

DEVICE FOR RECEIVING A COMMODITY IN A FIXED POSITION

The invention relates to a device for receiving a commodity, in particular a wristwatch or writing implement, in a fixed position in accordance with the preamble of the independent claim.

Many commodities such as wristwatches or writing implements, for example,
5 are frequently presented for sale in transparent plastic containers (cases). Fastening elements are generally provided in the container in this case in order to fix the commodity in its position and thus also protect it from damage, in particular during transport. Moulded inserts, plastic holders, rubber holders, microcellular rubber holders and flexible pressure holders (clips) are mostly used as fastening elements.

10 The fastening elements known hitherto are either structurally relatively expensive or must be matched to the shape and dimensions of the commodity or hinder a free view onto the commodity (specially in the case of the known pressure holders). Moreover, with some known fastening elements the fitting and removal of the commodity is relatively complicated and is associated with a relatively high risk of
15 damage.

As a result of the present invention, these disadvantages are now to be removed and a device of the aforementioned type improved so that with a minimal structural expense the commodity can be perfectly fixed in position, i.e. substantially irrespective of its shape and dimensions. In other words, a universally usable device is
20 to be provided, which may be produced with minimum structural expense, is suitable for receiving different commodities and perfectly and securely fixing these in position.

The solution to this problem forming the basis of the invention is evident from the features described in the characterising clause of the independent claim. Particularly advantageous configurations and further developments are the subject of
25 the dependent claims.

Hence, according to the most general concept of the invention, the fastening elements are configured as a pair or pairs of clips, wherein one clip of each pair is respectively arranged in the upper portion and in the lower portion of the container. When the container is open, the commodity can be inserted into the lower portion of
30 the container or removed from this without difficulty. When the container is closed, i.e. when the upper portion is placed on the lower portion, the two clips of the pair of clips clamp the commodity between them and thus fix them securely in position. In this case, commodities of different dimensions can be effectively fixed in position with the very same device as a result of the resilient configuration of the pairs of clips.

According to a particularly advantageous aspect of the invention, the holding elements or pairs of clips are configured as clasp springs, which extend from the side walls of the lower portion and upper portion of the container into the interior of the lower portion or upper portion respectively. This configuration is structurally particularly simple and, moreover, only requires a minimal covering of the commodity to be fixed in position. If according to a further advantageous embodiment the holding elements are made from a transparent material, the view onto the commodity is virtually not hindered at all.

The invention is explained in more detail below on the basis of the drawing, wherein:

Figure 1 is a schematic inclined view of a first embodiment of the device according to the invention in open state and with an inserted wristwatch as commodity;

Figure 2 is a sectional view along line II-II through the device according to Figure 1 in closed state and without any commodity inserted;

Figure 3 is a sectional view similar to Figure 2 through another embodiment of the device according to the invention;

Figure 4 is a sectional view similar to Figure 2 through a detail variation;

Figure 5 is a sectional view similar to Figure 2 through a further detail variation;

Figure 6 is a top view onto a further detail variation;

Figure 7 is a sectional view similar to Figure 2 through a further detail variation, and

Figure 8 is a sectional view similar to Figure 2 through a further embodiment of the device according to the invention.

The device shown in Figure 1 has the parallelepipedal form of a classic case from the outside. It comprises a container given the overall reference B, which consists of a dish-shaped lower portion U and a dish-shaped upper portion or cover O. As shown and as known per se, the upper portion O can be hinged on the lower portion U and therefore be configured to fold open, but can also be configured so that it is completely removable from the lower portion. In addition, locking elements (not shown) are provided, which prevent the upper portion O being unintentionally detached from the lower portion U when the container B is in closed state. Such locking elements can be formed by locking bars or snap mechanisms, as known per se. The external shape of the container B is dependent on the commodity to be received and has no significance for the present invention.

Fastening elements are provided in the container B for a commodity to be received; a wristwatch A in the embodiment shown. In accordance with the most important concept of the invention, these fastening elements comprise resilient holding elements 10 and 20 interacting in pairs and respectively arranged both in the lower portion U and in the upper portion O of the container B. The two holding elements 10, 20 of each pair interact so that they resiliently clamp between them the commodity A located in the container when the upper portion O is placed on the lower portion U of the container B. The holding elements 10, 20 thus form resilient pairs of clips.

10 As may be seen in particular from Figure 2, the holding elements 10 and 20 spring up and down. Up and down in this case refers to the usual position of the device in use when closed, wherein the lower portion U of the container B is at the bottom and the upper portion O is at the top.

It has been found that the fastening of the commodity achieved by the pairs of clips according to the invention respectively with two resilient holding elements is substantially better than with comparable conventional fastening elements.

The number of pairs of holding elements 10, 20 is dependent on the type of commodity to be fixed in place. Two pairs are generally sufficient in the case of a wristwatch or a writing implement (e.g. fountain pen or pencil). A single pair may also be sufficient in special cases.

In the embodiments shown in Figures 1, 2 and 4 - 7, the holding elements 10 and 20 are configured as clasp springs, which respectively extend inwards from the side walls of the lower portion U or the upper portion O of the container B. In this case, the clasp springs can be fastened on the same sides of the container or also on opposing sides. However, as shown in the embodiment of Figure 8, the clasp springs can also be attached to the horizontal (in the usual position of use) inside walls of the lower portion U or upper portion O.

The clasp springs 10, 20 are preferably curved, as shown, wherein the clasp springs or holding elements 10 in the lower portion U are concave as viewed from the open side of the lower portion, so that they form a kind of depression for the commodity to be received. The clasp springs or holding elements 20 in the upper portion O are curved in a mirror-inverted manner, i.e. are convex as viewed from the open side of the lower portion. Depending on the external shape of the commodity to be held in place, however, the clasp springs may also be plane or curved in the other direction. Equally, any desired combinations of curved and plane clasp springs are also possible.

As shown in Figure 4, the holding elements 10 and 20 can also consist of two respective holding element sections 11 and 12, which are attached on opposite sides of the lower portion 10 or upper portion 20 and also extend inwards from there.

According to Figure 6, the holding elements 10, 20 can also be specially
5 configured with two or multiple fingers (in a comb-like manner). With commodities of complex structures, this allows better adaptation to their external shape and thus provides a better fastening effect.

To enhance the fastening effect, the holding elements 10, 20 can additionally have
10 friction-increasing means in particular on their sides facing one another. Such friction-increasing means can be formed, for example, by structures 13 such as ribs and similar (Figure 7) or by friction-increasing layers 14, e.g. a foam rubber coating (Figure 5).

As Figure 2 further shows, the holding elements 10 and 20 configured as clasp
15 springs can also be bent so that they form a receiving area 15 for the commodity between them. Naturally, this receiving area 15 must have a smaller clearance height than the dimension of the commodity to be received at this location, since otherwise no clamping effect results. However, as a result of the bending of the two holding elements 10 and 20, lateral stops are formed for the commodity, which further improve fixture. Naturally, this can also be achieved by other suitable structures on the
20 holding elements 10 and 20.

Figure 3 shows a further embodiment of the device according to the invention, in which the holding elements are not configured as clasp springs, but as flexible caps 30 and 40, which respectively interact in pairs and when the container B is in closed state, elastically clamp the commodity located therein between them. One cap 30 is
25 attached to the base of the lower portion U therein and extends upwards from this. The other cap 40 is attached to the inner upper wall (base of the cover) of the upper portion O and extends downwards from this. The caps 30 and 40 can be hollow (by example cap 40) or solid (by example cap 30). In both cases, the caps are made of a suitably soft and elastically flexible material.

30 Figure 8 shows a further embodiment of the device according to the invention. In this embodiment, the container B is configured to receive six commodities adjacent to one another. For this, six pairs of holding elements 10, 20 are arranged in twos, wherein two adjacent holding elements 10 or 20 in each case respectively extend from a joint support 16 or 26, which is attached to the inner upper wall (base of the cover)
35 of the upper portion O or on the base of the lower portion U. Naturally, the device according to the invention or the container B can also contain a smaller or larger

number of holding element pairs 10, 20. Moreover, not all holding element pairs 10, 20 must have the same form.

5 The holding elements 10, 20 as well as 30, 40 can be produced as elements that are independent of the container B and can be inserted into the lower portion U or upper portion O of the container B and suitably fastened there. In this case, they can also be composed of a different material (e.g. thermoplastic polymers) from the container B (polypropylene). However, the holding elements are preferably composed of the same material (e.g. polypropylene) as the lower portion U or the upper portion O of the container B and formed in one piece with the lower portion U or the upper
10 portion O. This allows a particularly simple and inexpensive production of the device according to the invention, e.g. by injection moulding. If the upper portion O of the container B is transparent, preferably at least the holding elements 20 and 40 in the upper portion O are also transparent so as to hinder as little as possible the view onto the commodity located in the container B.

CLAIMS

1. Device for receiving a commodity, in particular a wristwatch or writing implement, in a fixed position, with a container (B) comprising a dish-shaped lower portion (U) and a dish-shaped upper portion (O) and with at least one fastening element provided in the container for the commodity (A) to be received, characterised
5 in that each fastening element is configured as a pair of clips and comprises a resilient lower holding element (10) arranged in the lower portion (U) and a resilient upper holding element (20) arranged in the upper portion (O), wherein the two holding elements (10, 20) together form the pair of clips and interact so that they resiliently clamp between them the commodity (A) located in the container when the upper
10 portion (O) is placed on the lower portion (U) of the container (B).
2. Device according to claim 1, characterised in that the lower holding element (10) arranged in the lower portion (U) of the container (B) is concave when viewed from the open side of the lower portion (U).
3. Device according to one of the preceding claims, characterised in that
15 the upper holding element (20) arranged in the upper portion (O) of the container (B) is convex when viewed from the open side of the upper portion (O).
4. Device according to one of the preceding claims, characterised in that the holding elements (10, 20) are configured to project respectively from one side wall of the upper portion (O) or lower portion (U) of the container (B) into the upper portion
20 (O) or lower portion (U).
5. Device according to one of the preceding claims, characterised in that the holding elements (10, 20) are configured as clasp springs.
6. Device according to claim 5, characterised in that at least one of the holding elements (10) is formed from two holding element sections (11, 12), which
25 project from opposing side walls of the upper portion (O) or lower portion (U) of the container (B) into the upper portion (O) or lower portion (U) respectively.
7. Device according to claim 1, characterised in that the holding elements are configured as elastic caps (30, 40) and are arranged opposite one another in pairs with their convex sides facing one another when the upper portion (O) is placed on the
30 lower portion (U) of the container (B).
8. Device according to one of the preceding claims, characterised in that the holding elements (10, 20) have friction-increasing means (13, 14) on their sides facing one another.

9. Device according to one of the preceding claims, characterised in that the holding elements (10, 20) are configured in one piece with the upper portion (O) or lower portion (U) of the container (B).

10. Device according to one of the preceding claims, characterised in that
5 the holding elements (10, 20) are essentially transparent.