United States Patent [19]

Bille et al.

[11] **Patent Number: 4,907,586**

[45] **Date of Patent: Mar. 13, 1990**

[54] **METHOD FOR RESHAPING THE EYE**

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[21] Appl. No.: **176,230**

[22] Filed: **Mar. 31, 1988**

[51] **Int. Cl.**[4] **A61N 5/06**

[52] **U.S. Cl.** **606/5**; 128/395

[58] **Field of Search** 128/303.1, 395, 347, 128/398, 898

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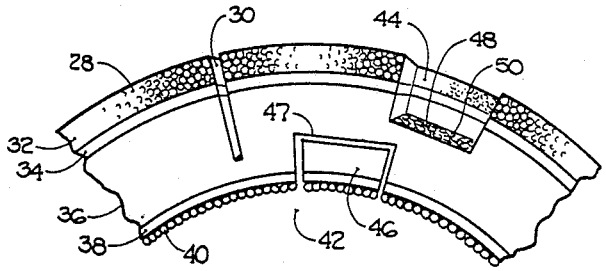
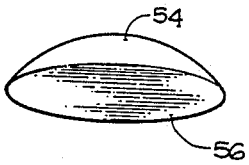
[57] **ABSTRACT**

A method for modifying tissue with a quasi-continuous laser beam to change the optical properties of the eye comprises controllably setting the volumetric power density of the beam and selecting a desired wavelength for the beam. Tissue modification is accomplished by focusing the beam at a preselected start point in the tissue and moving the beam's focal point in a predetermined manner relative to the start point throughout a specified volume of the tissue or along a specified path in the tissue. Depending on the selected volumetric power density, the tissue on which the focal point is incident can be modified either by photoablation or by a change in the tissue's visco-elastic properties.

69 Claims, 3 Drawing Sheets