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(54) Benævnelse: **Armbåndsur med en udskiftelig rem**

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DESCRIPTION

Technical Field

[0001] The present invention relates to a wristwatch comprising a case and a strap that are provided with a system for disengaging the strap from the case and replacing it by another strap. The present invention also relates to a kit of parts comprising this wristwatch and one or more replacement straps.

Background of the Invention

[0002] Traditional wristwatches are sold complete with a strap, usually a leather strap, which is engaged to the lugs of the wristwatch case by means of metal pins secured to the lugs. In other cases, the strap is held in place by screws that run through drilled holes in the lugs. In both cases the strap cannot be changed by the users, except that they take the risk to damage the lugs, the case and the strap, moreover they must have available appropriate tools, such as a jeweller's screwdriver, to disengage the old strap from the lugs. This kind of operation must be therefore carried out by a professional, thus involving time and costs.

[0003] Wristwatches with interchangeable bracelets or straps are also known in the art, even if these systems are unsatisfactory too, in terms of safety of the watchcase and/or in terms of aesthetic appearance. Known are for instance wristwatches provided with single-unit straps having a slot on the middle of the strap, designed to be fitted about the watchcase, which is protected by a hinged cover, operated by a button. An example is described in US patent No. 5,631,879. On one hand these systems can be easy to use and the strap can be rapidly changed by the users by simply press on the button and open the cover, but on the other hand the strap can be easily detached from the watchcase, either during the changing operation or in general when the strap is not worn on the user's wrist. Moreover, buttons operable by the user's hand pressure do not look nicely, and may be bulky, protruding from the watchcase.

[0004] DE 20 2005 019 590 discloses a wristwatch having a base plate and a locking upper body, which comprises a detachable locking device, where the wristwatch components have tools for releasing the locking device.

[0005] It is therefore evident how the need is still felt for a wristwatch provided with an interchangeable strap, which is easy to be replaced in a safe way for the watchcase, and has also a fashionable appearance.

Summary of the Invention

[0006] Subject of the present invention is therefore to provide a wristwatch with an interchangeable strap, which overcomes the drawbacks mentioned above, in particular being easy to use, durable, and aesthetically pleasant, without any protruding mechanisms.

[0007] A particular subject of the present invention is to provide a wristwatch of the above said type that allows the operations of interchanging the strap to be carried out directly by the user, rapidly, without the need of any tools and without any risks of damaging the case, the strap or other parts of the watch.

[0008] A further subject of the present invention is to provide a kit of parts comprising a wristwatch of the above said type and one or more replacement straps.

[0009] These and other subjects are achieved with the wristwatch according to the invention, the essential characteristics of which are defined in the first of the attached claims. Further important characteristics are defined in the dependent claims.

[0010] The characteristics and advantages of the wristwatch according to the present invention shall become clearer from the following description of an embodiment thereof, given as an example and not for limiting purposes, also with reference to the attached drawings.

Brief Description of the Drawings

[0011]

- figure 1 shows in the views from a) to e) the sequence of operations for changing the strap of the wristwatch of the present invention;
- figure 2 shows separately and in a perspective view the case and the two lugs according to an embodiment of the present invention;
- figure 3 is a lateral view of the case and lugs of figure 2;
- figure 4 is an exploded view of the parts of a case according to an embodiment of the present invention.

Detailed Description of the Invention

[0012] With reference to the aforementioned figures, a wristwatch according to the invention comprises in the embodiment illustrate, a case 1 and a strap 2 that are provided with a system for disengaging the strap from the case and replacing it by another strap. The strap 2 is typically a two-part strap for wristwatches, each part of the strap comprising a band having at one end means for connecting with one end of the other part, the other end of the two bands of the strap being attached at lugs 3 of the case. The lugs 3 are for instance of the type

provided with spring bars 4, at which one end of the band of each part of the strap is attached.

[0013] In general the lugs are fixed portions of a watch case, while according to the present invention the lugs 3 are removably connected to the case 1, on opposite sides of the case, thus allowing the two portions of the strap to be disengaged from the case very rapidly and without use of any tools. In the present wristwatch the portion 5 of the lugs 3, opposite to the spring bar 4 and intended for connecting to the case 1, has a C-shaped form following the circular shape of the case, and is provided with a guiding system comprising a channel 51 formed between the above mentioned portion 5 and a wall 52 intended to be housed inside a recess 6 in the case 1.

[0014] As shown for instance in figure 2, the wall 52 is interrupted by an opening 53 to the channel 51; the wall 52 may also be provided with one or more indentations 54 to leave room for a click ball 61 and let it enter into a recess 55, when the lugs are connected with the case and the wall 52 is placed inside the case. This click ball 61 is useful to keep in position the lugs 3: when the lugs 3 enters the case 1, the click ball 61 goes to position in the recess 55 wherein it applies a pressure thus maintaining the lug 3 in position inside the case.

[0015] With particular reference now the figure 4, the case 1 in the present wristwatch is surmounted by a bezel 62 clipped onto the case 1, while a rotating case back 63 is applied on the bottom of the case 1 and connected to it, for instance by means of screws. The rotating case back 63 is provided with hooks 64, emerging from the external edge of the case back and may have a hole in the centre to reduce the friction and facilitate its rotation movement. In the embodiment illustrated in figures the hooks 64 are four, but a different number of hooks is possible provided that they are at least two, each of which is intended for sliding in a channel 51 of one of the two lugs 3. According to the embodiment in the figures, the position of the four hooks 64 is such that, when the rotating case back 63 is applied to the case 1 and let to rotate around the case's central axis X, two hooks 64 slide into a channel 51 of a lug 3, and the other two hooks 64 slide into the channel 51 of the other lug 3, one hook at an end of the channel and the other one at the opening 53.

[0016] According to a preferred embodiment of the present invention, the wristwatch case 1 also comprises a technical case back 65 that is a case back ensuring water resistance, against which is then applied the rotating case back 63. A bottom cover 66 is attached to the technical case back 65, for example by means of screws, and keeps the rotating case back 63 in position.

[0017] Preferably, in the present wristwatch the case 1, the bezel 62, the technical case back 64 and the rotating case back 63 with hooks 64 are all made of metal material.

[0018] When the rotating case back 63 is assembled with the case 1, with or without a technical case back 65 according to the kind of watch, the hooks 64 rotate inside the case 1 and slide into the channel 51 until locking the lugs 3 into the case 1. Their rotation back disengages the hooks 64 from the channel 51 by releasing the lugs 3 from the case 1. The

lugs and the strap attached thereto are removed and a new strap provided with the same guiding system of the invention can be inserted in to the case. These operations are illustrated in particular in the figure 1 attached: first the rotating case back 63 is rotated clockwise in figures 1a) to 1c), the two parts of the strap with the related lugs are so released horizontally from the case in figure 1d), and in figure 1e) a new pair of strap with the lugs of the present invention are made closer to the case for being attached to it.

[0019] An important aspect of the present invention lies also in the fact that, thanks to the particular solution provided by the guiding system removably connecting the lugs 3 with the case 1, the present wristwatch, contrarily to known solutions, has a very pleasing appearance because it does not need any protruding button or similar device to allow the lugs attached to the strap disengaging from the case.

[0020] Again, a further advantage is given by the fact that the operations of changing the strap are, according to the present invention, perfectly safe for the case and the risks of damages to the case, or other parts of the wristwatch, are reduced.

[0021] A still further advantage of the present invention is that the operations of changing of the strap, as illustrated in particular in figure 1, are very rapid and easy to be carried out even by the most incompetent user without need of any tools.

[0022] A kit comprising the wristwatch of the present invention provided with the above described system for interchanging the strap on the case by another one is also within the scope of the present invention. Besides the present wristwatch, this kit may comprise one or more alternative straps, among which the user may pick a replacement strap for the watch.

[0023] These alternative straps of the present kit all have the same end pieces suitable for being hooked to the case of the wristwatch, but they may differ from each other in colour, thickness, material and/or stitching. In particular, the strap comprised in the present wristwatch as well as the alternative straps of the present kit may be of any suitable material, for instance leather, rubber, textile, plastic, etc. The user will have therefore a great variety of choice and can select at any time the most appropriate strap, matching with a business or sporty attire, and replace it on the same case very easily, thus attaining a completely new look maintaining the same case. Likewise, the user may choose the most suitable strap for the daily activities, such as a rubber strap for going swimming, and later an elegant leather strap for dinner.

[0024] The present invention has been described with reference to its preferred embodiments. It should be understood that other embodiments can be foreseen that belong to the same inventive core, the invention being defined by the appended claims.

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- US5631879A **[0003]**
- DE202005019590 **[0004]**

Patentkrav

1. Armbåndsur med en udskiftelig rem, omfattende en urkasse (1) med en central akse (X) og en todelt rem (2), hvor hver del af remmen er fastgjort til en øsken (3), der kan forbindes aftageligt med urkassen (1) ved at anbringe en C-formet del (5) af øskenen (3) i en udsparing (6) i urkassen, hvor delen (5) af øskenen er forsynet med et føringssystem, som omfatter en kanal (51), der er dannet mellem delen (5) og en væg (52), der er beregnet til at blive anbragt i urkassens udsparing (6), hvor der er anbragt mindst to kroge (64) til at gå i indgreb med delen (5) af hver øsken (3), hvilke kroge (64) rager frem fra en udvendig kant af en urkassebagside (63), der er anbragt på bunden af urkassen (1) og kan rotere omkring den centrale akse (X) i forhold til urkassen, hvorved krogene (64) kan rotere inden i urkassen og glide ind i kanalen (51), indtil øskenerne (3) låser, eller glide tilbage ud af kanalen (51), indtil øskenerne (3) frigives.

2. Armbåndsur ifølge krav 1, hvor væggen (52) er afbrudt af en åbning (53), og den roterende urkassebagside (63) er forsynet med fire kroge (64), der er anbragt med passende indbyrdes afstand, således at to af krogene ved rotation af urkassebagsiden kan glide ind i kanalen (51) i den ene ende og ved åbningen (53) af en øsken (3), og de to andre kroge kan glide ind i kanalen (51) i den ene ende og ved åbningen (53) af den anden øsken (3).

3. Armbåndsur ifølge et af kravene 1 eller 2, hvor væggen (52) er forsynet med mindst en fordybning (54) og en udsparing (55) til anbringelse af en klikkugle (61) i urkassens udsparing (6), hvilken klikkugle (61) påfører et tryk i udsparingen (55), således at øskenen (3) holdes på plads inden i urkassen (1).

4. Armbåndsur ifølge et af de foregående krav, hvor urkassen (1) også omfatter en teknisk urkassebagside (65), der sikrer vandtæthed.

5. Armbåndsur ifølge krav 4, hvor urkassen (1) endvidere omfatter et bunddæksel (66), der er fastgjort til urkassen eller til den tekniske urkassebagside, hvorved den roterende urkassebagside (63) holdes på plads.

6. Armbåndsur ifølge et af de foregående krav, hvor urkassen (1), den tekniske urkassebagside (65), den roterende urkassebagside (63) med kroge (64) og øskenerne (3) alle er fremstillet af metal.

7. Kit af dele omfattende et armbåndsur ifølge krav 1-6 og en eller flere udskiftningsremme, der er todelte remme, hvor hver del af remmen er fastgjort til en øsken (3), der er forsynet med føringssystemet ifølge krav 1 og er aftageligt forbundet med en urkasse (1) af armbåndsuret.

DRAWINGS

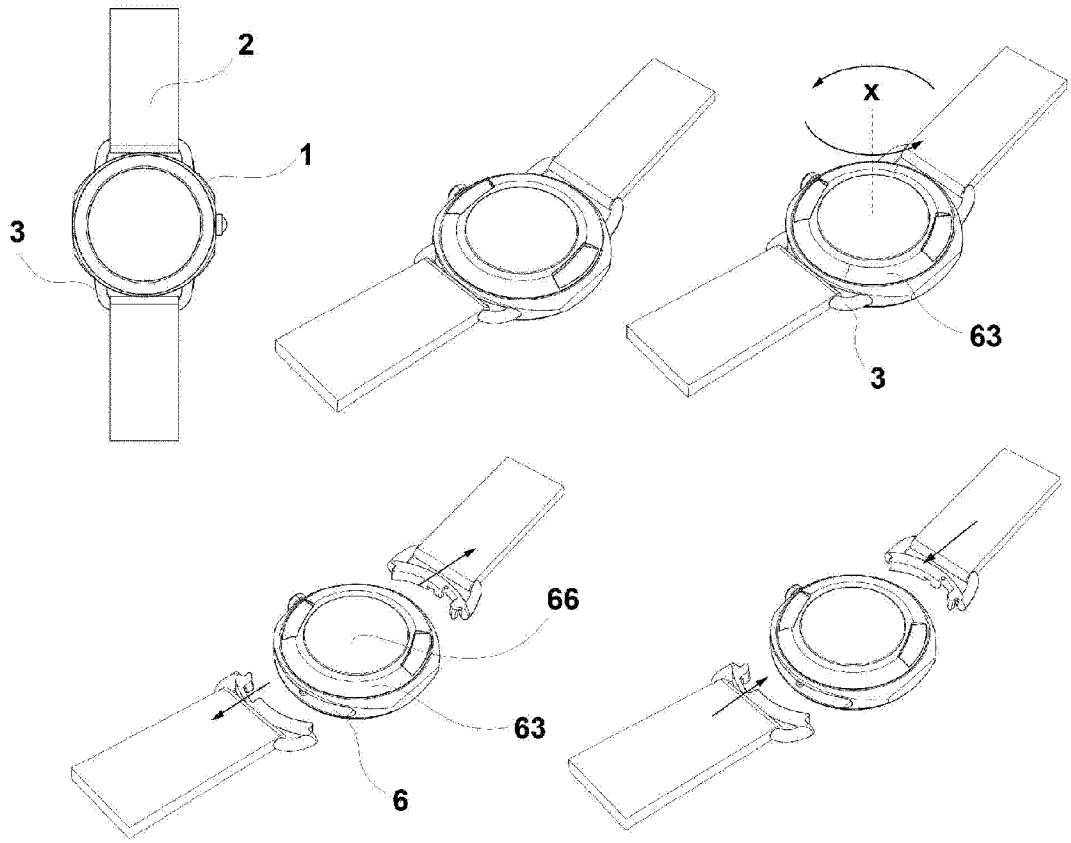


Figure 1

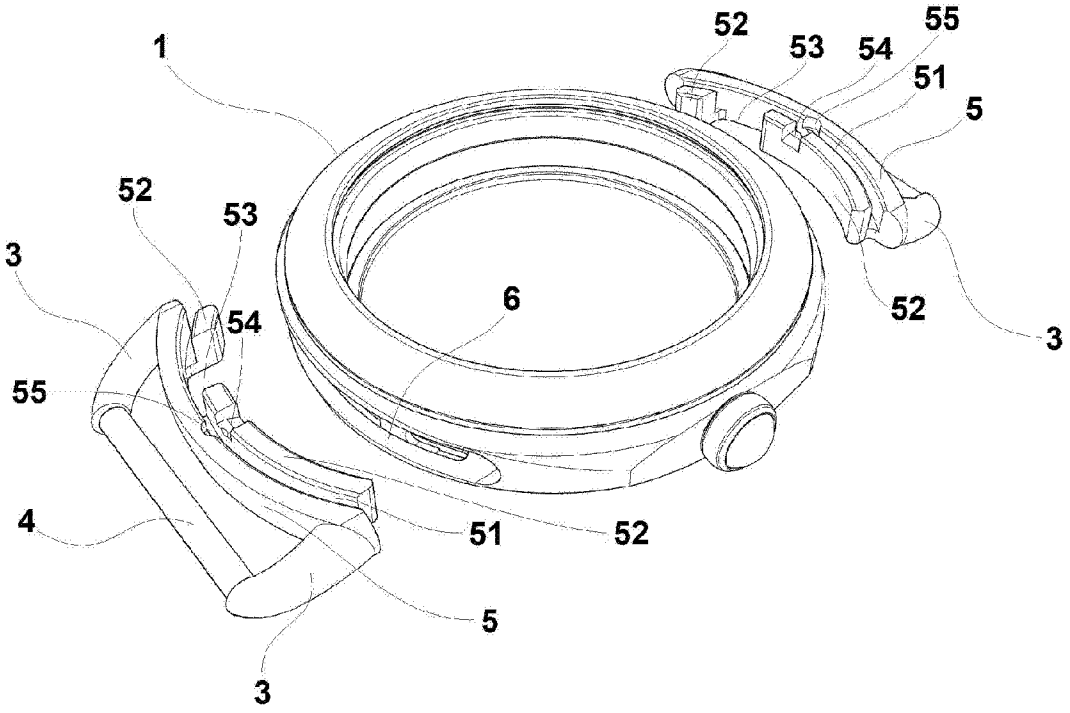


Figure 2

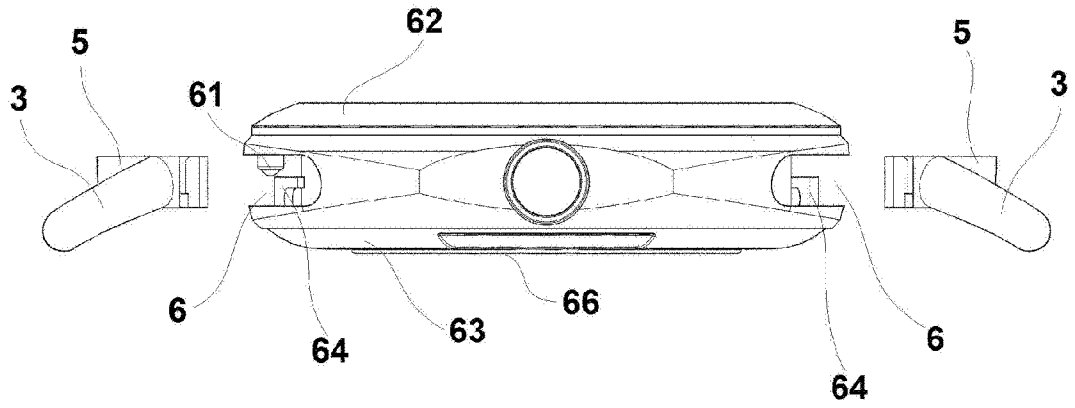


Figure 3

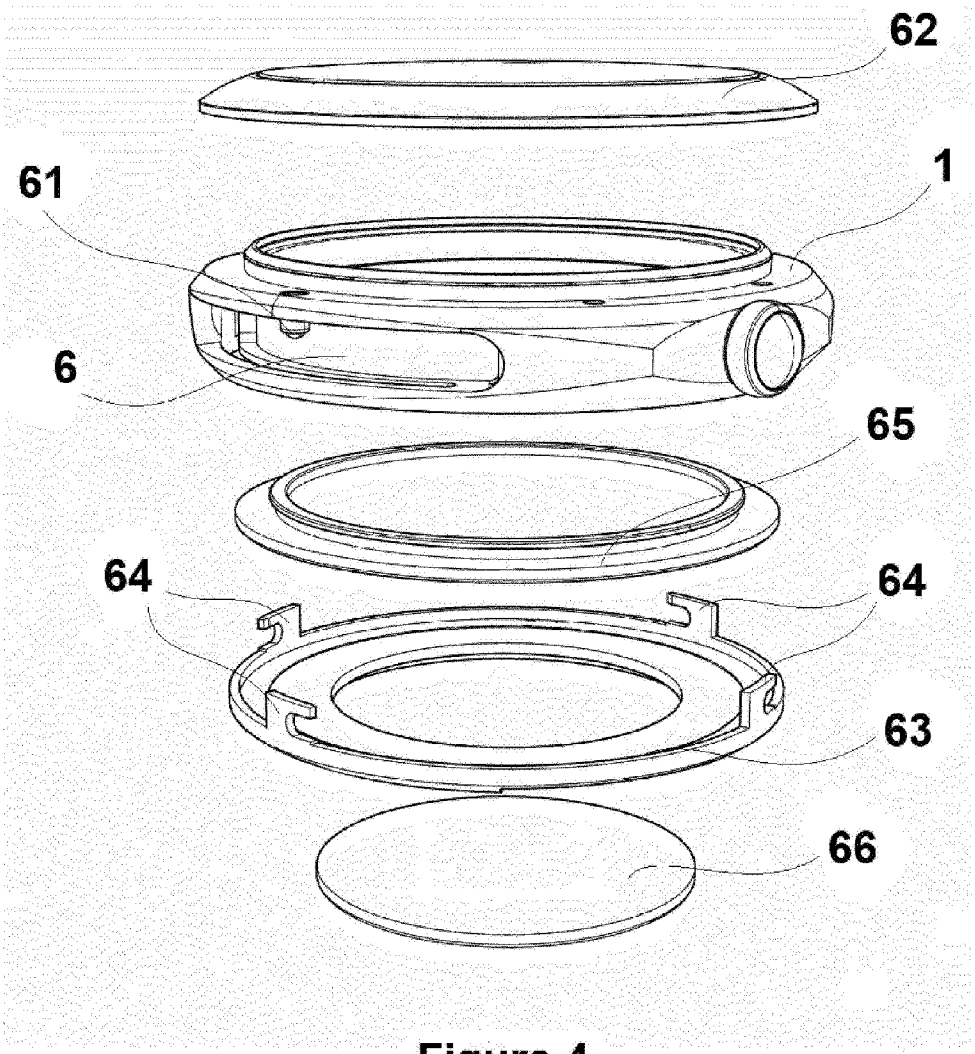


Figure 4