

ELECTRONIC DEVICE COMPRISING A FASTENING ARRANGEMENT

The present invention concerns electronic devices comprising a fastening arrangement enabling them in particular to be worn on oneself by fixing them, for example, to a costume.

Among the above-mentioned devices, there will be mentioned by way of example watches and identification or personal search devices.

More specifically, the invention concerns an device comprising a casing in which a housing closed by an outer lid is provided for an energization cell.

BACKGROUND OF THE INVENTION

In a general manner, electronic devices intended to be worn on the person possess casings of light plastic material. However, the fastening arrangements are either at least partially obtained by forming with the body of the casing, in particular by injection, or at least partially formed from a metallic element such as a pin or a clamp fixed to the body of the casing.

In both of the above-mentioned cases, if the fixing arrangement is damaged, it is difficult, indeed impossible, to repair it. Next, in the case wherein the casing is of plastic material, the manufacture of such devices is not simple, which increases the cost of manufacture. Moreover, in all cases in which the casing is of plastic material, the life duration of such devices is not guaranteed.

The purpose of the invention is to furnish an electronic device provided with a reliable fastening arrangement at little expense and easily repairable at smallest cost.

SUMMARY OF THE INVENTION

The present invention thus has as object an electronic device comprising a casing in which a housing

closed by an outer lid is provided for an energization cell characterized in that said lid is provided on its external surface with at least one element of a fastening device for said electronic device, such element being rigidly and permanently secured to said outer lid.

According to a preferred embodiment, the lid is metallic and formed by die stamping, said element of the fastening arrangement also being metallic and welded onto the outer surface of the lid.

According to an advantageous variant of the preferred embodiment, the casing of the electronic device is of plastic material. Nevertheless, any other material can also be employed.

There results from the above-mentioned characteristics an electronic device comprising a fastening arrangement of little cost. Next, in the case in which the fastening arrangement is damaged by rough use, it is easy and of little cost to replace the lid provided with the above-mentioned element.

Finally, it will be noted that, given that the element of the fastening arrangement rigidly connected to the casing of the electronic device is fixed onto the lid of the cell housing, it is easy to eliminate the fastening device by removing the lid and replacing it by another conventional lid without the fastening arrangement.

In the preferred embodiment, said element of the fastening arrangement can be fixed to the lid by a simple weld. Thus, in a variant in which the fastening arrangement is a ratcheting arrangement comprising a male portion formed by a securing stud and a removable female portion formed for example by a "butterfly" gripper, it is particularly easy to weld the fastening stud onto the lid, this latter being obtained by die stamping.

It will be further noted that in the preferred embodiment the casing can be formed by a material of plastic matter without such giving rise to the least problem in manufacture of the arrangement according to the invention. This characteristic is particularly

advantageous given that the majority of devices intended to be worn on the person are formed by materials of light plastic matter.

Hereafter there will be described an embodiment of the invention with the help of the attached drawings, given by way of example in no manner intended to be limiting.

BRIEF DESCRIPTION OF THE DRAWINGS

- Figure 1 shows a view from below of a watch comprising an electronic movement energized by a cell;

- figures 2 and 3 are respectively views from above and from the side of the lid closing the cell housing of the watch shown on figure 1.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Watch 1 comprises a casing 2 in the interior of which is housed an electronic movement (not shown) energized by an energy cell (not shown) located in a cell housing closed by the lid 4. Such lid 4 can be manipulated by a user thanks to a recess 6. The system for the closing and opening of lid 4 is a bayonet system known to persons skilled in the art. In order to close the cell housing with the help of lid 4, there are provided three projections 8, 9 and 10. In casing 2, three openings 12, 13 and 14 are provided around the periphery of the hole forming the housing for the cell, such openings 12, 13 and 14 being arranged so as to permit passage of the projections 8, 9 and 10 of lid 4 for the opening and the closing of the cell housing.

It will be noted that lid 4 is an external cover which can be manipulated directly from the exterior of casing 2.

On the external surface 16 of lid 4 is secured a fastening stud 18 forming the male portion of a fastening arrangement for watch 1 to another object, in particular a costume. The fastening arrangement provided is a ratcheting arrangement itself known to persons skilled in

the art. Thus, the female portion of such fastening arrangement has not been shown here.

As has already been mentioned, stud 18 can be easily welded onto the surface 16 of lid 4, this latter being formed by simple die stamping. This manner of manufacture is particularly inexpensive and the result obtained is reliable, assuring good longevity to the fastening arrangement.

The embodiment described hereinbefore is in no manner intended to be limiting, other similar embodiments being readily conceived by persons skilled in the art. Likewise, the invention is not limited to a watch, but also concerns other electronic devices energized by a cell placed within a cell housing having an external lid.

CLAIMS

1. Electronic device comprising a casing (2) in which a housing closed by an outer lid (4) is provided for an energization cell, characterized in that said lid is provided on its external surface (16) with at least one element (18) of a fastening device for said electronic device, such element being rigidly and permanently secured to said outer lid.

2. Electronic device according to claim 1, characterized in that said lid (4) is metallic and formed by die stamping, said element (18) likewise being metallic and welded onto said external surface (16).

3. Electronic device according to claim 2, characterized in that said casing (2) is of plastic material.

4. Electronic device according to any of the preceding claims, characterized in that said element (18) is formed by a fastening stud defining the male portion of said fastening device, intended to be assembled with a removable female portion of such fastening device.

5. Electronic device according to any of the preceding claims, characterized in that said fastening device is arranged in a manner such that the electronic device can be worn on clothing.

6. Electronic device according to any of the preceding claims, characterized in that said electronic device is a watch.

7. Power cell compartment lid (4), characterized in that it is provided on its external surface (16) with at least one element (18) of a fastening device.

8. Power cell compartment lid (4) according to claim 7, characterized in that it is metallic and formed by die stamping, said element (18) of said fastening device being likewise metallic and rigidly and permanently secured onto said external surface (16).