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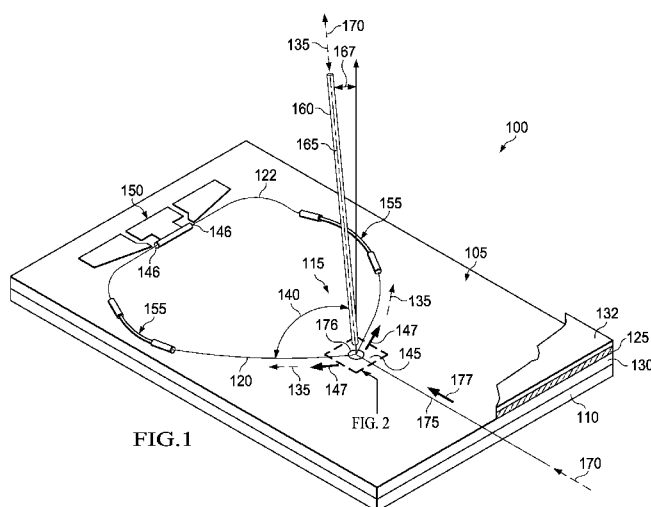
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(54) Title: A POLARIZATION DIVERSITY GRATING COUPLER COMPRISING A TWO DIMENSIONAL GRATING



(57) Abstract: An optical device comprising a substrate having a planar surface and having an optical core thereon. The device also comprises a two-dimensional grating located in the optical core, said two-dimensional grating being formed by a regular two-dimensional pattern of light- refractive structures, one of said light-refractive structures being located at each node of a regular 2D lattice located in a laterally bounded region. The device also comprises first and second optical waveguides being on the planar substrate and having ends end-coupled to the two-dimensional grating, the first optical waveguide being such that a direction of propagation near the end thereof is substantially along a primitive lattice vector of said 2D lattice, the second optical waveguide being such that a direction of propagation near the end thereof is not-parallel to a primitive lattice vector of said regular 2D lattice.