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**Miller et al.**

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(54) **SYSTEM AND METHOD FOR INCREASING THE DEPTH OF FOCUS OF THE HUMAN EYE**  
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This patent is subject to a terminal disclaimer.

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USPC ..... **351/159.6**; 351/159.09; 351/159.63; 623/5.11; 623/5.13

(58) **Field of Classification Search**  
USPC ..... 623/5.11-5.13; 351/159.01, 159.09, 351/159.6, 159.63

See application file for complete search history.

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(57) **ABSTRACT**

A method and apparatus for increasing the depth of focus of the human eye is comprised of a lens body, an optic in the lens body configured to produce light interference, and a pinhole-like optical aperture substantially in the center of the optic. The optic may be configured to produce light scattering or composed of a light reflective material. Alternatively, the optic may increase the depth of focus via a combination of light interference, light scattering, light reflection and/or light absorption. The optic may also be configured as a series of concentric circles, a weave, a pattern of particles, or a pattern of curvatures. One method involves screening a patient for an ophthalmic lens using a pinhole screening device in the lens to increase the patient's depth of focus. Another method comprises surgically implanting a mask in the patient's eye to increase the depth of focus.

**16 Claims, 7 Drawing Sheets**

