

PATENT SPECIFICATION

(11) 1 246 776

DRAWINGS ATTACHED



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- (21) Application No. 16925/70 (22) Filed 9 April 1970
 (31) Convention Application No. 32042 (32) Filed 10 April 1969 in
 (33) Japan (JA)
 (45) Complete Specification published 22 Sept. 1971
 (51) International Classification G 04 b 19/24
 (52) Index at acceptance
 G3T C1A C1B

(54) CALENDAR TIMEPIECE

(71) We, KABUSHIKI KAISHA DAINI SEIKOSHA, a Japanese company, of 31-1, 6-chome, Kameido, Koto-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 relates to a calendar timepiece.

According to the present invention, there is provided a calendar timepiece comprising first and second rotatable dials each carrying calendar information, a said dial being annular, the other dial being disposed radially inwardly of the said annular dial, and spaced radially therefrom to define a space between the dials, at least one time-indicating axle projecting through said space.

Preferably, the said dials are coaxial.

The timepiece may be a chronograph, the said axle being an elapsed-time indicating axle.

There may be three said axles, respectively for indicating elapsed seconds, elapsed minutes and elapsed hours.

In a preferred embodiment, the said annular dial carries date information and the other dial carries day information.

The timepiece may be a wristwatch.

The invention will be described, merely by way of example, with reference to the accompanying drawings, wherein:

Figure 1 shows in plan the relevant parts of a known chronograph.

Figure 2 shows in plan the relevant part of a chronograph according to the invention.

Figure 3 is a section on line AO, BO or CO of Figure 2, and

Figure 4 is an external plan view of the chronograph of Figure 2.

Referring to Figure 1, a known wristwatch chronograph or stopwatch has time indicating axles 1a, 1b, 1c which can be started and

stopped by conventional means to record elapsed time. The chronograph also has a small calendar date-indicating star wheel 3 and two calendar day-indicating and month-indicating discs 2.

Because of the axles 1a, 1b, 1c the discs 2 are small; indeed so small that it is difficult to accommodate the day-names (even if abbreviated) in a legible script. Also, the discs 2 are displaced from the centre of the watch face, spoiling its appearance. Furthermore, the star wheel 3 must indicate the date by means of a hand attached thereto which moves over a fixed scale on the watch face. This also does not improve the appearance of the watch.

The preferred embodiment of the present invention is intended to permit a more elegant presentation of day and date information in a wrist-watch chronograph, but the invention in general has wider applications.

Referring to Figures 2 to 4, there are provided first and second coaxially mounted rotatable dials 4, 6. The dial 4 carries the names of the days, which are in turn presented to a viewing window 4a. The dial 6 carries the numbers 1 to 31, for indicating the date, which numbers are in turn presented to a viewing window 6a. The dial 4 is driven by an axle on the central axis 4b of the watch mechanism, and is disposed radially within the dial 6 which is annular. The dial 4 is spaced radially from the dial 6 to define between the two dials 4, 6 a space 5. The disc 6 is internally toothed and driven by a pinion (not shown). Through the space 5 project elapsed-time indicating axles 5a, 5b, 5c. The axles 5a, 5b, 5c respectively are supported in bearings 8 in the body 9 of the watch and carry hands 7 for respectively indicating elapsed seconds, minutes and hours. The axles 5a, 5b, 5c can be started and stopped by conventional means operated by push buttons 10 similarly to the axles 1a, 1b, 1c of Figure 1.

Thus, it will be appreciated that large day-

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and date-indicating dials can be used, with the result that the calendar information can be presented on larger, more easily legible characters than in known calendar chronograph wrist-watches.

Conventional time indicating equipment driving hour, minute and second hands 11, 12, 13 is of course also provided, and it will be seen from Figure 4 that the watch as a whole has an elegant pleasing appearance.

WHAT WE CLAIM IS:

1. A calendar timepiece comprising first and second rotatable dials each carrying calendar information, a said dial being annular, the other dial being disposed radially inwardly of the said annular dial, and spaced radially therefrom to define a space between the dials, at least one time-indicating axle projecting through said space.

2. A calendar timepiece as claimed in claim 1 wherein the said dials are coaxial.

3. A calendar timepiece as claimed in

claim 1 or 2 wherein the timepiece is a chronograph, the said axle being an elapsed time-indicating axle.

4. A calendar timepiece as claimed in claim 3 wherein there are three said axles, respectively for indicating elapsed seconds, elapsed minutes and elapsed hours.

5. A calendar timepiece as claimed in any preceding claim wherein the said annular dial carries date information and the other dial carries day information.

6. A calendar timepiece as claimed in any preceding claim wherein the timepiece is a wristwatch.

7. A calendar timepiece substantially as herein described with reference to and as shown in Figures 2 to 4 of the accompanying drawings.

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Printed for Her Majesty's Stationery Office by The Tweeddale Press Ltd., Berwick-upon-Tweed, 1971.
Published at the Patent Office, 25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.

