

Nov. 2, 1971

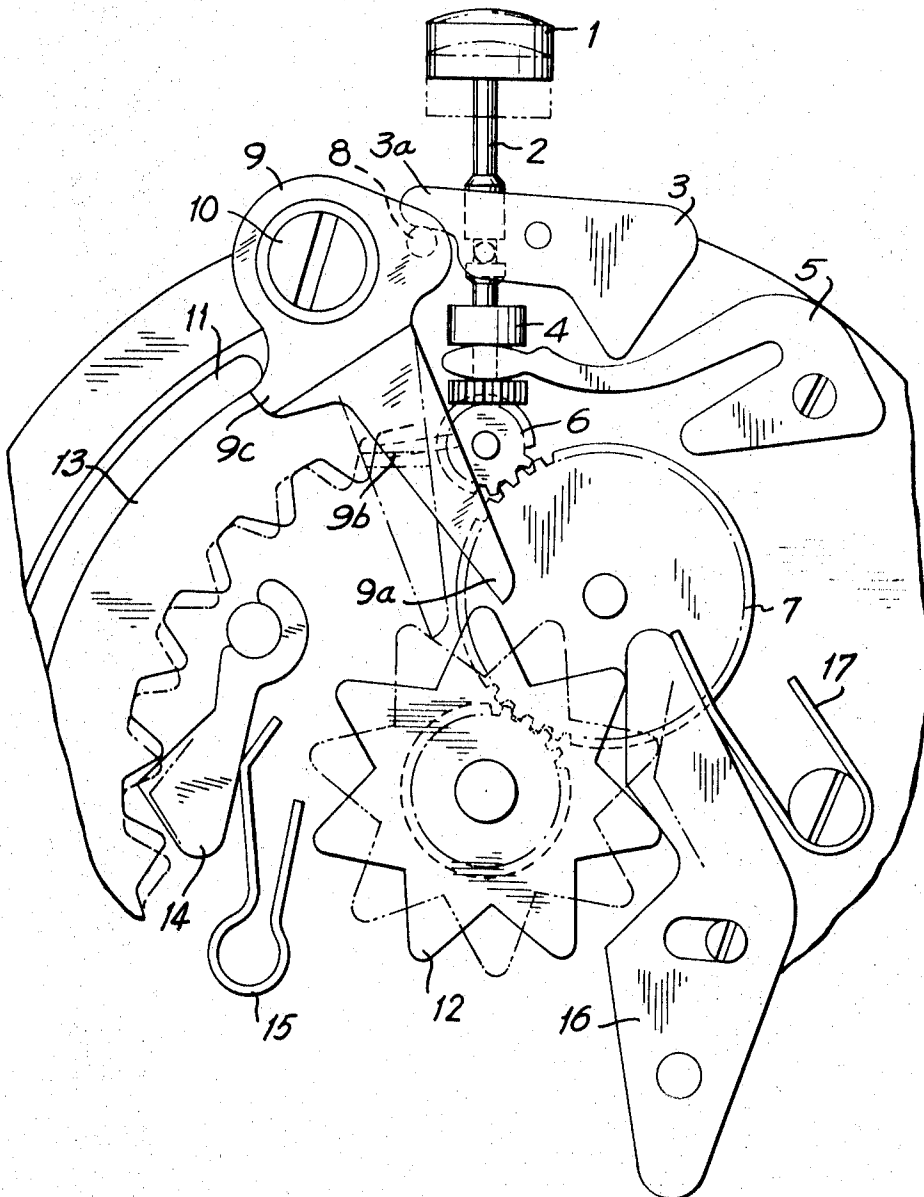
TOORU KOMORI  
DATE AND DAY CORRECTING DEVICE OF A  
CALENDAR TIMEPIECE

3,616,641

Filed May 18, 1970

3 Sheets-Sheet 1

FIG. 1



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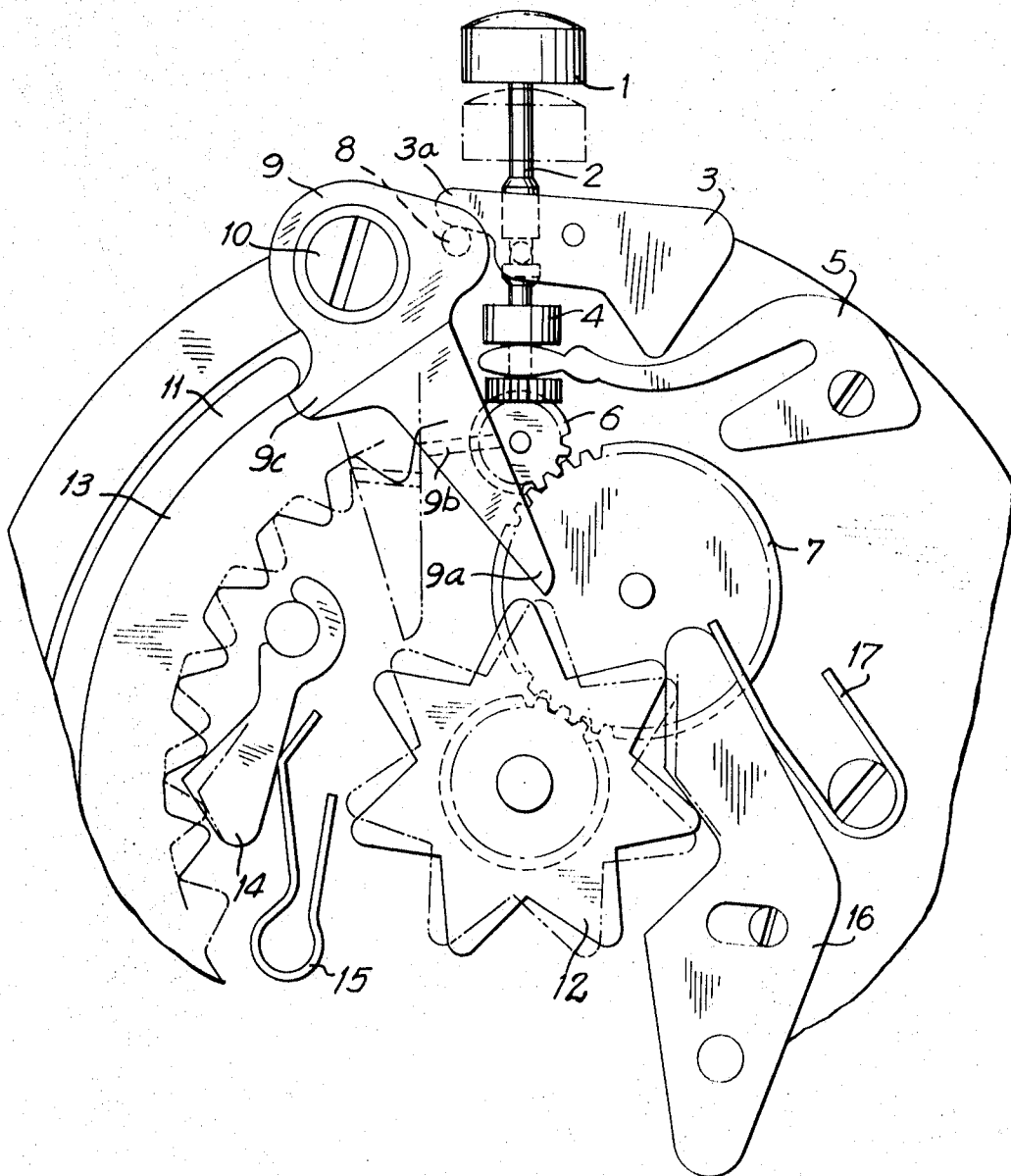
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FIG. 2



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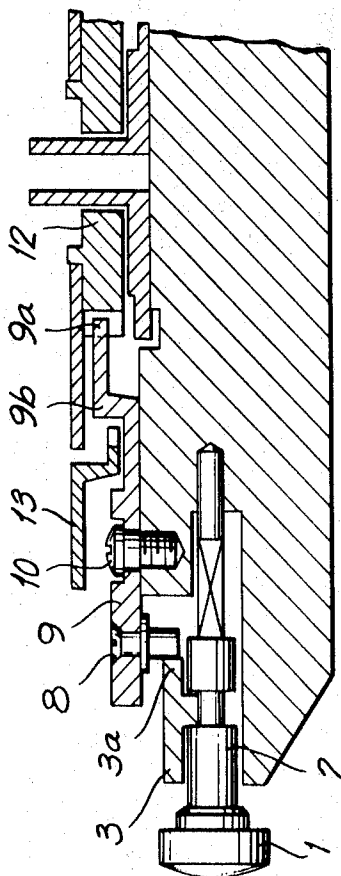
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FIG. 3



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## DATE AND DAY CORRECTING DEVICE OF A CALENDAR TIMEPIECE

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Filed May 18, 1970, Ser. No. 38,001

Claims priority, application Japan, May 21, 1969, 44/38,930

Int. Cl. G04b 19/24

U.S. Cl. 58—58

2 Claims

### ABSTRACT OF THE DISCLOSURE

A calendar watch having date and day-of-week indicators whereby both date and day-of-week indicators can be changed simultaneously by axial movement of the winding stem or day-of-week only can be changed by said axial movement.

### BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a plan view showing the operation of one embodiment of date and day correcting devices according to the invention when the day indication is corrected;

FIG. 2 is a plan view showing the operation of the date and day correcting device according to the invention when the date and day indications are corrected; and

FIG. 3 is the cross sectional view of date and day correcting device according to the invention.

### DETAILED DESCRIPTION OF THE INVENTION

The present invention relates to a date and day correcting device of a calendar timepiece. Various date correcting devices of calendar timepieces have been put to practical use. However, the correcting devices for setting both date and day have not been developed so much because of its complicated mechanism and difficult operation.

The present invention is characterized by the fact that both date and day can be corrected by controlling the pushing stroke of the crown (i.e. long or short), in addition to which the mechanism of the device is simple and the operation is easy.

One embodiment of this invention will be disclosed hereinafter in the accompanying drawings by only the example of the currently-used day correcting device with crown push-in type.

In FIG. 1, 1 is a crown secured to a winding stem 2. 3 is a setting lever engaging with a circular recess provided in the winding stem 2. 4 is a clutch wheel. 5 is a clutch lever engaging with a circular recess of the clutch wheel 4. 6 is a setting wheel adapted to engage with the clutch wheel 4. 7 is a minute wheel engaging with the setting wheel 6. 9 is a date and day correcting member which is provided with a pin 8 engaging with a head portion 3a of the setting lever 3, an end portion 9a adapted to engage with the teeth portion of a daily star 12, a date wheel correcting portion 9b adapted to engage with the teeth of the date wheel and the portion 9c pressing against a corrector spring 11 for putting back the date and day correcting member 9, the setting lever 3, the winding stem 2 and the crown 1 to its normal position respectively. 13 is a date wheel and 14 is a date jumper. 15 is a date jumper spring.

Referring now to the drawings, FIG. 1 shows the operating position in which only the day indication can be

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operated (hereinafter referred to as the first position). The setting lever 3 and the date and day correcting member 9 can be operated to the position shown by the dotted line by pushing the crown 1 from the normal position shown by a solid line.

The end portion 9a of the date and day correcting member then rotates on the axis 10 and the daily star is advanced by one tooth, that is, the day indication is corrected. Further, in this position the date wheel correcting portion 9b of the date and day correcting member 9 is out of the position in which the date wheel 13 can be corrected. Therefore, only the day indication can be kept corrected by returning the crown from the above position to the normal position by means of the corrector spring.

FIG. 2 shows the operating position in which the daily star and the date wheel can be operated by pushing the crown 1 to its greatest depth from the first position shown in FIG. 1. If the date and day correcting member 9 rotates away from normal position by pushing the crown 1 to its greatest depth, the daily star 12 is first advanced by one tooth by means of the end portion 9a, and secondly the date wheel 13 is advanced by one tooth by means of the correcting portion 9b. Thereby the date and day indications can be changed respectively by one day. If the crown is free from pushing, the date and day correcting member 9 and the crown 1 can be returned to their normal positions by the corrector spring 11.

The date and day correcting device, according to the invention, makes it possible to correct the date indication and the day indication by the rotating angle (large or small) of the date and day correcting member. Further, the device according to the invention is advantageous inasmuch as it includes a small number of parts and the date and the day correction can be performed with an easy operation.

What is claimed is:

1. A calendar watch having a winding stem, a date indicator, and a day-of-week indicator, the improvement comprising single means for correction of both date and day-of-week indicators, said single means being pivotable about a point in response to two stages of axial movement of the winding stem, whereby during the first stage of movement, said single means engages the day-of-week indicator and moves it one unit, and during the second stage of movement, said single means engages the date indicator and moves it one unit.

2. A calendar watch as in claim 1, wherein said winding stem is adapted to permit the first stage of axial movement thereof to be repeated without performing the second stage of movement.

### References Cited

#### UNITED STATES PATENTS

2,581,268	1/1952	Marchand	58—58
2,671,307	3/1954	Imhof	58—58
3,093,958	6/1963	Meyer	58—58
3,465,513	9/1969	Giger et al.	58—58
3,531,929	10/1970	Bolle	58—58

#### FOREIGN PATENTS

245,741	11/1946	Switzerland	58—58
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