US007746406B2

(12) **United States Patent**
Park

(10) **Patent No.: US 7,746,406 B2**
(45) **Date of Patent: *Jun. 29, 2010**

(54) **FOLDED COMPACT IMAGE CAPTURE APPARATUS**

(75) Inventor: **Ji-yun Park**, Suwon (KR)

(73) Assignee: **Samsung Electronics Co., Ltd.**, Suwon-Si (KR)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1306 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **10/740,568**

(22) Filed: **Dec. 22, 2003**

(65) **Prior Publication Data**

US 2004/0130644 A1 Jul. 8, 2004

Related U.S. Application Data

(62) Division of application No. 09/218,165, filed on Dec. 22, 1998, now Pat. No. 6,697,117.

(30) **Foreign Application Priority Data**

Dec. 23, 1997 (KR) 97-72461

(51) **Int. Cl.**
H04N 5/225 (2006.01)
H04N 5/222 (2006.01)

(52) **U.S. Cl.** **348/373**; 348/333.06; 348/376

(58) **Field of Classification Search** 348/14.01, 348/14.11, 14.16, 333.02, 151, 158, 333.01, 348/333.06, 333.11, 207.99, 373–376
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,491,507	A	2/1996	Umezawa et al.
D401,577	S	11/1998	Yamaguchi
5,898,600	A	4/1999	Isashi
5,903,706	A	5/1999	Wakabayashi et al.
6,069,648	A	5/2000	Suso et al.
6,141,052	A	10/2000	Fukumitsu et al.
6,445,417	B1	9/2002	Yoshida et al.
6,466,202	B1	10/2002	Suso et al.
6,473,631	B1	10/2002	Siddoway et al.

FOREIGN PATENT DOCUMENTS

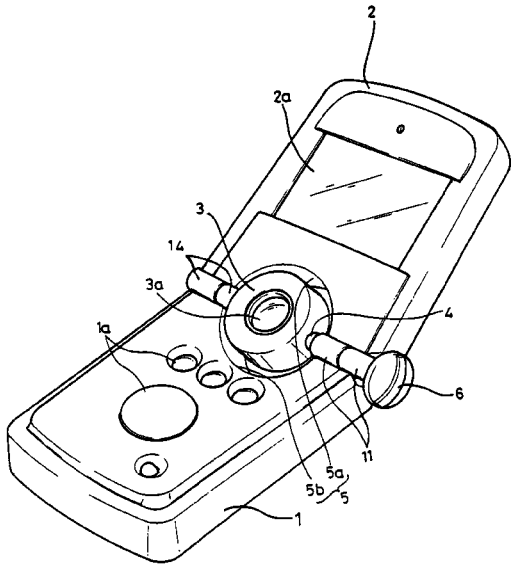
EP	1267576	A2	12/2002
JP	410065780	A	3/1998

OTHER PUBLICATIONS

In re Gordon et al., 221 USPQ 1125 (CAFC 1984).
In re Ratti, 123 USPQ 349 (CCPA 1959).
U.S. Appl. No. 09/218,165, filed Dec. 22, 1998, Ji-yun Park, Samsung Electronics Co., Ltd.

Primary Examiner—Kelly L Jerabek
(74) *Attorney, Agent, or Firm*—Staas & Halsey LLP

(57) **ABSTRACT**

A digital still camera includes a main body; a liquid crystal display (LCD) panel coupled rotatably to an end portion of the main body of the camera in such a manner that a display portion thereof faces said main body; and a lens housing inserted rotatably and independently into a space formed in a portion where the main body and the LCD panel are coupled.

21 Claims, 3 Drawing Sheets