WATCH HAVING A TWO-PIECE WINDING STEM

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FOREIGN PATENTS OR APPLICATIONS
333,586 10/1958 Switzerland
346,175 6/1960 Switzerland

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ABSTRACT
A "broken" winding stem for a watch or the like comprises two sections respectively for driving relation with the winding crown and watch or like movement and having a head on one section elastically or resiliently held by a clip on the other section, has auxiliary clutch means releasably securing said sections together to prevent rotation of the watch movement, said means including a clutch element on each said section, said elements having clutch faces cooperative upon engagement.

3 Claims, 3 Drawing Figures
WATCH HAVING A TWO-PIECE WINDING STEM

The present invention relates to a watch comprising a so-called "broken" winding stem, i.e., a winding stem consisting of two sections, namely a section secured to the winding crown and a section connected to the movement of the watch, the one said section having a head elastically held in a portion having the shape of a clip or nipper of the other said section.

In the known constructions of this type, the said clip-shaped portion does not ensure a reliable holding in place of the movement when both sections of the winding stem are hooked on to each other. As a matter of fact, indeed, if for any reason, after casing up the movement and inserting of the winding stem, the movement tends to rotate within the watch-case, the said clip cannot prevent this rotation and the connection between both sections of the stem is interrupted.

The invention aims at overcoming this drawback by the fact that the first section of the stem comprises means cooperating with means provided on the second section of the stem for preventing relative rotation between the sections when they are hooked to each other.

The accompanying drawing illustrates, by way of example, three embodiments of the invention.

FIGS. 1 to 3 are diagrammatic axial views, partially in section, of these three embodiments, respectively.

The "broken" winding stem of the watch according to the first embodiment (FIG. 1) comprises two sections 1 and 2, one said section being connected to the winding crown (not shown) and the other said section being connected to the watch movement (not shown). These sections may also be termed "outer section" and "inner section," respectively. As known in the art, section 1 has a head 3 engaging a clip-shaped portion, comprising two jaws 4, of the section 2, so that it may be resiliently or elastically held by these jaws and is thus connected with the section 2, this enabling the user to perform the usual control functions (winding, setting, etc.).

One of said sections, for example section 1, presents between its main body 5 and a portion 6 of smaller diameter carrying the head 3, an enlarged clutch portion 7 comprising a two truncated cone. The truncated cone is adapted to engage in a clutch recess 8 of corresponding shape in the other section 2 of the winding stem. The cone 7 and recess 8 may have cooperative clutch faces of known type.

In order to hook or catch the section 1 to the section 2, it is sufficient to insert the head 3 between the jaws 4 of the section 2, until this head arrives in the cavity 9 of a generally cylindrical shape. In order to separate the section 1 from the section 2, the sections 1 have to be pulled from each other, so that the head 3 moves from engagement between the jaws 4 and is thus liberated.

When both sections 1 and 2 are connected on to each other, they are fixed together so that the watch movement connected to one of said sections within the watch case is prevented from rotating within the case, due to the fact that the clutch recess 8 abuts the enlarged clutch portion 7 of the section 1 and that the section 1 is itself retained by the watch-case.

In the second embodiment, illustrated in FIG. 2, the same arrangement is again found as in the first embodiment, except that the enlarged portion 10 provided on the section 1 has a generally cylindrical shape having a chamfer 11 on its outer edge and having a clutch face 12′ engagable by and cooperative with the clutch face 10′. The clutch faces may comprise any known type of clutch surfaces. This enlarged portion 10 partially engages a recess 12 of corresponding shape provided in the inner section 2 of the winding stem. The operation is the same as for the stem of FIG. 1.

In the third embodiment (FIG. 3), the enlarged portion is replaced by a pin 13 which is driven into the portion 6 of smaller diameter carrying the head 3. The pin 13 extends in a direction perpendicular to the plane of the opening of the clip 4, 4. The section 2 of the winding stem has at its front end a transverse slot or groove 14, which is parallel to the pin 13. When both sections 1 and 2 are hooked on to each other, the pin 13 engages within the slot 14, thus comprising a clutch securing the sections together and preventing any undesirable rotation of the watch movement with respect to the watch-case. The adjacent sides of the pin 13 and slot 14 constitute clutch faces.

What is claimed is:

1. A "broken" winding stem for a watch and comprising a section to be secured to the winding crown and a section to be connected to the movement of the watch, one such section having a head elastically held in a clip-shaped portion of the other such section when said sections are moved toward each other, and clutch means releasably engagable to secure said sections together when said sections are moved toward each other to engage said head and clip portion, said clutch means comprising a clutch element on each said section, said elements each having a clutch face capable when in engagement with each other of clutching said sections together.

2. A watch stem according to claim 1, wherein the one section of the stem has an enlarged portion engaging at least partially a recess of the other section of the stem.

3. A watch stem according to claim 1, wherein the one section of the stem carries a pin engaging a transverse slot of the other section of the stem.

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