to a clip thereon for releasable attachment thereof.

[0002] Portable communication products, and in particular cellular telephones, typically have clips attached to the back side of the housing of the phone or the back side of the case in which the phone rests. These clips enable the user to keep the phone mounted to his or her belt or the like when not in use.

[0003] Current metal clip designs for leather cases make it difficult to attach and remove the leather case and associated phone from a belt or the like. These clips require the user to force the leather case on to the belt and pull the leather case off the belt with a great deal of effort. This exorbitant effort, in certain circumstances, may cause damage to the case, phone, belt or even the hand or arm of the user. Often, both hands are needed for safely mounting or dismounting the case and portable communications device.

[0004] The present invention is a case for a mobile or cellular telephone, which case has an attachment clip having a particular function and structure. The clip is suitable for easily attaching and detaching the case and the telephone therewithin from a belt and the like of a user. This particular structure basically includes an extension of the clip to a point past the fulcrum. By pressing on the extension with a finger while holding the phone with the leather case in the same hand, the clip opens to make it easy to mount or remove from the belt and the like. Essentially the fundamental principle involved is a lever fulcrumed about a pivot location.

[0005] This basic concept of an extension above a clip pivot is already generally known. For example, certain cellular telephones are known to have pivotable clips attached directly to the rear surface of the telephone itself. Such clips have extensions above a pivot or fulcrum location with the elongated belt clipping portion being below the pivot. A user of this telephone equipped with such a clip may tend to bump inadvertently into objects, subjecting the phone to damage. This can be avoided if the phone was protected within a case incorporating the present invention.

[0006] Other examples within the art typically disclose pager holders with releasable clips that have extensions on the end above the pivot point. Representative of these examples is U.S. Patent No. 5,261,583, which describes a user adjustable retention latch for a pager holster. The belt clip has a first end which is pivotally mounted to the exterior surface of a housing. A rigid member connects the first end of the belt clip to a second end of the belt clip. The belt clip may then be pivotally rotated between a closed position, wherein the second end of the belt clip contacts the flexible arm and

exerts a pressure against the flexible arm, and an open position. Generally, in these patents, a separate spring or spring plate is required to bias the clip toward its closed or gripping orientation. The structure of the present invention, however, requires no separate spring or spring plate, thus avoiding components which can fail, separate assembly steps and other cost increases.

[0007] According to the present invention, there is provided a leather cellular phone case having a clip extending from its back side. The clip includes a lower engaging portion which is biased against the back side of the case. The clip further includes a fulcrum and an extension portion whereby manual depression of the extension portion will pivot the clip about its fulcrum thereby positioning the lower engaging portion into a disengagement position. Release of the extension portion allows the bias of the clip to move the lower engaging portion into an engagement position.

[0008] By use of the present invention one or more of the following advantages may be achieved:-

(i) A portable electronic device holder (e.g. a leather cellular phone case) that overcomes the deficiencies of the current practices whereby a portable electronic device holder (e.g. a leather cellular phone case) is provided for easy one-hand attachment and removal without damage to the phone, case, belt or the like, or even the hand or arm of the user.

(ii) A portable electronic device holder (e.g. a leather cellular phone case) whereby a clip achieves its spring-back capabilities by being constructed from a piece of metal curved back on itself.

(iii) A portable electronic device holder (e.g. a leather cellular phone case) whereby a clip is made of a single elongated piece of metal, folded on itself in order to form a clip portion, a fulcrum location, and an extension above the fulcrum location;

Brief Description of the Drawings

[0009] The features of the present invention which are believed to be novel are set forth with particularity in the appended claims. The invention, together with the further objects and advantages thereof, may be best understood by reference to the following description taken in conjunction with the accompanying drawings, in the several figures of which like reference numerals identify like elements, and in which:

Figure 1 is a rear perspective view of a leather cellular phone case constructed in accordance with the principles of the present invention.

Figure 2 is a front elevation view of a leather cellular phone case constructed in accordance with the principles of the present invention.

Figure 3 is a side elevation view of the embodiments of Figures 1 and 2, depicting the easy oper-

ation by use of a single finger.

Figure 4 is a side elevation view of the single piece metal clip constructed in accordance with the principles of the present invention.

Figure 5 is the metal clip of Figure 4 as it is encased in leather.

Description of the Preferred Embodiment

[0010] Figure 1 illustrates a leather cellular telephone case, generally shown as 10, constructed in accordance with the principles of the present invention. The rear perspective view of Figure 1 displays the back side 12 of the case 10, along with an accompanying zipper 14, used to open and close the case 10 along opposite sides of the rows of teeth 16. This enables the user to quickly and easily enclose his or her cellular telephone within the case 10 in order to keep it protected from any inadvertent contact or dropping of such phone.

[0011] Located on the backside 12 of the leather case 10 is a clip, generally shown as 18, constructed in accordance with the principles of the present invention. This clip, generally used to mount the case upon a belt and the like, is comprised of a lower portion 20 and an extension portion 22 which extends the lower portion 20 past a fulcrum location 24.

[0012] The front side 26 of the case 10 is illustrated in Figure 2. The case 10 may be of any leather cellular telephone case type design generally used to protect a cellular telephone. The case 10 of the present embodiment includes a window 28 upon the front side 26 so as to enable the user to view a status of his or her phone.

[0013] Operation of the general principles of the present invention may best be understood through an examination of Figure 3. It can be seen in Figure 3 that the operation of the invention brings a much needed simplification of the process of clipping a leather case for a cellular phone to a belt, article of clothing, and the like. The present invention accomplishes this task through the use of one hand and a single finger while the use of previous clip arrangements requires the use of two hands. When not in use, the clip 18 of the present invention is biased in a closed position 30. In order to remove and mount the case 10 from a belt and the like, the user depresses the extension 22 portion of the clip 18 with a single finger 32. This pivots the clip 18 about the fulcrum location 24, thus moving the clip 18 into an open position 34 to facilitate attachment and removal of the telephone and case from the belt or the like.

[0014] In the present embodiment, a single piece of metal is bent or reformed into a clip having a lever extension above a fulcrum location. Figure 4 is illustrative of this concept as it shows such a single piece of metal as the clip 18 of the present invention. The lower portion 20 of the clip 18 is shown as it extends past the fulcrum location 24 to the extension portion 22. The first turn or bend 36 of the clip 18 forms the end of the extension portion 22. This bend 36 folds the piece of metal

upon itself as it again passes the fulcrum location 24. A second turn or bend 38 once again folds the metal upon itself as it extends to fulcrum location 24 where it is bent for a third time. This third turn or bend 40 does not fold the metal as with the first two turns; instead, in cooperation with the resiliency of the clip material, it creates the biasing effect of the clip. The material or metal is preferably of such a composition that even constant operation will not deform this third bend 40. Finally, from this third bend 40, the piece of metal extends to form the supporting portion 42 of the clip.

[0015] The case 10 as shown in Figure 1 depicts the clip 18 as it is encased in leather. Figure 5 more preferably illustrates such encasing of the clip. Clip 18 is shown as the single piece of metal of Figure 4 with the addition of a leather sheath 44 totally encompassing the metal areas. At the third turn 40, this sheath 44 can enter the backside 12 of the case, such as through slot 46 as shown while the supporting portion 42 is positioned against the inside 48 of the backside 12 of the case 10.

[0016] With the case and clip combination of the present invention, a cellular phone is protected within a leather case that can be effortlessly attached and removed from a belt and the like. This enables the user to use a single hand to remove or attach said phone when he or she desires to answer an incoming call and/or make an outgoing call. The strength characteristics of the composite or metal used as the clip enables the continuous use thereof without deformation or lessening of the biasing capabilities.

[0017] While a particular embodiment of the invention has been shown and described, it will be apparent to those skilled in the art that changes and modifications may be made therein without departing from the invention in its broader aspects, and therefore the aim is the appended claims is to cover all such changes and modifications as fall within the true spirit and scope of the invention.

Claims

1. A portable electronic device holder, comprising:

a casing for holding the device, said casing having a back side; and
a clip extending from said back side of said casing, said clip including a lower engaging portion biased against said back side when the clip is at a closed, engagement position, said clip further including a fulcrum and an upper extension portion, said fulcrum being between said lower engaging portion and said upper extension portion, whereby manual depression of said extension portion pivots said clip about said fulcrum to an open, disengagement position in opposition to the bias of the clip by which the lower engaging portion is biased against

said back side at said closed, engagement position.

2. A portable electronic device holder, comprising:

a casing for holding the device, said casing having a back side; and
 a one-piece clip extending from said back side of said casing, said clip comprising:
 a lower engaging portion biased against said back side when said clip is in a closed position; an upper extension portion; and
 a fulcrum positioned between said lower engaging portion and said upper extension portion whereby manual depression of said extension portion pivots said clip about said fulcrum to an open, disengagement position in opposition to the bias of the clip by which the lower engaging portion is biased against said back side at said closed, engagement position.

3. A portable electronic device holder as claimed in claim 1 or 2, wherein said clip is in a protective envelope which closely conforms in size and shape to at least said lower engaging portion and said upper extension portion.

4. A portable electronic device holder as claimed in claim 1, 2 or 3, wherein said lower engaging portion has a free end, said free end having a hooked portion.

5. A portable electronic device holder as claimed in any one of the preceding claims, wherein said casing includes an integral fastening means for enclosing said device therein.

6. A portable electronic device holder as claimed in any one of the preceding claims, wherein said clip includes a supporting portion extending into said casing and positioned against said back side.

7. A portable electronic device holder as claimed in claim 6, wherein said supporting portion enters said casing through a slot in said back side.

8. A portable electronic device holder, comprising:

a casing for holding the device, said casing having a back side; and
 a one-piece clip extending from said back side of said casing, said clip comprises:
 a supporting portion positioned within said casing, said supporting portion further positioned against said back side of said casing;
 said clip extending from said supporting portion to a first turn whereby said clip is curved to further extend generally parallel with said support-

ing portion;

said clip further extending from said first turn to a first position whereby said clip is folded upon itself at said first position;

said clip further extending from said first position to a second position whereby said clip is folded upon itself at said second position;

said clip further extending generally parallel to said supporting portion to a first end, said first end positioned past said first position, said curve of said first turn biasing said first end against said backside; and

a fulcrum positioned between said first end and said second position whereby manual depression of said second position pivots said clip about said fulcrum to an open, disengagement position in opposition to the bias of the clip at a closed engagement position.

9. A portable electronic device holder as claimed in claim 8 wherein said clip is in a protective envelope which closely conforms in size and shape to at least said lower engaging portion and said upper extension portion.

10. A portable electronic device holder as claimed in claim 8 or 9 wherein said first end includes a hooked portion.

11. A portable electronic device holder as claimed in claim 8, 9 or 10, wherein said casing includes an integral fastening means for enclosing said device therein.

12. A portable electronic device holder as claimed in any one of claims 8 to 11, claim 13 wherein said fulcrum is positioned between said first turn and said first position.

