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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
21 April 2022 (21.04.2022)

WIPO | PCT

(10) International Publication Number
WO 2022/082022 A2

(51) International Patent Classification:
A61B 1/00 (2006.01)

(21) International Application Number:
PCT/US2021/055249

(22) International Filing Date:
15 October 2021 (15.10.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/092,733 16 October 2020 (16.10.2020) US

(71) Applicant: **RESNENT, LLC** [US/US]; 3210 Mulligan Dr., Boomington, IL 61704 (US).

(72) Inventor: **NOYES, Willard S.**; 3210 Mulligan Dr., Bloomington, IL 61704 (US).

(74) Agent: **MARINA, Jonathan A.**; Sheppard Mullin Richter & Hampton LLP, 12275 El Camino Real, Suite 100, San Diego, CA 92130 (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).

Published:
— *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*

WO 2022/082022 A2

(54) Title: ENDOSCOPE ATTACHMENT MECHANISMS AND METHODS OF USE

(57) Abstract: Some implementations of the disclosure relate to an adapter, comprising: a channel running through the length of the adapter from a first opening to a second opening of the adapter, wherein a shaft of an endoscope is configured to be threaded through the channel; a first coupler configured to removably secure the adapter to a second coupler of the endoscope, the first coupler comprising the second opening; and a rigid attachment segment comprising a surface configured to removably couple the adapter to an instrument or second adapter. The surface of the rigid attachment segment may include multiple grooves and sections alternating along the longitudinal length of the rigid attachment segment, each section protruding relative to the grooves and comprising a recessed indentation or protrusion; and the multiple sections and grooves configured such that the instrument or second adapter can be coupled to the adapter in multiple lengthwise positions.