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⑳ Applicant: NKK CORPORATION
1-2, 1-chome, Marunouchi Chiyoda-ku
Tokyo(JP)

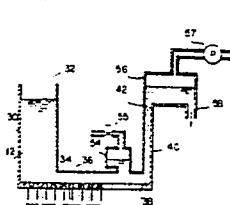
㉑ Inventor: Ishii, Toshio c/o Patent & License
and
Quality Standards Dept. NKK Corp. 1-2,
1-chome
Marunouchi Chiyoda-ku Tokyo(JP)
Inventor: Okubo, Yutaka c/o Patent & License
and
Quality Standards Dept. NKK Corp. 1-2,
1-chome
Marunouchi Chiyoda-ku Tokyo(JP)
Inventor: Fukuda, Shuzo c/o Patent & License
and
Quality Standards Dept. NKK Corp. 1-2,
1-chome
Marunouchi Chiyoda-ku Tokyo(JP)

㉒ Representative: Füchsle, Klaus, Dipl.-Ing. et al
Hoffmann . Eitlie & Partner Patentanwälte
Arabellastrasse 4
D-8000 München 81(DE)

㉓ Method for cleaning molten metal and apparatus therefor.

A3
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A method for cleaning molten metal comprises a bubbling process, wherein the gas soluble in molten metal is bubbled in the molten metal under increased pressure, the inclusions in the molten metal are trapped by the gas bubbles produced by bubbling, and the gas is dissolved in the molten metal; a pressure reduction process, wherein fine gas bubbles are produced in the molten metal by reducing a pressure on the molten metal in which gas is dissolved, and the inclusions suspended in the molten metal are trapped by the fine gas bubbles produced by reduction of the pressure; and an inclusions removing process, wherein inclusions having risen to the surface of the molten metal are removed. An apparatus comprises a first vessel (30) which has an inlet (32) for charging molten metal at the top end

thereof and outlet (34) for charging molten metal at the bottom thereof; a second vessel (40) which has an inflow port (38) for pressurized molten metal at the bottom thereof and an outflow port (42) for the pressurized molten metal and in which the pressurized molten metal goes upwardly; a communicating tube (36) connecting the first vessel to the second vessel; and a first bubbling device (44) positioned at the bottom of the first vessel for bubbling the gas soluble in molten metal.





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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)
Y	FR-A-2 438 091 (VASIPARI KUTATO) * Claims; page 8, line 15 - page 9, line 4; figure 3 * ---	1-4, 14, 16	C 21 C 7/072 C 21 C 1/00 C 22 B 9/05
Y	LU-A- 61 062 (CENTRE NATIONAL DE RECHERCHES) * Figures; claims * ---	1-4	
Y	CH-A- 420 237 (W. STICH) * Claims I,II,9 * ---	1,16	
Y	DE-A-1 583 287 (SALZGITTER AG) * Figures; claims * ---	1,14	
A	GB-A-1 048 895 (INSTITUT DE RECHERCHES) ---		
A	DE-B-1 168 461 (G. FISCHER) ---		
A	DE-A-1 903 212 (ALLMÄNNA SVENSKA) ---		
A	DE-B-1 433 406 (ALLMÄNNA SVENSKA) -----		
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			C 21 C C 22 B F 27 D H 05 B
The present search report has been drawn up for all claims			
Place of search THE HAGUE	Date of completion of the search 03-11-1989	Examiner OBERWALLENEY R.P.L.I.	
CATEGORY OF CITED DOCUMENTS		<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>	
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			