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Vasylyev

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(54) **OPTICAL COVER EMPLOYING MICROSTRUCTURED SURFACES**

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G02B 5/124 (2006.01)

(52) **U.S. Cl.**
USPC **359/530**

(58) **Field of Classification Search**
CPC G02B 5/124
USPC 359/529, 530
See application file for complete search history.

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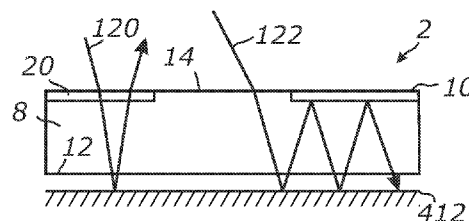
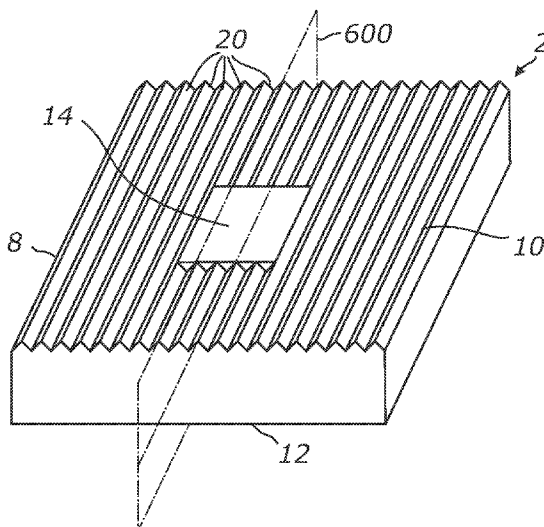
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Primary Examiner — Euncha Cherry

(57) **ABSTRACT**

A light trapping optical cover employing an optically transparent layer is described. The transparent layer has at least one corrugated surface formed by a plurality of isosceles right-angle prismatic corrugations configured to internally retroreflect light into the transparent layer. The corrugated surface also includes optical windows configured for inputting or outputting light to or from the transparent layer. The optical cover may further employ a focusing array of light collectors being pairwise associated with the respective optical windows.

19 Claims, 14 Drawing Sheets



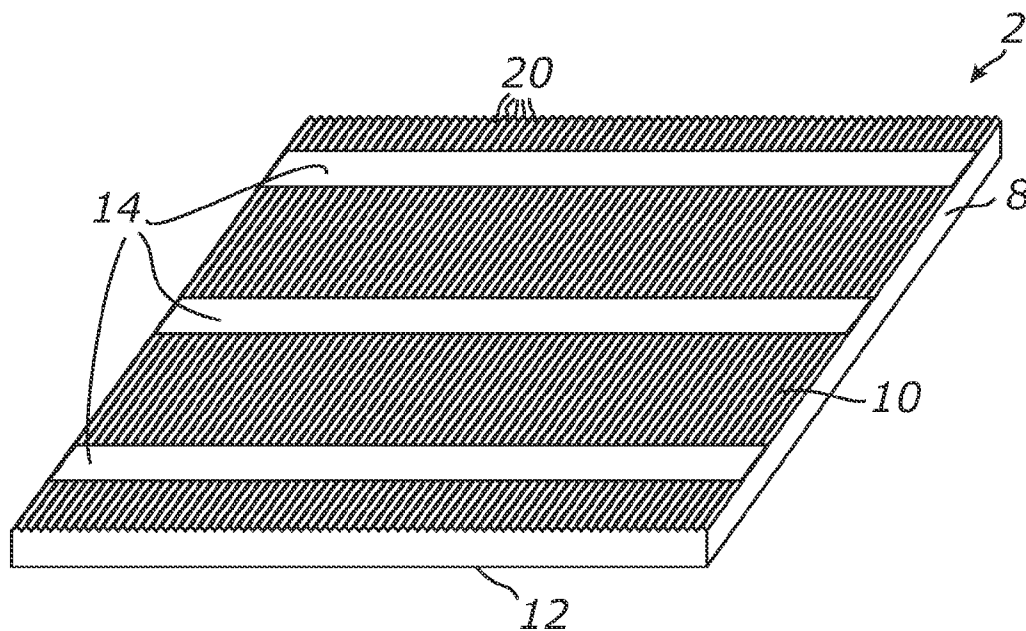


FIG. 1

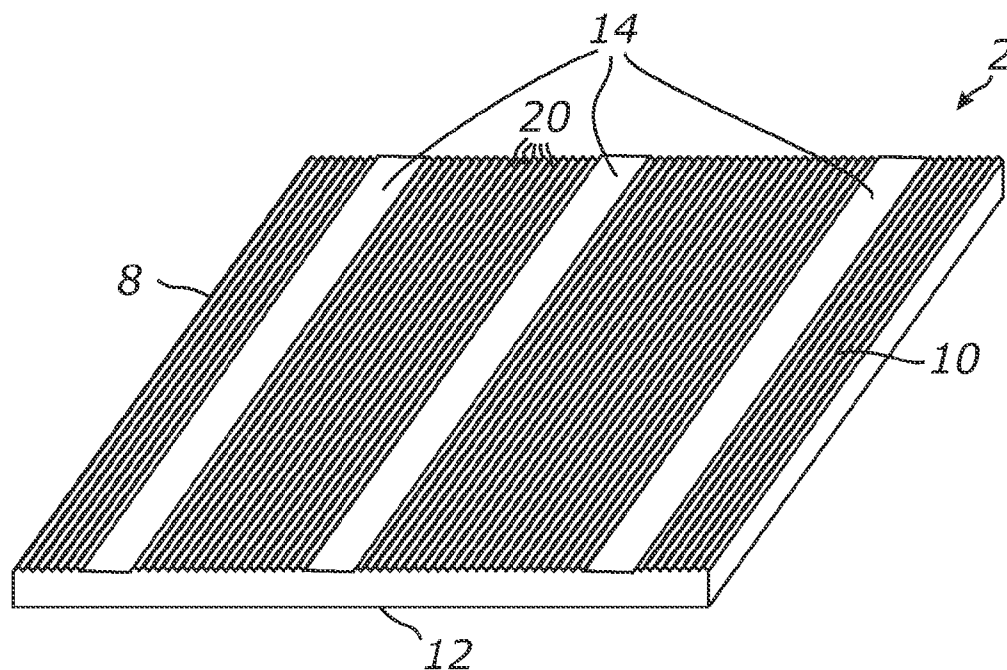
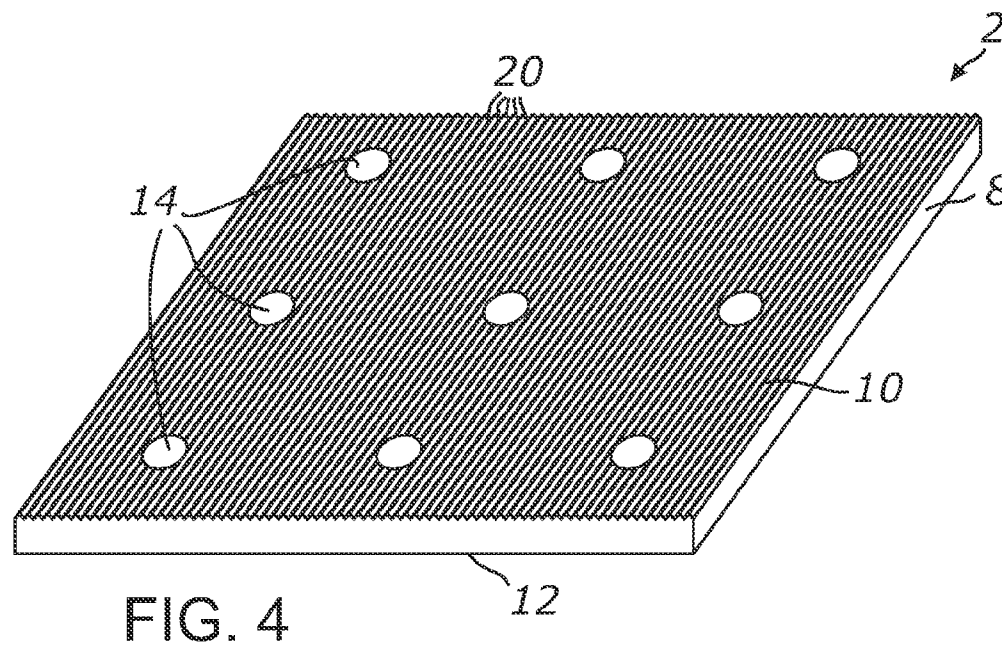
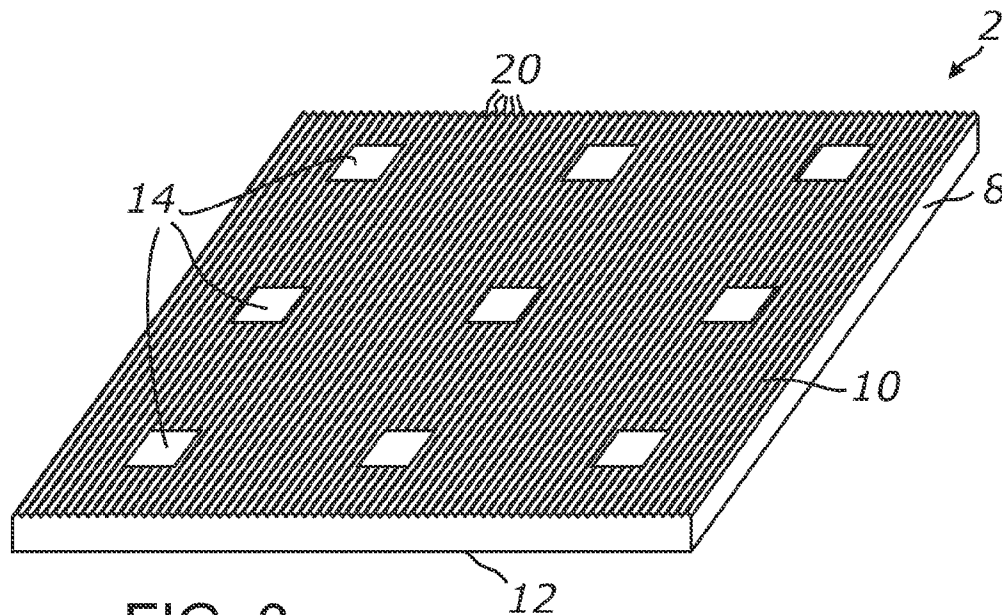


FIG. 2



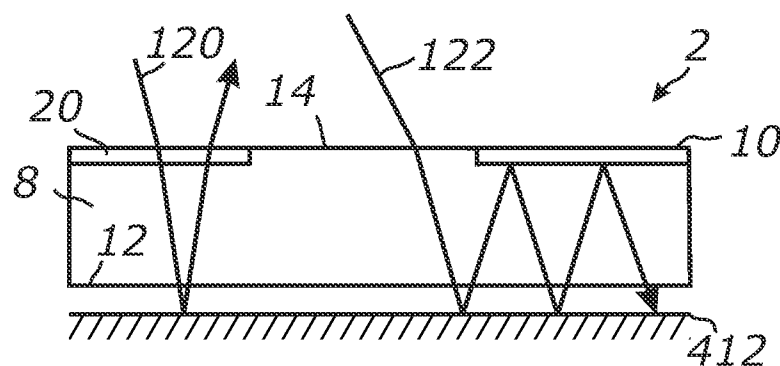
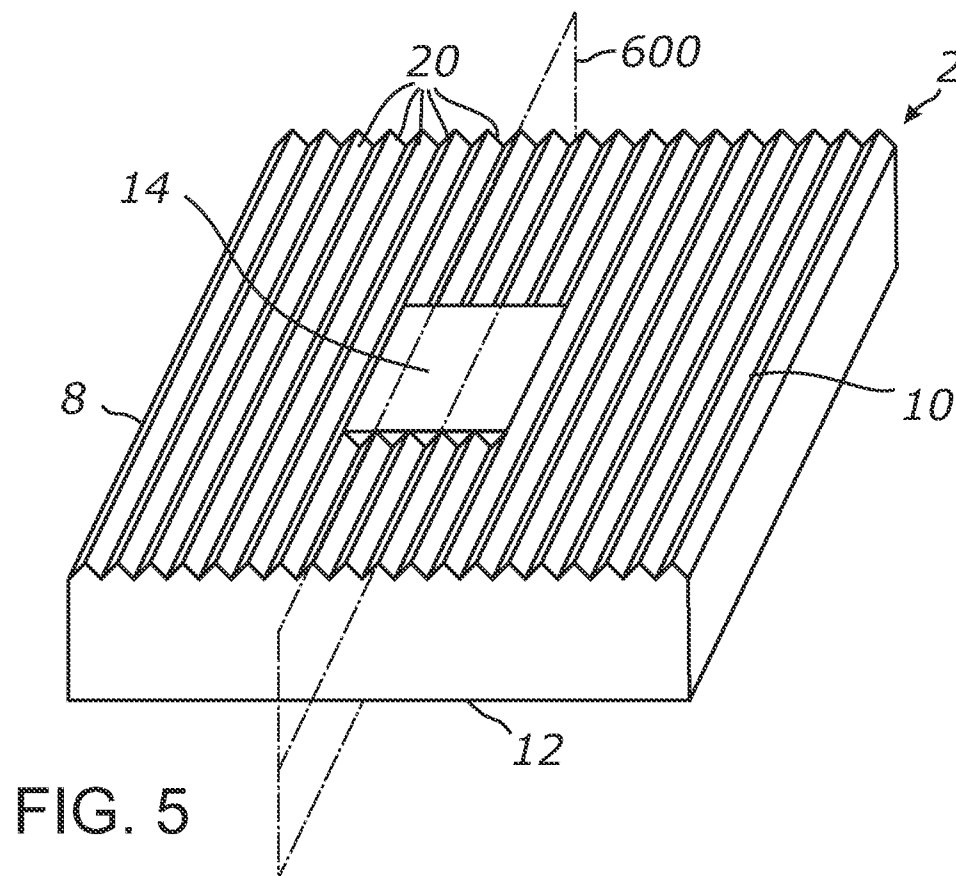


FIG. 6

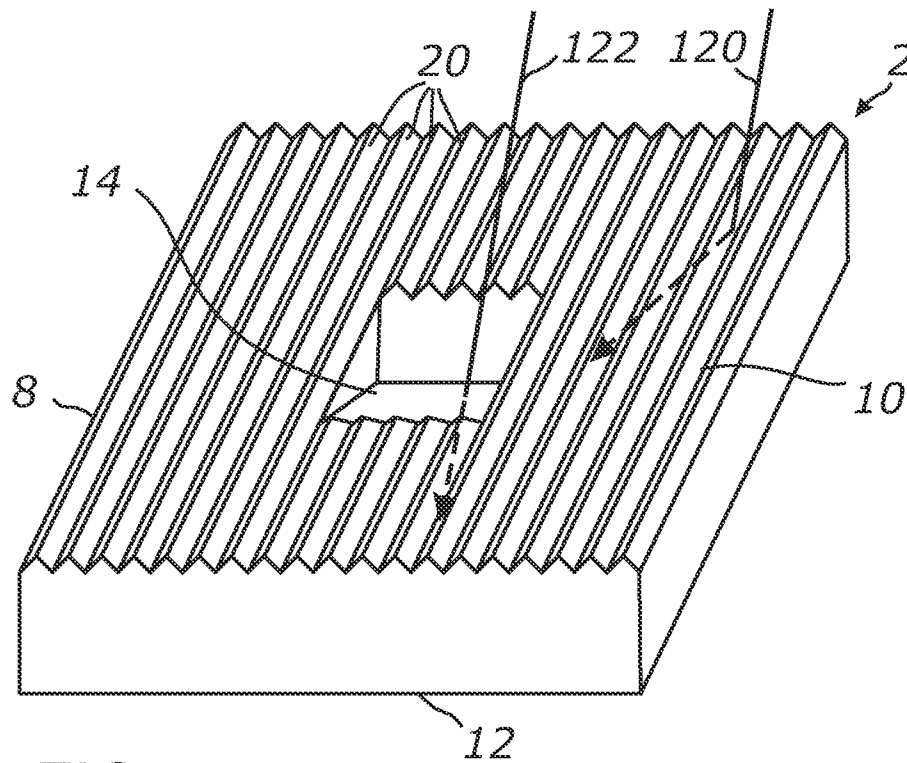


FIG. 7

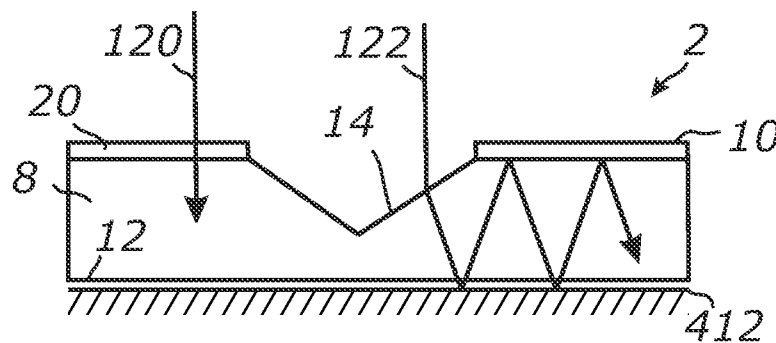


FIG. 8

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