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Device for interchangeable attachment for articles of jewellery, timepieces or fine leather goods

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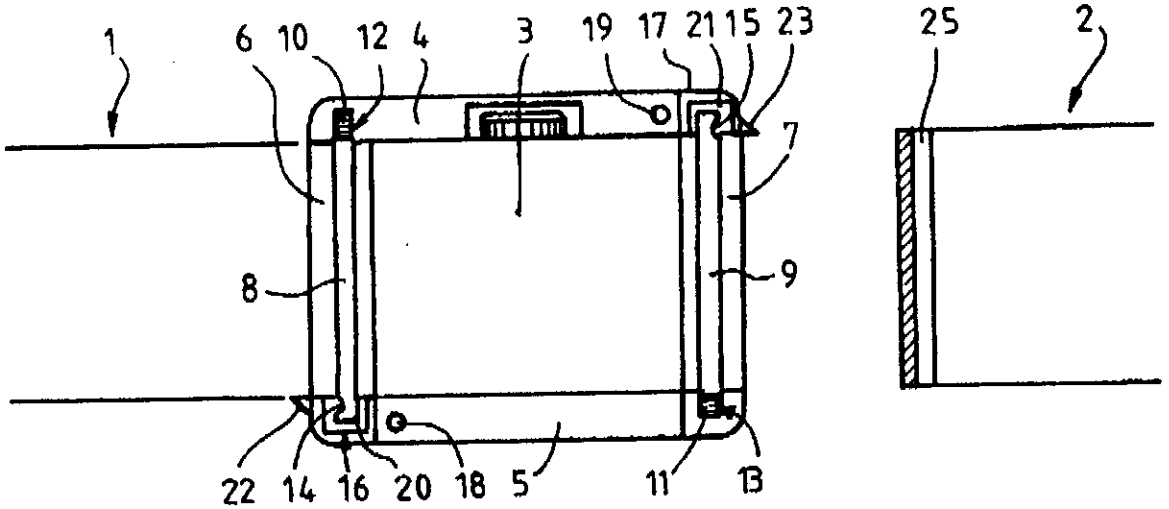
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FIG.1

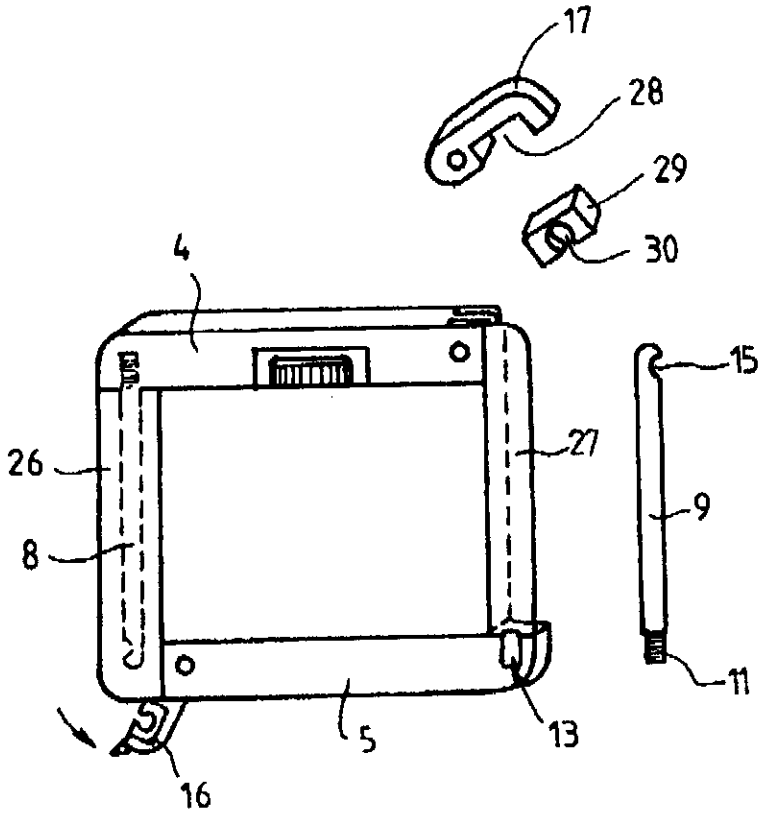
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FIG.2

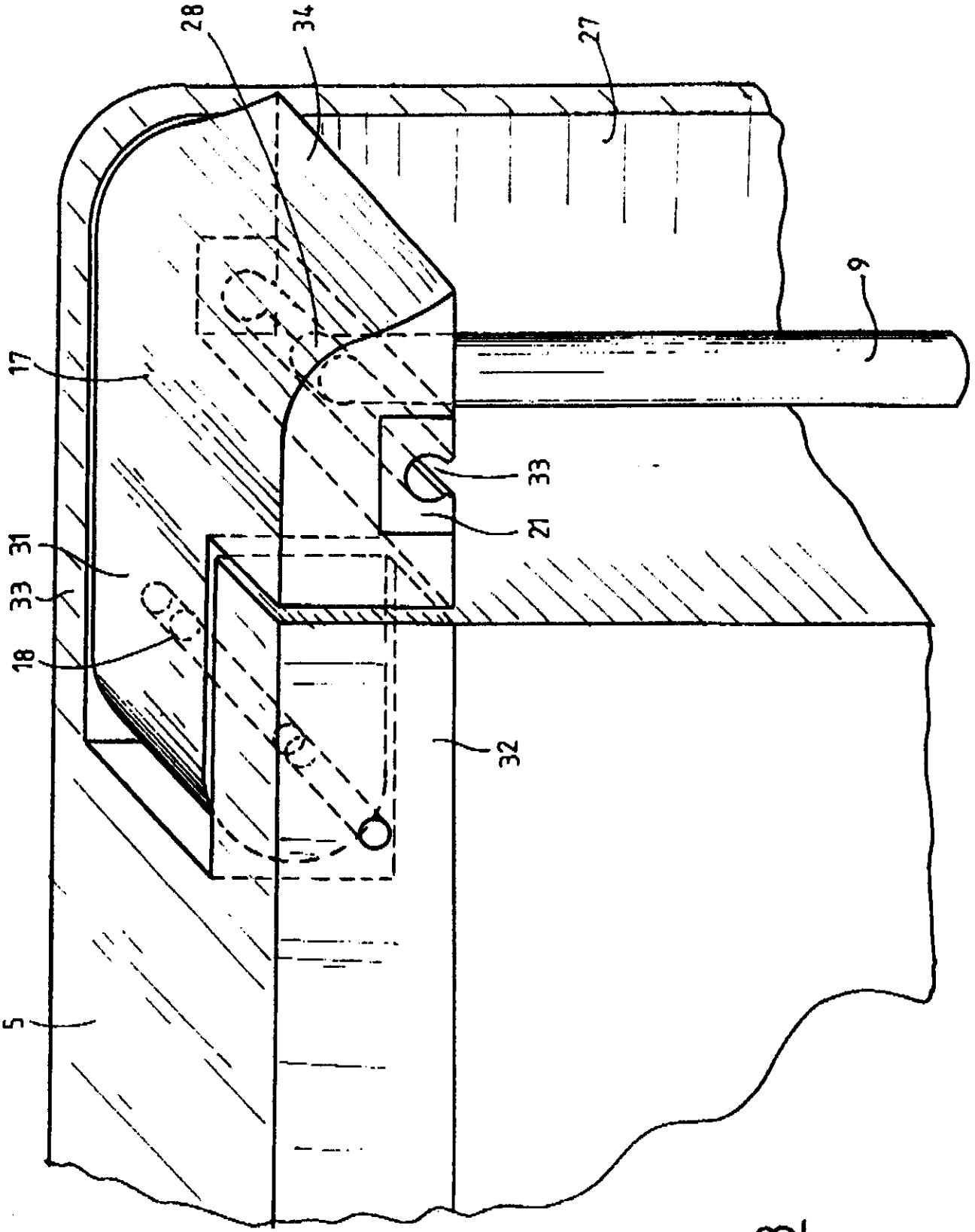

FIG.3

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DEVICE FOR INTERCHANGEABLE ATTACHMENT FOR ARTICLES OF JEWELLERY, TIMEPIECES OR FINE LEATHER GOODS

The present invention relates to an attachment device for interchangeability of structural units or supports intended for articles of jewellery, timepieces or fine leather goods comprising a case and a strap, in particular for watches in order to fasten the interchangeable strap onto the case, which device is composed, on the one hand, of a tubular component integral with the end of the strap and intended for fitting over a rod fastened to the case, and, on the other hand, of a snap-in locking component for blocking the tubular component in the fitted-over position on the rod, the locking component consisting of a leaf which tilts or pivots about an axis integral with the case.

Such an attachment device is known in particular through French Patents 74/23,703 and 86/10,614. This device is of interest but presents various problems in practice, in particular the respect of the construction of the case. Indeed, in the instance of a gold case, the rod fastened to the case must also be made of gold so as to be able to be welded into the guide channel. Such a rod is relatively flexible and does not offer long-term resistance to the tensile forces induced in the strap by the wrist. The rod becomes deformed and its second end interacting with the locking component may, after deformation, escape from this locking component.

As such a situation is not foreseeable and the disconnection may take place imperceptibly, the watch may thus be lost very easily.

It would therefore be desirable to produce a rod made from a resistance metal, such as, for example, steel; but such a rod cannot be welded onto the gold case. The object of the present invention is to overcome this disadvantage and proposes to provide an attachment device making it possible to produce a reliable removable connection between the case and the strap.

To achieve this, the invention relates to an attachment device of the above type characterized in that:

- the rod of the case is made of a metal harder than gold, e.g. steel, a first end of which is screwed into the case and the second end of which snap-fastens with the snap-in locking component,
- the locking component comprises a steel insert which snap-fastens with the second end of the rod.

This attachment device is particularly reliable since the rod is made of a metal harder than gold, e.g. steel; there is no risk of the said rod being deformed under the action of the extension forces exerted by the wrist on the strap upon opening or closing because, once the attachments are closed, the greater the traction of the strap on the case the less possible is opening.

As the rod is screwed by one of its ends into the case, the connection at this location is solid. At the other end or second end, the rod does not interact directly with the locking component (itself made of gold) but with a steel insert. It is therefore not possible for there to be any deformation of the locking component in respect of its contact with the second end of the rod. The form of the connection thus remains faithfully maintained, and this constitutes a guarantee of the solidity of the closing.

According to another feature, the second end of the rod comrpises a snap-fastening catch which enters a snap-fastening cavity made in the insert. This cavity particularly advantageously has an omega-shaped cross-section. In order to facilitate the production of the insert, the latter has the shape of a parallelepiped whose thickness corresponds to the thickness of the locking component, and its snap-fastening cavity traverses its entire thickness.

This locking component may be connected elastically to the case but it is preferably articulated on the case by means of an axis formed by a pin, the hole for the pin being closed at one of its ends, and at the

other end the pin is enclosed by the bottom of the case, and thus no riveting is required.

According to another feature, the first end of the rod comprises a thread and the case comprises an internally-threaded orifice in its guide-channel part intended for receiving the rod.

In the case of an interchangeable strap, it is in fact preferable for the two ends of the strap to be fastened in the same manner onto identical means provided on the case but which are symmetrically opposed for greater reliability.

According to another feature, the second end of the rod comprises a snap-fastening catch which enters a snap-fastening cavity made in the insert.

The present invention will be described in more detail with the aid of the attached drawings, in which:

Figure 1 is a simplified front view of a first embodiment of the attachment device according to the invention, applied to a watch case;

Figure 2 is a front view corresponding substantially to that of Figure 1 but for an alternative embodiment of the case, this figure also showing, in exploded view, the rod, the locking component and the insert;

Figure 3 is a perspective view on an enlarged scale of a corner of the case with the locking component and the end of the rod.

According to Figure 1 the invention relates to a device for interchangeable attachment for articles of jewellery and in particular for fastening a strap by its two ends, 1,2 onto a watch case 3. In the example shown, the case 3 is surrounded by an upper cross-piece 4, a lower cross-piece 5 and two lateral parts 6,7. The ends 1,2 of the strap are fastened along the lateral parts 6,7, between the four corners. Thus, the lateral parts are each equipped with a rod 8,9 made of a metal harder than gold, e.g. steel, the threaded first end 10,11 of which is screwed into an internal threading 12,13 in the case 3; the second end of the rods 8,9 is equipped with a catch 14,15 which interacts

with a locking component 16, 17. It should be noted that the arrangement of the first and second ends, and of the locking components, on the right-hand and left-hand sides of the case in Figure 1 as well as in Figure 2 is inverted.

The locking component 16, 17, connected to the case 3 by a pivot 18, 19 consisting of a pin, is equipped with an insert 20, 21 and a projecting part 22, 23 allowing it to be opened.

Figure 1 also shows, more explicitly, the end 2 of the strap. This end comprises a small tube 25 which fits over the shaft 9 after the locking component 17 has been opened and then remains secured on this shaft 9 after the locking component 17 has been closed again. The other end 1 of the strap is positioned on the rod 8 in a similar manner.

Figure 2 shows a variant of the case of Figure 1. In this variant the sides 6, 7 consist, at the front, of a cover 26, 27 behind which the respective rod 8, 9 is situated. The rod 8 is shown by dashed lines and its locking component 16 is open, whereas the rod 9 has been removed from its housing; the threaded lower end 11 is intended to be screwed into the internal threading 13 as has already been indicated above. This figure also shows the shape of the locking component 17 and of the location 28 for receiving the insert 29; the latter has a snap-fastening cavity 30 in the shape of an omega. This cavity receives the locking catch 15 of the second end of the rod 9.

These various components are shown more explicitly in Figure 3, in which the same references as above have been used to denote the same elements. This Figure 3 is distinguished from Figure 2 in that the view is from the rear and in the inverted position, so that the wing 27 is at the back and not at the front.

The locking component 17 is mounted by its heel 31 on the axis consisting of the pin 19 housed in a bore made in the heel 31 and in the two lateral flanges 32, 33 of the horizontal part 5 of the case.

This figure shows the shape of the steel insert 21 and its omega-shaped cavity 33.

The rod 9 is in place on the case; its lower end is screwed into the internal threading 13 (not shown) of the case and its upper end is held in the locking component 17.

The front end 34 of the locking component 17 protrudes relative to the wing 27 so as to allow access thereto with a fingernail or a pointed implement so as to unlock and raise the component 17 in order to make it possible for a strap to be changed.

According to the invention, if the case together with the locking component is made of gold, the rod 9 is made of a harder metal, preferably steel, and the insert 21 is also made of steel.

Insofar as the case is symmetrical, the two rods and, more generally, the attachment devices for each end of the strap are identical. On the other hand, the form may be different in the event of asymmetry.

CLAIMS

1. Attachment device for interchangeability of structural units or supports intended for articles of jewellery, timepieces or fine leather goods comprising a case and a strap, in particular for watches in order to fasten the strap onto the case, which device is composed, on the one hand, of a tubular component integral with the end of the strap and intended for fitting over a rod fastened to the case, and, on the other hand, of a snap-in locking component for blocking the tubular component in the fitted-over position on the rod, the locking component consisting of a leaf which tilts about an axis integral with the case, which device is characterized in that:

the rod (8,9) of the case (3) is made of a metal harder than gold, e.g. steel, a first end (10,11) of which is screwed into the case and the second end (14,15) of which snap-fastens with the snap-in locking component (16,17),

the locking component (16,17) comprises a steel insert (29) which snap-fastens with the second end (14,15) of the rod (8,9).

2. Attachment device according to Claim 1, characterized in that the first end of the rod comprises a thread and the case comprises an internally-threaded orifice in its guide-channel part intended for receiving the rod.

3. Attachment device according to Claim 1, characterized in that the second end of the rod comprises a snap-fastening catch (14,15) which enters a snap-fastening cavity (30) made in the insert (29).

4. Attachment device according to Claims 1 and 3, characterized in that the cavity (30) of the insert (29) has the shape of an omega.

5. Attachment device according to Claims 1, 3 and 4, characterized in that the insert (29) extends over the entire thickness of the locking component (17).

6. Attachment device according to Claims 1 to 5,

characterised in that the locking component (16, 17) is a piece (18, 19) which is articulated on the case (3).

7. Attachment device according to any one of Claims 1 to 6, characterised in that the case (3) comprises two rods (8, 9) and two corresponding locking components (16, 17) and the strap comprises a tubular element (25) at each of its ends (1, 2) to be fitted over the respective rod (8, 9) of the case (3).

8. An attachment device substantially as hereinbefore described with reference to any Figure of the accompanying drawings.

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Title DEVICE FOR INTERCHANGEABLE ATTACHMENT FOR ARTICLES OF JEWELLERY, TIMEPIECES OR FINE LEATHER GOODS

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Classified to
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A44C

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10.05.1996 ROVENTA - HENEX S.A., Incorporated in Switzerland, Fabrique d'Horlogie, Route du Crêt 16, CH-2501 Bienne, Switzerland [ADP No. 06985063001]
registered as Applicant/Proprietor in place of (ANDRE VASSORT S.A), Incorporated in France, 34,Rue Saint Anne, Paris Ler, France [ADP No. 05926761001]
by virtue of (deed of assignment dated 22.12.1995) Certified copy filed on GB2245642
Entry Type 8.4 Staff ID. DG Auth ID. F21

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RENEWAL DETAILS

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