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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
18 November 2010 (18.11.2010)

PCT

(10) International Publication Number
WO 2010/132187 A3

(51) International Patent Classification:
G02B 6/38 (2006.01) *G02B 6/36* (2006.01)

(21) International Application Number:
PCT/US2010/032021

(22) International Filing Date:
22 April 2010 (22.04.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2009-117613 14 May 2009 (14.05.2009) JP

(71) Applicant *(for all designated States except US)*: **3M INNOVATIVE PROPERTIES COMPANY** [US/US]; 3M Center, Post Office Box 33427, Saint Paul, MN 55133-3427 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **OHSAWA, Rentaro** [JP/JP]; 33-1, Tamagawadai 2-chome, Setagaya-Ku, Tokyo 158-8583 (JP). **BYLANDER, James, R.** [US/US]; 3M Center, Post Office Box 33427, Saint Paul, MN 55133-3427 (US).

(74) Agents: **ROSENBLATT, Gregg, H.** et al.; 3M Center, Office of Intellectual Property Counsel, Post Office Box 33427, Saint Paul, MN 55133-3427 (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, 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 (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, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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))*

(88) Date of publication of the international search report:
3 February 2011

(54) Title: OPTICAL CONNECTOR

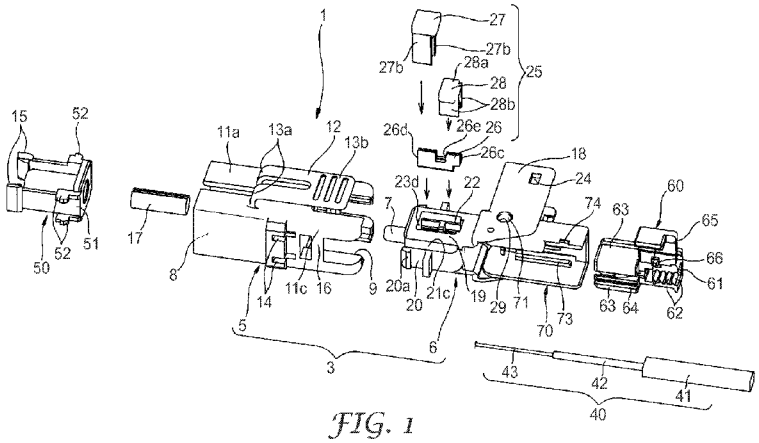


FIG. 1

(57) Abstract: An optical connector is provided which is capable of enhancing the working property of connection of an optical fiber by a relatively simple structure. Front housing (5) includes cantilever-like operation lever (12) having base portion (13a) fixed to a wall portion and also having forward end portion (13) continued to base portion (13a) and extended to rear housing (6) along the wall portion, and fiber grip unit (25) provided in rear housing (6) includes grip element (26) having a pair of holding pieces rising from both sides of the base portion and holding core wire portion (43) of optical fiber (40) and fiber grip unit (25) also includes operation cap (27) which is pushed into element accommodating chamber (22) when it is pushed by forward end portion (13b) of operation lever (12) and which has pair of leg portions (27b) for holding a pair of holding pieces of grip element (26) from both sides when operation cap (27) is pushed into element accommodating chamber (22).

WO 2010/132187 A3