

United States Patent [19]

Huot et al.

[54] REPLACEABLE CCD ARRAY AND METHOD OF ASSEMBLY

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- [73] Assignee: Eastman Kodak Company, Rochester, N.Y.
- [21] Appl. No.: 486,306
- [22] Filed: Jun. 7, 1995
- [51] Int. Cl.⁶ H04N 3/14

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US005731834A

[11] Patent Number: 5,731,834

[45] Date of Patent: Mar. 24, 1998

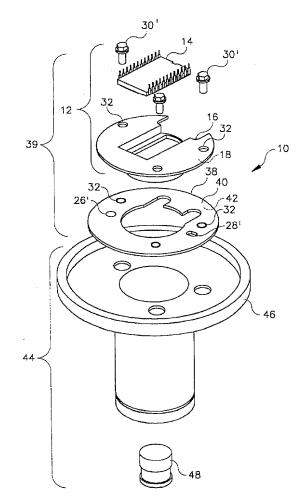
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Primary Examiner-Wendy Garber Attorney, Agent, or Firm-Christopher J. Fildes

[57] ABSTRACT

A CCD array assembly for use in a scanner, includes a CCD array optically aligned relative to a CCD array nest and affixed thereto to form a replaceable subassembly. The CCD array nest has an outwardly facing statically determinate or exactly constrained interface mounting surface. A carrier plate with the CCD array assembly removably attached thereto is optically aligned and affixed to a barrel frame and lens assembly. The subassembly is removably attachable to the carrier plate allowing replacement of a failed CCD array without additional alignment.

9 Claims, 4 Drawing Sheets

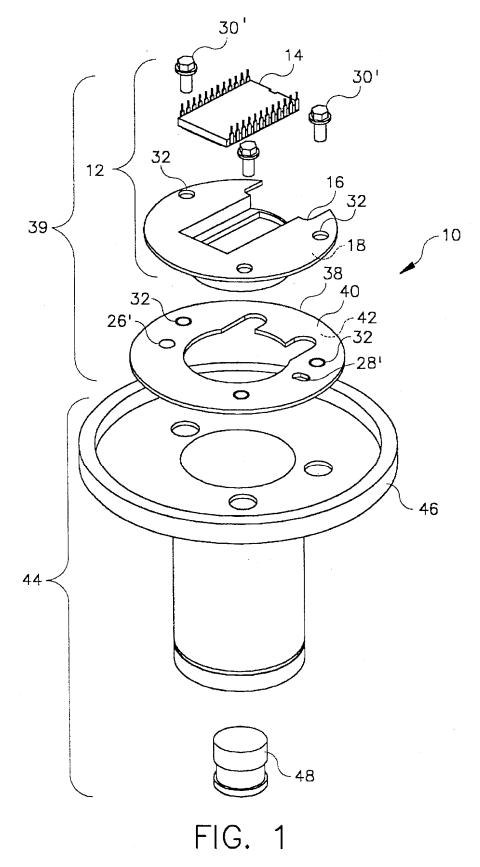


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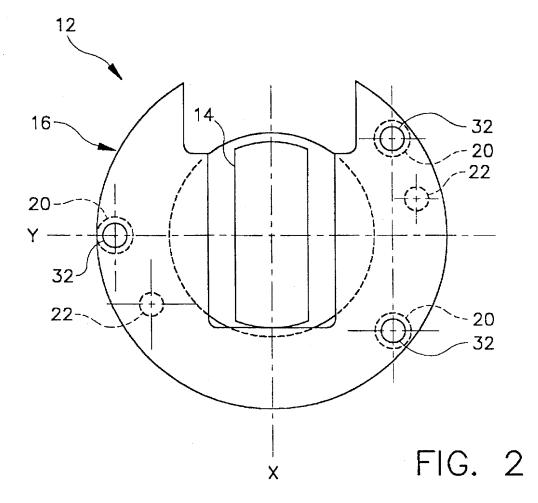
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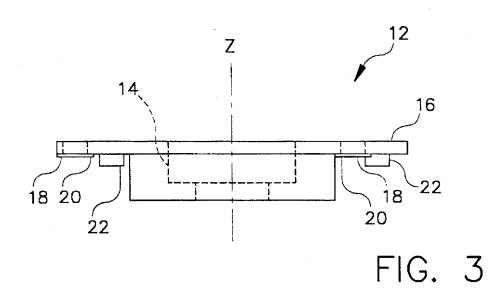


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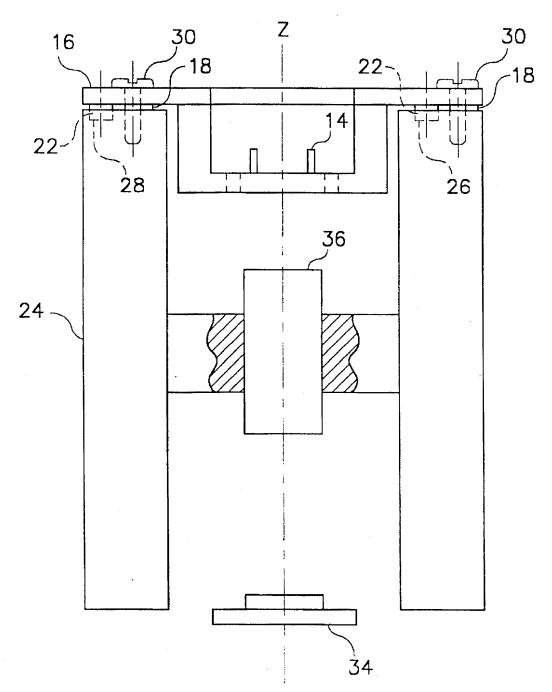


FIG. 4

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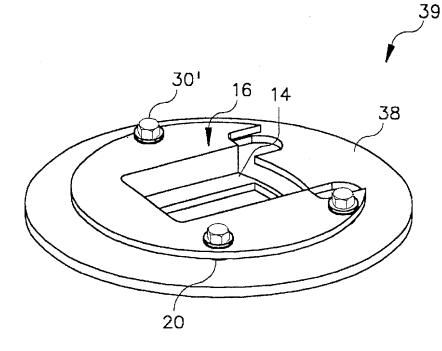


FIG. 5

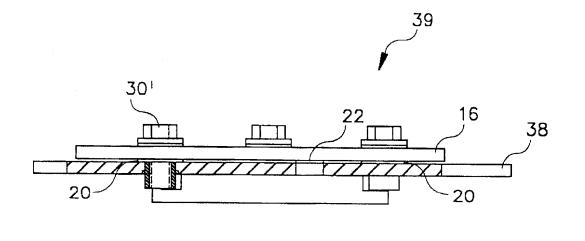


FIG. 6

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