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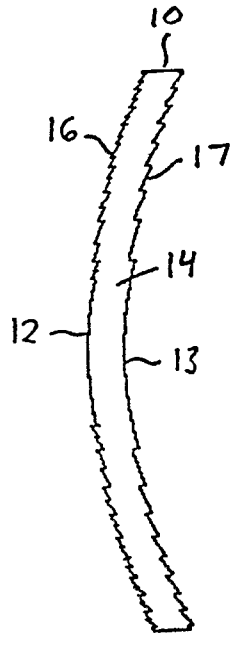
(54) Title: DIFFRACTIVE LENSES FOR VISION CORRECTION



(57) Abstract: Diffractive lenses (10, 1Oa, 1Ob) for vision correction on a lens body (14) having a first diffractive structure (16) for splitting light into two or more diffractive orders to different focal distances or ranges, and a second diffractive structure (17), referred to as a multiorder diffractive (MOD) structure, for diffracting light at different wavelengths into a plurality of different diffractive orders to a common focal distance or range. In a bifocal application, the first and second diffractive structures (16, 17) in combination define the base power for distance vision correction and add power for near vision correction of the lens. The first diffractive structure (16) may have blazed (i.e., sawtooth), sinusoidal, sinusoidal harmonic (1 6a), square wave, or other shape profile. The multifocal lens (10) with a sinusoidal harmonic structure (16a) may be on a lens body (25) shaped to provide refractive base power with or without a MOD structure (17).

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