

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
30 September 2021 (30.09.2021)



(10) International Publication Number
WO 2021/194758 A1

(51) International Patent Classification:
A61M 25/09 (2006.01)

(21) International Application Number:
PCT/US2021/021964

(22) International Filing Date:
11 March 2021 (11.03.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/993,473 23 March 2020 (23.03.2020) US
17/192,808 04 March 2021 (04.03.2021) US

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

(72) Inventors: **SCHERICH, Megan**; 921 East 500 South,
Unit B, Salt Lake City, Utah 84102 (US). **BURKHOLZ,**
Jonathan Karl; 1971 South Wasatch Drive, Salt Lake City,
Utah 84108 (US). **HARDING, Weston F.**; 2421 North
910 West, Lehi, Utah 84043 (US). **BLANCHARD, Curtis**
H.; 14156 South Mount Ogden Peak Drive, Riverton, Utah
84096 (US). **SPATARO, Joseph**; 7701 South Summerhill
Circle, Cottonwood Heights, Utah 84121 (US).

(74) Agent: **MILES, Kirk M.**; The Webb Law Firm, One Gate-
way 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,
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 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))

(54) Title: SPRING-BASED DEVICES AND SYSTEMS TO FACILITATE VASCULAR ACCESS

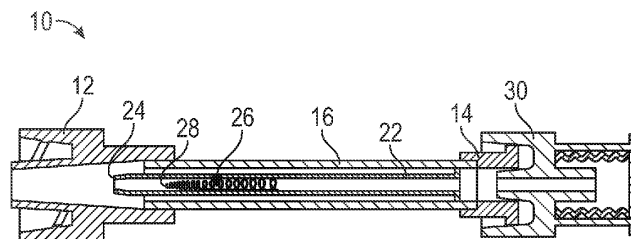


FIG. 1A

(57) Abstract: A catheter system may include a catheter assembly, which may include a catheter adapter. The catheter adapter may include a distal end, a proximal end, and a lumen extending through the distal end of the catheter adapter and the proximal end of the catheter adapter. The catheter assembly may include a catheter, which may extend distally from the distal end of the catheter adapter. The catheter system may include an instrument extending through a distal opening of the catheter. The instrument may include a coil spring.



WO 2021/194758 A1