

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
16 July 2020 (16.07.2020)



(10) International Publication Number
WO 2020/144622 A1

(51) International Patent Classification:

B29D 11/00 (2006.01) *B29C 45/04* (2006.01)
B29C 45/17 (2006.01) *B29C 45/42* (2006.01)

(21) International Application Number:

PCT/IB2020/050154

(22) International Filing Date:

09 January 2020 (09.01.2020)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/790,768 10 January 2019 (10.01.2019) US

(71) Applicant: **ALCON INC.** [CH/CH]; Rue Louis-D'Affry 6,
1701 Fribourg (CH).

(72) Inventors: **JETZLAFF, Eduard**; c/o CIBA Vision GmbH,
Postfach 4, 63868 Grosswallstadt (DE). **ACIKGOEZ,
Yasin**; c/o CIBA Vision GmbH, Postfach 4, 63868 Gross-
wallstadt (DE). **HEIDRICH, Halina**; c/o CIBA Vision
GmbH, Postfach 4, 63868 Grosswallstadt (DE).

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

(54) Title: APPARATUS AND METHOD FOR SIMULTANEOUSLY MANUFACTURING A PLURALITY OF SINGLE-USE
PLASTIC MOLDS FOR MAKING OPHTHALMIC LENSES THROUGH INJECTION MOLDING

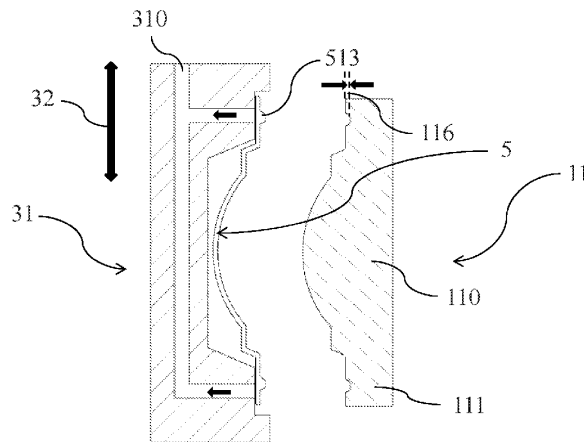


Fig. 5

(57) Abstract: An apparatus for simultaneously manufacturing a plurality of plastic molds comprises: - an injection molding tool comprising a first and second molding tool halves and - a gripper tool comprising a plurality of gripper members to which suction can be applied. The first and second molding tool halves are movable into the closed position and into an open position. A front surface of the first molding members comprises recesses to allow the formation of pins projecting from the rear surface the plastic mold into the recesses to make the plastic molds adhere to the first molding members. The gripper tool is movably arranged only in a direction parallel to the first surface into the space formed between the first and second surfaces for transferring the plastic molds to the gripper members and out of this space again.

[Continued on next page]

WO 2020/144622 A1

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, 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, KM, 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:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*