

United States Patent [19]

Grendahl

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[54] **CYLINDRICALLY SEGMENTED ZONE OF FOCUS ARTIFICIAL HYDROGEL LENS**

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[*] Notice: The portion of the term of this patent subsequent to Jan. 3, 2006 has been disclaimed.

[21] Appl. No.: **258,027**

[22] Filed: **Oct. 17, 1988**

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 88,413, Aug. 24, 1987, Pat. No. 4,795,462.

[51] Int. Cl.⁴ **A61F 2/16**

[52] U.S. Cl. **623/6**

[58] Field of Search **623/6; 351/161**

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[57] ABSTRACT

An implantable or contact hydrogel lens for replacement of a defective natural lens in an eye in which various annular portions of the lens have different powers and focal lengths to produce in-focus images, on different portions of the retina, of objects which are located at various distances from the eye, thereby substituting for the natural focusing action of the eye. The image processing capability of the brain functions to largely ignore the out of focus images and concentrate on the in focus image of the object selected by the brain for consideration.

19 Claims, 9 Drawing Sheets

