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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
26 June 2014 (26.06.2014)

WIPO | PCT

(10) International Publication Number
WO 2014/099404 A1

(51) International Patent Classification:
A61M 37/00 (2006.01) *A61M 5/158* (2006.01)
A61M 25/02 (2006.01) *A61M 5/142* (2006.01)

(21) International Application Number:
PCT/US2013/073451

(22) International Filing Date:
6 December 2013 (06.12.2013)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/740,941 21 December 2012 (21.12.2012) US

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

(72) Inventors: **BURTON, Scott, A.**; 3M Center, Post Office Box 33427, Saint Paul, MN 55133-3427 (US). **NG, Chin-Yee**; 3M Center, Post Office Box 33427, Saint Paul, MN 55133-3427 (US).

(74) Agents: **EINERSON, Nicole, J.** 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, BN, 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, IR, IS, JP, KE, KG, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, 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, RW, SD, SL, 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))*

(54) **Title**: ADHESIVE ASSEMBLIES AND MICRONEEDLE INJECTION APPARATUSES COMPRISING SAME

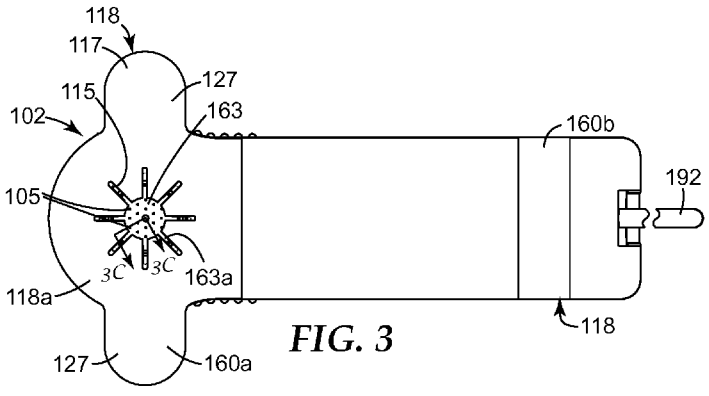


FIG. 3

(57) **Abstract**: Adhesive assemblies and microneedle injection apparatuses comprising same. The apparatus (100) can include a housing (102) having a base and an opening (115) formed in the base; and an applicator comprising a microneedle array (104), the microneedle array comprising a first major surface (111) and microneedles (105). The applicator can be movable between a first position, and a second position in which at least a portion of the microneedle array extends through the opening in the base. The apparatus can further include an adhesive assembly (118), which can be adhered to the base of the housing. The adhesive assembly can include an extension (125) that extends at least partially into the area defined by the opening, such that when the applicator is in the second position, at least a portion of the first major surface of the microneedle array is in contact with the extension of the adhesive assembly.

WO 2014/099404 A1