DEVICE FOR FIXING A WRISTBAND TO A WATCH-CASE

Filed April 12, 1968



FIG.1

FIG.2          FIG.3

FIG.4     FIG.5     FIG.6

FIG.7

FIG.8
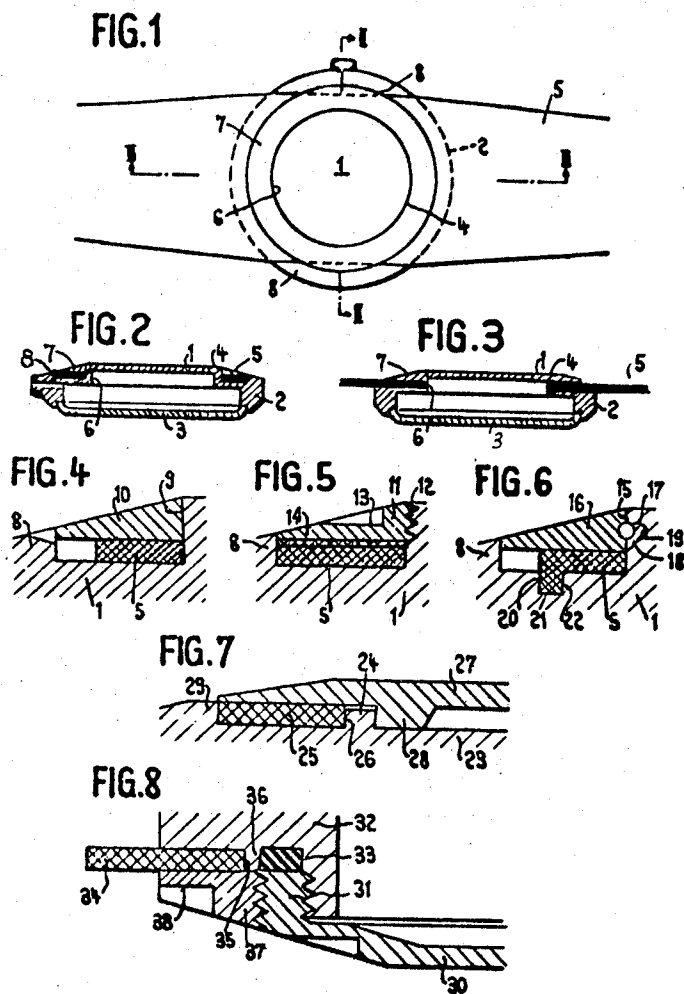
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## ABSTRACT OF THE DISCLOSURE

A device for fixing a wristband to a watch-case, in which the wristband has a hole by which it is engaged on a projection of the watch-case, a removable fixing member, bearing on the watch-case, axially pressing the wristband portion surrounding said hole against a portion of the watch-case, said projection being situated on the rear face of the watch-case and the watch-case presenting guiding means for preventing the wristband from turning with respect to the watch-case.

The present invention relates to a device for fixing a wristband to a watch-case.

A wrist-watch has already been proposed, in which the device for fixing the wristband to the watch-case includes a flexible strap consisting of a single piece, the strap being connected with the watch so as to cover, at least partially, the front face of the watch, except the indicating surface and a part acting as a bezel for the crystal. The bezel, of a round shape, is maintained by a snap adjustment in the window provided in the case. A round opening is cut out in the strap and allows adjusting the bezel on another portion of the case. When the bezel is in its position, the edge portion of the strap opening is pinched or gripped between the edge of the bezel and the said portion of the case, so that the strap is firmly secured to the watch.

In this known construction, the strap covers the front face of the watch, so as to conceal the actual size of the watch when the latter is fastened to the wrist of the user. This solution is not satisfactory, since the strap must move apart from the wrist to arrive at the level of the front face of the watch. In addition, in the watch described, no guiding means are provided for preventing the wristband from turning with respect to the watch-case when it is in its position.

The invention aims at overcoming these drawbacks and relates to a device for fixing a wristband to a watch-case, in which the wristband, made of a single piece, has a hole by which it is engaged on a projection of the watch-case, a removable fixing member, bearing on the watch-case, axially pressing the wristband portion surrounding the said hole against a portion of the watch-case, this device being characterized in that the said projection is situated on the rear face of the watch-case and in that the watch-case presents guiding means preventing the wristband from turning with respect to the watch-case when it is in its position.

The accompanying drawing illustrates, by way of example, three embodiments of the invention, as well as some modifications thereof.

FIG. 1 is a bottom view of the first embodiment.

FIGS. 2 and 3 are sectional views along the lines II—II and III—III of FIG. 1, respectively.

FIGS. 4, 5 and 6 illustrate three modified embodiments, at an enlarged scale.

FIG. 7 is a partial sectional view of the second embodiment, at an enlarged scale.

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FIG. 8 is a partial sectional view of the third embodiment, at an enlarged scale.

In the first embodiment, illustrated in FIGS. 1 to 3, there is shown a so-called monocoque watch-case comprising a back 1 and a case-band 2, made of a single piece, and a crystal 3. The back 1 has a projection 4 of a cylindrical shape, the axis of which coincides with that of the watch movement. The wristband 5 has a circular hole 6 by which it is engaged on the projection 4 of the back 1. A removable fixing member, consisting here of a ring 7 fitted with dry friction on the projection 4, axially presses the wristband portion which surrounds the hole 6 against the combined back and case-band of the watch-case. The case-band 2 has two diametrically opposed projections 8, the inner edges of which form a guide for the wristband 5 and prevent it from turning with respect to the watch-case when it is in its position.

Due to the device illustrated and described, it is possible to exchange the wristband for another one in a very short time. It is sufficient to insert a knife blade under the edge of the ring 7 and to lift it. The wristband 5 is then replaced by another one and the ring 7 is reset in its place by a simple pressure. The user can thus have at his disposal a plurality of wristbands of different kinds (shape, material, colour) and mount on his watch the wristband which suits to him at a given moment.

In the modified embodiment of FIG. 4, the cylindrical projection 4 is replaced by a slightly frusto-conical projection 9, so that the ring 10, having a corresponding shape, is snap-fitted on the back 1.

In the modification of FIG. 5, the ring 11 is internally threaded and is screwed on the threaded projection 12 of the back 1. Notches 13 are provided in the ring 11, in which a key may be engaged. In order not to damage the wristband 5 by turning the ring 11, a protecting washer 14, for instance made of plastics (Teflon), is inserted between the ring 11 and the wristband 5. In this modification, the wristband 5 is entirely applied against the projections 8, whereas in the preceding examples, a gap was present between the middle portion of the projections 8 and the wristband 5 (see FIG. 1). The wristband should of course have a suitable shape in each case.

In the third modification, shown in FIG. 6, the projection 15 of the back 1 is again cylindrical, as well as the ring 16, but a corrugated spring 17 engages a groove 18 of the ring 16 and a groove 19 of the projection 15, thereby guaranteeing a good fixing of the ring 16. The wristband 5 has in this case a lug 20 engaged by a reinforcing metallic wire 21; the lug 20 engages a groove 22 of the back 1, thus guaranteeing the guiding of the wristband 5 and preventing it from turning with respect to the watch-case.

In the second embodiment of the invention, illustrated in FIG. 7, the back of the watch-case is denoted by the reference numeral 23. It has a projection 24 having the shape of a collar the outer surface of which is cylindrical, whereas its inner surface is slightly frusto-conical. The wristband 25 has a circular hole 26 by which it is engaged on the projection 24 of the back 23. A false back 27 provided with an annular projection 28 is snap-fitted on the projection 24, as shown in FIG. 7, and axially presses the wristband portion which surrounds the hole 26 against the back 23 of the watch-case. The back 23 has flanges 29 forming a guiding portion for the wristband 25, so that the wristband is prevented from turning with respect to the watch-case.

FIG. 8 illustrates the third embodiment, in which the back 30 presents a flange 31 screwed on the case-band 32 of the watch-case, by compressing a packing-ring 33. The wristband 34 has a non-circular (for instance polygonal) hole 35 by which it is engaged on a projection 36

of the case-band 32. The outer wall of this projection 36 has a shape corresponding to that of the hole 35 of the wristband 34 and ensures, therefore, a good guiding of the wristband, preventing it from turning with respect to the watch-case. The inner wall of the projection 36 is circular. A ring 37 having notches 38 is screwed on the flange 31 of the back 30 and axially presses the portion of the wristband 34 which surrounds the hole 35 against the bottom face of the case-band 32. According to a modification (not illustrated), the ring 37 might be made integral with the back 30. For exchanging the wristband 34 for another one, it is sufficient to unscrew the ring 37 (or the back if the latter is made integral with the ring), using a special key which has to be engaged in the notches 38, to replace the wristband by another one, and to screw again the ring 37 on the back 30.

What is claimed is:

1. A device for fixing a wristband to a watch-case, in which the wristband, made of a single piece, has a hole by which it is engaged on a projection of the watch-case, a removable fixing member, bearing on the watch-case, axially pressing the wristband portion which surrounds the said hole against a portion of the watch-case, characterized in that the said projection is situated on the rear face of the watch-case and in that the watch-case presents guiding means preventing the wristband from turning with respect to the watch-case when it is in its position.

2. A device as claimed in claim 1, wherein the fixing member consists of a ring fitted with dry friction on the projection of the watch-case.

3. A device as claimed in claim 1, wherein the fixing member consists of a ring snap-fitted on the projection of the watch-case.

4. A device as claimed in claim 1, wherein the fixing

member consists of a ring screwed on the projection of the watch-case.

5. A device as claimed in claim 4, wherein a protecting washer is inserted between the ring and the wristband.

6. A device as claimed in claim 1, wherein the fixing member consists of a false back fitted on the back of the watch-case.

7. A device as claimed in claim 1, wherein the fixing member consists of a ring screwed on a flange of the back of the watch-case.

8. A device as claimed in claim 1, wherein the fixing member consists of the back of the watch-case, said back being fitted on the case-band of the watch-case.

9. A device as claimed in claim 1, wherein the said guiding means consist of projections of the case-band of the watch-case.

10. A device as claimed in claim 1, wherein the said guiding means consist of at least one lug of the wristband, reinforced by a metallic wire, said lug engaging a groove of a portion of the watch-case.

## References Cited

### UNITED STATES PATENTS

| 2,219,277 | 10/1940 | Kaufmann. |
| 2,472,351 | 6/1949 | Tyler. |
| 2,559,238 | 7/1951 | Wallin. |

### FOREIGN PATENTS

| 333,998 | 11/1958 | Switzerland. |
| 349,222 | 11/1960 | Switzerland. |

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