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## (12) United States Patent

#### Parker

#### (54) LIGHT EMITTING PANEL ASSEMBLIES

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- (73) Assignee: Solid State Opto Limited (VG)
- (\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

- (21) Appl. No.: 11/548,330
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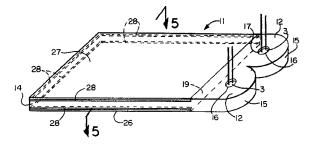
#### Related U.S. Application Data

- (60) Division of application No. 10/784,527, filed on Feb. 23, 2004, now Pat. No. 7,160,015, which is a division of application No. 09/256,275, filed on Feb. 23, 1999, now Pat. No. 6,712,481, which is a continuation-inpart of application No. 08/778,089, filed on Jan. 2, 1997, now Pat. No. 6,079,838, which is a division of application No. 08/495,176, filed on Jun. 27, 1995, now Pat. No. 5,613,751.
- (51) Int. Cl. *F21V 8/00* (2006.01)
- (52) U.S. Cl. ...... 362/607; 362/618; 362/619; 362/620

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#### (45) **Date of Patent:** \*May 26, 2009

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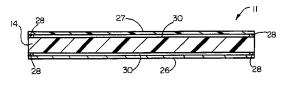
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#### (57) **ABSTRACT**

Light emitting panel assemblies include an optical panel member having a pattern of light extracting deformities on or in one or both sides to cause light to be emitted in a predetermined output distribution. The pattern of light extracting deformities on or in one side may have two or more different types or shapes of deformities and at least one of the types or shapes may vary along the length or width of the panel member. Where the light extracting deformities are on or in both sides, at least some of the deformities on or in one side may be of a different type or shape or vary in a different way or manner than the deformities on or in the other side.

#### 48 Claims, 4 Drawing Sheets



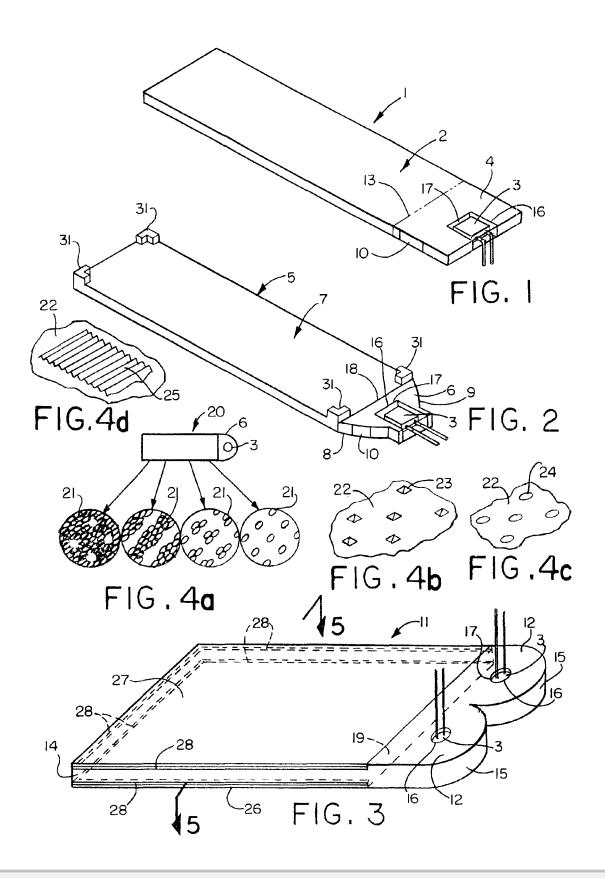
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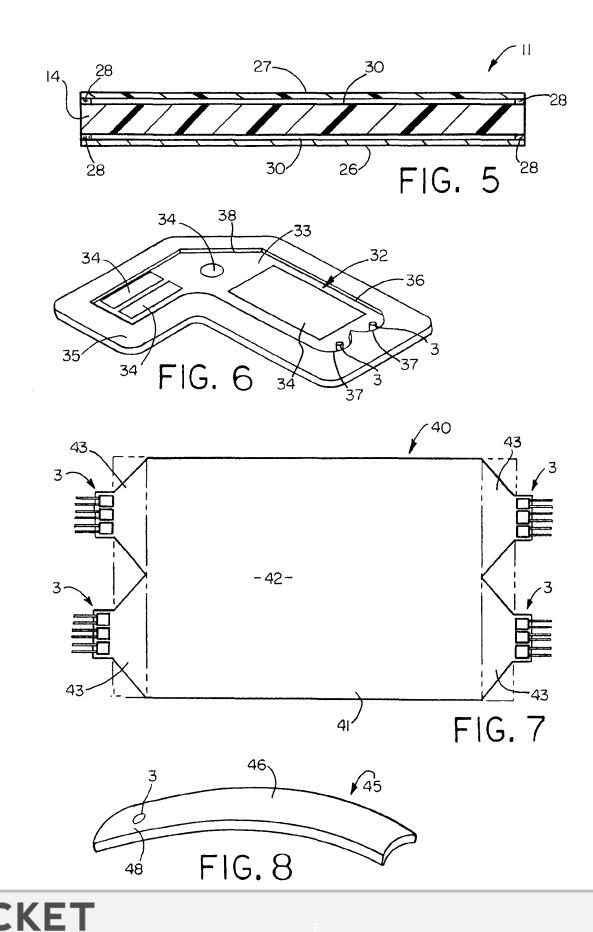
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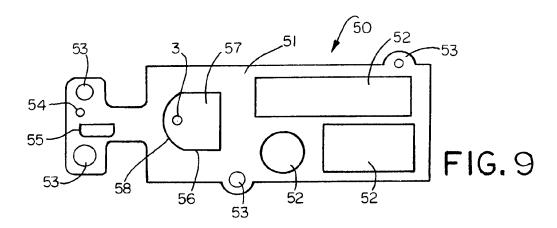
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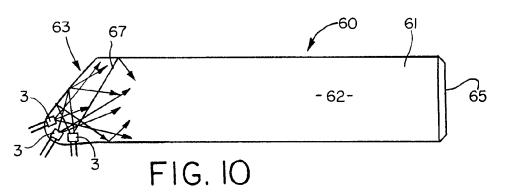
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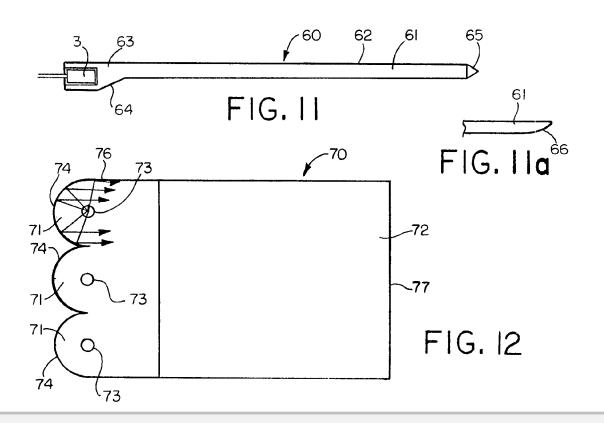


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