



- [54] **MULTIPLE LIGHT EMITTING DIODE MODULE**
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- [73] Assignee: **Hewlett-Packard Company**, Palo Alto, Calif.
- [21] Appl. No.: **293,110**
- [22] Filed: **Aug. 19, 1994**

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[57] **ABSTRACT**

A LED module for providing a source of illumination comprises a plurality of LED lamps each having an anode lead and a cathode lead for providing electrical and mechanical connection. The anode lead of each LED lamp is connected to an anode bus bar and the cathode lead of each LED lamp is connected to a cathode bus bar by solderless connection. The bus bars and the leads of each LED lamp may be integral with each other. Alternatively, the bus bars and leads may be non-integral with each other, connected by an interlocking interaction or interference fit between approximately complementary portions of each lead and bus bar. The LED module may accommodate serial electrical interconnection with other LED modules, it may be shaped according to the particular contour or design of an accommodating light assembly, and it may comprise LED lamps placed at arbitrary positions to achieve a predetermined degree of illumination.

Related U.S. Application Data

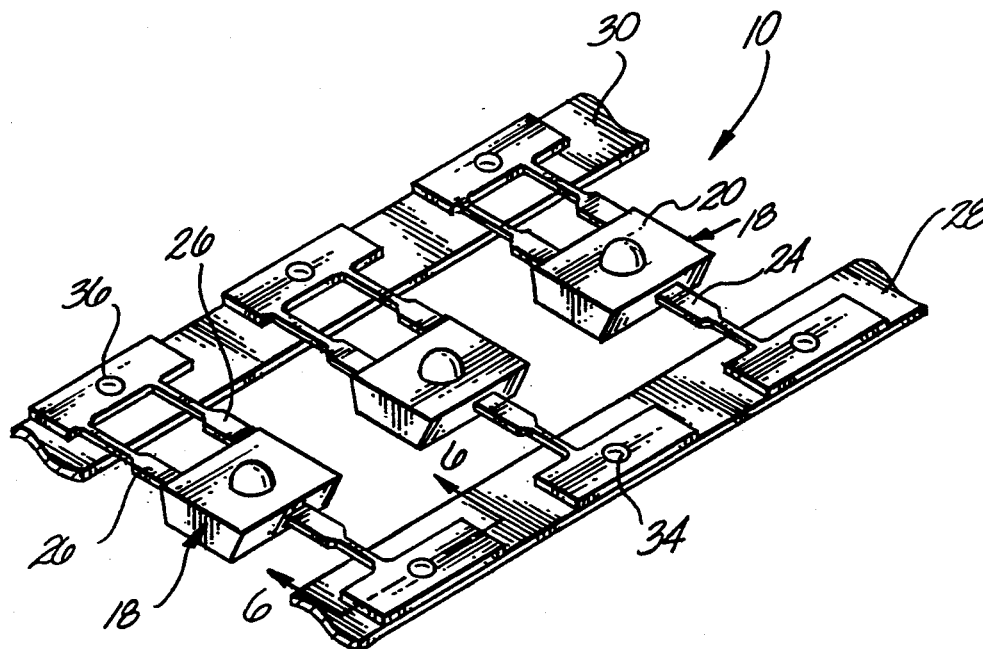
- [63] Continuation of Ser. No. 123,134, Sep. 17, 1993, abandoned.
- [51] Int. Cl.⁶ **H01R 4/18**
- [52] U.S. Cl. **362/249; 362/252; 362/800; 439/877**
- [58] Field of Search **362/249, 252, 800; 439/877, 879, 885; 361/637, 639, 698; 174/703, 172, 52.4**

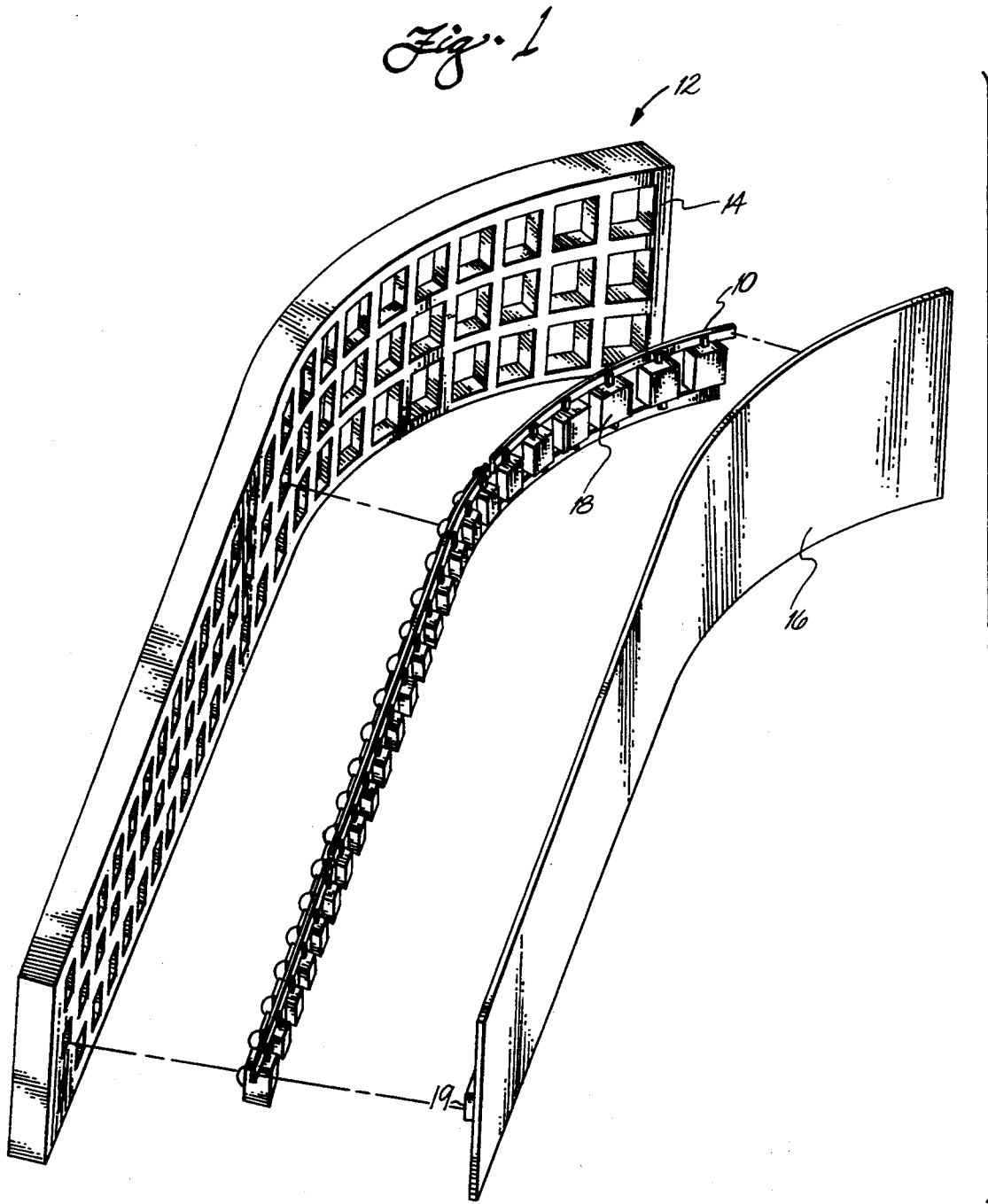
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5 Claims, 5 Drawing Sheets





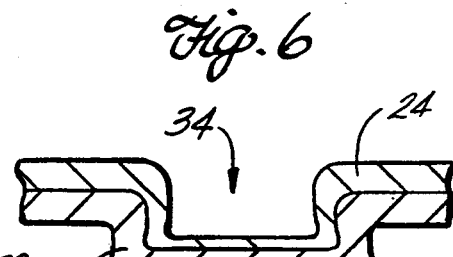
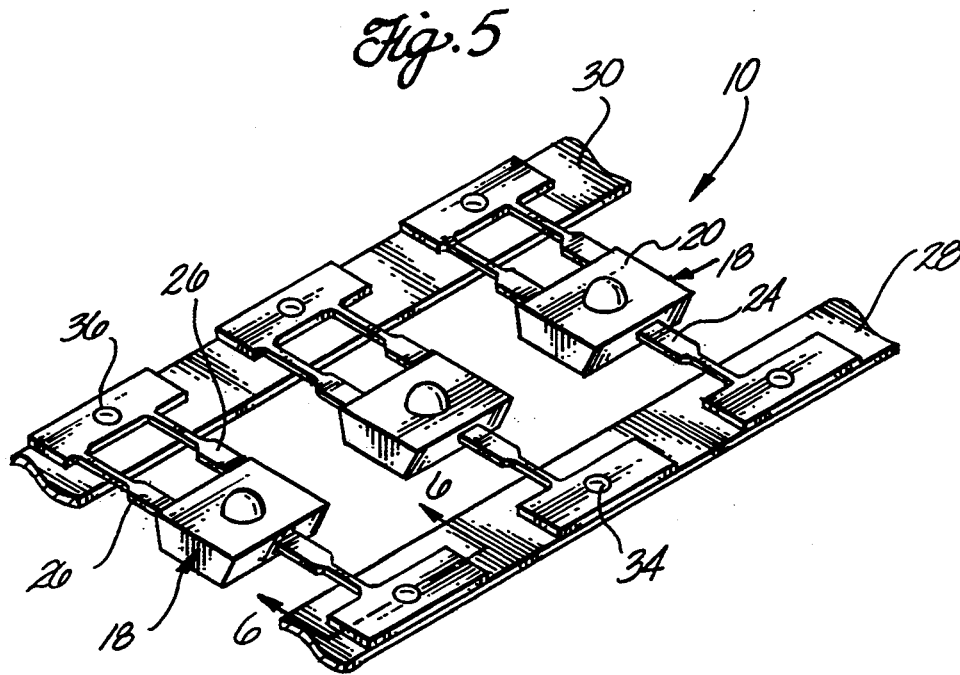
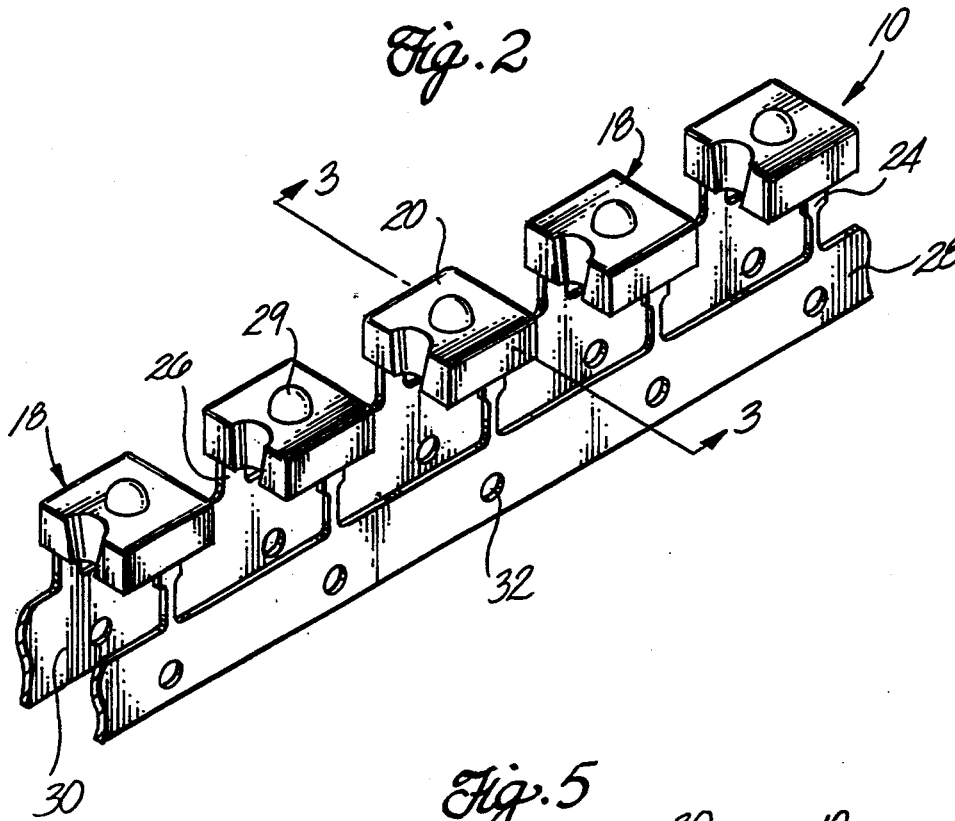


Fig. 3

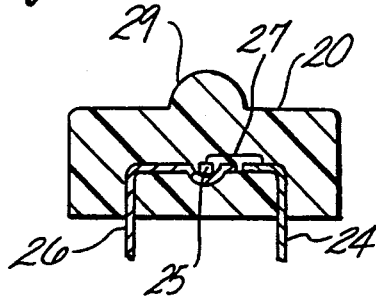


Fig. 4

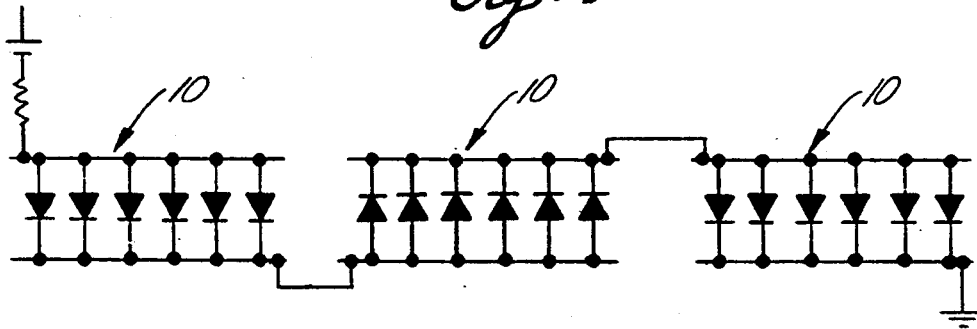
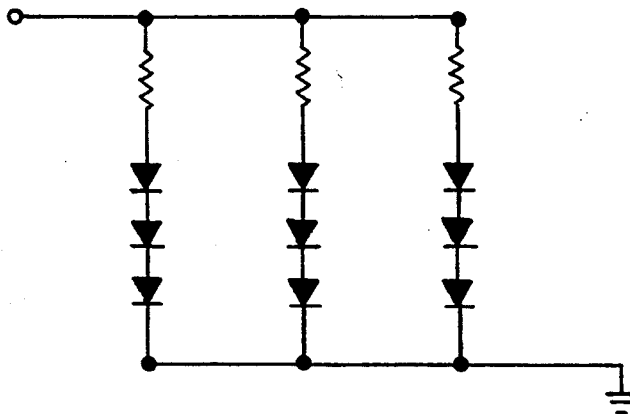
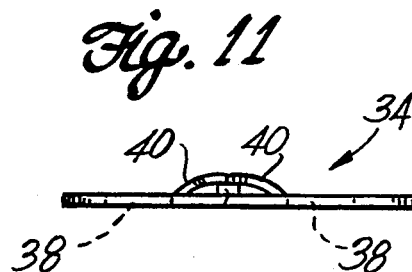
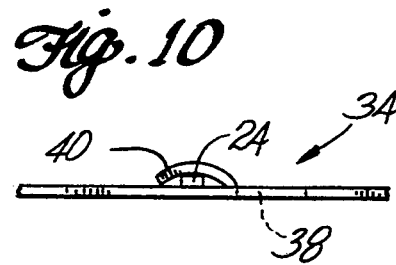
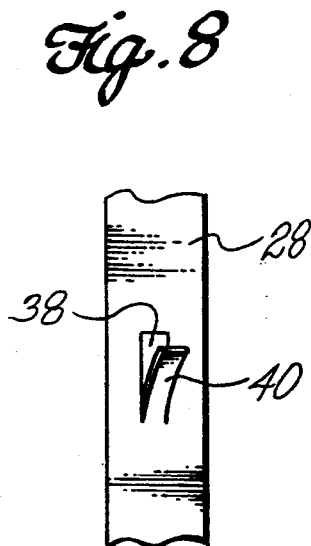
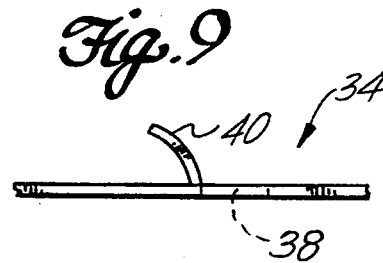
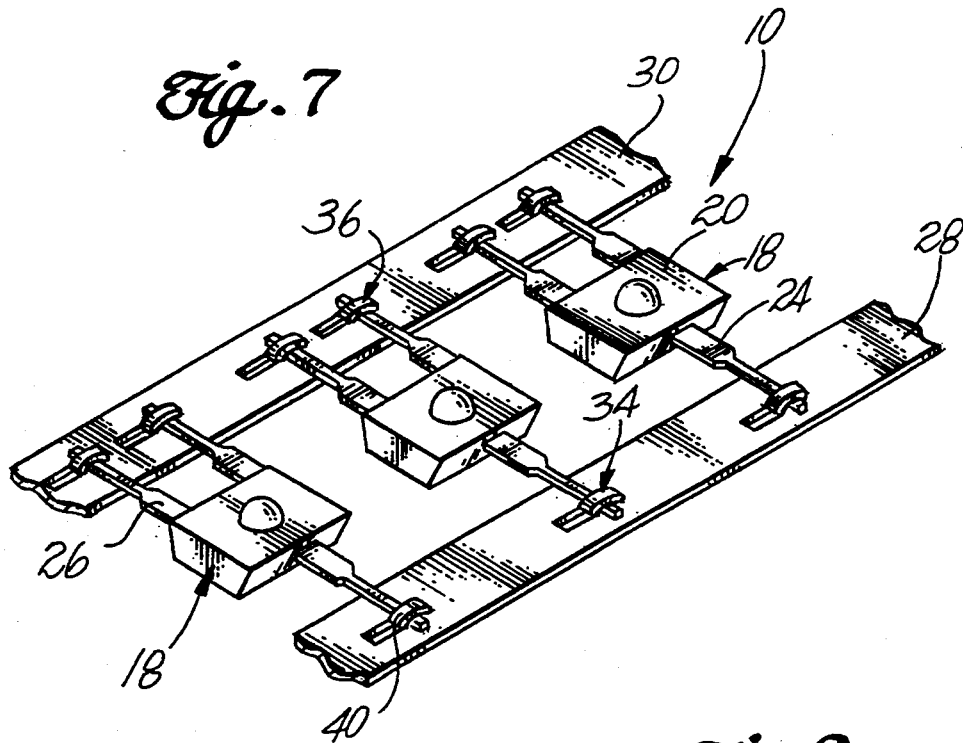


Fig. 13





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