

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
07 May 2020 (07.05.2020)



(10) International Publication Number
WO 2020/092721 A2

(51) International Patent Classification:

F26B 3/12 (2006.01) *B05B 7/06* (2006.01)
B01J 2/02 (2006.01) *F26B 21/00* (2006.01)
B05B 5/03 (2006.01)

(21) International Application Number:

PCT/US2019/059085

(22) International Filing Date:

31 October 2019 (31.10.2019)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

62/754,691 02 November 2018 (02.11.2018) US

(71) Applicant: **SPRAYING SYSTEMS CO.** [US/US]; North Avenue and Schmale Road, P.O. Box 7900, Wheaton, Illinois 60187-7901 (US).

(72) Inventor: **SZCZAP, Joseph**; 1428 Duquesne Ave., Naperville, Illinois 60565 (US).

(74) Agent: **SCHLEMMER, Dennis**; 180 N Stetson Avenue, Suite 4900, Chicago, Illinois 60601 (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:

— without international search report and to be republished upon receipt of that report (Rule 48.2(g))

(54) Title: ELECTROSTATIC SPRAY DRYER SYSTEM

WO 2020/092721 A2

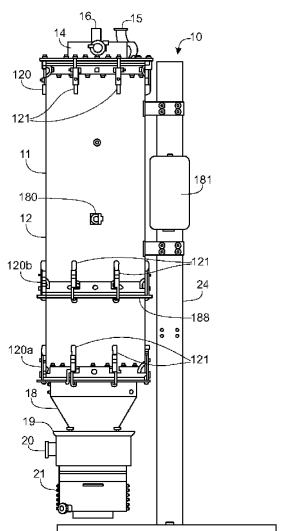


FIG. 1

(57) Abstract: An electrostatic spray dryer for drying liquid into powder including an elongated cylindrical drying chamber having an electrostatic spray nozzle at an upper end and a powder collection vessel at a lower end. The powder collection vessel includes a removable and replaceable filter collections sock made of filter material for receiving and collecting dried powder from the drying chamber. For cleaning residual powder from an inside wall of the drying chamber, a scraper member is provided that is coupled by magnetic attraction to a manually removable driver on the external surface of the wall.