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(54) **Watchcase**

(57) Watchcase comprising an upper case (1) and a bottom cover (2), in which grooves (10,20) are formed on the upper case (1) and bottom cover (2) correspondingly, and the upper case (1) and bottom cover (2) are sealed by a seal ring (3) provided therebetween and are fixed to each other by at least two fixing clips (4), each of the fixing clip (4) is integrally formed of resilient material and includes an arcuate connection section (40) and two

dummy clubs (41) provided at both ends of the connection section (40) respectively, in which the two dummy clubs (41) are inserted into the grooves (10,20) of the upper case (1) and bottom cover (2) respectively to clip the upper case and the bottom cover together. Thus, the watchcase is advantageous in convenience for fixation, and the appearance thereof is not affected during assembling and/or disassembling thereof.

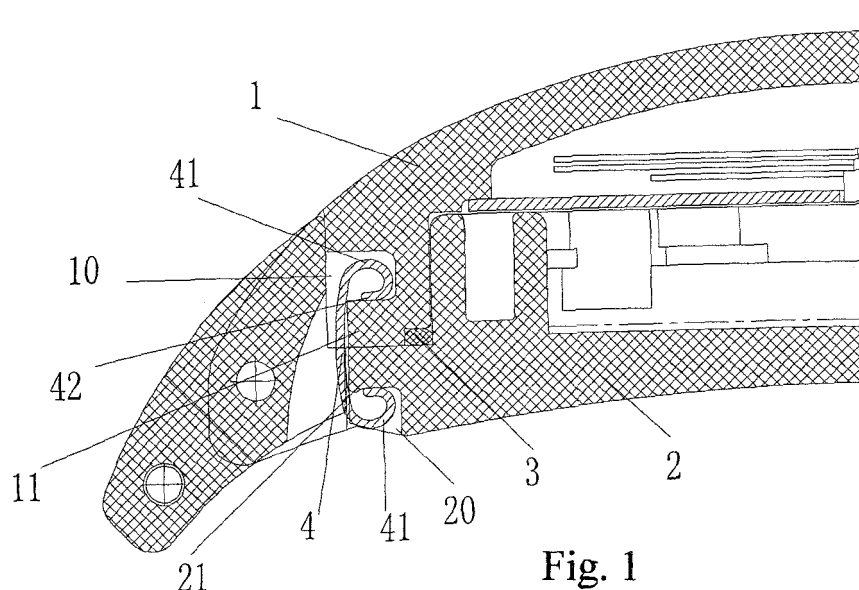


Fig. 1

Description

FIELD OF THE INVENTION

[0001] The present invention relates to a watch, and more particularly to a watchcase.

BACKGROUND OF THE INVENTION

[0002] The young people more and more favor the watches made of rigid plastic or the bangle watches due to their simple structures, low cost, aesthetic appearances and new fashions. Typically, such watches fix and seal the watch cores by means of the direct engagement of the upper cases and bottom covers thereof, to realize the waterproof characteristic at the same time. However, the upper cases and bottom covers in the existing watchcases are usually engaged with each other by means of screws or in a packing manner. When the engagement is in a packing manner, different forms of cracks would appear on the watchcases due to the packing force, which would seriously deteriorate the appearance and waterproof characteristic of the watches. Meanwhile, since such watchcases are usually made of engineering plastic, such as PMMA or PC, they are not extendable and could not bear the packing force. Therefore, it is impossible to manufacture prefect watchcases without special procedures.

SUMMARY OF THE INVENTION

[0003] The main object of the present invention is to provide a watchcase, in which the upper case and bottom cover thereof could be fixed to each other by a fixing clip, to solve the above question resulting from the packing force.

[0004] The watchcase of the present invention comprises an upper case and a bottom cover, in which grooves are formed on the upper case and bottom cover correspondingly, and the upper case and bottom cover are sealed by a seal ring provided therebetween and are fixed to each other by at least two fixing clips, each of the fixing clip is integrally formed of resilient material and includes an arcuate connection section and two dummy clubs provided at both ends of the connection section respectively, in which the two dummy clubs are inserted into the grooves of the upper case and bottom cover respectively to clip the upper case and the bottom cover together.

[0005] The fixing clip may be made of stainless steel, platinum-iridium alloy or titanium alloy.

[0006] The number of the fixing clip may be two, and the two fixing clips may be respectively mounted at 6 o'clock position and 12 o'clock position on the upper case and bottom cover.

[0007] The part of the dummy clubs contacting the upper case and bottom cover may be flat.

[0008] The seal ring may be made of waterproof sili-

cone or rubber.

[0009] In the watchcase of the present invention, the upper case and bottom cover of the watchcase are fixed to each other by means of a fixing clip. As the fixing clip is resilient, no tool is needed during mounting the fixing clip onto the upper case and bottom cover, while only some simple tools is needed to push out the arcuate fixing clips during disassembling the watchcase. Thus, the watchcase of the present invention is advantageous in convenience for fixation, and the appearance thereof is not affected during assembling and disassembling thereof.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010]

Fig. 1 is the cross-sectional prospective view of part of the watchcase according to the present invention; Fig. 2 is the front prospective view of the fixing clip according to the present invention; and Fig. 3 is the side prospective view of the fixing clip according to the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0011] With reference to the accompanied drawings, the embodiments of the present invention will be described in detail as follows.

[0012] As shown in Fig. 1, the watchcase of the present invention comprises an upper case 1 and a bottom cover 2. The upper case 1 and the bottom cover 2 are sealed by a waterproof seal ring 3 provided therebetween. A pair of arcuate fixing clips 4 are respectively mounted at the 6 o'clock position and the 12 o'clock position on the upper case and the bottom cover. Alternatively, the number of the arcuate fixing clips could be three or more, which are disposed along the peripheral of the watchcase.

[0013] The fixing clip 4 is integrally made of 304 stainless steel. However, it could also be made of 303 stainless steel, platinum-iridium alloy, titanium alloy or other resilient material. As shown in Figs. 2 and 3, the fixing clip 4 includes an arcuate connection section 40 and two dummy clubs 41 provided at both ends of the connection section 40 respectively, in which the dummy clubs 41 is formed by bending the ends of the connection section 40, and each dummy club 41 has a flat surface 42 to contact the upper case 1 or the bottom cover 2. In another word, the dummy clubs 41 form a surface-to-surface contact with the upper case 1 and the bottom cover 2, to distribute the force applied on the upper case 1 and the bottom cover 2 by the fixing clips 4.

[0014] The waterproof seal ring 1 is made of soft material, such as silicone or rubber, and is embedded in the groove formed between the upper case 1 and the bottom cover 2 inwards the fixing clips 4.

[0015] As shown in Fig. 1, the upper case 1 and the bottom cover 2 are provided with grooves 10 and 20 to

correspond to the dummy clubs 41 of each fixing clip 4. Accordingly, protrusions 11 and 21 are integrally formed on the upper case 1 and the bottom cover 2 respectively between the recesses 10 and 20. When the upper case 1 and the bottom cover 2 are coupled together, the protrusions 11 and 21 of thereof would opposite to each other and would be inserted between the two dummy clubs 41 of the fixing clip 4. The total thickness of the protrusions 11 and 21 is equal to the distance between the two dummy clubs 41, in which the total thickness of the protrusions 11 and 21 has a plus tolerance, while the distance between the two dummy clubs 41 has a minus tolerance.

[0016] As those of skill in this art will appreciate, many modifications, substitutions and variations can be made in the materials, units and configurations of the present invention without departing from its spirit and scope. In light of this, the scope of the present invention should not be limited to that of the particular embodiments illustrated and described herein, as they are only exemplary in nature, but instead, should be fully commensurate with that of the claims appended hereafter and their functional equivalents.

Claims

1. A watchcase comprising an upper case and a bottom cover, wherein grooves are formed on said upper case and bottom cover correspondingly, and said upper case and bottom cover are sealed by a seal ring provided therebetween and are fixed to each other by at least two fixing clips, each of said fixing clip is integrally formed of resilient material and includes an arcuate connection section and two dummy clubs provided at both ends of said connection section respectively, in which said two dummy clubs are inserted into said grooves of said upper case and bottom cover respectively to clip said upper case and bottom cover together.
2. The watchcase as claimed in claim 1, wherein said fixing clip is made of stainless steel, platinum-iridium alloy or titanium alloy.
3. The watchcase as claimed in claim 1, wherein the number of said fixing clip is two, and said two fixing clips are respectively mounted at 6 o'clock position and 12 o'clock position on the upper case and bottom cover.
4. The watchcase as claimed in claim 1, wherein the part of the dummy clubs contacting said upper case and bottom cover is flat.
5. The watchcase as claimed in claim 1, wherein the seal ring is made of waterproof silicone or rubber.

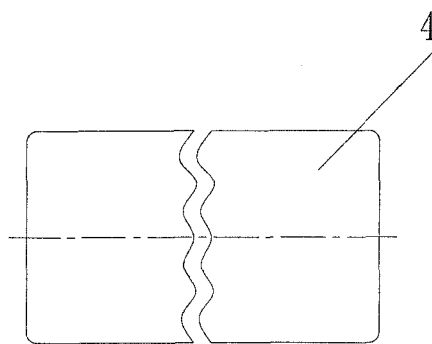
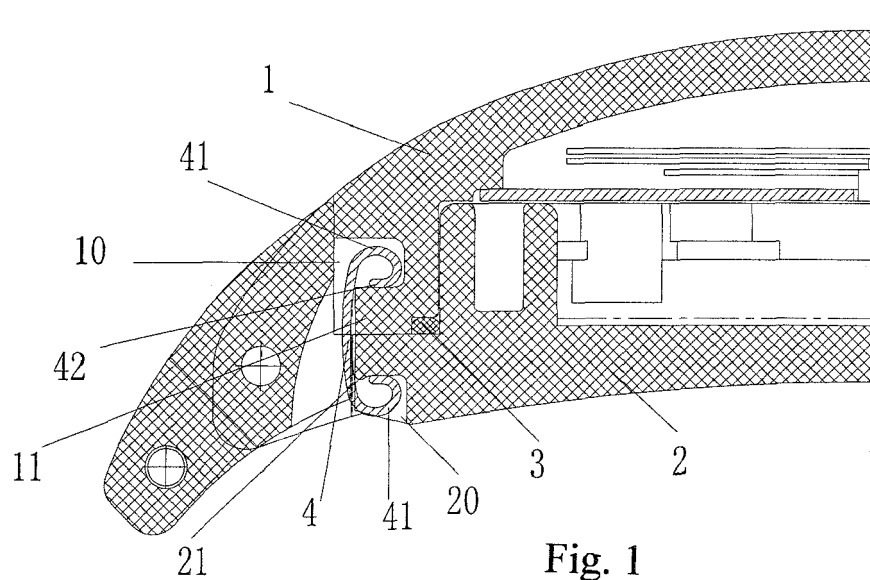


Fig.2

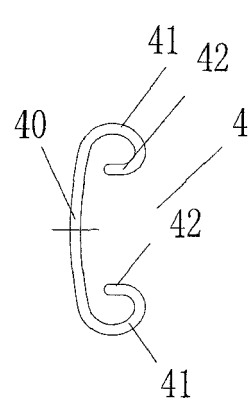


Fig.3