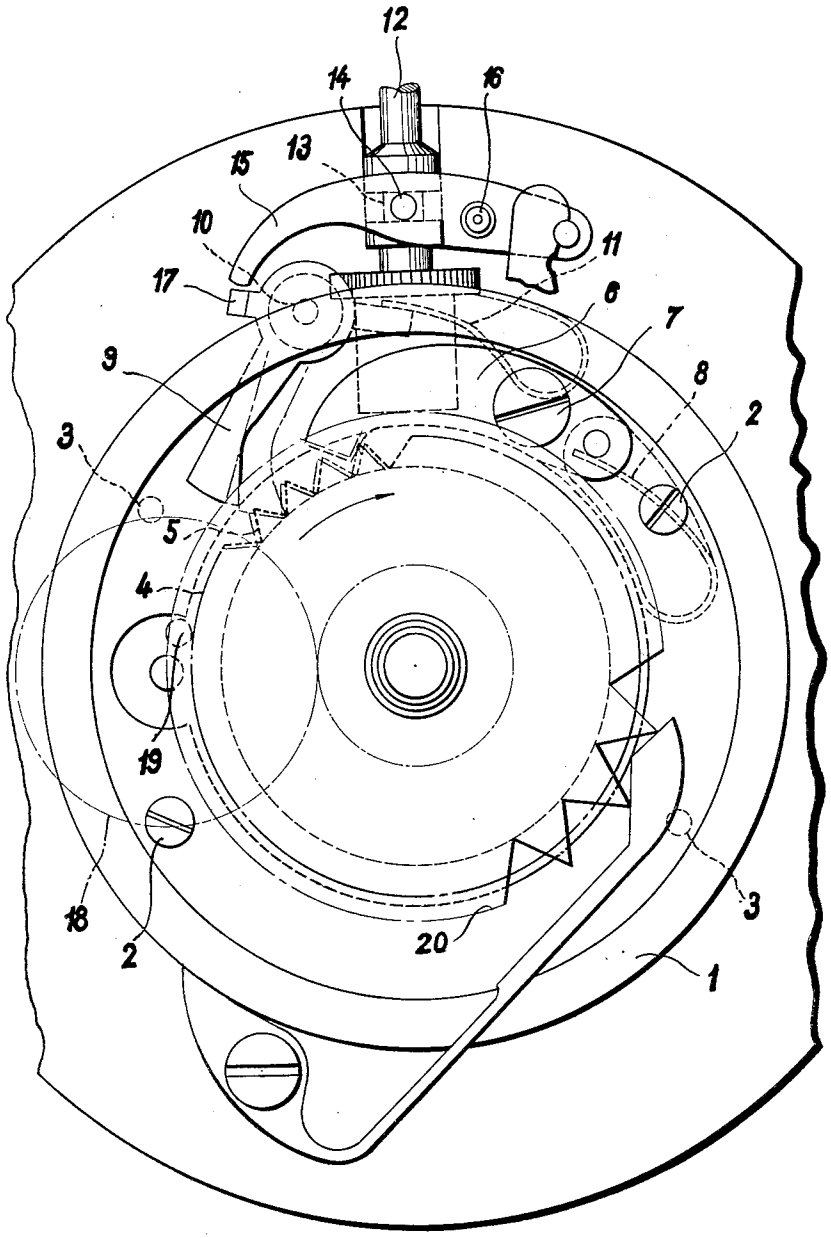
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CALENDAR TIMEPIECE

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CALENDAR TIMEPIECE

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2 Claims. (Cl. 58—58)

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The object of the present invention is a calendar timepiece, in which the mechanism for manually setting the member indicating the date of the month is controlled by an axial movement of the winding stem and through the intermediary of the stem set.

This timepiece is characterized by the fact that this axial movement of the winding stem is effected inwardly from the winding position, and that this axial movement has to overcome a relatively strong resistance to prevent any unintentional operation.

The annexed drawing shows, by way of example, one embodiment of the timepiece according to the invention.

In the embodiment shown, a ring 1 carrying the dial is secured to the watch movement by two screws 2 and two feet 3. The date wheel 4 is located at the center of the ring and is provided with teeth 5 cooperating with a pawl 6 pivoted at 7 and which acts as a detent for said date wheel and which is provided with a return spring 8, and cooperating also with an impulse lever 9 pivoted at 10 which is provided with a return spring 11.

The winding stem 12 is provided with a groove 13 in which engages a pin 14 rigid with a stem set 15 pivoted at 16 and cooperating on the one side with the setting and winding members, and on the other side with the impulse lever 9 of the date wheel by the stop 17 of this lever. The position shown in the drawing is the winding position. By pulling the stem 12 outwardly, the hour setting position is obtained, while by pushing or pressing the stem 12 inwardly, it operates, through the stem set 15, the impulse lever 9 for moving the date wheel. The return spring 11 of the impulse lever is relatively strong in order to prevent any unintentional operation. The passage from one tooth of the date wheel to the next is effected first through the impulse lever 9 and ends by the action of the spring pressed pawl 6. As soon as the pressure on the winding stem is released, it comes back into its winding position under the action of the strong return spring 11 of the impulse lever.

The daily passage from a date to the next is automatically obtained by the wheel 18 carrying a pin 19 and rotating with the extent of one revolution per 24 hours, in such a way that the pin drives the date wheel with the extent of one tooth per day. The date wheel 4 has 31 teeth and for 30 days months, the date wheel is advanced manually one tooth by pushing on the winding stem. For the month of 29 or 28 days, the date

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wheel is advanced two or three teeth, respectively, by pushing correspondingly two or three times on the winding stem.

The date wheel can carry a hand cooperating with a date dial on a disc with date indications appearing through an opening of the dial of the timepiece.

For making possible the axial movement of the winding stem inwards, a clearance is provided between the bearing of this stem and the bottom of its seating, as well as between the winding crown and the (housing) case side wall.

It is possible to secure on the axis of the calendar wheel 4 a week day wheel 20 with 14 teeth and two series of daily indications, figures 1 to 7 or names of the days. This wheel is then controlled by an extension of the pin 19 which controls the date wheel, but it can be manually rotated only through the setting mechanism. The figures or the names appear through an opening of the dial.

As a variation, it will be possible to provide a relatively strong spring between the crown and the side wall of the case, this spring having an initial tension and cooperating with an abutment, the whole so arranged that it opposes a resistance against the pushing of the crown only for the operation of the date controlling mechanism. This arrangement has the advantage of preventing to have a relatively strong spring in the mechanism and consequently reduces the wear.

The stem set is mounted on the watch movement, while the impulse lever, the pawl and their return springs are mounted in the dial-holder ring 1.

In the described arrangement, the control of the calendar has no effect upon the operation of winding and of hour setting.

What I claim is:

1. A calendar timepiece comprising a watch movement having mounted thereon the following: a winding mechanism including a winding stem, said winding stem being displaceable on the watch movement from a winding position axially inwardly to a date setting position and axially outwardly to an hour-setting position, a member for indicating the date of the month, a dial holder ring, a setting device normally in an inoperable position for manually setting said date member, a stem set operable by the axial displacement of said winding stem, means operable upon an inward axial displacement of the winding stem from its winding position for operating said setting device to move and set the date member, spring means for normally holding the stem in its wind-

ing position and the setting device in its inoperable position, a spring pressed pawl acting as a detent on said date member, the said setting device, spring means and pawl being mounted on said ring, said spring means offering a resistance sufficient to prevent unintentional inward axial displacement of the winding stem.

2. In a calendar timepiece, a watch movement having mounted thereon the following: a winding mechanism including a winding stem, said winding stem being displaceable from a winding position axially inwardly to a date setting position and axially outwardly to an hour setting position, a date wheel for indicating the date of the month, an impulse lever normally in an inoperable position for manually setting said date wheel, a stem set operable by the axial displacement of said winding stem, the said stem set including a part for operating said impulse lever

to move and set the date wheel upon an inward axial displacement of the winding stem from its winding position, and spring means for normally holding the stem in its winding position and the impulse lever in its inoperable position, said spring means offering a resistance sufficient to prevent unintentional inward axial displacement of the winding stem.

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The following references are of record in the file of this patent:

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