



(51) International Patent Classification:

H01B 7/08 (2006.01) H01B 11/06 (2006.01)
H01B 9/02 (2006.01) H01B 13/22 (2006.01)

(21) International Application Number:

PCT/US2023/064188

(22) International Filing Date:

10 March 2023 (10.03.2023)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/319,225 11 March 2022 (11.03.2022) US

(71) Applicant: **MAYBELL QUANTUM INDUSTRIES, INC.** [US/US]; 7100 Broadway Building 3, Suite D-E, Denver, CO 80221 (US).

(72) Inventors: **TILLEMANN-DICK, Corban, I.**; 1811 Oneida St., Denver, CO 80220 (US). **THOMPSON, Kyle, J.**; 3795 Moorhead Ave, Boulder, CO 80305 (US). **CHOO, Bryan, J.**; 4 Saint Marks Place, 3S, New York, NY 10003 (US). **ZULTAK, Johanna**; 3301 Arapahoe Ave. #221,

Boulder, CO 80303 (US). **BYARS, Jonathan, Michael**; 14830 W 53rd Ave., Golden, CO 80403 (US).

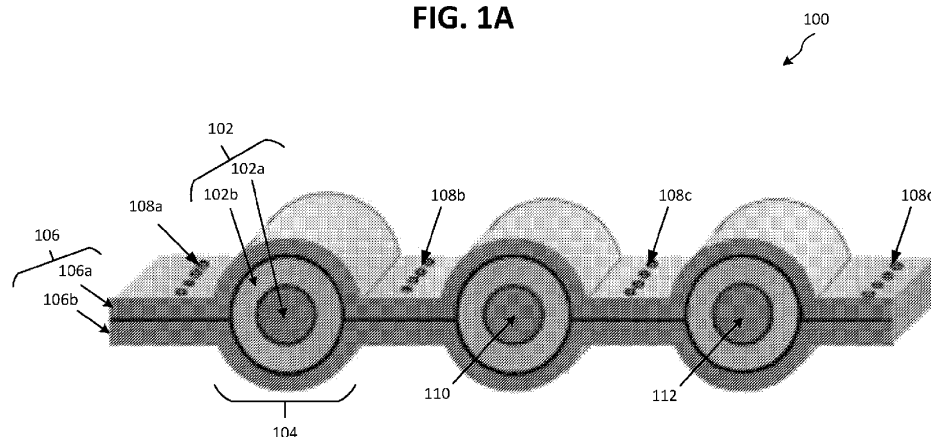
(74) Agent: **PRITZKER, Randy, J.** et al.; Wolf, Greenfield & Sacks, P.C., 600 Atlantic Avenue, Boston, MA 02210-2206 (US).

(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, CV, 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, 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, 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,

(54) Title: SYSTEMS AND METHODS FOR MANUFACTURE OF FLEXIBLE SHIELDED RIBBON CABLES

FIG. 1A



(57) Abstract: Provided herein are systems and methods for manufacturing a cable. In some embodiments, a system for manufacturing a cable includes a joining mechanism configured to join the upper conducting foil and the lower conducting foil; and a linear actuator configured to control motion of the joining mechanism with respect to the upper conducting foil and the lower conducting foil. In some embodiments, a system for manufacturing a cable includes: an electrode configured to join the upper conducting foil and the lower conducting foil in a region between insulated conductors of the plurality of insulated conductors; and a plurality of rollers configured to position the upper conducting foil, the lower conducting foil, and the plurality of insulated conductors relative to the electrode.

[Continued on next page]

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))*
- *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))*

(88) Date of publication of the international search report:

21 December 2023 (21.12.2023)