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(12) **United States Patent**  
**Presler**

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(54) **DIGITAL CAMERA SYSTEM FOR RECORDING, EDITING AND VISUALIZING IMAGES**

(2013.01); *H04N 5/85* (2013.01); *H04N 5/907* (2013.01); *H04N 9/7921* (2013.01); *H04N 9/804* (2013.01)

(76) Inventor: **Ari M. Presler**, Niskayuna, NY (US)

(58) **Field of Classification Search**

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 2199 days.

CPC .... *H04N 13/0203*; *H04N 5/225*; *H04N 5/232*; *H04N 5/765*; *H04N 5/772*; *H04N 5/781*; *H04N 5/85*; *H04N 5/907*; *H04N 9/7921*; *H04N 9/804*; *G03B 17/56*  
USPC ..... 725/105; 348/340, 46, 211.2  
See application file for complete search history.

(21) Appl. No.: **12/595,811**

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(2), (4) Date: **Oct. 13, 2009**

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**Related U.S. Application Data**

Silicon imaging, Silicon Imaging SI-1920HD MegaCamera 1080P/24/30/60 12-bit High-Definition Digital Camera, 2004, XP002682243, whole document.\*

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(51) **Int. Cl.**

*H04N 5/907* (2006.01)  
*H04N 9/79* (2006.01)  
*H04N 9/804* (2006.01)  
*G03B 17/56* (2006.01)  
*H04N 13/02* (2006.01)

*Primary Examiner* — Twyler Haskins

*Assistant Examiner* — Fayez Bhuiyan

(74) *Attorney, Agent, or Firm* — Matthew J. Spark; Zuber Lawler & Del Duca

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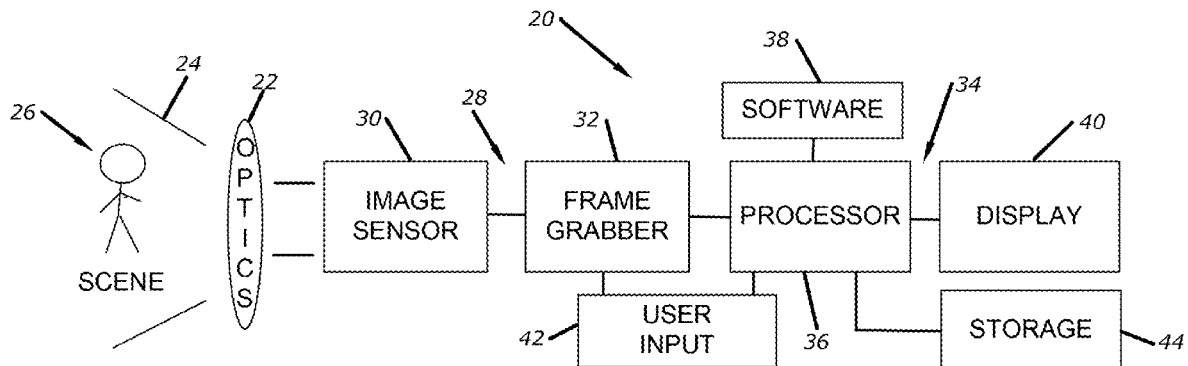
(52) **U.S. Cl.**

CPC ..... *H04N 13/0203* (2013.01); *G03B 17/56* (2013.01); *H04N 5/225* (2013.01); *H04N 5/232* (2013.01); *H04N 5/772* (2013.01); *H04N 5/765* (2013.01); *H04N 5/781*

(57) **ABSTRACT**

A digital camera system (20), as illustrated in FIG. 1, includes an optical assembly (22) to gather light (24) from a desired scene (26), a modular imaging subsystem (28) aligned with the optical assembly (22), and an image processing, recording and display subsystem (34).

**44 Claims, 12 Drawing Sheets**



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| (51) | <p><b>Int. Cl.</b><br/> <i>H04N 5/225</i> (2006.01)<br/> <i>H04N 5/232</i> (2006.01)<br/> <i>H04N 5/77</i> (2006.01)<br/> <i>H04N 5/765</i> (2006.01)<br/> <i>H04N 5/781</i> (2006.01)<br/> <i>H04N 5/85</i> (2006.01)</p> | <p>2005/0169532 A1* 8/2005 Yamana et al. .... 382/200<br/>                 2005/0212970 A1* 9/2005 Joskin ..... 348/572<br/>                 2006/0072835 A1* 4/2006 Zhu et al. .... 382/232<br/>                 2006/0164533 A1 7/2006 Hsieh et al.<br/>                 2006/0176951 A1* 8/2006 Berman et al. .... 375/240.01<br/>                 2006/0233236 A1* 10/2006 Labrozzi et al. .... 375/240.03<br/>                 2007/0286103 A1* 12/2007 Niu et al. .... 370/310<br/>                 2008/0198920 A1* 8/2008 Yang et al. .... 375/240.01<br/>                 2008/0231630 A1* 9/2008 Shenkar et al. .... 345/419<br/>                 2009/0115901 A1* 5/2009 Winter et al. .... 348/565</p> |
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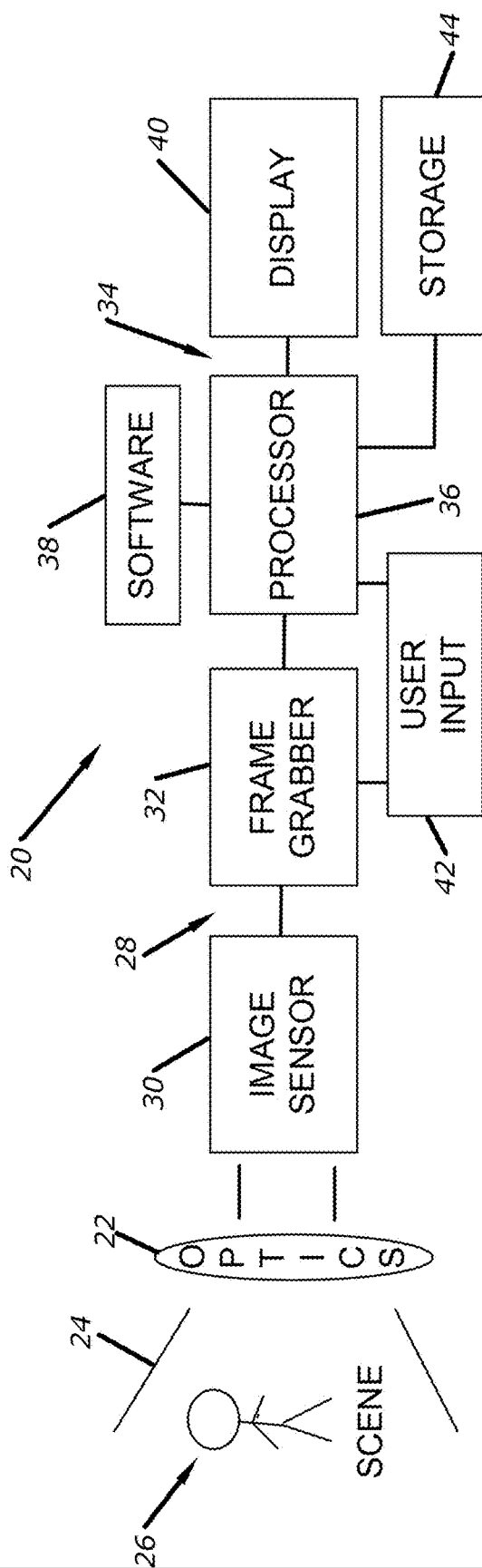


FIG. 1

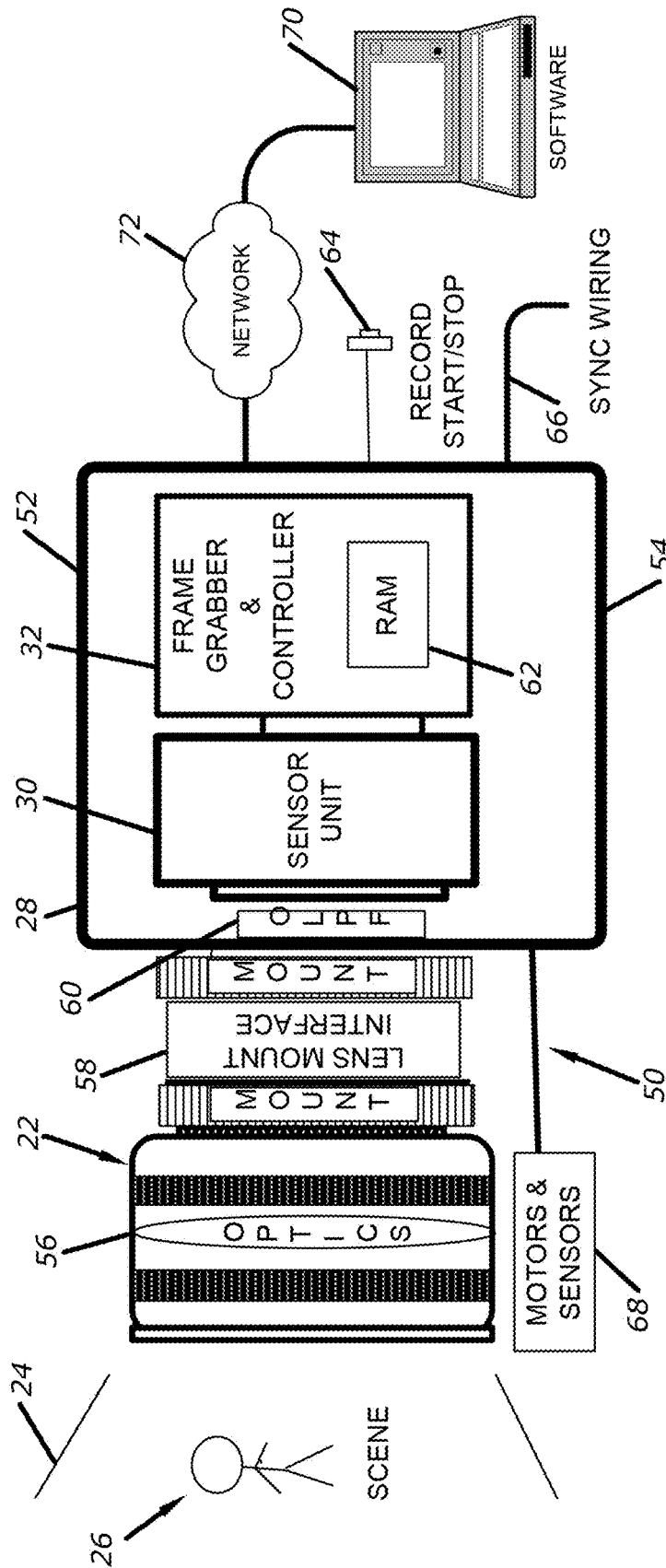


FIG. 2

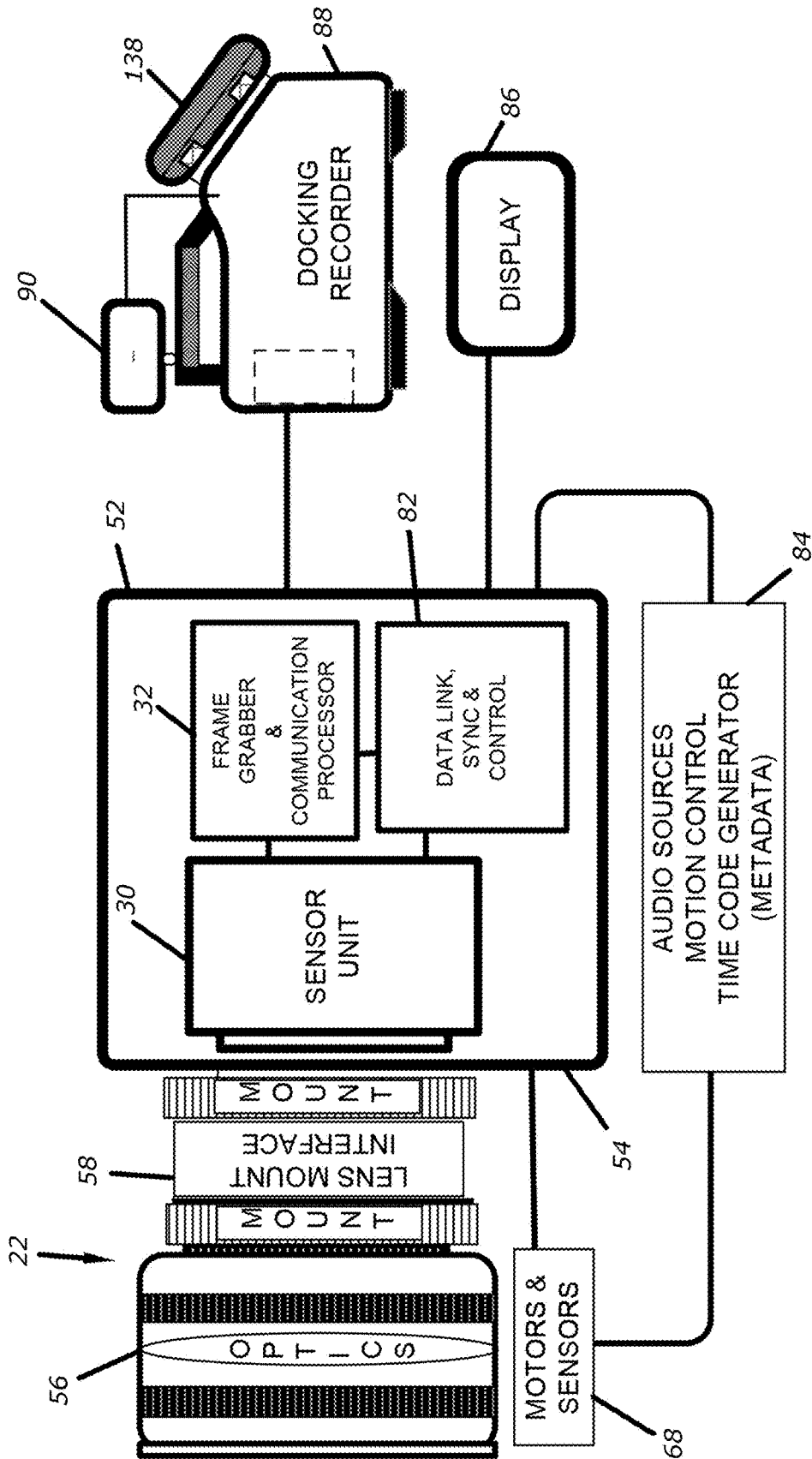


FIG. 3

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