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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
04 May 2023 (04.05.2023)

WIPO | PCT

(10) International Publication Number
WO 2023/076642 A1

(51) International Patent Classification:
B22D 37/00 (2006.01) *B22D 39/04* (2006.01)

(21) International Application Number:
PCT/US2022/048306

(22) International Filing Date:
29 October 2022 (29.10.2022)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/273,291 29 October 2021 (29.10.2021) US
17/976,755 29 October 2022 (29.10.2022) 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, 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,

(54) Title: TILTING MELTING HEARTH SYSTEM AND METHOD FOR RECYCLING METAL

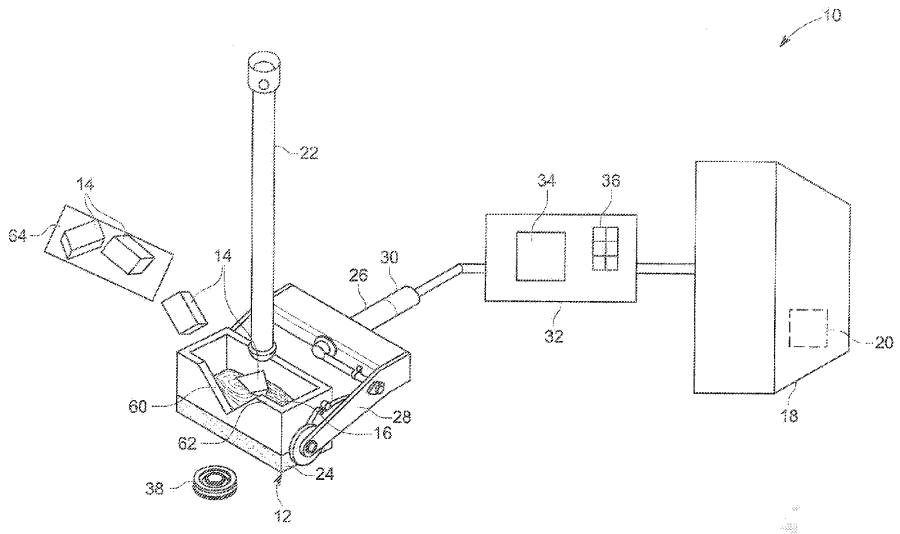


FIG. 1

(57) Abstract: A tilting melting hearth system (10) includes a tilting melting hearth (12) for melting a metal (14) into a molten metal (16) and a central processing unit (CPU) (18) for controlling the tilting melting hearth (12) having an automated hearth tilting program (20) configured to select a hearth tilt profile based on a weight (66A) of the molten metal (16) in the tilting melting hearth (12). The tilting melting hearth system (10) can also include an atomization die (38) in flow communication with the tilting melting hearth (12) for receiving a stream of molten metal (40) and generating a metal powder (42), or a casting die (46) for generating a casting (48) of the metal (14). The tilting melting hearth system (10) can be used to perform a method for recycling scrap metal by automatically determining the weight of the molten metal (16) in the tilting melting hearth (12).

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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, 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).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

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))*