

19



Europäisches Patentamt
European Patent Office
Office européen des brevets

11 Publication number:

**0 219 803
A3**

12

EUROPEAN PATENT APPLICATION

21 Application number: **86114212.3**

51 Int. Cl.4: **B22D 11/12 , B22D 11/14 ,
B22D 11/128**

22 Date of filing: **14.10.86**

30 Priority: **15.10.85 JP 230091/85
06.05.86 JP 104011/86**

43 Date of publication of application:
29.04.87 Bulletin 87/18

84 Designated Contracting States:
BE DE FR GB IT NL

88 Date of deferred publication of the search report:
02.09.87 Bulletin 87/36

71 Applicant: **NIPPON STEEL CORPORATION
6-3 Otemachi 2-chome Chiyoda-ku
Tokyo 100(JP)**

72 Inventor: **Kanai, Noriyuki Nippon Steel
Corporation**

**Oita Works No. 1, Oaza Nishinosu
Oita City Oita Prefecture(JP)**

Inventor: **Hongo, Yuichi Nippon Steel
Corporation**

**Oita Works No. 1, Oaza Nishinosu
Oita City Oita Prefecture(JP)**

Inventor: **Imi, Tetsuo Nippon Steel
Corporation**

**Oita Works No. 1, Oaza Nishinosu
Oita City Oita Prefecture(JP)**

Inventor: **Shirai, Tokinari Nippon Steel
Corporation**

**Oita Works No. 1, Oaza Nishinosu
Oita City Oita Prefecture(JP)**

Inventor: **Misumi, Hideyuki Nippon Steel
Corporation**

**Oita Works No. 1, Oaza Nishinosu
Oita City Oita Prefecture(JP)**

Inventor: **Zeze, Masafumi Nippon Steel
Corporation**

**Oita Works No. 1, Oaza Nishinosu
Oita City Oita Prefecture(JP)**

Inventor: **Kugimiya, Teiji Nippon Steel
Corporation**

**Oita Works No. 1, Oaza Nishinosu
Oita City Oita Prefecture(JP)**

Inventor: **Tsuneoka, Akira Nippon Steel
Corporation**

**Oita Works No. 1, Oaza Nishinosu
Oita City Oita Prefecture(JP)**

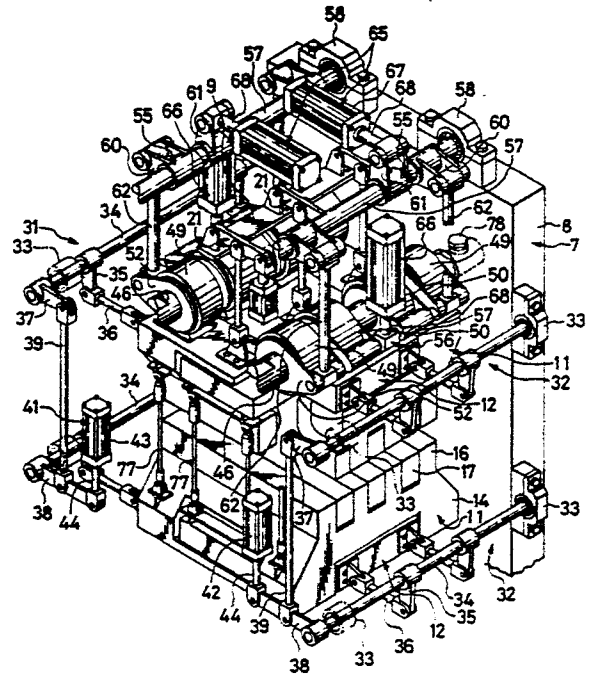
74 Representative: **Vossius & Partner
Siebertstrasse 4 P.O. Box 86 07 67
D-8000 München 86(DE)**

EP 0 219 803 A3

⑤ Apparatus and method for guiding continuously cast sections.

⑤ A continuously cast strand guiding apparatus (4) comprises plural sets of walking bars (16, 17) that are paired opposite to each other on both sides of a cast strand, movable along and across the travel line of the cast strand and driven forward by the cast strand integrally therewith while the cast strand is being gripped thereby, a reciprocating device (41, 42) that causes each set of the paired gripping means to integrally make an approach run from the standby position to the starting point where the cast strand is gripped for guiding and alternately move back and forth along the travel line so that one set moves forward from said starting point to the terminal point while the other set moves backward from the terminal point to the starting point, and a compressing device that applies a gripping force to the walking-bars so that the cast strand is gripped at the starting point and released at the terminal point, each set of walking-bars is independently pressed toward the cast strand at an equal point relative to the travel direction of the cast strand, and each set of walking-bars grip the cast strand for an overlapped period of time.

FIG. 4





EP 86 11 4212

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
A	DE-A-2 618 746 (VOEST-ALPINE MONTAN) * claim 3 *	1	B 22 D 11/12 B 22 D 11/14 B 22 D 11/128
A	--- DE-A-3 407 391 (CONCAST INTERNATIONAL) * claim 1 *	1	
D, A	--- PATENT ABSTRACTS OF JAPAN, vol. 6, no. 14 (M-108), 19th January 1982, page 103 M 108; & JP - A - 56 134 055 (KOBE SEIKOSHO) 20-10-1981	1	
D, A P	--- PATENT ABSTRACTS OF JAPAN, vol. 10, no. 204 (M-499)[2260], 17th July 1986; & JP - A - 61 46360 (NIPPON STEEL CORP.) 06-03-1986 -----	1	TECHNICAL FIELDS SEARCHED (Int. Cl.4) B 22 D 11/00
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 03-06-1987	Examiner GOLDSCHMIDT G
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

