



(51) International Patent Classification:
B29D 11/00 (2006.01) *B29C 45/00* (2006.01)
B29C 33/42 (2006.01)

(21) International Application Number:
PCT/US2011/039663

(22) International Filing Date:
8 June 2011 (08.06.2011)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/357,371 22 June 2010 (22.06.2010) US

(71) Applicant (for all designated States except US): **COOPERVISION INTERNATIONAL HOLDING COMPANY, LP** [GB/BB]; Suite #2, Edghill House, Wildey Business Park, St. Michael (BB).

(71) Applicant (for MW only): **COOPERVISION, INC.** [US/US]; Suite 200, 370 Woodcliff Drive, Fairport, New York 14450 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **DEAN, Gregg A.** [GB/GB]; Unit 1, School Lane, Chandlers Ford, Eastleigh Hampshire SO53 4T (GB).

(74) Agents: **DAO, Tom H.** et al.; Suite 725, 18200 Von Karman Avenue, Irvine, California 92612 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

— as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

— without international search report and to be republished upon receipt of that report (Rule 48.2(g))

(54) Title: METHODS, DEVICES, AND SYSTEMS FOR INJECTION MOLDING CONTACT LENSES

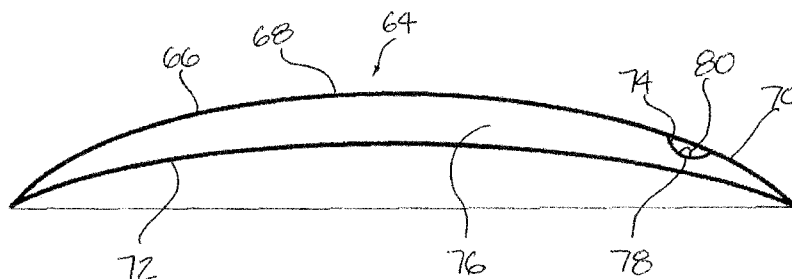


FIG. 3

(57) Abstract: Methods, devices, and systems for manufacturing ophthalmic lenses using direct injection molding are described. The present methods, devices, and systems include a mold block having a first mold insert and a second mold insert defining a lens-shaped cavity between them. A raised non-uniform region that projects into the lens-shaped cavity is incorporated in a peripheral zone of the molding surface of at least one of the mold inserts. When an ophthalmic lens is formed using the described mold block, at least one depression is produced in the lens. A gate placed at the non-uniform region allows the depression to hide any gate witness that may form when the mold is closed or separated.

