

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

(19) World Intellectual Property  
Organization  
International Bureau

(43) International Publication Date  
05 January 2023 (05.01.2023)



(10) International Publication Number  
**WO 2023/278591 A1**

- (51) **International Patent Classification:**  
*A61B 1/005* (2006.01) *A61B 1/018* (2006.01)
- (21) **International Application Number:**  
PCT/US2022/035541
- (22) **International Filing Date:**  
29 June 2022 (29.06.2022)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**  
63/216,209 29 June 2021 (29.06.2021) US
- (71) **Applicant: RESNENT, LLC** [US/US]; 3210 Mulligan Dr.,  
Bloomington, IL 61704 (US).
- (72) **Inventors: NOYES, Willard, S.;** 3210 Mulligan Dr.,  
Bloomington, IL 61704 (US). **GRAY, Benjamin, Joseph;**  
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, IQ, IR, IS, IT, JM, 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,

(54) **Title:** ARTICULATING CANNULA WITH ENDOSCOPE ATTACHMENT

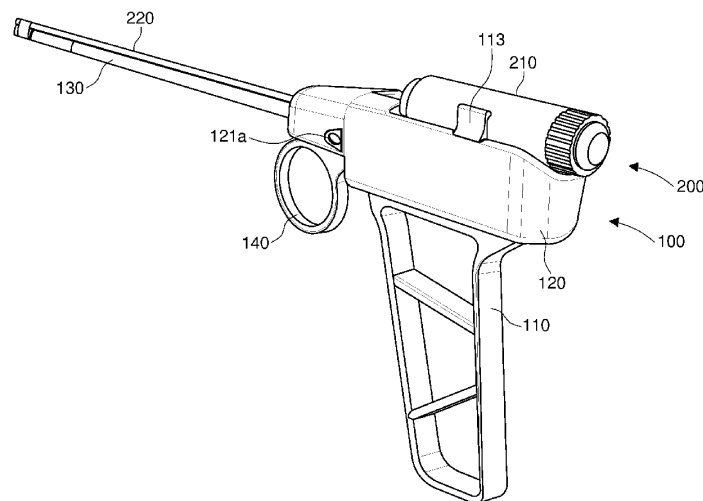


FIG. 1

(57) **Abstract:** An articulating cannula assembly is described. The articulating cannula assembly includes: a hand piece; a proximal housing situated above the hand piece; a cannula distally extending from the proximal housing, the cannula including an articulating segment; and a trigger that, when actuated, extends or contracts the articulating segment. The proximal housing can removably couple to the hand piece. The proximal housing can include an endoscope attachment structure for removably securing a proximal portion of an endoscope.

[Continued on next page]



WO 2023/278591 A1

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:**

- *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))*