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United States Patent [19]

Benjamin et al.

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[54] **PACKAGE FOR AN INFRARED COMMUNICATIONS ADAPTER**

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[73] Assignee: **The Whitaker Corporation**, Wilmington, Del.

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[22] Filed: **May 30, 1995**

[51] **Int. Cl.**[6] **H04B 10/00**

[52] **U.S. Cl.** **359/152**; 361/752

[58] **Field of Search** ..... 359/152, 159, 359/162, 163; 385/88, 90, 92, 93; 361/752, 756, 785, 796, 802; 345/156, 163, 169, 905; 463/36, 37, 38, 39; 273/148 H

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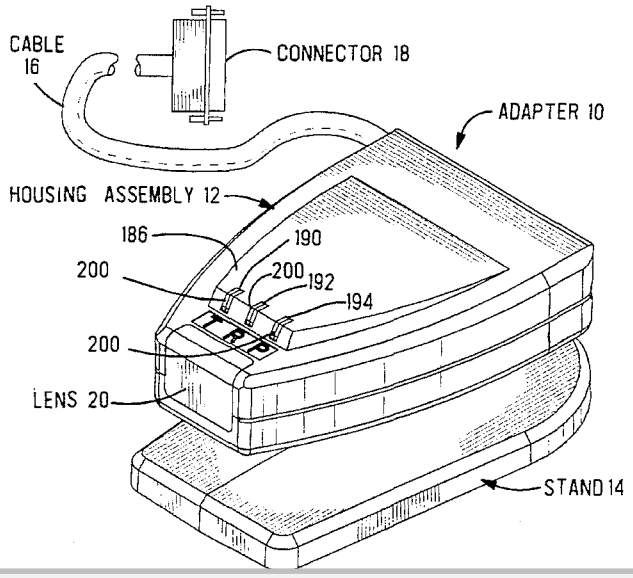
[57] **ABSTRACT**

An infrared communications adapter (**10**) is provided having a two part housing (**22**, **24**) that snaps together to form a housing assembly (**12**) having an interior cavity (**30**). The interior cavity contains a circuit board (**32**) having communications circuitry and components thereon, including light emitting diodes (**42**, **44**, **46**) for indicating operating status of the unit and a photodiode array (**34**) for receiving and transmitting infrared signals. The adapter (**10**) includes a light pipe (**50**) having three light conducting channels (**204**, **206**, **208**) that conduct light from the three light emitting diodes (**42**, **44**, **46**) to viewing facets (**190**, **192**, **194**) on the light pipe that extend through openings in the housing (**12**). A lens (**20**) is arranged in a front end of the housing directly in front of the photodiode array (**34**). An articulated coupling **60** removably couples a stand (**14**) to the housing assembly (**12**) and permits aiming of the unit for receiving and transmitting the infrared signals. A cable (**16**) is terminated at one end to the circuitry on the circuit board (**32**) and at the other end to a connector (**18**) that is connected to an input/output data port of a computer or other equipment.

33 Claims, 10 Drawing Sheets



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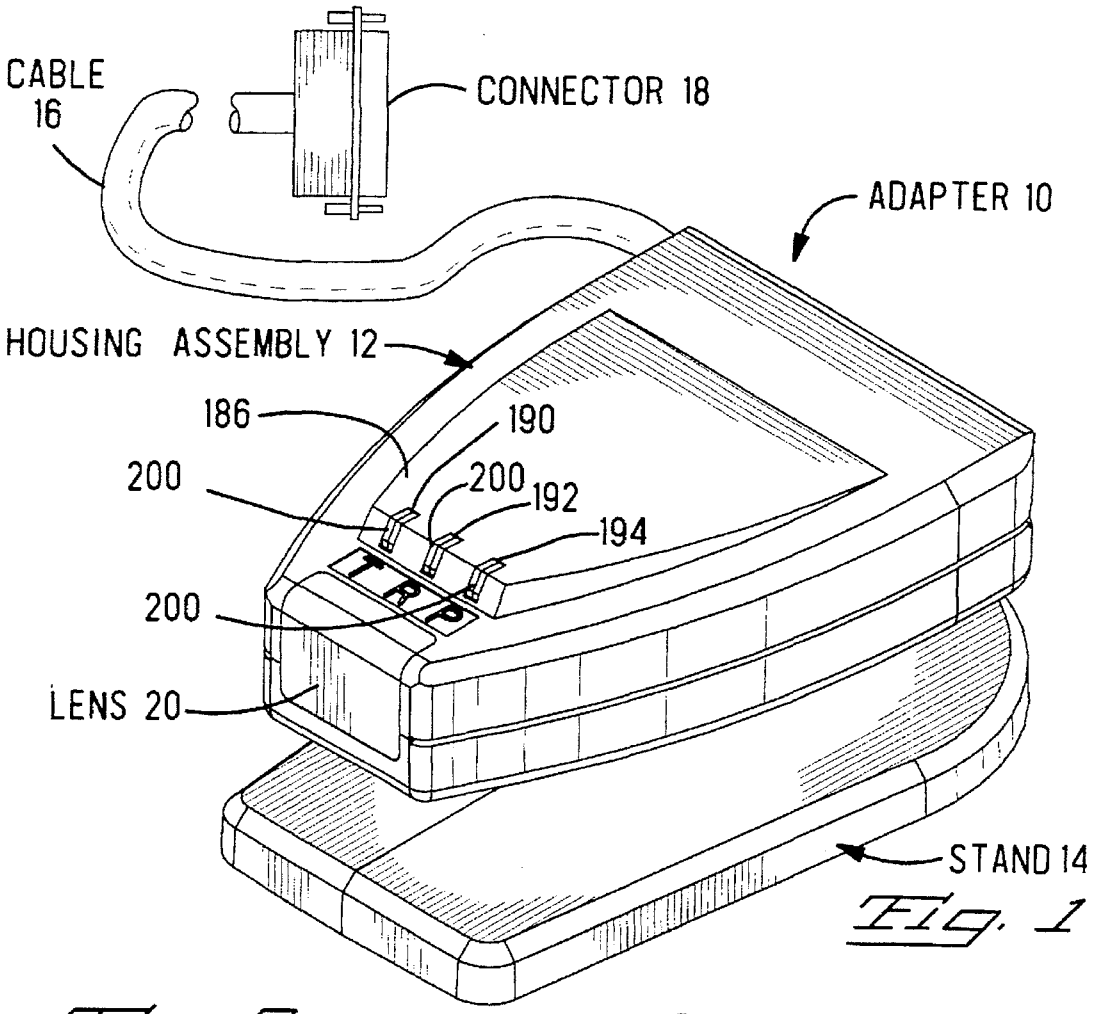
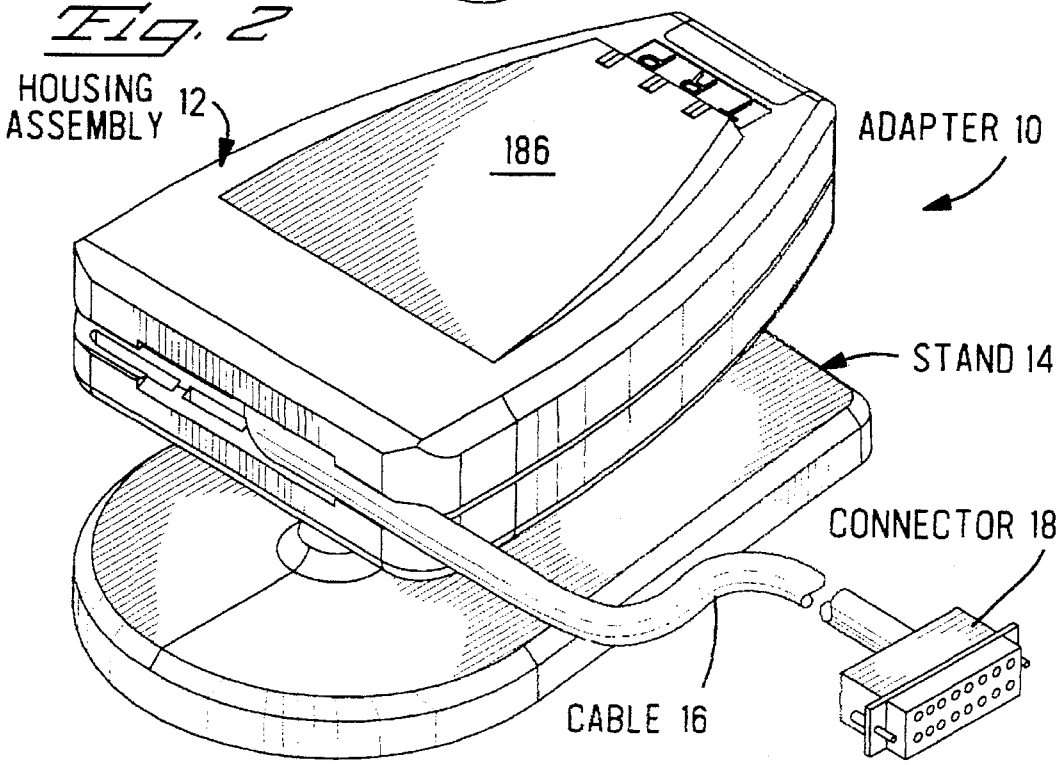


Fig. 1

Fig. 2



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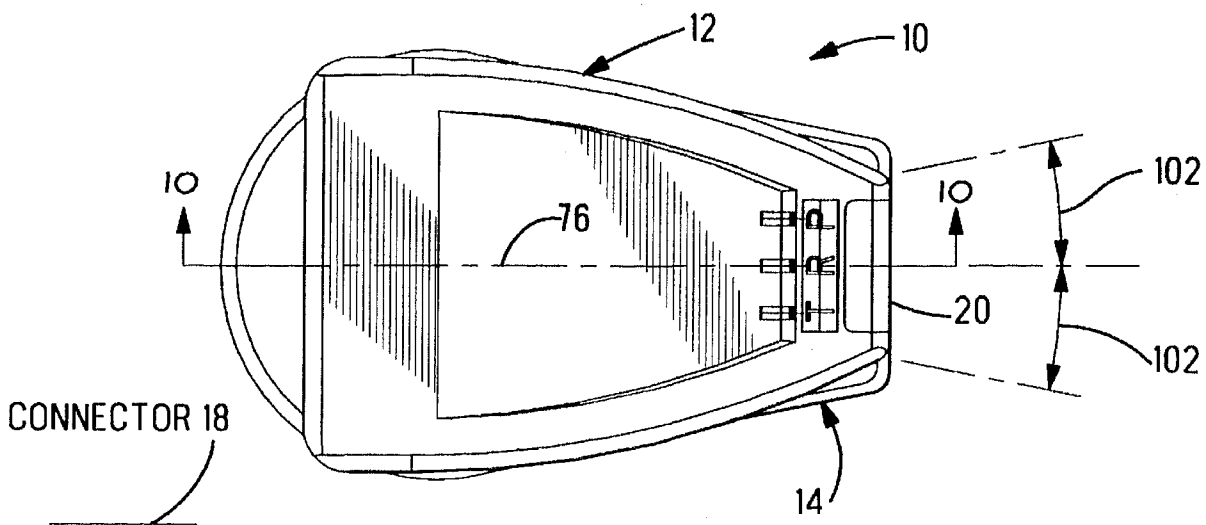

Fig. 3

Fig. 4

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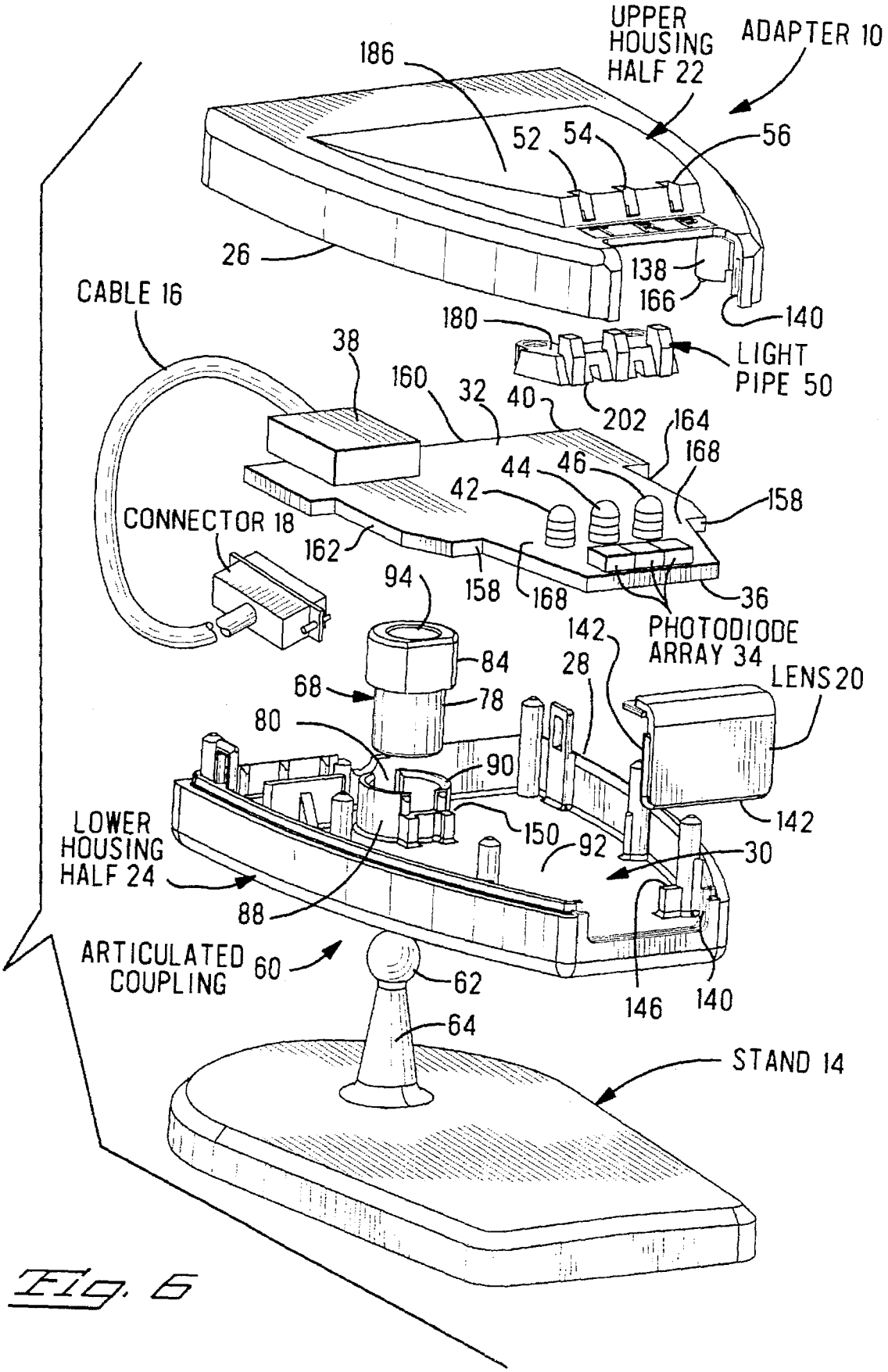

Fig. 6

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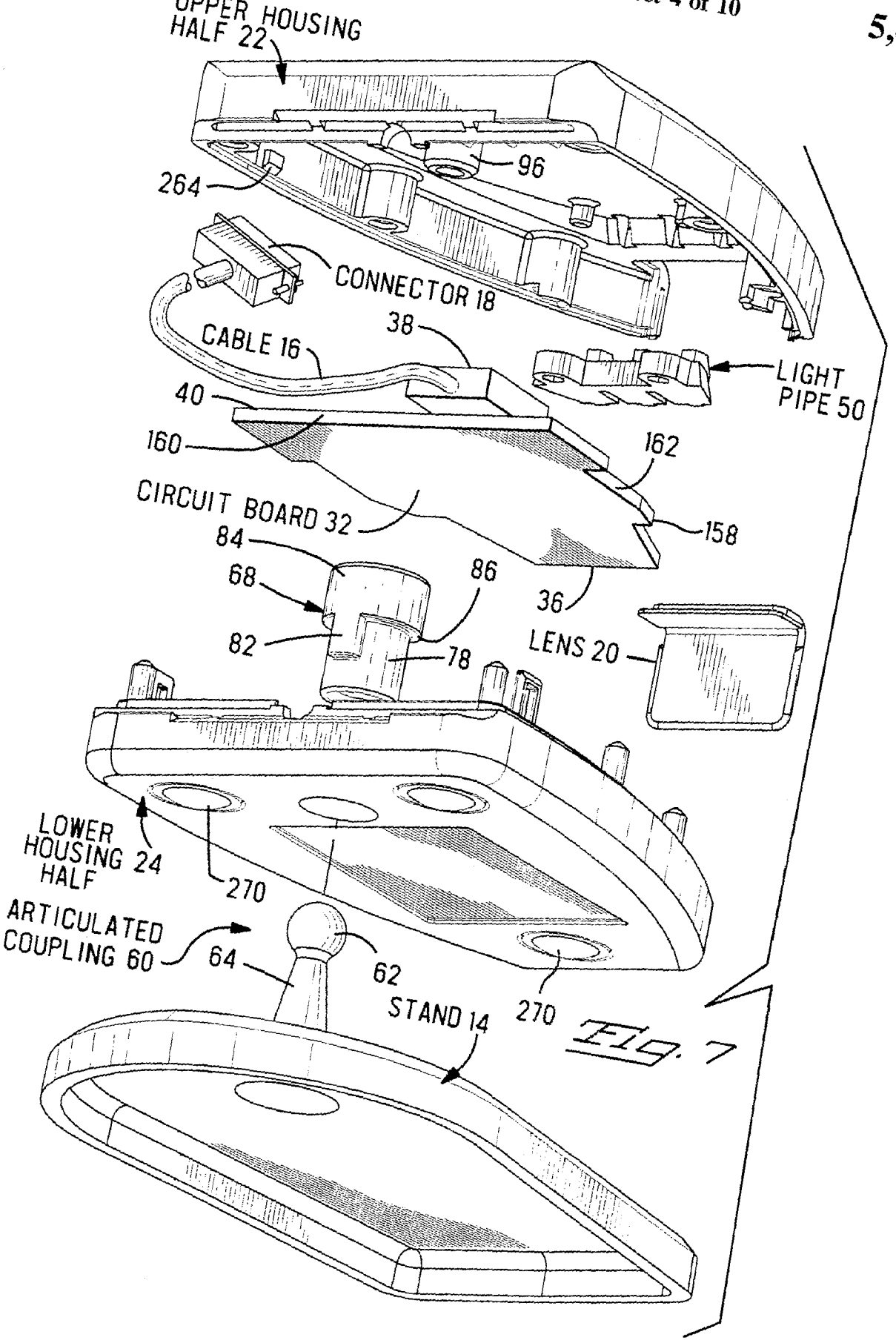

Fig. 7

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