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**McLaughlin et al.**

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(54) **OPTICAL DEVICE WITH NON-EQUALLY SPACED OUTPUT PORTS**

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(51) **Int. Cl.**

**G02B 6/00** (2006.01)

**G02B 6/36** (2006.01)

(52) **U.S. Cl.** ..... **385/18**; 385/140

(58) **Field of Classification Search** ..... 385/15-20,  
385/27, 31, 37, 129, 140

See application file for complete search history.

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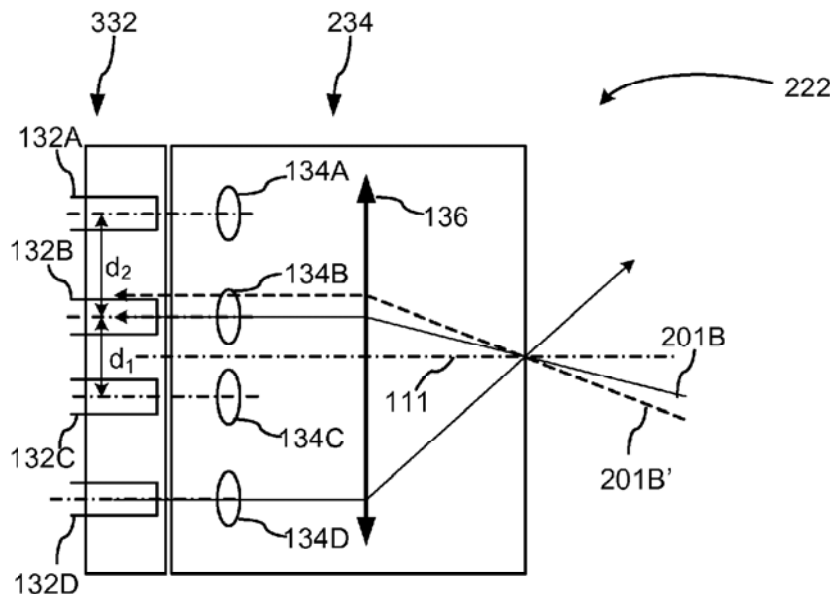
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(57) **ABSTRACT**

The invention relates to multiport routing devices for routing optical signals which also provide beam attenuation by imparting a controllable offset between an optical beam and a selected optical port. A multiport optical routing device of the present invention has a plurality of non-equally spaced optical ports disposed in a row to enable beam offset for attenuation without substantially increasing optical crosstalk between adjacent ports in a compact port arrangement.

**14 Claims, 10 Drawing Sheets**



Capella 2033

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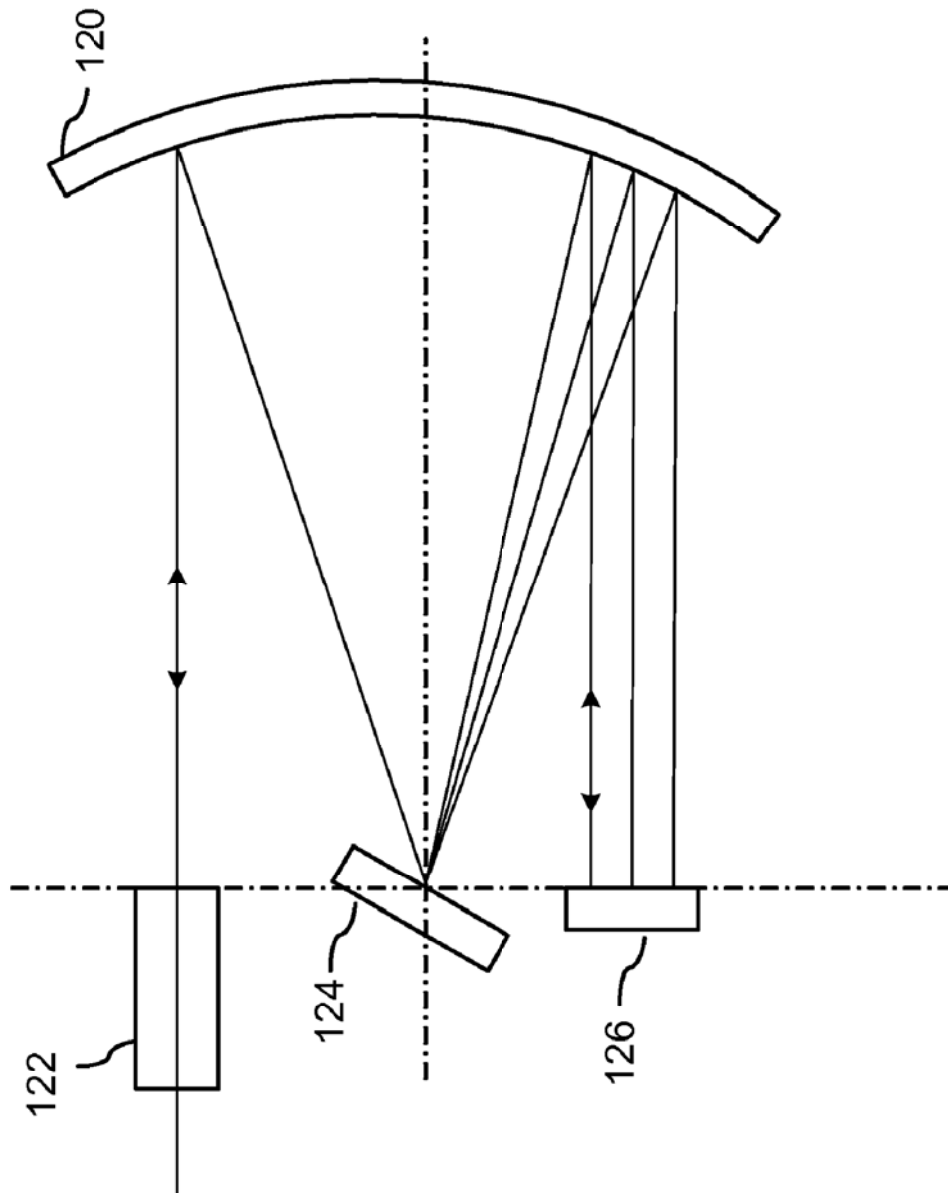


FIG. 1 (PRIOR ART)

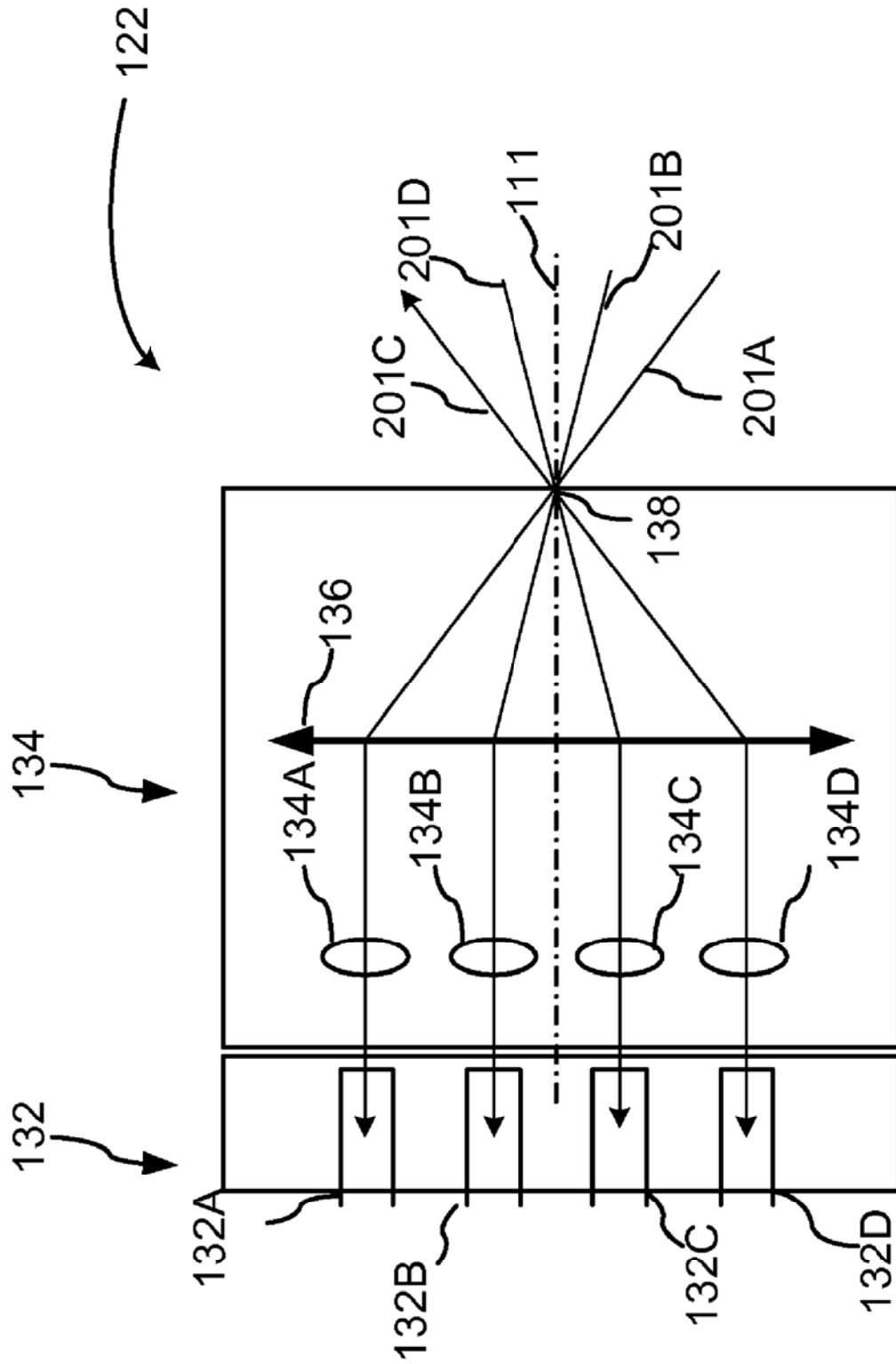


FIG. 2 (PRIOR ART)

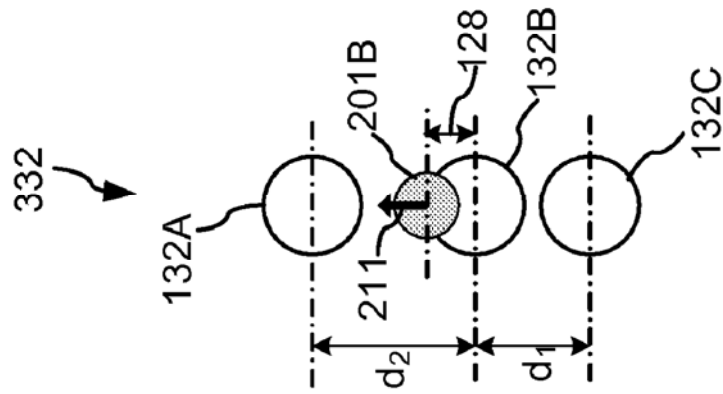


FIG. 3D

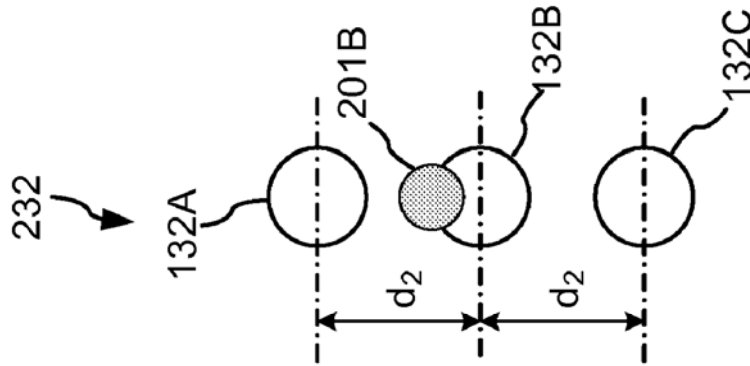


FIG. 3C

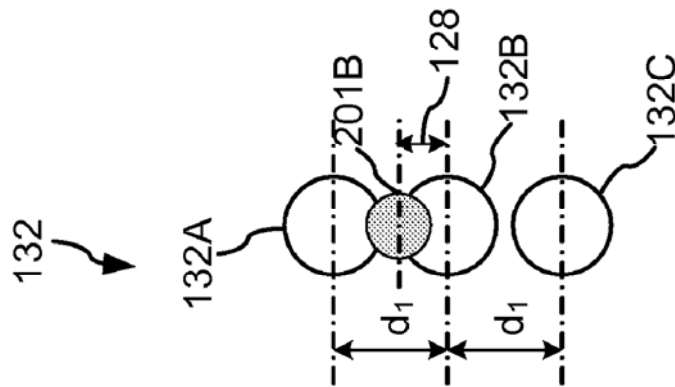


FIG. 3B

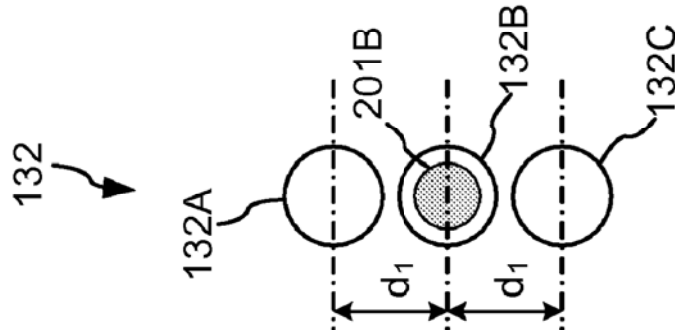


FIG. 3A

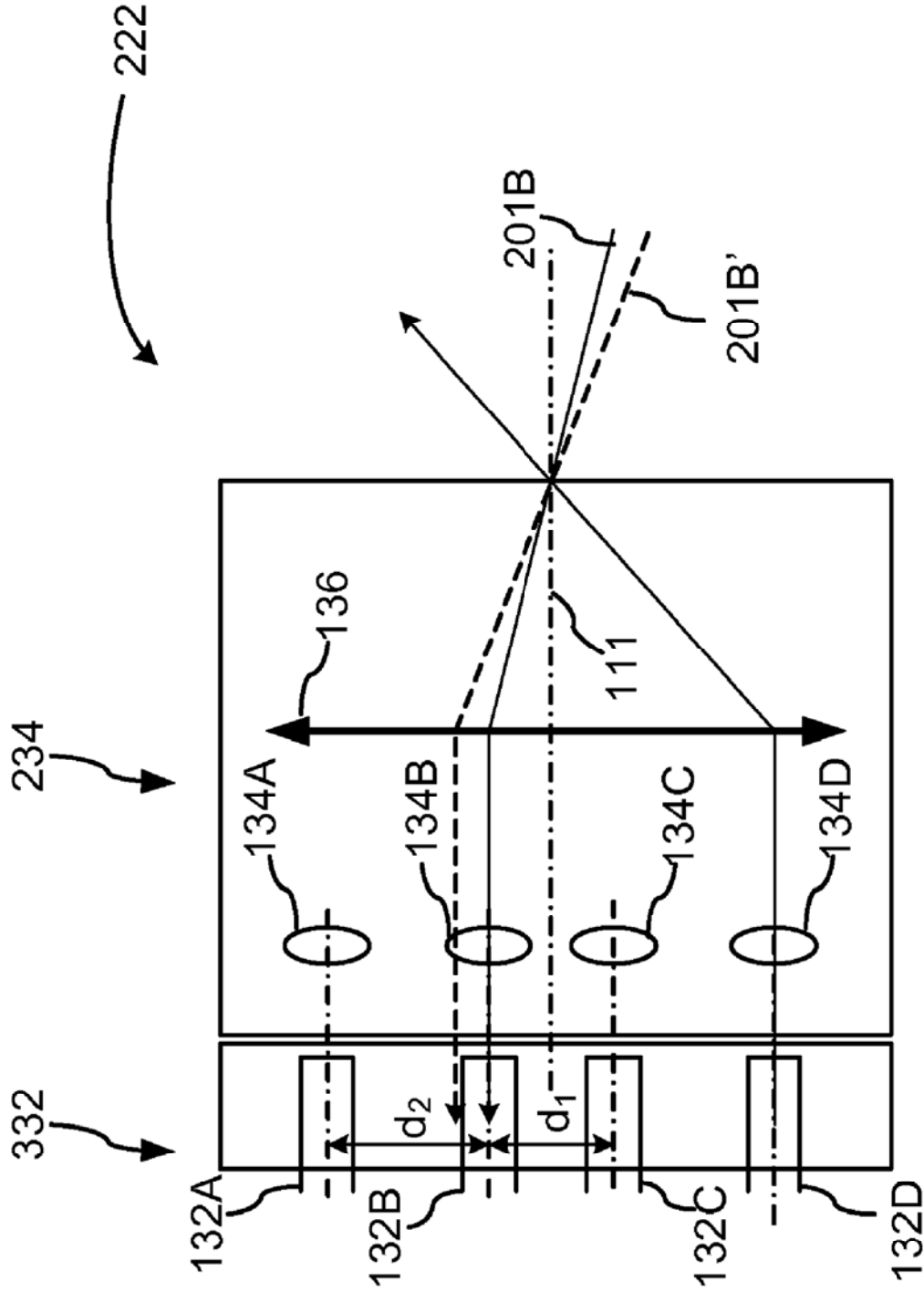


FIG. 4

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