

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
05 March 2020 (05.03.2020)



(10) International Publication Number
WO 2020/047463 A1

(51) International Patent Classification:
B01L 3/02 (2006.01)

(21) International Application Number:
PCT/US2019/049146

(22) International Filing Date:
30 August 2019 (30.08.2019)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/726,063 31 August 2018 (31.08.2018) US

(71) Applicant: **BECKMAN COULTER, INC.** [US/US]; 250
S Kraemer Blvd, Brea, California 92822 (US).

(72) Inventors: **NEESE, Charles**; 9719 N Country Road, 650
E, Pittsboro, Indiana 46167 (US). **DAVIS, Matthew S.**; 861
Pioneer Woods Drive, Indianapolis, Indiana 46224 (US).

(74) Agent: **PERDOK, Monique M.** et al.; Schwegman Lund-
berg & Woessner, P.A., P.O. Box 2938, Minneapolis, Min-
nesota 55402 (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, 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, 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, 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:

— with international search report (Art. 21(3))

(54) Title: HIGH AND LOW VOLUME PRECISION PIPETTOR

(57) Abstract: A pipetting device is disclosed. The pipetting device can include a piston with a stepped profile. The piston can be inserted into a barrel and can have at least two seal elements. The pipetting device can operate in a low volume dispense mode and a high volume dispense mode.

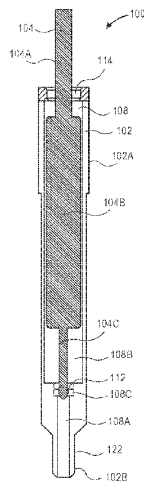


FIG. 1

WO 2020/047463 A1