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(71) Applicant (for all designated States except US): **BAUSCH & LOMB INCORPORATED** [US/US]; One Bausch & Lomb Place, Rochester, NY 14604-2701 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **GROVE, Donald, C.** [US/US]; 230 West Antelope Drive, Apt. H, Layton, UT 84041 (US).

(74) Agents: **SMITH, Michael, L.** et al.; Bausch & Lomb Incorporated, One Bausch & Lomb Place, Rochester, NY 14604-2701 (US).

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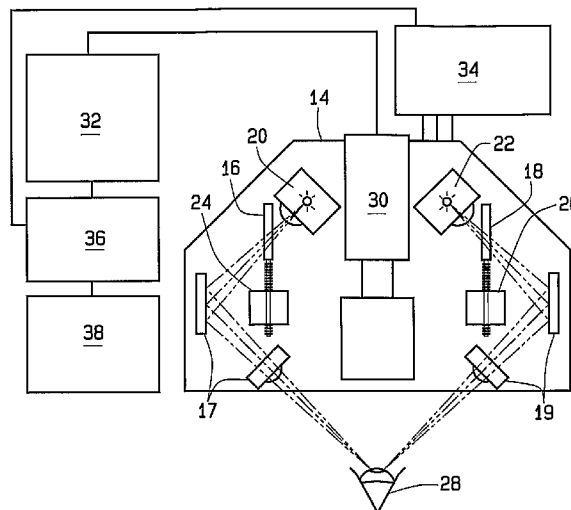
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Declaration under Rule 4.17:

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[Continued on next page]

(54) Title: **RAPID SWITCHING SLIT SCAN IMAGE CAPTURE SYSTEM**



(57) **Abstract:** A slit scan image capture system 14 or 15 for obtaining slit images of a patient's eye 28. At least two slit masks 16 and 18 or two moving mirrors 25 and 27 are associated with at least two rapid switching light sources 20 and 22 or 21 and 22 for illuminating slit images on a patient's eye 28. Two motors 24 and 26 or 29 and 31 each are connected to the slit masks 16 and 18 or movable mirrors 25 and 27 for incrementally moving the illuminated slits across the eye 28 to plurality of positions. A video camera 30 captures images of the illuminated slits on the eye 28 and a frame grabber 32 is connected to the video camera for storing the captured images. The rapid switching light sources 20 and 22 are powered-up to an approximately full power state and powered-down to an effectively off state in an amount of time less than an amount of time required by the motors 24 and 26 or 29 and 31 to move the slit masks 16 or 18 or movable mirrors 25 and 27 from one position to a next position. This minimizes the amount of time required to capture a plurality of slit images across major portions of the patient's eyes 28.

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