

[72] Inventor **Kurt Vogt**
Biemme, Switzerland
 [21] Appl. No. **886,484**
 [22] Filed **Dec. 19, 1969**
 [45] Patented **Apr. 27, 1971**
 [73] Assignee **OMEGA Louis Brandt & Frere S.A.**
Biemme Bern, Switzerland
 [32] Priority **Jan. 16, 1969**
 [33] **Switzerland**
 [31] **552/69**

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Primary Examiner—Richard B. Wilkinson
Assistant Examiner—George H. Miller, Jr.
Attorney—Imirie, Smiley, Snyder and Butrum

[54] **DATE-WATCH**
4 Claims, 3 Drawing Figs.
 [52] U.S. Cl. 58/58,
 58/63
 [51] Int. Cl. **G04b 19/24**
 [50] Field of Search..... 58/58, 63,
 73, 85.5, 4

ABSTRACT: Date-watch, having a winding stem which may be given three distinct axial positions permitting winding the watch, correcting the date and setting the hands, respectively, and comprising a clutch-pinion actuated by a yoke which is itself operated by a setting lever one end of which fits into a groove of the winding stem. A lever is controlled by the said yoke and carries a date corrector. The whole is arranged in such a way that the clutch-pinion can drive the date-disc only when the winding stem is in its second axial position.

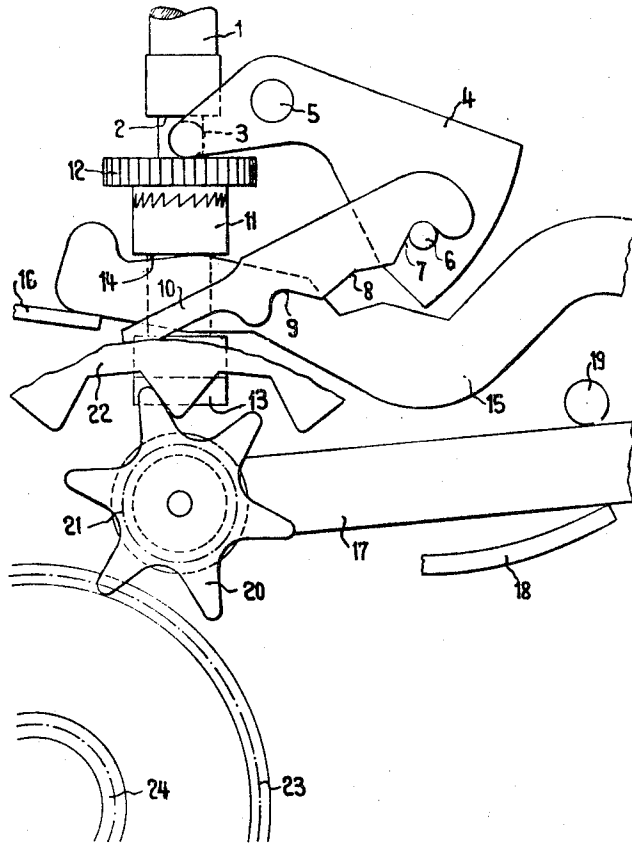
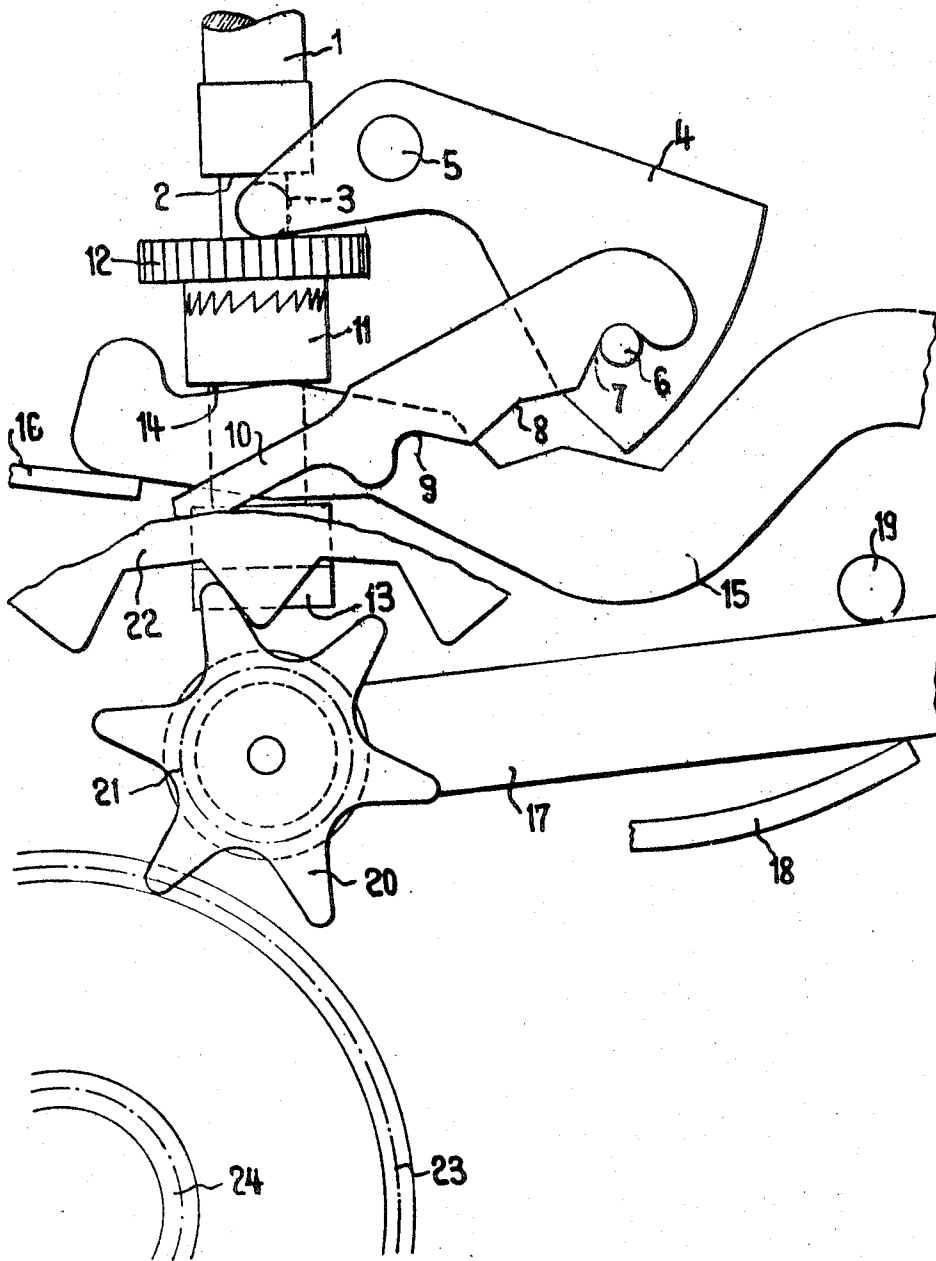


FIG. 1



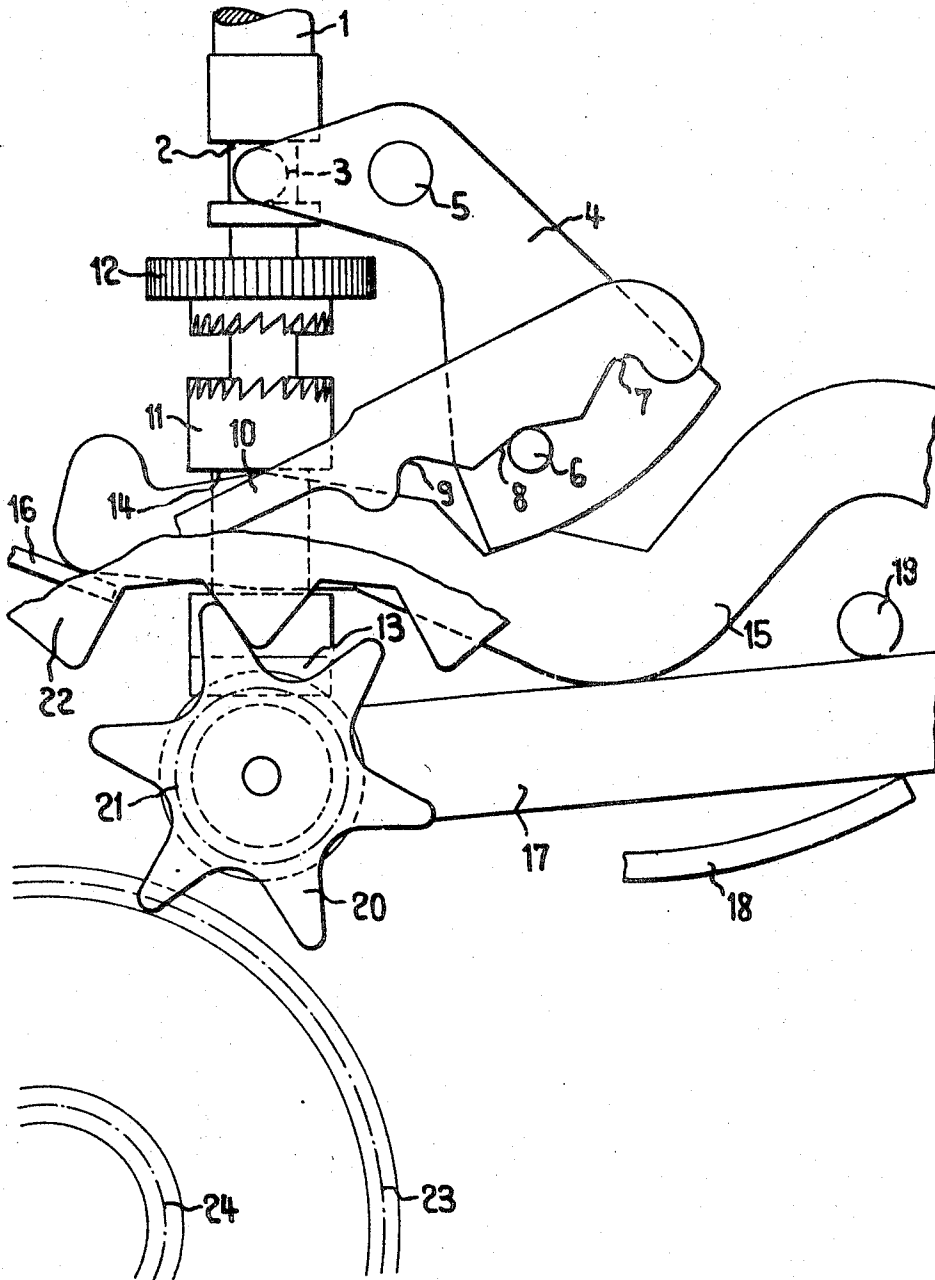
INVENTOR.

KURT VOGT

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Smice, Smiley, Snyder & Butrum

FIG. 2



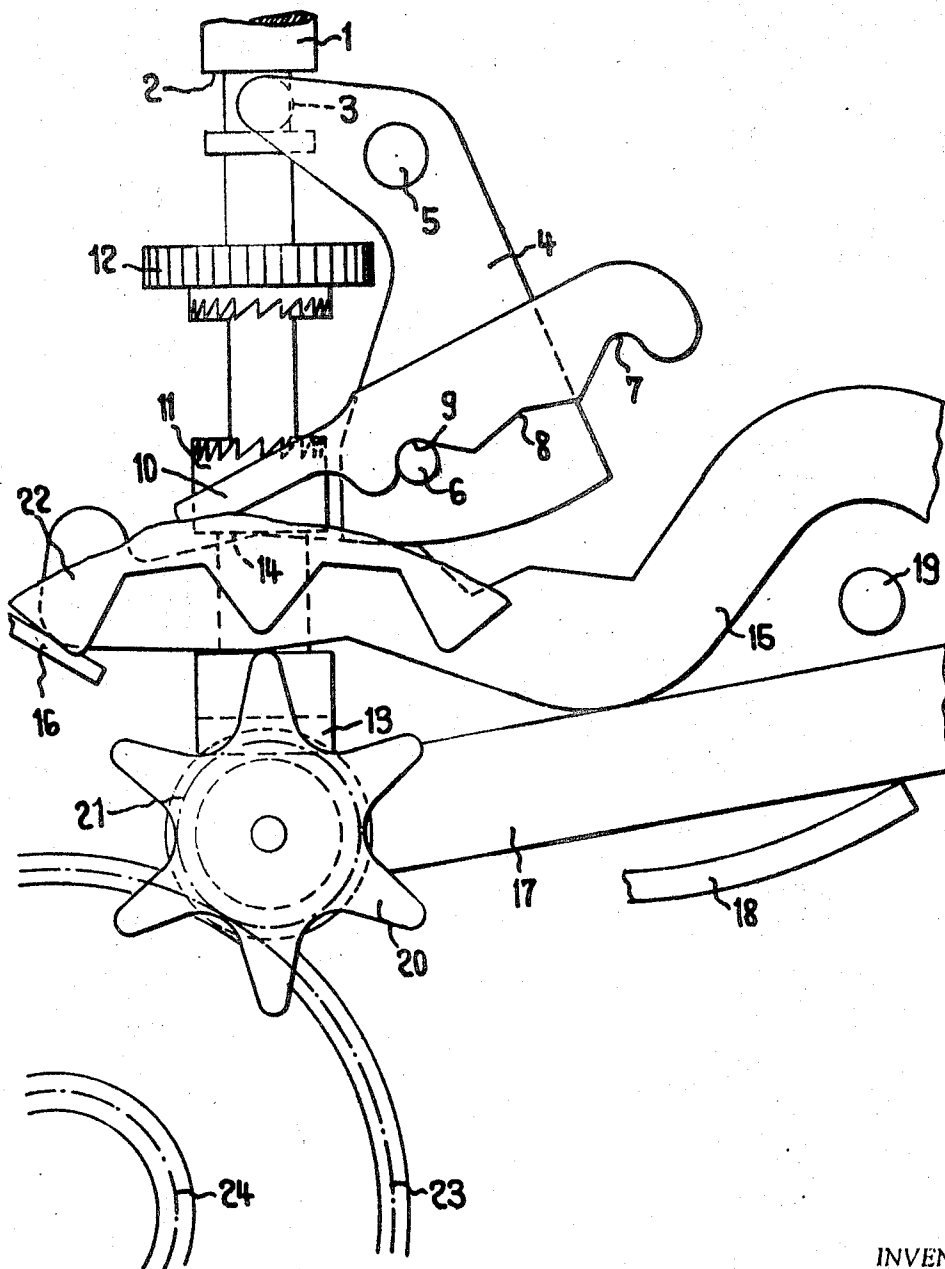
INVENTOR.

KURT VOÛT

BY

Inuice, Emily, Snyder + Bettrune

FIG. 3



INVENTOR.

KURT VOGT

BY

Imirie, Smiley, Snyder & Peterson

DATE-WATCH

The present invention relates to a date-watch, having a winding stem which may be given three distinct axial positions, namely a first position, or innermost position, permitting winding of the watch, a second position, or intermediary position, permitting the correction of the date by rotating the winding stem, and a third position, or outermost position, permitting setting the hands of the watch. This date-watch comprises a clutch-pinion actuated by a yoke which is itself operated by a setting lever one end of which fits into a groove of the winding stem. The date-watch referred to is broadly characterized in that it comprises in addition a lever, disposed in the same plane as the said yoke and controlled by the latter, the said lever carrying at its free end a date corrector consisting of a star-wheel and a toothed wheel rigidly connected with each other and rotatably mounted on the said lever, the whole being arranged in such a way that when the winding stem is in its first position, the clutch-pinion cannot drive the said corrector and that when the winding stem is in its second position, the clutch-pinion can drive the corrector which in turn actuates the date-disc, whereas when the winding stem is in its third position, the clutch-pinion may drive the corrector which is no longer in mesh with the teeth of the date-disc, as well as a setting wheel which is now engaged by the wheel of the corrector.

The accompanying drawings illustrate, by way of example, an embodiment of the invention.

FIG. 1 is a plan view of this embodiment, the winding stem being in its first position.

FIGS. 2 and 3 are views similar to FIG. 1, the winding stem being in its second and third positions, respectively.

The winding stem 1 is provided with a groove 2 into which fits a pin 3 of a setting lever 4 which is rotatably mounted on a stud 5. A pin 6 fixed to the setting lever 4 cooperates with the one or the other of the notches 7 to 9 of the setting lever spring 10. On a square portion of the winding stem 1 is slidably arranged a clutch-pinion 11 having, on the one hand, a Breguet or saw toothing capable of driving the winding pinion 12 and, on the other hand, a contrate toothing 13 adapted to cooperate with a date corrector described later on. Into the groove 14 of the clutch-pinion 11 fits the free end of a yoke 15, rotatably mounted on a stud (not shown) secured to the pillar plate and subjected to the action of a return spring 16.

A lever 17, pivoting at the same place as the yoke 15, is arranged in the same plane as the yoke 15 and is controlled by the latter. The lever 17 is subjected to the action of a return spring 18 and its rotation in the clockwise direction is limited by a stop 19. At the free end of the lever 17 is rotatably mounted a date corrector consisting of a star-wheel 20 and a toothed wheel 21 which are rigidly connected with each other. In the vicinity of the star-wheel 20, there will be seen a portion of the date-disc 22 bearing on its upper face the numerals 1 to 31, adapted to successively appear through a window of the dial. The minute wheel 23, rigidly fixed to the minute wheel pinion 24, is also disposed in the vicinity of the corrector 20, 21. The date-disc 22 is subjected to the action of a jumper-spring (not shown), which ensures a stable position of the disc 22.

The date-watch as shown and described operates as follows:

When the winding stem 1 is in its first position (FIG. 1), the pin 6 of the setting lever 4 is in the notch 7 of the setting lever spring 10. Under the action of its return spring 16, the yoke 15 keeps the clutch-pinion 11 in engagement with the winding pinion 12, so that the toothing 13 of the clutch-pinion 11 is not in mesh with the corrector wheel 21. This position is the winding position. At the moment of the shift of date, i.e. about at midnight, the watch movement causes the date-disc 22 to be

advanced by one step, so that the disc 22 rotates the star-wheel 20 of the corrector, without any function.

When the winding stem 1 is in its second position (FIG. 2), the pin 6 of the setting lever 4 is in the notch 8 of the setting lever spring 10. The setting lever 4 has caused the yoke 15 to rotate in the counterclockwise direction, so that the clutch-pinion 11 is no longer in mesh with the winding pinion 12, but its contrate toothing 13 now engages the corrector wheel 21. The yoke 15 has come into contact with the lever 17, but has not actuated it. If the winding stem 1 is rotated, in the one or the other direction, the clutch-pinion 11 drives the corrector wheel 21 and, therefore, the star-wheel 20 which is in mesh with the toothing of the date-disc 22. The correction of the date may, therefore, be carried out very quickly.

Finally, when the winding stem 1 is in its third position (FIG. 3), the pin 6 of the setting lever 4 is in the notch 9 of the setting lever spring 10. The setting lever 4 has caused the yoke 15 to further rotate in the counterclockwise direction, so that this yoke 15 has caused the lever 17 to rotate in the same direction, against the action of the return spring 18. The contrate toothing 13 of the clutch-pinion 11 is still in mesh with the corrector wheel 21, but now this wheel 21 is also in mesh with the minute wheel 23. Due to the movement of the lever 17, the star-wheel 20 of the corrector is no longer in mesh with the toothing of the date-disc 22. If the winding stem 1 is now rotated, in the one or the other direction, the clutch-pinion 11 rotates the corrector wheel 21 and, therefore, the minute wheel 23. The setting of the hands is, therefore, possible. The star-wheel 20 is rotated without any function.

If the winding stem 1 is pushed back towards the inside, the intermediary position is first encountered, and then the winding position. If this movement of the stem 1 is performed without any rotation, there is no risk that the date be inopportunately corrected.

The yoke 15 and the lever 17 being disposed at the same level, the described device takes little space in a vertical direction.

I claim:

1. A date-watch, having a winding stem which may be given three distinct axial positions, namely a first position, or innermost position, permitting winding of the watch, a second position, or intermediary position, permitting the correction of a date-disc by rotating the winding stem, and a third position, or outermost position, permitting setting the hands of the watch, comprising a clutch-pinion actuated by a yoke which is itself operated by a setting lever one end of which fits into a groove of the winding stem, characterized in that it comprises in addition a lever, disposed in the same plane as the said yoke and controlled by the latter, the said lever carrying at its free end a date correcting star-wheel and a time correcting wheel rigidly connected coaxially with each other and rotatably mounted on the said lever, the whole being arranged in such a way that when the winding stem is in its first position, the clutch-pinion cannot drive the said date correcting star-wheel and that when the winding stem is in its second position, the clutch-pinion can drive the date correcting star-wheel which in turn actuates the date-disc, whereas when the winding stem is in its third position, the clutch-pinion may drive the date correcting star-wheel which is no longer in mesh with the teeth of the date-disc, as well as the time correcting wheel which is now engaged with the minute wheel.

2. A date-watch according to claim 1, wherein the said yoke and the said lever are each subjected to the action of a return spring.

3. A date-watch according to claim 1, wherein the rotation of the said lever towards the said yoke is limited by a stop.

4. A date-watch according to claim 1, wherein the said yoke and the said lever are pivoted in the same place.