

PATENT SPECIFICATION (11)

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(54) TIMEPIECE MOVEMENT

(71) We, KABUSHIKI KAISHA SUWA SEIKOSHA, a Japanese company, of 3—4, 4-chome, Ginza, Chuo-ku, Tokyo, Japan, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention concerns a timepiece movement.

In a conventional calendar watch, the intermittent rotation of a date wheel, which is rotated by a predetermined amount at each midnight, is effected by means including a jumper which is pressed against the calendar wheel by a jumper spring, the jumper spring being fixed to a plate by a jumper holder. However, when the calendar wheel is assembled or disassembled, the jumper and jumper spring tend to be forced resiliently out of position, and their use necessitates the employment of a large number of parts and the provision of a recess into which the spring is inserted.

Accordingly, therefore, to the present invention there is provided a timepiece movement provided with a one-piece jumper spring device, the device having an elongated mounting part which is fixed in position, a contact part which is forced into contact with a member, and a spring part which connects the mounting part to the contact part, the contact part engaging and overlapping the mounting part when viewed in plan, the spring part extending generally parallel to the mounting part.

The said member is preferably a date wheel.

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

Figure 1 is a plan view of a spring device forming part of a timepiece movement according to the present invention.

Figure 2 is a broken-away plan view of a calendar movement of a timepiece provided with the spring device of Figure 1, and

[Price 25p]

Figure 3 is a broken-away cross sectional view of the calendar movement shown in Figure 2.

In Figure 1 there is shown a one-piece sheet metal spring device for exerting a spring force on a date wheel of a calendar movement of a timepiece, the spring device comprising an elongated mounting part 1 which is adapted to be fixed in position in the watch or other timepiece. The spring device also comprises a contact part constituted by a jumper 2 which is adapted to be forced into contact with the said date wheel, and a spring part 3, which is constituted by a jumper spring, and which extends longitudinally of and generally parallel to the mounting part 1 and connects the latter to the jumper 2.

The parts 1, 2, 3 are integral with each other and, in the unassembled condition shown in Figure 1, the jumper 2 is separated from the mounting part 1 by an elongated space 4 whose width is less than the extent to which the jumper 2 is moved during the rotation of the date wheel.

The one-piece sheet metal spring device shown in Figure 1 is shown in Figures 2 and 3 in the assembled condition in which it is mounted in a calendar movement of a timepiece. As will be seen from Figure 2, the timepiece comprises a plate 5, a date wheel 6 being mounted for rotation in a recess 7 in the plate 5. The plate 5 is moreover provided with a recess 8 in which the jumper 2 is disposed.

As will be seen by comparing Figures 1 and 2, the jumper 2 is movable, against the resilience of the jumper spring 3 between the position shown in Figure 1, in which the jumper 2 is spaced from the mounting part 1 by the space 4, and the position shown in Figure 2, in which the jumper 2 is in an overlapping position with respect to the mounting part 1 when viewed in plan, (i.e. as seen in Figure 1) and engages and is disposed beneath the mounting part 1. It will be noted that the jumper 2 bears against internal teeth 9 of the date wheel 6 while the

mounting part 1 is fixed to the plate 5 by means of screws 10.

5 The construction shown in the drawings enables the jumper to be guided upwardly and downwardly without increasing the number of parts of the calendar movement. Since the number of parts is decreased cost is also reduced, while assembly and dis-assembly of the calendar movement is made easier.

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WHAT WE CLAIM IS:—

1. A timepiece movement provided with a one-piece jumper spring device, the device having an elongated mounting part which is
15 fixed in position, a contact part which is forced into contact with a member, and a spring part which connects the mounting

part to the contact part, the contact part engaging and overlapping the mounting part when viewed in plan, the spring part extending generally parallel to the mounting part.

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2. A timepiece movement as claimed in claim 1 in which the said member is a date wheel.

3. A timepiece movement substantially as hereinbefore described with reference to and as shown in Figures 2 and 3 of the accompanying drawings.

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