

(22) Date of filing: 17.03.2015

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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.



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] 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

[0005] 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.

[0006] 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.

[0007] 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.

[0008] 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.

[0009] 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

[0010]

- 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

[0011] 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.

[0012] 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.

[0013] 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.

[0014] 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.

[0015] 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.

[0016] 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.

[0017] 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.

[0018] 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.

[0019] 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.

[0020] 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.

[0021] 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.

[0022] 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.

[0023] 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, all covered by the following claims.

Claims

1. A wristwatch with an interchangeable strap, comprising a case (1) having a central axis (X) and a two-part strap (2), each part of the strap being attached to a lug (3) that is removably connectable to said case (1) by housing a C-shaped portion (5) of said lug (3) inside a recess (6) in the case, **characterised in that** said portion (5) of the lug is provided with a guiding system comprising a channel (51) formed between said portion (5) and a wall (52) intended to

be housed inside said recess (6) of the case, where at least two hooks (64) are placed for engaging with said portion (5) of each lug (3), said hooks (64) emerging from an external edge of a case back (63) applied on the bottom of said case (1) and capable of rotating around said central axis (X) with respect to the case, thus letting the hooks (64) to rotate inside the case and sliding into said channel (51) until locking said lugs (3) or sliding back out of said channel (51) until releasing said lugs (3).

2. The wristwatch according to claim 1, wherein said wall (52) is interrupted by an opening (53) and said rotating case back (63) is provided with four hooks (64) suitably spaced between each other so that, by rotation of said case back, two of said hooks can slide into said channel (51) at one of its ends and at said opening (53) of a lug (3), and the other two hooks can slide into said channel (51) at one of its ends and at said opening (53) of the other lug (3).
3. The wristwatch according to any one of claims 1 or 2, wherein said wall (52) is provided with at least an indentation (54) and a recess (55) for housing a click ball (61) in the recess (6) of the case, said click ball (61) applying a pressure in said recess (55) so that the lug (3) is maintained in position inside the case (1).
4. The wristwatch according to any one of the preceding claims, wherein said case (1) also comprises a technical case back (65) that ensures water resistance.
5. The wristwatch according to claim 4, wherein said case (1) further comprises a bottom cover (66) attached to said case or to said technical case back, thus keeping in position said rotating case back (63).
6. The wristwatch according to any one of the preceding claims, wherein said case (1), said technical case back (65), said rotating case back (63) with hooks (64) and said lugs (3), are all made of metal.
7. A kit of parts comprising a wristwatch as defined in claims 1-6 and one or more replacement strap, that are two-part straps, each part of the strap being attached to a lug (3) that is provided with the guiding system of claim 1 and is removably connectable to a case (1) of said wristwatch.

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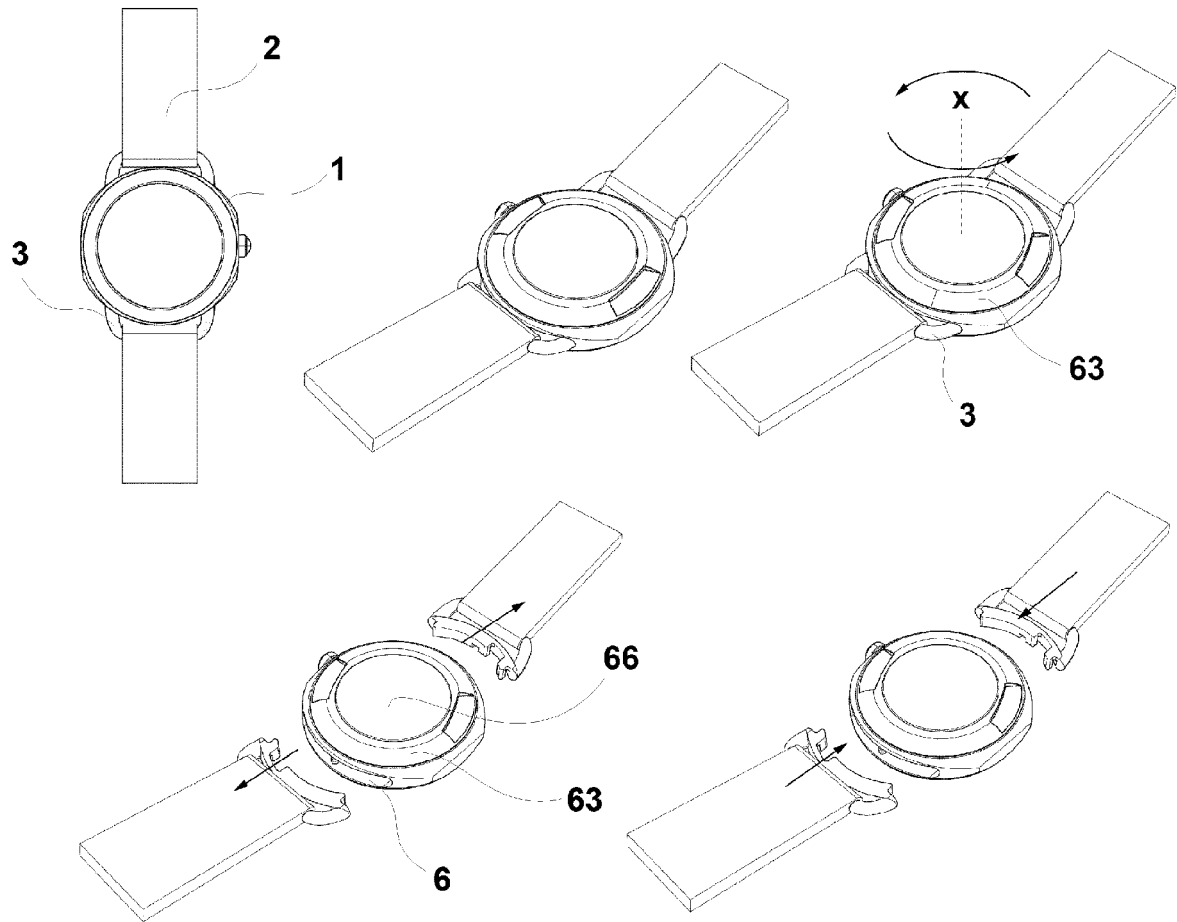


Figure 1

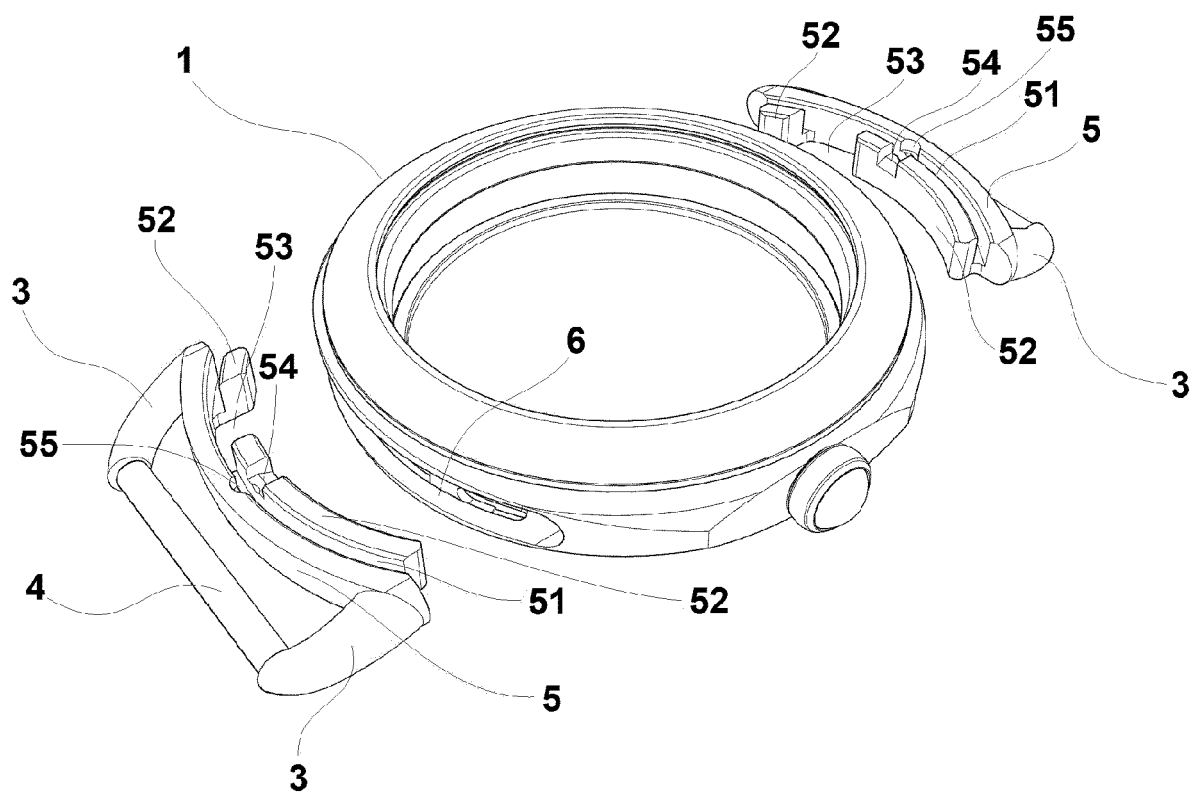


Figure 2

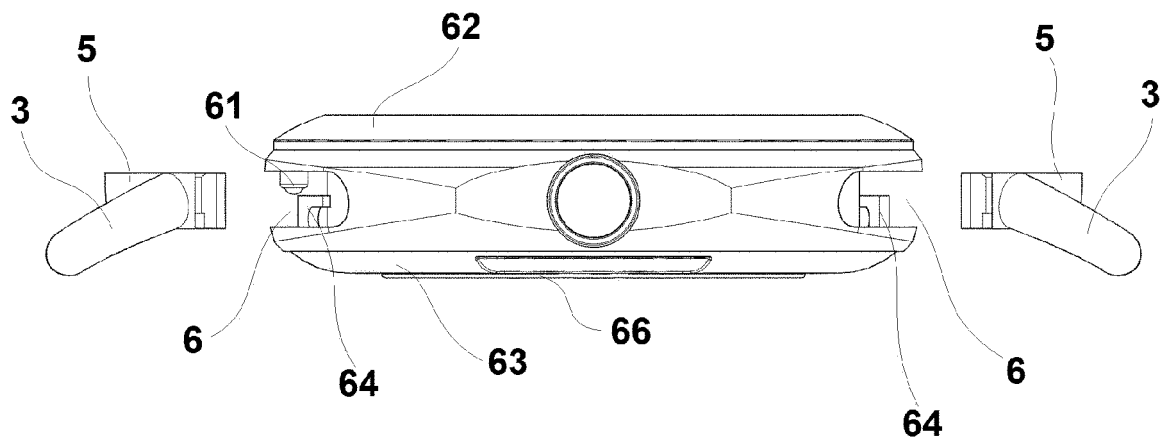


Figure 3

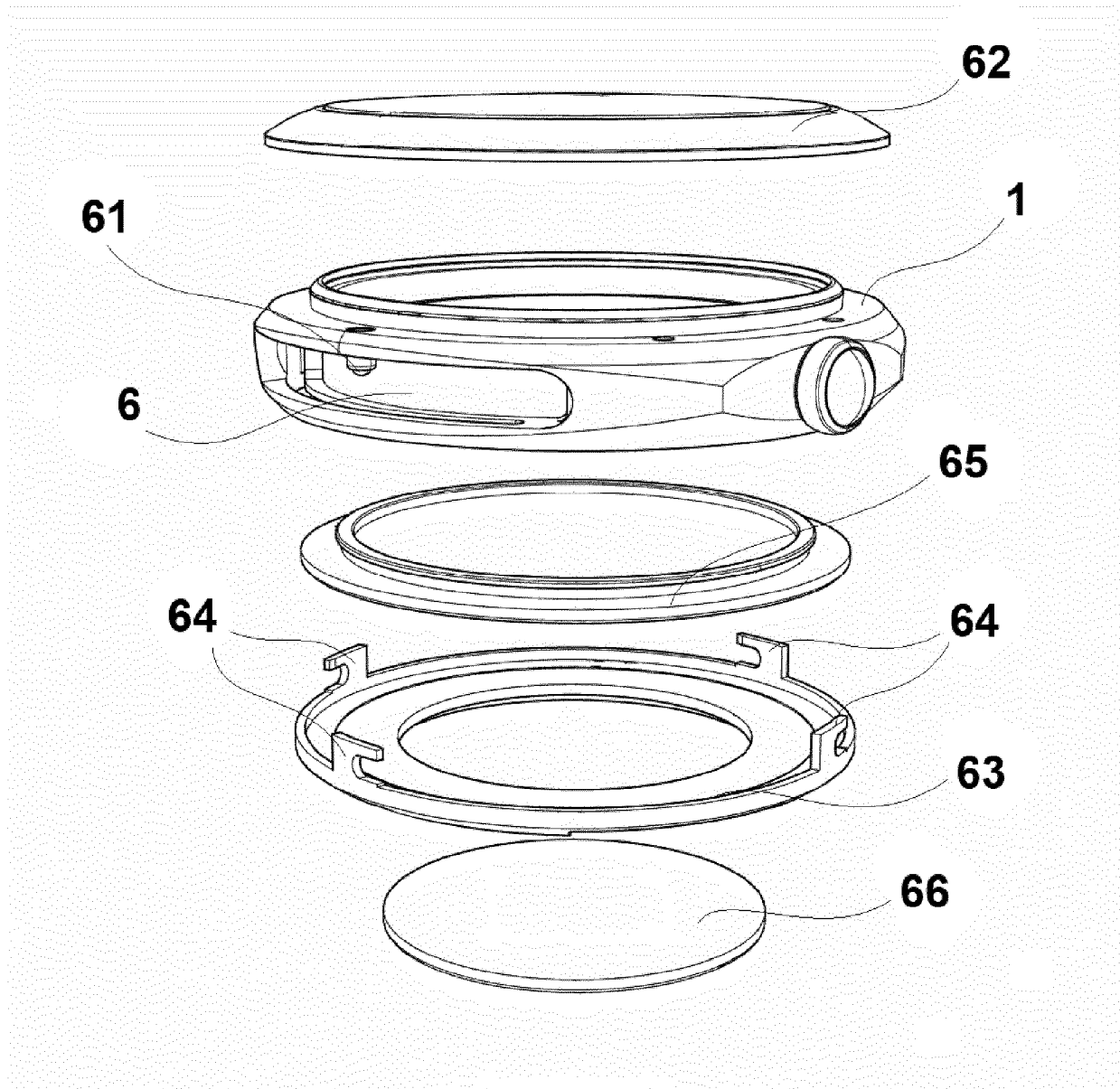


Figure 4



EUROPEAN SEARCH REPORT

Application Number
EP 15 15 9511

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	DE 20 2005 019590 U1 (DUGI ZELIMIR [DE]) 25 January 2007 (2007-01-25) * paragraph [0020] - paragraph [0027]; figures 4, 5 *	1-7	INV. G04B37/14
A	EP 1 635 232 A1 (RICHEMONT INT SA [CH]) 15 March 2006 (2006-03-15) * the whole document *	1-7	
			TECHNICAL FIELDS SEARCHED (IPC)
			G04B
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 23 September 2015	Examiner Guidet, Johanna
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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EPO FORM 1503 03.02 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 15 15 9511

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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23-09-2015

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 202005019590 U1	25-01-2007	NONE	
EP 1635232 A1	15-03-2006	DE 602004012408 T2	21-08-2008
		EP 1635232 A1	15-03-2006
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		WO 2006027686 A1	16-03-2006

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- US 5631879 A [0003]