

United States Patent [19]

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Michelson

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[54] **FLUID LENS**

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[58] Field of Search **351/160 R-162; 350/418, 419; 604/893, 895; 3/13**

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[57] **ABSTRACT**

A lens having a semipermeable transparent sheath with opposite anterior and posterior portions joined at their edges and forming a closed interior space between themselves. A body of liquid is provided within the sheath and fills the interior space and constitutes an optical lens whose anterior and posterior surfaces are bounded by the anterior and posterior portions of the sheath, respectively, thus defining the anterior and posterior surfaces of the lens. A substance is provided in the body of liquid for producing within the interior space a concentration which is greater than the concentration of a liquid medium in association with which the lens is to be used, in consequence of which when the lens is in contact with such medium, the interior space will be kept filled with liquid under the influence of osmosis which causes the flow of liquid from the exterior of the sheath to the interior thereof whenever the interior space is less than full thereby maintaining the shape of the lens.

32 Claims, 5 Drawing Figures

