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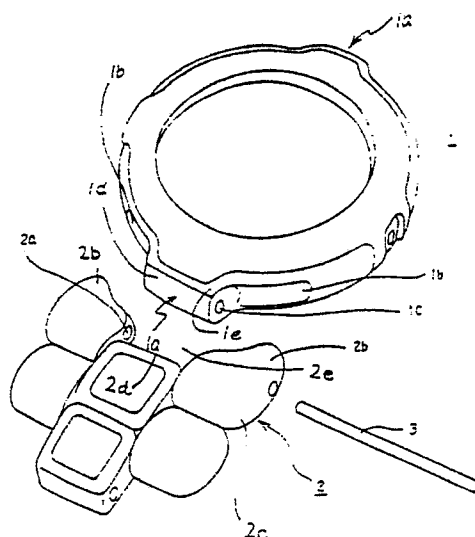
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(54) Watch case & band assembly for use in a wrist watch.

(57) A watch case and band assembly for use in a wrist watch comprising a case part (1) and a band part (2) one part (1) of which has at least one portion (1e) which is located in a respective space (2e) in the other part (2) and which is connected thereto to the other part (2) by retaining means (3) characterised in that the or each said portion (1e) is an outwardly extending portion (1e) of the said one part (1) and is disposed adjacent at least one recess (1b) in the said one part (1), the other part (2) having at least one projecting portion (2b) which is disposed adjacent the or each space (2e) and is located in a respective recess (1b).

Fig. 1



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WATCH CASE & BAND ASSEMBLY FOR USE IN A WRIST WATCH

The present invention relates to a watch case and band assembly for use in a wrist watch.

Figure 2 shows a known watch case and band assembly for use in a wrist watch in which a recess 14 for fitting a band part 12 is formed on the reverse side of a case part 11 of a wrist watch. A band retaining member 13, for example a spring bar, is retained at both ends within the recess 14, the band retaining member 13 passing through a hole or bore 12a in the band part 12, thereby coupling together the band part 12 and the case part 11.

In the construction shown in Figure 2, however, the recess 14 provided on the reverse side of the case part 11 is open at its lower side, that is, on the reverse side of the watch, and therefore, when the watch is attached to the wrist, the band part 12 can pivot about the band retaining member 13 so as to make the connection between the case part 11 and the band part 12 unreliable. In addition, since in the construction shown in Figure 2 the end portion of the band part 12 is supported within the recess 14 on the reverse side of the case part 11, it is impossible to increase the size of an indicator-masking portion which is formed on the obverse side of the case part 11 which has the recess 14 formed therein, and this imposes a great restriction on designing.

According to the present invention, there is provided a watch case and band assembly for use in a wrist watch comprising a case part and a band part one part of which has at least one portion which is located in a respective space in the other part and which is connected thereat to the other part by retaining means characterised in that the or each said portion is an outwardly extending portion of the said one part and is disposed adjacent at least one recess in the said one part, the other part having at least one projecting portion which is disposed adjacent the or each space and is located in a respective recess.

Preferably, the or each outwardly extending portion is disposed between two recesses, the other part having two projecting portions on opposite sides of the respective space.

Preferably, the said one part is the case part and the said other part is the band part.

Thus the case part is preferably provided on each of its diametrically opposite sides with an outwardly extending portion disposed between respective recesses, each of the opposite ends of the band part being provided with a respective space and projecting portions.

The band part may have two portions one end of each of which is connected to the case part and

the opposite end of which is connected to the other portion of the band part.

Alternatively, the band part may have one single expansible portion only.

Preferably, the or each outwardly extending portion and the respective projecting portion or portions have aligned bores, the respective retaining means being located in said aligned bores.

Preferably, the distal end of the or each outwardly projecting portion engages or is engageable with a respective surface of the band part so as to limit pivotal movement of the latter with respect to the case part.

Thus, in its preferred form, pivoting of the first link of the band part is limited by the walls of the recesses. In addition, the engagement between the said distal end and the said surface may be arranged to limit the pivoting of the second link of the band part so as to make it look as though there is an integral coupling structure between the case part and the band part.

In the preferred form, moreover, when the band part is coupled to the case part, one end of the band part is supported by a bar-shaped band retaining member, and the projecting portions of the band part which project forwardly from the supported portion are received in the above-described recesses with a slight clearance. Thus, when the watch is attached to the wrist, excessive pivoting of the first link of the band part is prevented by the walls of the recesses, and the pivoting of the second link of the band part is also prevented by the distal end of the outwardly extending portion of the watch part, thereby making the watch and band parts appear to be integral with each other.

The invention is illustrated, merely by way of example in the accompanying drawings, in which:-

Figure 1 is an exploded perspective view of a watch case and band assembly according to the present invention for use in a wrist watch, and

Figure 2 is an exploded perspective view of a known watch case and band assembly.

In Figure 1 there is shown a watch case and band assembly according to the present invention comprising a case part 1, a band part 2 composed of a plurality of links joined together, and a retaining member 3 which is used to couple the band part 2 to the case part 1. The case part 1 is provided on diametrically opposite sides thereof with fitting portions 1a for coupling together the band part 2 and the case part 1.

Each fitting portion 1a is formed with an outwardly extending portion 1e. The side of the outwardly extending portion 1e is provided with a bore 1c for receiving the retaining member 3 which is in

the form of a bar. Each outwardly extending portion 1e is disposed between recesses 1b which are formed in a portion of the case part 1 which is contiguous with each end of the fitting portion 1a. Each outwardly extending portion 1e, moreover, is disposed in a respective space 2e in the band part 2. The recesses 1b are, if necessary, coated with a polymeric material suitable for use with the material of the case part 1 to prevent the case part 1 from being damaged by contact with the band part 2. The first link 2c of the band part 2 is formed with a bore 2a which, when the parts are assembled, communicates with and is aligned the bore 1c in the case part 1. When the band part 2 is engaged with a fitting portion 1a of case part 1 through the retaining member 3, the distal end projecting portions 2b of the first link 2c of the band 2 that project with respect to the bore 2a are inserted into the corresponding recesses 1b formed in the case part 1, so that, when the band part 2 is attached to the wrist, the pivoting of the first link 2c of the band part 2 about the retaining member 3 and relative to the case part 1 is limited by the distal end portions 2b of the first link 2c of the band part 2 which abut against the inner walls of the corresponding recesses 1b. The projecting portions 2b are disposed on opposite sides of the space 2e.

The distal end 1d of the outwardly extending portion 1e formed on each fitting portion 1a of the case part 1 abuts against a surface 2d of the second link of the band part 2, so that the pivoting of the band part 2 relative to the watch case is limited within a certain range which is determined by the engagement between the surface 2d and the distal end 1d.

As has been described above,, the end portions 2b of the band 2 are inserted into recesses 1b provided on opposite sides of the outwardly extending portion 1e formed in each fitting portion 1a of the side of the case part 1 where the band part 2 is fitted, thereby limiting the pivoting of the band part 2 and, in addition, the distal end 1d of the outwardly extending portion 1e is also arranged to abut against a link of the band part 2, thereby assisting in stabilising the connection between the band part 2 and the case part 1. It is also possible with this construction to create a variety of designs.

The construction shown in Figure 1 is thus adapted to minimize the gaps between the case part 1 and the band part 2 so that the watch case appears to be integral with its band, while at the same time being adapted to prevent excessive pivoting of the band relative to the watch case when the user wears the wrist watch.

Claims

1. A watch case and band assembly for use in a wrist watch comprising a case part (1) and a band part (2) one part (1) of which has at least one portion (1e) which is located in a respective space (2e) in the other part (2) and which is connected thereat to the other part (2) by retaining means (3) characterised in that the or each said portion (1e) is an outwardly extending portion (1e) of the said one part (1) and is disposed adjacent at least one recess (1b) in the said one part (1), the other part (2) having at least one projecting portion (2b) which is disposed adjacent the or each space (2e) and is located in a respective recess (1b).

2. An assembly as claimed in claim 1 characterised in that the or each outwardly extending portion (1e) is disposed between two recesses (1b), the other part (2) having two projecting portions (2b) on opposite sides of the respective space (2e).

3. An assembly as claimed in claim 2 characterised in that the said one part is the case part (1) and the said other part is the band part (2).

4. An assembly as claimed in claim 3 characterised in that the case part (1) is provided on each of its diametrically opposite sides with an outwardly extending portion (1e) disposed between respective recesses (1b), each of the opposite ends of the band part (2) being provided with a respective space (2e) and projecting portions (2b).

5. An assembly as claimed in claim 4 characterised in that the band part (2) has two portions one end of each of which is connected to the case part (1) and the opposite end of which is connected to the other portion of the band part (2).

6. An assembly as claimed in any preceding claim characterised in that the or each outwardly extending portion (1e) and the respective projecting portion or portions (2b) have aligned bores (1c,2a), the respective retaining means (3) being located in said aligned bores (1c,2a).

7. An assembly as claimed in any preceding claim characterised in that the distal end (1d) of the or each outwardly projecting portion (1e) engages or is engageable with a respective surface (2d) of the band part (2) so as to limit pivotal movement of the latter with respect to the case part (1).

8. A fitting structure for a band and a case of a wristwatch comprising:

a watch case having two pairs of fitting recesses formed at respective portions on the side of a middle which face each other and a projection formed in the centre of each of said two pairs of fitting recesses,

a band fitted and retained at an end thereof within each of said two pairs of fitting recesses in said watch case through retaining means;

and retaining means for fitting between said band and said watch case.

9. A fitting structure for a band and a case of a wristwatch as claimed in claim 8, wherein said projection formed in each of said pairs of fitting recesses and the end portion of said band which is coupled to said middle in one unit, at said projection are formed with respective bores which communicate with each other;

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said retaining members are inserted into the bores in said middle and said band, thereby coupling said band within said fitting recesses.

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10. A fitting structure for a band and a case of a wristwatch as claimed in claim 9, wherein each of said band a part of a part of said band other than said end are respectively locked by the inner wall of the corresponding fitting recess and and the distal end of the projection provided in the centre of said fitting recess, thereby limiting the pivoting of said band.

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Fig. 1

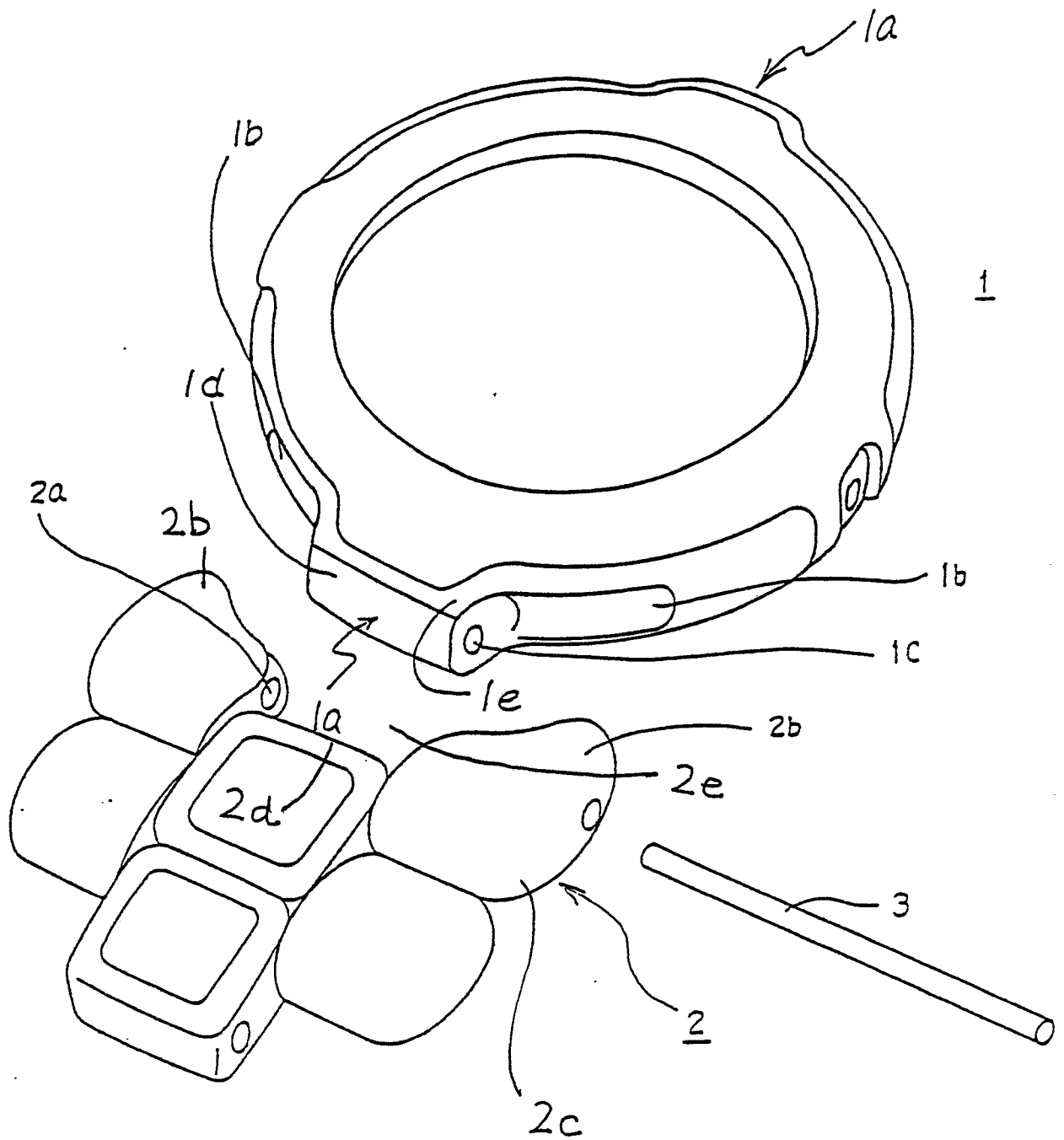


Fig. 2

PRIOR ART

