



(51) International Patent Classification:

B65G 49/06 (2006.01) *B25J 15/06* (2006.01)
B65G 47/91 (2006.01)

(21) International Application Number:

PCT/US2024/049685

(22) International Filing Date:

03 October 2024 (03.10.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/542,302 04 October 2023 (04.10.2023) US
18/900,331 27 September 2024 (27.09.2024) US

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(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,

(54) Title: PICK AND PLACE HEAD WITH AUTOMATIC PITCH ADJUSTMENT

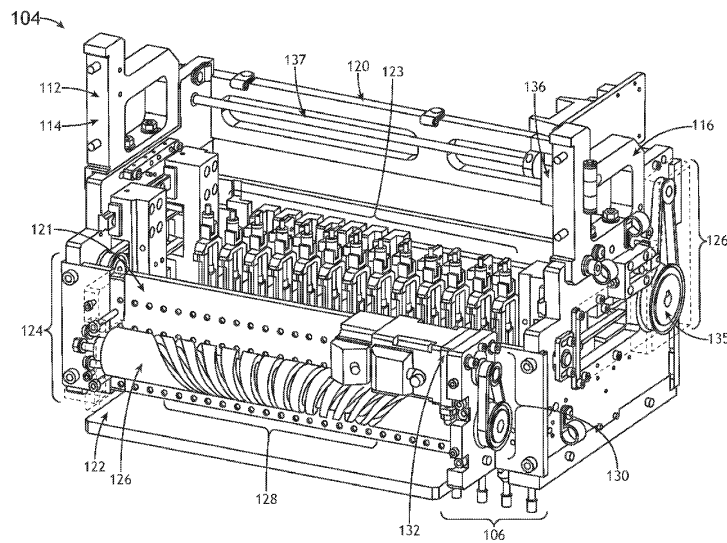


FIG. 1B

(57) Abstract: A transfer head may include a plurality of brackets and a plurality of front pickup shafts and rear pickup shafts slidably coupled to the plurality of brackets along a first axis, wherein at least one of the plurality of front pickup shafts and the rear pickup shafts are couplable to a pick-up gear. The transfer head may include a first axis pitch-change sub-system configured to slide the plurality of front pickup shafts relative to the plurality of rear pickup shafts. The transfer head may include a second axis pitch-change sub-system comprising: a cam comprising a plurality of cam slots configured to engage the plurality of brackets, wherein a movement of the cam causes a change in pitch between the plurality of brackets and a corresponding change in pitch between the plurality of the front pickup shafts and the rear pickup shafts along the second axis.

[Continued on next page]

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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, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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, ME, 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))