

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

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
8 November 2007 (08.11.2007)

(10) International Publication Number
WO 2007/126306 A3

(51) International Patent Classification:

C22B 7/04 (2006.01) *C21B 3/08* (2006.01)
C21B 3/04 (2006.01) *B28D 1/26* (2006.01)

(21) International Application Number:

PCT/NL2006/050108

(22) International Filing Date:

3 May 2006 (03.05.2006)

(25) Filing Language:

English

(26) Publication Language:

English

(72) Inventor; and

(71) Applicant : **HOFLAND, Jacobus, Maria, Josef**
[NL/NL]; Korte Molenweg 5, NL-1842 EE Oterleek
(NL).

(74) Agent: **VAN WESTENBRUGGE, Andries**; Nederland-
sch Octrooibureau, Postbus 29720, NL-2502 LS Den
Haag (NL).

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ,
NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU,
SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT,
TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ,
TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC,
NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF,
CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
TG).

Published:

— with international search report (Art. 21(3))

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

2 September 2010



WO 2007/126306 A3

(54) Title: METHOD FOR BREAKING UP STEEL SLAG BLOCKS BY GRAVITY

(57) Abstract: Method for breaking down steel slag blocks, which are obtained by the making of iron and steel from ore and which have the form of a hardened mixture of iron and slags, comprising the following steps: - provision of a static collision means, - hoisting of a steel slag block (skull) or portion thereof, - allowing said steel slag block or portion thereof to fall under the influence of gravity onto said collision means, - shattering of at least a part of said steel slag block or portion thereof as a result of the collision forces.

INTERNATIONAL SEARCH REPORT

International application No
PCT/NL2006/050108

A. CLASSIFICATION OF SUBJECT MATTER
 INV. C22B7/04 C21B3/04 C21B3/08 B28D1/26

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 C22B C21B C21C B28D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
 EPO-Internal, WPI Data, COMPENDEX, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 195 19 284 C1 (MANNESMANN AG [DE]) 1 August 1996 (1996-08-01)	1,2
Y	column 1, line 30 - line 35; claims 4,5; figure 1	3-8
Y	----- DE 10 73 515 B (DYNAMIT-ACTIEN-GESELLSCHAFT) 21 January 1960 (1960-01-21) column 1, line 13 - line 20	3-8
Y	----- EP 0 245 572 A2 (QUARRY ENGINEERING DEVELOPMENT [AU]) 19 November 1987 (1987-11-19) abstract; figure 1	3-8
Y	----- JP 2000 297310 A (NIPPON STEEL CORP; NITTETSU PLANT DESIGNING CORP) 24 October 2000 (2000-10-24) abstract	3-8

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report

4 January 2007

15/01/2007

Name and mailing address of the ISA/
 European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Bombeke, Martin

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/NL2006/050108
--

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 19519284	C1	01-08-1996	NONE
DE 1073515	B	NONE	
EP 0245572	A2	19-11-1987	
		AT 74550 T	15-04-1992
		DE 3684782 D1	14-05-1992
		US 4838363 A	13-06-1989
JP 2000297310	A	24-10-2000	NONE