

[54] **ELECTRO-OPTICAL DISPLAY DEVICE WITH ELECTRO-OPTICAL LIGHT VALVES**

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[73] Assignee: **Siemens Aktiengesellschaft, Berlin & Munich, Fed. Rep. of Germany**

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[22] Filed: **Dec. 2, 1976**

[30] **Foreign Application Priority Data**

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[51] Int. Cl.² **G02F 1/13**

[52] U.S. Cl. **350/345; 350/338**

[58] Field of Search **350/160 LC, 150, 160 R, 350/338, 345, 357**

[56] **References Cited**

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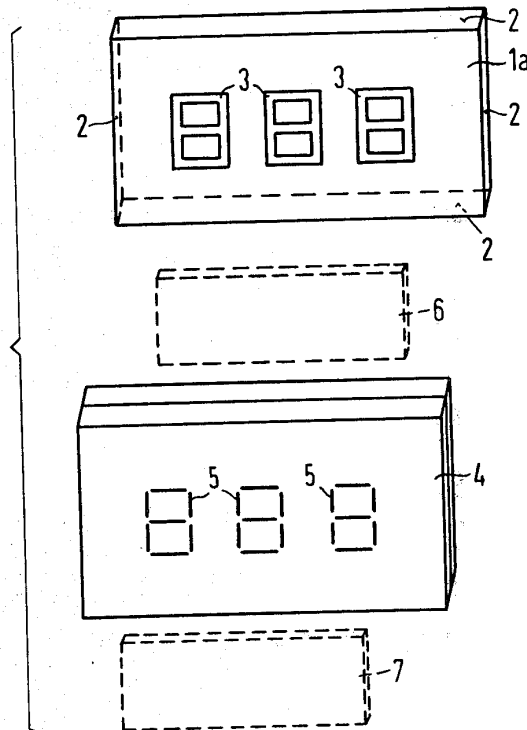
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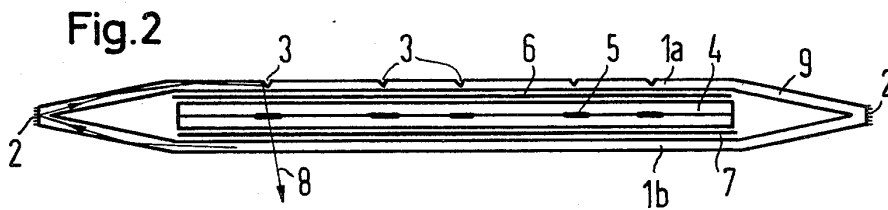
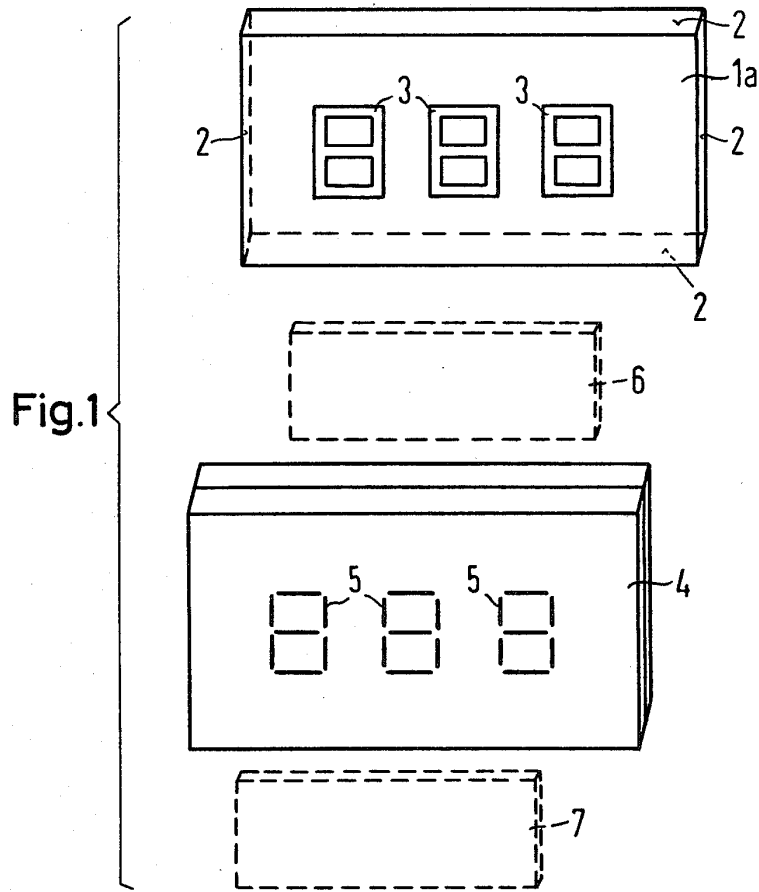
Primary Examiner—Edward S. Bauer
Attorney, Agent, or Firm—Hill, Gross, Simpson, Van Santen, Steadman, Chiara & Simpson

[57] **ABSTRACT**

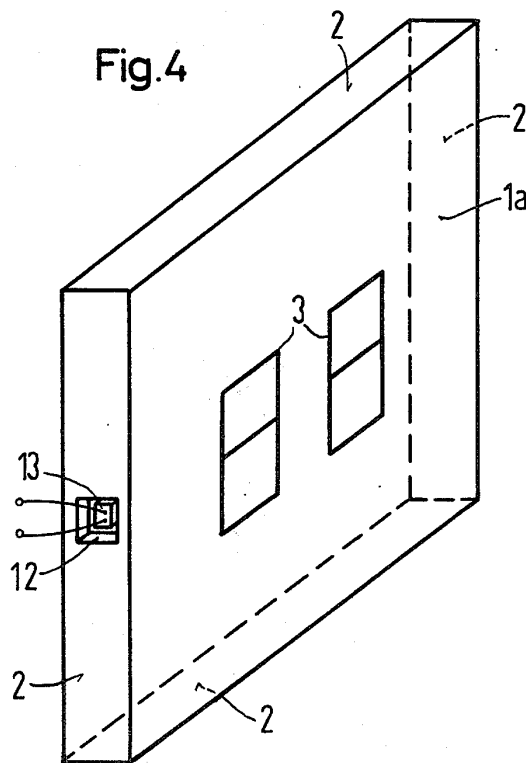
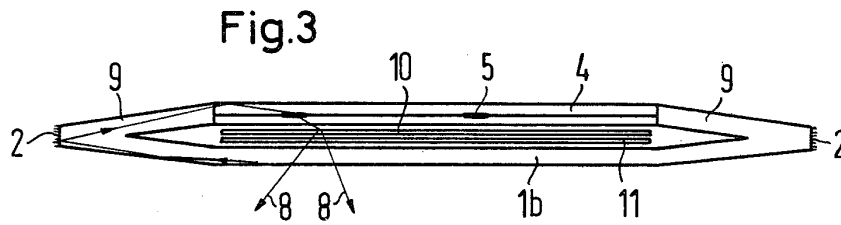
Electro-optical display device which may operate either in a one or multi-color mode and utilizes electro-optical light valves for controlling transmittance of a passive light through the device characterized by passively amplifying the brightness of the display device with the addition of a light trap which includes a fluorescent plate having mirrored edge surfaces. While the invention or improvement may be utilized with any passive optical display device, it is particularly useful with a liquid crystal display device.

36 Claims, 20 Drawing Figures





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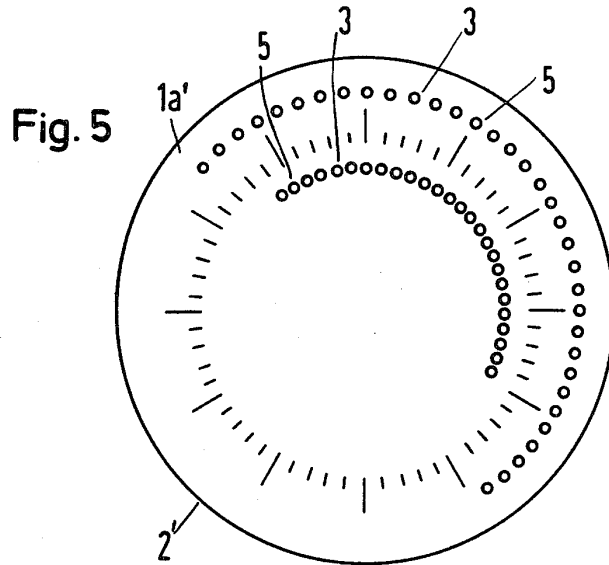
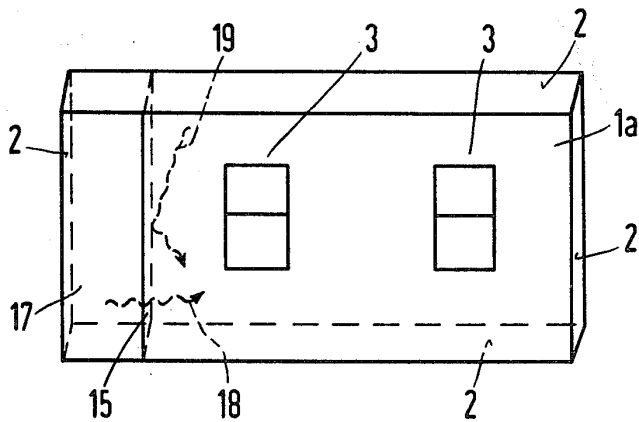
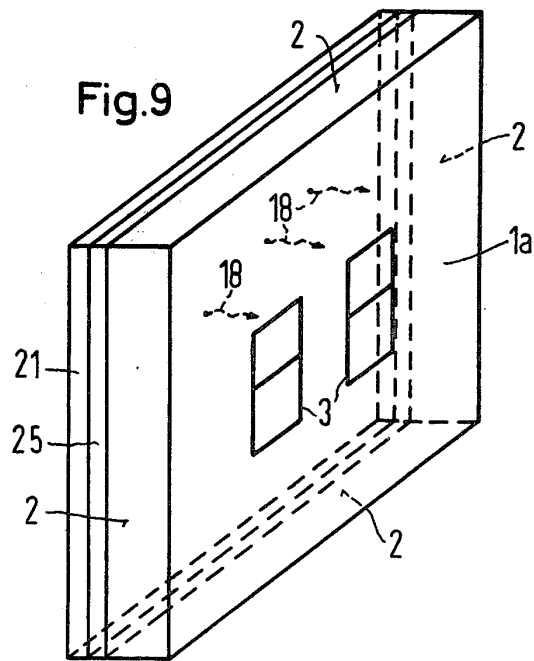
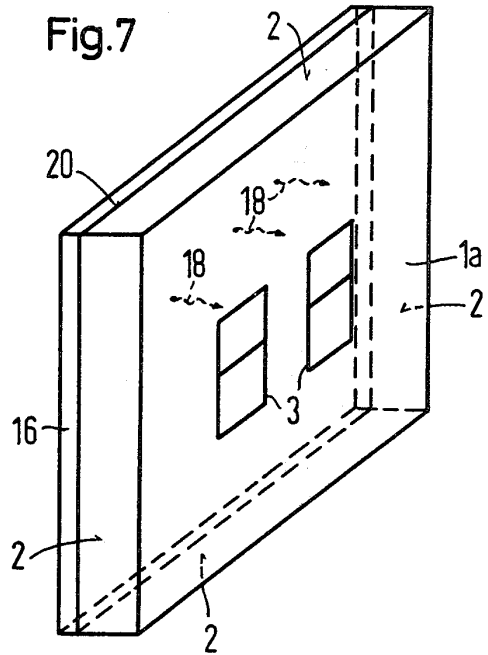


Fig. 6





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