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# United States Patent [19]

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**Brown**

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- [54] **MULTI-FOCAL CONTACT LENS**
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- [21] Appl. No.: **4,049**
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### Related U.S. Application Data

- [62] Division of Ser. No. 521,620, May 10, 1990, Pat. No. 5,181,053.
- [51] Int. Cl.<sup>5</sup> ..... **B24B 1/00**
- [52] U.S. Cl. .... **451/28; 451/34; 451/56**
- [58] Field of Search ..... 51/216 LP, 217 L, 277, 51/284 R, 323, 324, 326

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### [57] ABSTRACT

A tool for forming a soft contact lens having an optical zone formed with a center spherical surface and surrounding aspheric surfaces is disclosed. The tool includes a lens holder having a perfectly centered rearwardly extending cylindrical portion received in a collet of a lens cutting lathe and a transverse front end wall defining a front end opening receiving the lens blank body projecting forwardly through the opening. The lens blank is formed with a mounting flange seated against a rear facing step in the transverse end wall. The lens body is retained in the holder with an insert threadedly received in the holder. A set screw received in the insert applies pressure to the lens blank rear surface to deform the front concave surface which has been previously cut and polished to a spherical surface. The deformed front concave surface is re-cut into spherical shape in at least preselected portions of the front surface so that, upon release of squeezing pressure, the preselected portions of the front surface are aspheric to define portions of the optical zone having continuously variable optical powers. The center of the optical zone preferably remains spherical for improved night vision.

2 Claims, 2 Drawing Sheets

