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Ohtake et al.

- [54] PLASTIC OPTICAL MEMBER AND LIGHT-QUANTITY-CONTROLLING MEMBER EACH HAVING A LIGHT-DIFFUSING LAYER ON ITS SURFACE
- [75] Inventors: Genji Ohtake, Yokohama; Hisao Morohashi, Kawasaki; Souichi Hasegawa, Yokohama, all of Japan
- [73] Assignee: Ohno Research & Development Laboratories Co. Ltd., Yokohama, Japan
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- [86]
 PCT No.:
 PCT/JP91/01177

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 Apr. 27, 1992
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 [JP]
 Japan
 2-233978

 Oct. 30, 1990
 [JP]
 Japan
 2-292991
- [51] Int. Cl.⁶ G02B 13/20; G02B 5/02; A61G 13/00
- [58] Field of Search 359/599, 707, 893, 894, 359/619; 362/26, 31, 33

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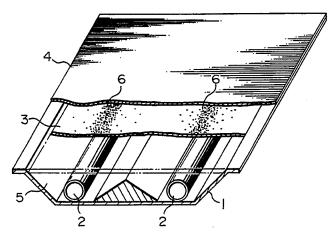
Primary Examiner—Scott J. Sugarman Assistant Examiner—Thong Nguyen Attorney, Agent, or Firm—Ladas & Parry

ABSTRACT

[57]

There is provided a plastics optical member having on its surface a light-diffusing layer composed of a layer of micro-joints formed by immersing a plastics material successively in a good solvent and a poor solvent, and a plastics light-quantity-controlling member having on its surface a white pattern composed of the micro-joints. The superiority in light diffuse reflection, transmission and light-quantity-controlling property permit their incorporation into various optical systems such as screens for projection, various displays, light-sourcedirectly-under-an-illumination-surface type light boxes, edge light type light boxes, etc.

8 Claims, 6 Drawing Sheets



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FIG. I

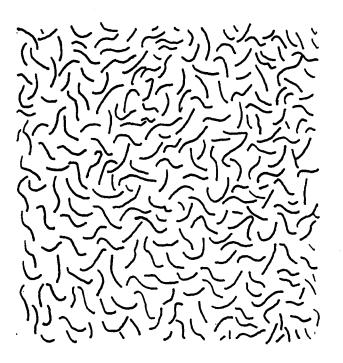
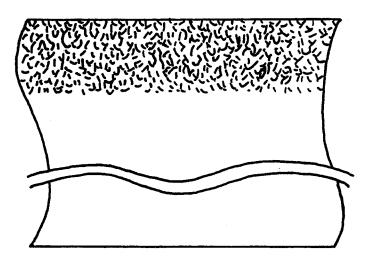


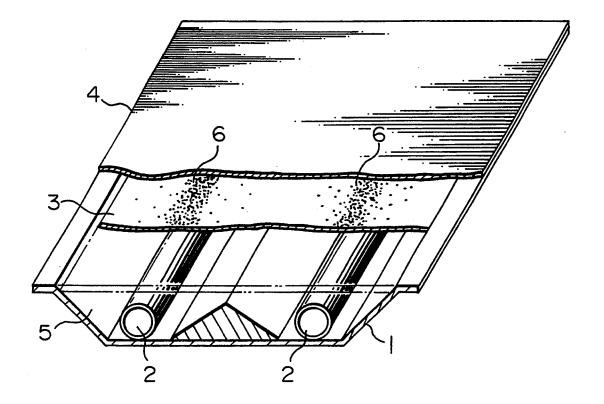
FIG. 2



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FIG. 4

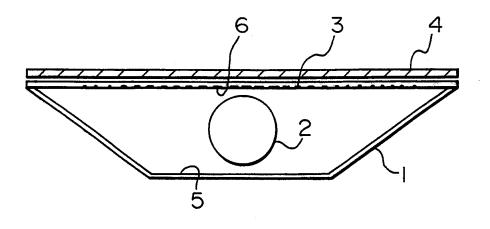


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FIG. 5





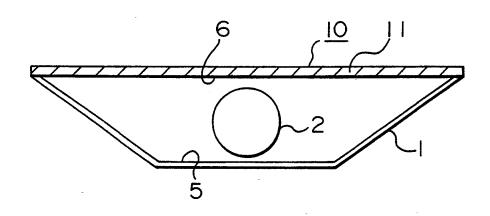
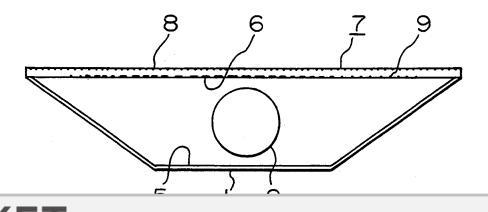


FIG. 7



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