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(54) Title: OPHTHALMIC LENS GENERATING APPARATUS HAVING VIBRATION DAMPENING STRUCTURE

(57) Abstract

An ophthalmic lens generating apparatus having a tool spindle comprising a motor, a lens surfacing tool and a coupling mounted between the motor and the lens surfacing tool for retaining the lens surfacing tool to the arbor of the motor. The apparatus of the present invention also comprises a first actuated table supporting the tool spindle in a movable manner along the longitudinal axis of the apparatus. A massive base is mounted beneath the first actuated table for supporting the table and for dampening radial vibrations of the tool spindle. The apparatus further comprises a lens holder for holding an ophthalmic lens in a plane substantially perpendicular to the longitudinal axis of the apparatus. A massive upright block is mounted on one end of the massive base behind the structural support supporting the lens holder, for dampening axial vibrations of the tool spindle and of the lens holder. The coupling of the tool spindle is a kinematic coupling having first and second disks having each substantial mass and radius of gyration. Thus, when the tool spindle rotates, both disks increase the nominal moment of inertia of the spindle and dampen the torsional vibrations of the spindle.

