

(12) United States Patent

Miyazaki

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(54) IMAGE PICKUP APPARATUS FOR PRODUCING A DESIRED FRAME OF **IMAGE SIGNALS**

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- Subject to any disclaimer, the term of this (*) Notice:

patent is extended or adjusted under 35 U.S.C. 154(b) by 798 days.

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- Field of Classification Search 348/231.99, 348/231.6, 231.1, 231.9, 221.1 See application file for complete search history.

(56)References Cited

U.S. PATENT DOCUMENTS

5,272,498	A *	12/1993	Wakabayashi 396/320
5,576,759	A *	11/1996	Kawamura et al 348/207.99
6,359,649	B1 *	3/2002	Suzuki 348/220.1
6,518,999	B1 *	2/2003	Miyamoto 348/220.1
6,533,976	B1 *	3/2003	Strasser et al 264/87
6,549,232	B1 *	4/2003	Taniguchi et al 348/231.99
6,734,910	B1 *	5/2004	Yumoto et al 348/333.12
2002/0057352	A1*	5/2002	Yamagishi 348/231.6

FOREIGN PATENT DOCUMENTS

JР	64-042639	2/1989

JР	01-277829	11/1989
JP	A9205605	8/1997
JP	10-257370 A	9/1998
JР	11-088761	3/1999
JР	11-220638 A	8/1999

OTHER PUBLICATIONS

Sony Corporation, Digital Still Camera DSC-F1. pp. 18-19, 1996.

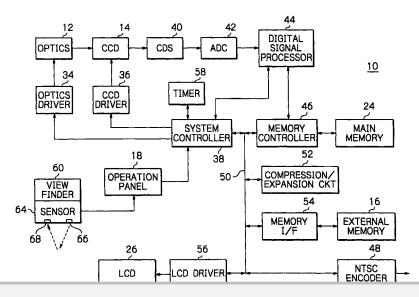
* cited by examiner

Primary Examiner—David Ometz Assistant Examiner—Luong T. Nguyen (74) Attorney, Agent, or Firm-Birch, Stewart, Kolasch & Birch, LLP

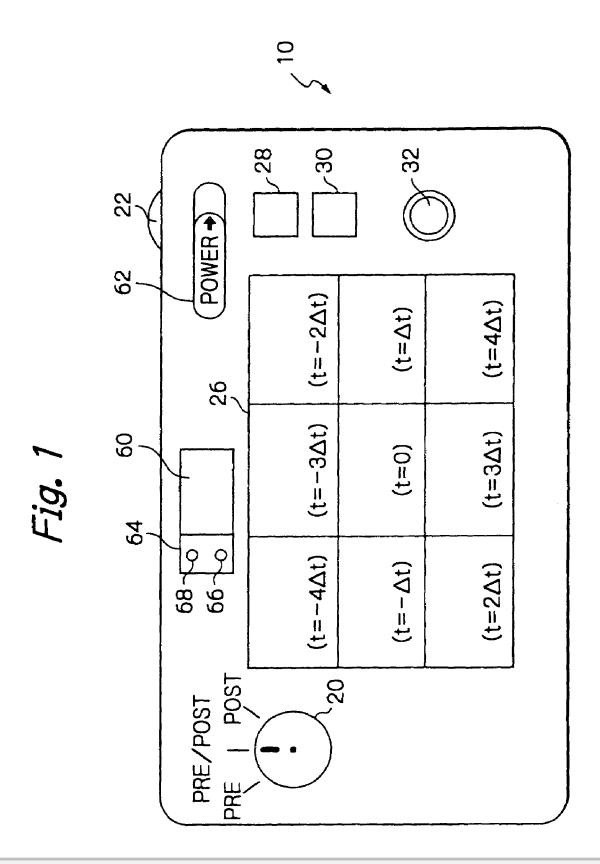
(57) **ABSTRACT**

An image pickup apparatus capable of outputting one of successive pictures that is picked up at a desired timing. When the operator of the apparatus selects a continuous shoot mode, sets a mode dial at a "Pre (prior)/Post (posterior)" position, and then presses a release button to a half-stroke position, the apparatus picks up a desired scene at preselected intervals. Up to nine latest frames of image data are written to a main memory while being sequentially updated. Subsequently, when the operator presses the release button to a full-stroke position, up to five additional latest frames of image data are written to the main memory. The image data stored in the main memory are read out and transformed to display data. The display data appear on an LCD (Liquid Crystal Display) panel in a multiframe format. When the operator, watching pictures appearing on the LCD panel, selects desired one of the pictures by operating preselected switches arranged on an operation panel, the image data representative of the above picture is recorded in an external memory removably mounted to the apparatus.

18 Claims, 22 Drawing Sheets









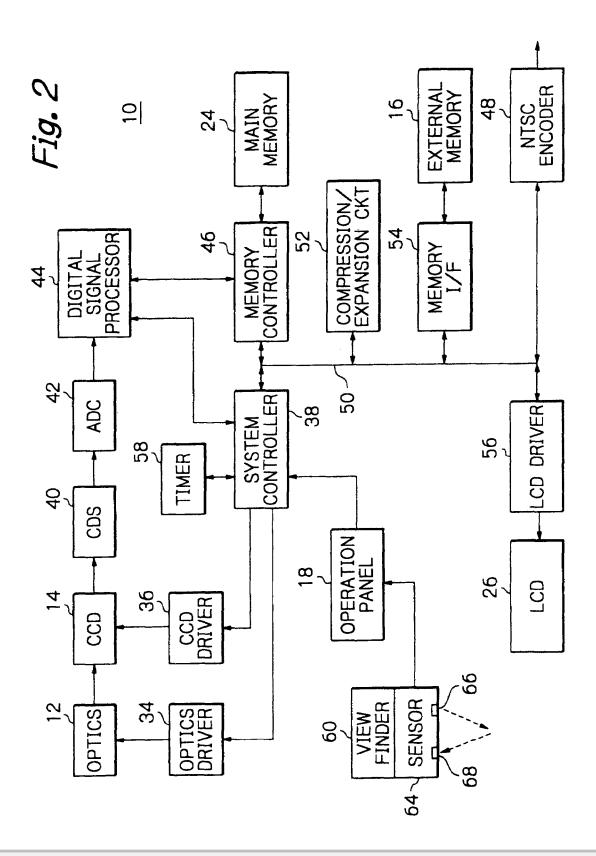




Fig. 3

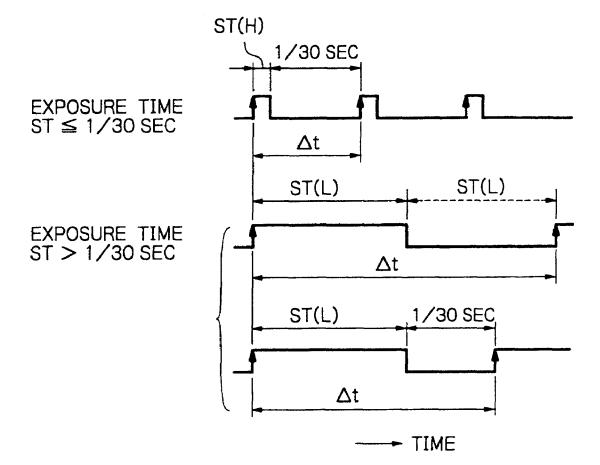
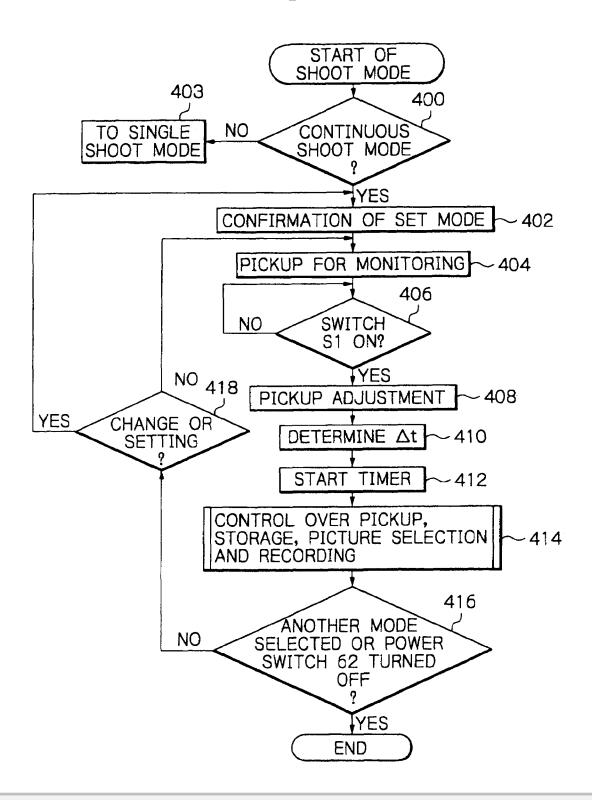




Fig. 4





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