

[54] PRODUCTION OF SOFT LENSES HAVING REDUCED SPHERICAL ABERRATIONS

the Hydrogel Contact Lens, *Contacto*, Kikkawa, Mar. 1977, pp. 4-6.

[76] Inventor: Charles W. Neeffe, 811 Scurry St., P.O. Box 429, Big Spring, Tex. 79720

Primary Examiner—James Lowe

[21] Appl. No.: 674,984

[57] ABSTRACT

[22] Filed: Nov. 26, 1984

A method of making a contact lens which reduces the spherical aberration of the eye by molding a contact lens blank with a concave aspheric surface having a longer radius of curvature at the center and a shorter radius of curvature toward the edge. A spherical convex surface is cut and polished on the aspheric xerogel lens blank. The xerogel lens is then hydrated to provide a soft hydrogel contact lens having a spherical convex surface and an aspheric concave surface, the lens is placed on the cornea of the eye and the concave lens surface assumes the curvature of the cornea. The convex lens surface becomes aspheric having a longer radius of curvature toward the edge and reduces the physiological spherical aberration of the eye.

[51] Int. Cl.<sup>4</sup> ..... B29D 11/00

[52] U.S. Cl. .... 264/2.6; 264/2.1; 264/2.7; 351/161

[58] Field of Search ..... 264/2.1, 2.2, 2.7, 1.1, 264/2.3, 1.4, 2.6; 351/160 R, 160 H, 161

[56] References Cited

U.S. PATENT DOCUMENTS

- 4,188,353 2/1980 Neeffe ..... 264/2.7
- 4,239,353 12/1980 Koller ..... 351/160 H
- 4,307,046 12/1981 Neeffe ..... 264/2.7

OTHER PUBLICATIONS

*Naturalens Fitting Manual*, Isen, Griffin Contact Lens Laboratories, Toronto, 1971, pp. 1-16.

"Considerations on Adherence and Centralization of

2 Claims, 3 Drawing Figures

