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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
12 September 2025 (12.09.2025)

WIPO | PCT

(10) International Publication Number
WO 2025/188480 A1

(51) International Patent Classification:
A61F 9/007 (2006.01)

(21) International Application Number:
PCT/US2025/016381

(22) International Filing Date:
18 February 2025 (18.02.2025)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/561,935 06 March 2024 (06.03.2024) US

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(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, MG, MK, MN, MU, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO,

(54) Title: OPHTHALMIC SURGICAL APPARATUS

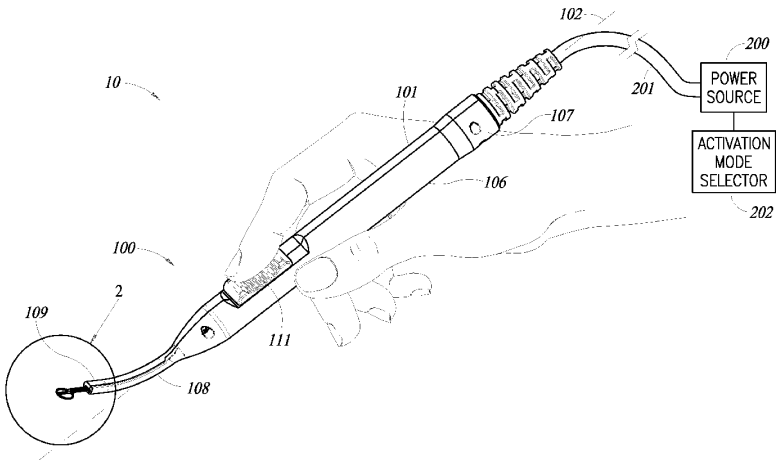

FIG. 1

(57) Abstract: Provided is an ophthalmic surgical apparatus configured for performing an automated capsulotomy or a comparable surgical procedure on a recipient eye's Descemet membrane hereinafter coined a descemetomy. The ophthalmic surgical apparatus includes an ophthalmic surgical handpiece supporting a compact cutting head which can be inserted through a 2.4 mm or less corneal incision into an eye's anterior chamber and manipulated inside the eye's anterior chamber for performing automated centered circular incisions on interior eye tissue. The ophthalmic surgical apparatus also includes a clinical practitioner operated power source for controlled activation of the ophthalmic surgical handpiece's cutting head. The power source typically has two or more activation modes for controlled activation of an ophthalmic surgical handpiece's cutting head in terms of electrical power rating, activation duration, and the like.

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RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UY, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) **Designated States** *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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, ME, 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))*