

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
17 February 2022 (17.02.2022)



(10) International Publication Number
WO 2022/036168 A3

(51) International Patent Classification:

A61M 25/00 (2006.01) A61M 25/09 (2006.01)
A61M 25/01 (2006.01)

(21) International Application Number:

PCT/US2021/045863

(22) International Filing Date:

13 August 2021 (13.08.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/065,773 14 August 2020 (14.08.2020) US

(71) Applicant: **BECTON, DICKINSON AND COMPANY**
[US/US]; 1 Becton Drive, Franklin Lakes, New Jersey
07417 (US).

(72) Inventors: **ISAACSON, S., Ray**; 671 S. 850 W., Lay-
ton, Utah 84041 (US). **BURKHOLZ, Jonathan, Karl**;
1971 South Wasatch Drive, Salt Lake City, Utah 84108

(US). **SCHERICH, Megan**; 253 Wilson Avenue S, Salt
Lake City, Utah 84115 (US). **BLANCHARD, Curtis, H.**;
14156 S. Mt Ogden Peak Drive, Riverton, Utah 84096 (US).
LACKEY, John; 1409 W 3630 S, West Valley City, Utah
84119 (US). **HOPWOOD, Benjamin**; 2950 S 2000 E, Salt
Lake City, Utah 84109 (US).

(74) Agent: **QUEEN, Lara, Northrop** et al.; The Webb Law
Firm, One Gateway Center, 420 Ft. Duquesne Blvd., Suite
1200, Pittsburgh, Pennsylvania 15222 (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, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IR, IS, IT, 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,

(54) Title: VASCULAR CATHETER WITH AN OBTURATOR

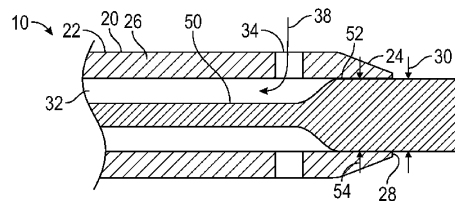


FIG. 6

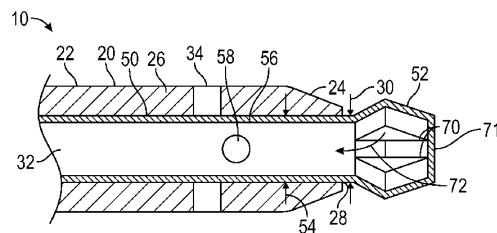


FIG. 18

(57) Abstract: A vascular access device (10) to passively open a fluid path within a vasculature. The vascular access device (10) includes a catheter (20) and an obturator (50) slidably positioned within the lumen (32) of the catheter (20). The catheter (20) has a proximal end (22), a distal tip (24) comprising an opening (28) having an inner diameter and a sidewall (26) defining a lumen between the proximal end and distal tip. The obturator (50) has a distal end (52) with an outer diameter configured to form an interference fit with the inner diameter of the distal tip (24). The obturator may be positioned within the lumen to open various fluid pathways (36,38,72).

[Continued on next page]



WO 2022/036168 A3

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.

(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))*

(88) Date of publication of the international search report:

31 March 2022 (31.03.2022)