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(54) **Apparatus for and process of continuous casting**

(57) A continuous casting apparatus of a reduction type in which a mold is composed of long-side mold elements (2) and short-side mold elements (1), each short-side mold element (1) including a reduction portion (7) widened at its upper portion and narrowed at its lower portion and a straight portion (8), so that reduction is performed in a state that solidification is suppressed on a short-side mold element (1) side. The reduction portion (7) is made of a refractory member, and the straight portion (8) is made of a water-cooled copper plate. The refractory member (7) may be made from a material mainly containing ZrB_2 , and it may be divided in a plurality of parts. To control a temperature distribution of the short-side mold element (1), a high temperature supply passage (13) is provided in a back surface portion of the short-side mold element (1). An elastically deformable frame is arranged at a contact portion between a reduction portion (7) made of a refractory member and a long-side mold element (2) for preventing formation of gaps between the short-side mold element (1) and the long-side mold element (2). Also, a seal member is provided at a contact portion between the short-side mold element (1) and the long-side mold element (2) for improving a sliding therebetween.

FIG.1

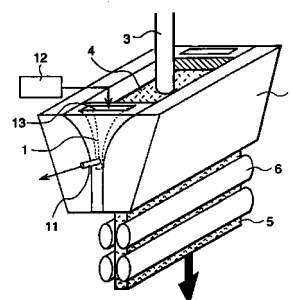
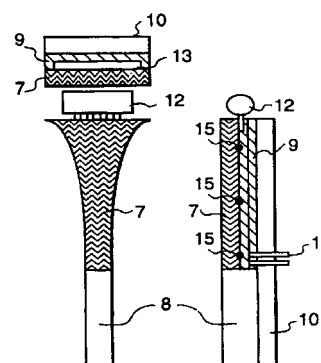


FIG.2



EP 0 780 176 A3



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EUROPEAN SEARCH REPORT

Application Number
EP 96 11 9789

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.6)
D,A	WO 94 07628 A (DAVY MCKEE SHEFFIELD, GB) 14 April 1994 * page 2, line 31 - page 3, line 18 * * page 3, line 33 - page 4, line 3 * * page 4, line 28 - page 5, line 19 * * figure 1 *	1,2,5,7, 9-11,14, 19,20, 24-28, 42-44, 50,51, 54,55	B22D11/04 B22D11/06 B22D11/10 B22D11/16
X	---	56	
D,A	PATENT ABSTRACTS OF JAPAN vol. 014, no. 407 (M-1019), 4 September 1990 & JP 02 15543 A (HITACHI LTD;OTHERS: 01), 14 June 1990 * abstract *	1,2,5,7, 11,20, 24,25, 28, 42-44, 54,55	
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D,A	PATENT ABSTRACTS OF JAPAN vol. 096, no. 002, 29 February 1996 & JP 07 256399 A (NIPPON STEEL CORP), 9 October 1995 * abstract *	1,2,8,9, 11,25, 28,42,43	B22D
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X	EP 0 363 732 A (SCHLOEMANN SIEMAG AG, DÜSSELDORF, DE) 18 April 1990 * column 2, line 45 - column 3, line 13 * * figure 1 *	23	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 10 March 1999	Examiner Peis, S
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			

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