

[54] **PROGRESSIVE OPHTHALMIC LENS**

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[58] Field of Search ..... 351/169

[56] **References Cited**

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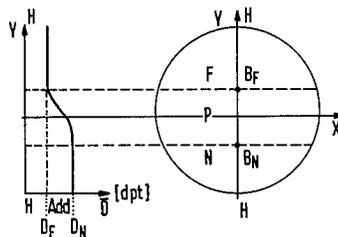
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[57] **ABSTRACT**

An eyeglass lens (ophthalmic lens) has in its upper sec-

tion (far sight field) surface refraction values relative to far sight, and has in its lower section (near sight field) surface refraction values relative to near sight, and is divided into left and right sections by a line (main meridian), the points of which at least approximate geometric umbilical points (points of the same surface refraction value in the two main curvatures) in which a transition region (progression zone) is provided between the upper section and the lower section, in which the surface refraction values of the upper section change gradually into the surface refraction values of the lower section and in which all the lines of equal average refraction values of the upper section intersect the main meridian in the upper section and all the lines of the lower section intersect the main meridian in the lower section and all are extended on both ends to the periphery of the eyeglass lens. All lines of equal average surface refraction value of the progression zone intersect the main meridian in the progression zone and extend to the lens periphery. Such lens compensates for a missing power of accommodation of the human eye or one that is reduced in presbyopic age.

**18 Claims, 5 Drawing Figures**



- H Main meridian = Umbilical point line or quasi-umbilical point line
- F Far-sight field
- P Progression zone
- N Near-sight field
- B<sub>F</sub> Optical far reference point = Site for the prescribed far correction
- B<sub>N</sub> Optical near reference point = Site for the prescribed near correction
- D<sub>F</sub> Surface refraction value in the far-sight field
- D<sub>N</sub> Surface refraction value in the near-sight region
- $\bar{U}$  Average surface refraction value
- Add Near addition = D<sub>N</sub> - D<sub>F</sub>