

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
10 September 2021 (10.09.2021)



(10) International Publication Number
WO 2021/178436 A1

(51) International Patent Classification:

H01L 21/67 (2006.01) *H05K 13/00* (2006.01)
C23C 16/455 (2006.01) *H01L 21/677* (2006.01)
G03F 7/20 (2006.01)

(21) International Application Number:

PCT/US2021/020518

(22) International Filing Date:

02 March 2021 (02.03.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

202010139401.0 03 March 2020 (03.03.2020) CN

(71) Applicant: **ILLINOIS TOOL WORKS INC.** [US/US];
155 Harlem Avenue, Glenview, Illinois 60025 (US).

(72) Inventor: **LIU, Guohua**; c/o Illinois Tool Works Inc., 155
Harlem Avenue, Glenview, Illinois 60025 (US).

(74) Agent: **PAHNKE, Chad A.**; McAndrews, Held & Malloy,
Ltd., 500 W. Madison, 34th Floor, Chicago, Illinois 60661
(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.

(54) Title: DISPENSING APPARATUS

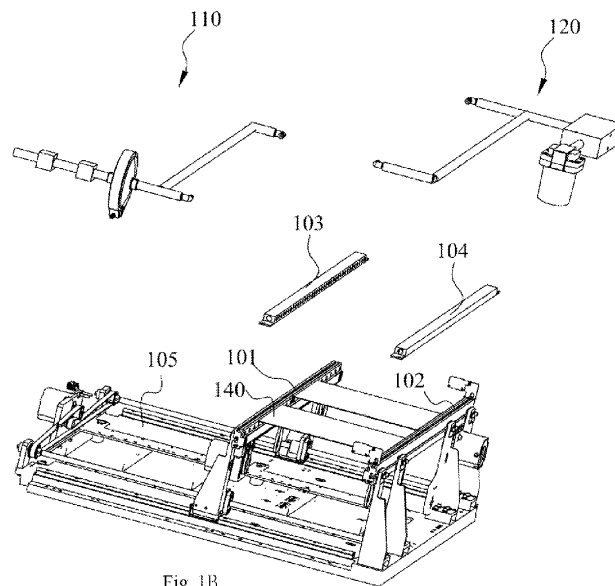


Fig. 1B

(57) Abstract: The present application provides a dispensing apparatus for processing an electronic component, comprising: a first track component and a second track component, a first flow-guiding component and a second flow-guiding component, the first flow-guiding component being arranged at the top of the first track component, the second flow-guiding component being arranged at the top of the second track component, the first flow-guiding component having at least one first gas inlet and at least one first gas outlet in communication with each other, the at least one first gas inlet being configured to be in communication with a clean gas source, the second flow-guiding component having at least one second gas inlet and at least one second gas outlet in communication with each other, the at least one second gas inlet being arranged facing the first gas outlet, and the at least one second gas outlet being configured to be in communication with a gas discharge motive power apparatus, so that clean gas can flow toward the at least one second gas

[Continued on next page]

(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))

inlet from the at least one first gas outlet, thereby forming a clean gas region above the electronic component to be processed, to avoid contamination with impurities during processing.