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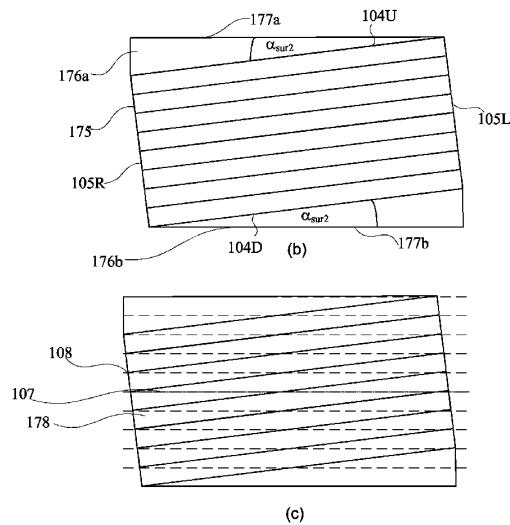
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(54) Title: METHOD FOR MANUFACTURING SUBSTRATE-GUIDED ELEMENTS FOR COMPACT HEAD-MOUNTED DISPLAY SYSTEM



FIGS. 9

(57) Abstract: A method for manufacturing an optical device having a light wave transmitting substrate with at least two major surfaces, edges and an output coupling-out reflecting element carried by the substrate forming a substrate allowing light-waves to traverse the substrate between the two major surfaces, includes (a) attaching to each other a plurality of flat plates of a selected thickness, each having at least two parallel main surfaces and two edges arranged in an unlimited first periodic stack (175) having at least two surfaces (104U, 4D) parallel to the main surfaces of the plates and edges (105R, 105L); (b) slicing the stack to form a plurality of slices (178) defining slicing lines (107), wherein the stack is oriented such that for the majority of the stacked plates, the slicing lines cross at least two edges of the plate; (c) grinding or polishing the slice to form a substrate with two major 10 surfaces, and a coupling-out reflecting element, wherein the major surfaces are parallel to each other and not parallel to the coupling-out reflecting element, and (d) cutting

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