US006809774B1

(54) **WRIST-CARRIED CAMERA AND WATCH-TYPE INFORMATION EQUIPMENT**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/432,090**

(22) Filed: **Nov. 2, 1999**

(30) **Foreign Application Priority Data**

Nov. 6, 1998 (JP) 10-316054

(51) **Int. Cl.**^{7} **H04N 5/225**
(52) **U.S. Cl.** **348/373**; 348/376
(58) **Field of Search** 348/373, 374, 348/375, 376, 61, 73, 207.99; 396/318, 56, 336; 368/10, 71, 21; 340/5.82, 7.55; 455/556.1, 11.1, 344

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,362,398	A	*	12/1982	Jackson	.... 368/240
5,329,501	A	*	7/1994	Meister et al.	.... 368/10
5,475,653	A	*	12/1995	Yamada et al.	.... 368/10
5,572,196	A	*	11/1996	Sakumoto et al.	.... 340/7.55
5,572,488	A	*	11/1996	Yamada et al.	.... 368/10
5,977,535	A	*	11/1999	Rostoker	.... 250/208.1
6,359,837	B1	*	3/2002	Tsukamoto	.... 368/10
2001/0011025	A1	*	8/2001	Ohki et al.	.... 455/556
2001/0017663	A1	*	8/2001	Yamaguchi et al.	.... 348/373
2002/0180586	A1	*	12/2002	Kitson et al.	.... 340/5.82

FOREIGN PATENT DOCUMENTS

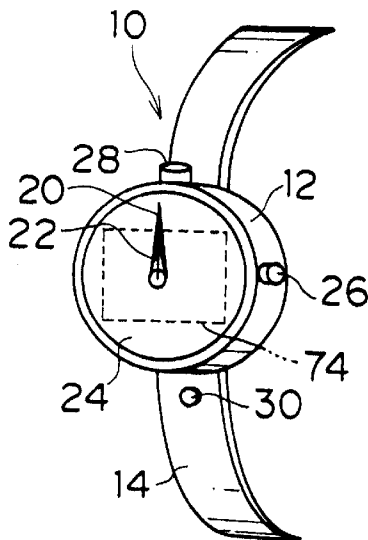|					
JP	62009289	A	*	10/1987	.... G04G/1/00
JP	05-209973		*	8/1993	
JP	8278382			10/1996	
JP	1090442			4/1998	
JP	10108152			4/1998	

* cited by examiner

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(74) *Attorney, Agent, or Firm*—Birch, Stewart, Kolasch & Birch, LLP

(57) **ABSTRACT**

In a wrist-carried camera having a watch function, a body including a taking lens is provided in such a manner as to freely rotate with respect to a band part through a rotation mechanism, and a release switch is provided at the unrotated band part. Setting a camera mode stops the hands of the watch in the direction of a taking lens so as to display an image-capturing direction. A rotary bezel is arranged around a display part, and marks indicating modes of the camera are formed on the bezel. A hand of the watch is also used as an indicator for pointing the mode display mark in the bezel. Setting the mark in the bezel to the indicator switches and displays the operation modes.

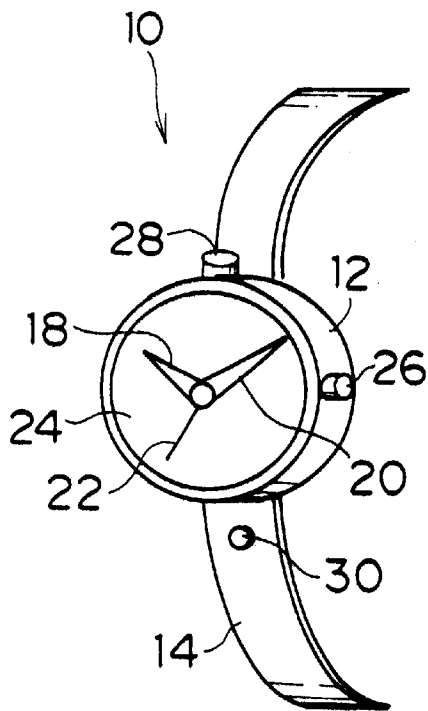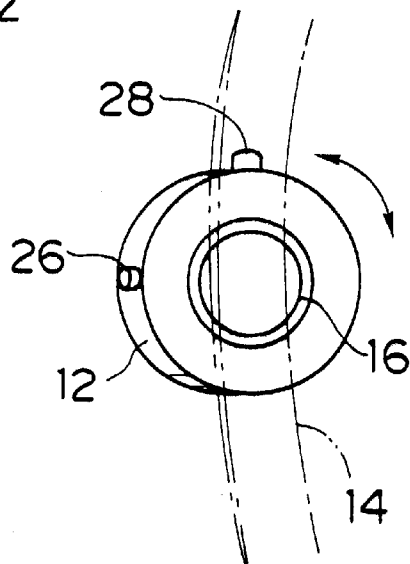**19 Claims, 9 Drawing Sheets**

F I G. 1

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28

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F I G. 2

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16

12

14

F I G. 3

F I G. 4

F I G. 5

F I G. 6

58 CONTROL MEMBERS

56 HAND DRIVING UNIT

54 DISPLAY SWITCHING CIRCUIT

52 CPU WITH TIMEPIECE FUNCTION

40 STORAGE DEVICE

50

42 IMAGE PROCESSING CONTROL CPU

38 MEMORY

46 FLASH CONTROL CIRCUIT

44 AF CONTROL CIRCUIT

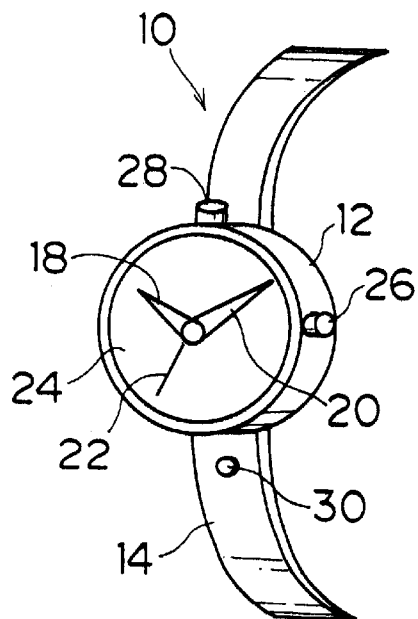36 IMAGING CIRCUIT

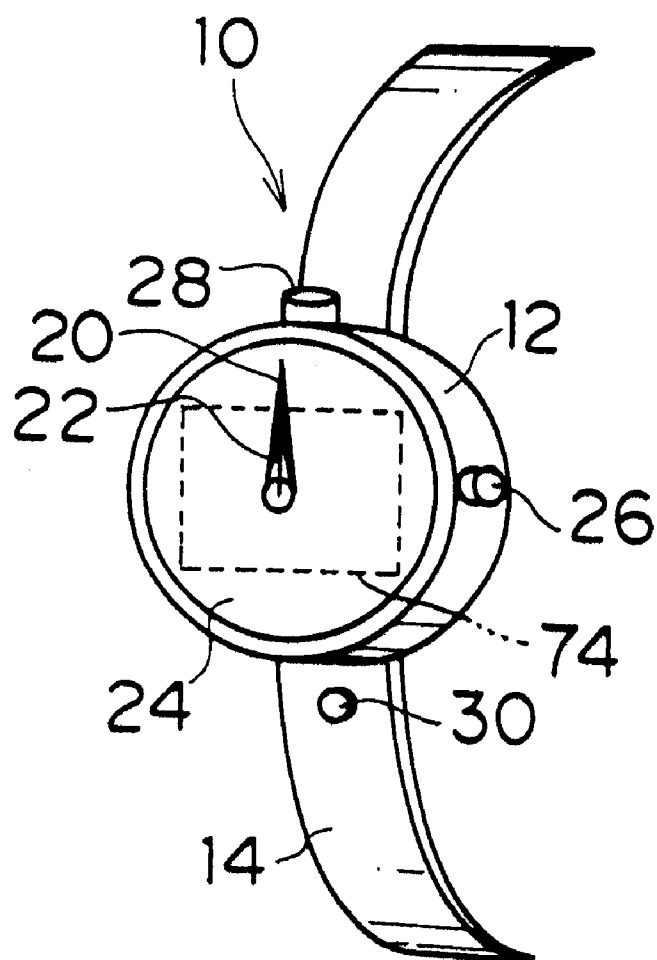48 ELECTRONIC FLASH PART

34

32 OPTICAL UNIT
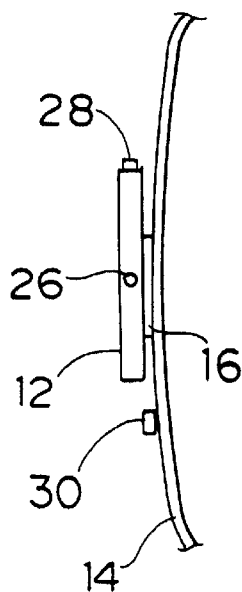
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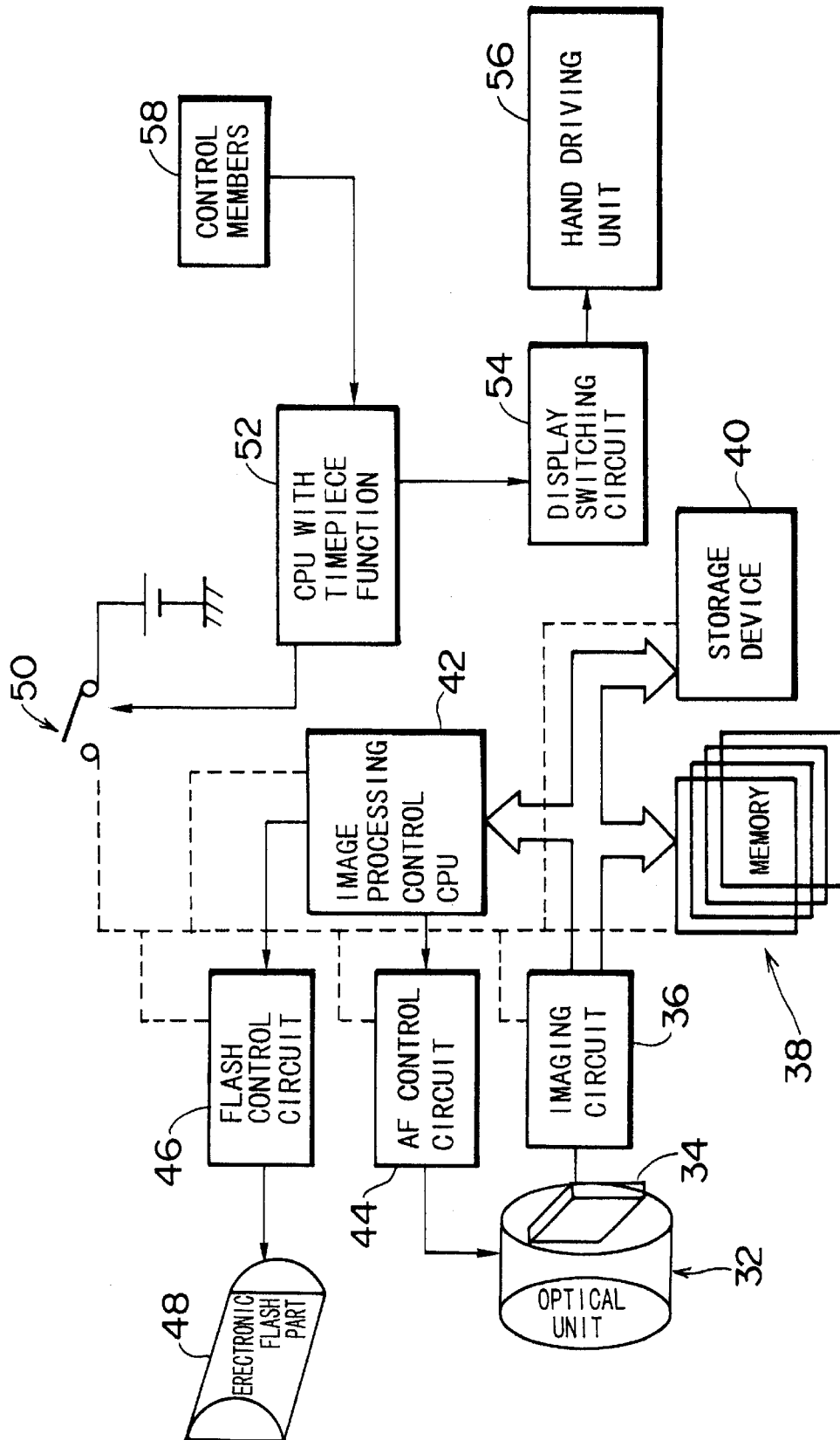
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