

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
13 April 2023 (13.04.2023)



(10) International Publication Number
WO 2023/060017 A1

(51) International Patent Classification:

A61F 9/00 (2006.01) A61L 27/52 (2006.01)
A61F 2/16 (2006.01) C08F 220/28 (2006.01)
A61L 27/24 (2006.01) C08L 33/14 (2006.01)

STEVENS, Jullian, D.; 25651 Atlantic Ocean Drive, Lake Forest, CA 92630 (US).

(74) Agent: ZLOGAR, Thomas, M. et al.; SHAY GLENN LLP, 155 Bovet Rd, Suite 710, San Mateo, CA 94402 (US).

(21) International Application Number:

PCT/US2022/077352

(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, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, 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.

(22) International Filing Date:

30 September 2022 (30.09.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/262,073 04 October 2021 (04.10.2021) US

(71) Applicant: STAAR SURGICAL COMPANY [US/US];
25651 Atlantic Ocean Drive, Lake Forest, CA 92630 (US).

(72) Inventors: HOLLIDAY, Keith; 25651 Atlantic Ocean Drive, Lake Forest, CA 92630 (US). OSSIPOV, Alexei, V.;
25651 Atlantic Ocean Drive, Lake Forest, CA 92630 (US).

(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,

(54) Title: OPHTHALMIC IMPLANTS FOR CORRECTING VISION WITH A TUNABLE OPTIC, AND METHODS OF MANUFACTURE AND USE

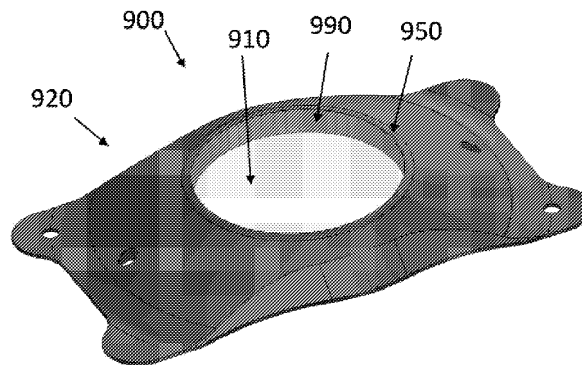


Fig. 9

(57) Abstract: Ophthalmic implants, their methods of use and manufacture. The implants may include a transparent optic portion and a peripheral non-optic portion coupled to the optic portion. The transparent optic portion may be made of a transparent optic material adapted to allow visible light to pass therethrough, and the peripheral non-optic portion may be made of a light absorbing material adapted to absorb visible light. By way of example only, some lenses herein may be configured to be placed in a posterior chamber of an eye, between an iris and a capsular bag. Lenses herein may optionally be configured as extended depth of field lenses. Concepts herein may also be applicable to lenses implanted in other parts of an eye, and may be applicable to lenses configured for a variety of types of vision correction such as presbyopia, myopia, astigmatism, corneal damage or disease, lenticular damage or disease.

[Continued on next page]

WO 2023/060017 A1

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).

Published:

— *with international search report (Art. 21(3))*