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(54) **A multi-functional analog electronic watch.**

(57) A multi-functional analog electronic watch has step motors for driving hands indicating ordinary time and for indicating additional functions. One step motor drives through a gear train an hour hand (12) and a minute hand (11) indicating ordinary time by rotating about a central axis. From the same gear train a second hand (14) is driven to indicate ordinary time by rotating about an axis eccentric to the central axis and disposed along the position of the hour hand at 9 o'clock. A second step motor drives through a gear train a chronograph second hand (21) indicating seconds elapsed since pushing of a switch operating button (24) by rotating about the central axis. A third step motor drives through a gear train a chronograph minute hand (31) indicating minutes elapsed since pushing of the button (24) by rotating about an axis eccentric to the central axis and dis-

posed along the position of the hour hand at 12 o'clock. A fourth step motor drives through a gear train alarm minute and hour hands (38, 39) indicating an alarm time set or ordinary time by rotating about an axis eccentric to the central axis and disposed along the position of the hour hand at 6 o'clock. A first stem can be pulled to a position in which the ordinary time gear train can be rotated to correct the positions of the hour and minute hands (12, 11). A second stem (23) can be pulled to either of two positions, in one of which timer or alarm functions can be achieved. In the timer function mode, pushing of the button (24) causes reverse stepping of the second and third step motors, so that the chronograph minute and second hands (31, 21) indicate elapsed time in seconds and minutes respectively.

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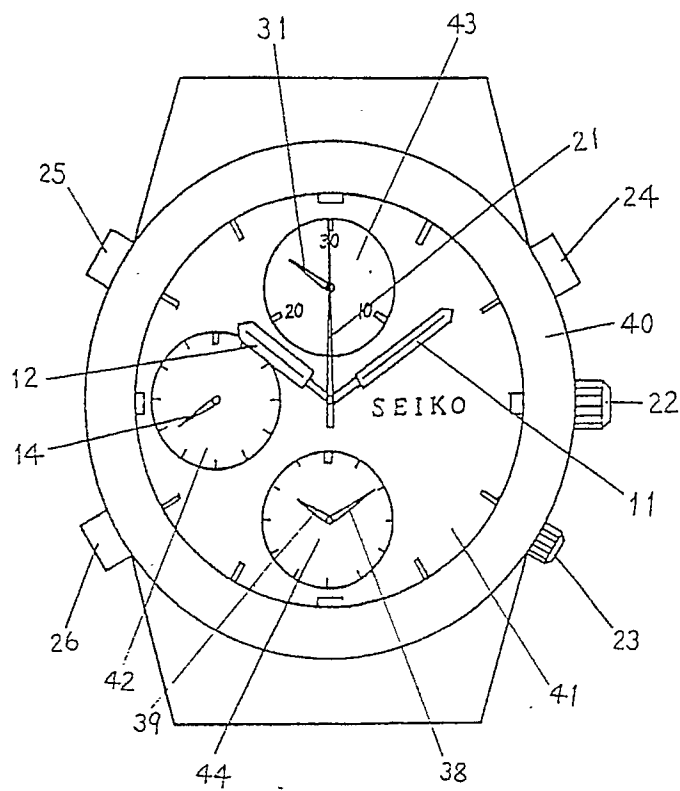


FIG 17



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EUROPEAN SEARCH REPORT

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EP 89 30 6146

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	GB-A-2 166 570 (CITIZEN WATCH CO., LTD) * Figures 1,3; page 1, line 105 - page 2, line 6; page 2, line 113 - page 3, line 9 * - - -	1-10,13	G 04 C 3/14
X	GB-A-2 067 798 (EBAUCHES S.A.) * Figures 1,2; page 1, line 37 - page 2, line 41 * - - -	1,2	
X	EP-A-0 247 520 (CONSEILRAY S.A.) * Figure 3; abstract * - - -	1,2	
A	FRANCE HORLOGERE, no. 448, December 1983, pages 47-49, Paris, FR; M. LEROUX: "Un chronographe à quartz très ... mécanique" * Whole document * - - -	1-13	
A	PATENT ABSTRACTS OF JAPAN, vol. 8, no. 159 (P-289), 24th July 1984; & JP-A-59 056 186 (SUWA SEIKOSHA K.K.) 31-03-1984 * Abstract; figure * - - - - -	4,8,10	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			G 04 C G 04 F G 04 G
The present search report has been drawn up for all claims			
Place of search		Date of completion of search	Examiner
The Hague		11 December 90	PEETERS M.M.G.
CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons &: member of the same patent family, corresponding document			