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(54) Title: CASTING PROCESS AND SAND MOULD PROVIDED WITH AN INLET SYSTEM FOR PRODUCING AT LEAST PARTLY THIN WALLED ALUMINIUM CASTS WITH SAND MOULDING TECHNOLOGY BY MEANS OF GRAVITY CASTING

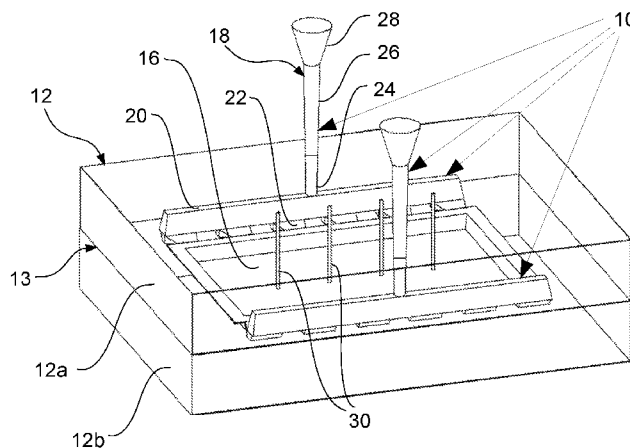


Fig. 1a

(57) Abstract: The subject of the invention is a process for the production of at least partly thin-walled and aluminium castings with sand moulding technology by gravity casting, which allows producing casts with 100 times or favourably 200-400 times larger overall dimensions in case of 1-3 mm wall thickness. The main idea of the process is that sand mould containing mould cavity is provided, melt of aluminium content is produced, the melt is introduced into the mould cavity at several points through a gating system of narrowing cross section. A further subject of the invention is a sand mould fitted with a gating system to produce at least partly thin-walled castings with sand moulding technology, by gravity casting. The wall thickness of thin-walled segments is 1-3 mm and the largest dimension is more than a 100 but favourably at least 200-400 multiple of the wall thickness. The main idea behind the sand mould with a gating system is that it contains a mould cavity allowing the production of at least partly thin-walled castings, and is equipped with a gating system, which is composed of at least two sprues and one ingate to each having a porthole into the mould cavity and in liquid contact with the sprues.



INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

INV. B22C9/08 B22C9/02 B22D21/00 B22D25/02 B22D27/04
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ADD.

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)

B22C B22D

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 practicable, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP S57 31463 A (SINTOKOGIO LTD) 19 February 1982 (1982-02-19) abstract	1-15
A	----- DATABASE WPI Week 201479 Thomson Scientific, London, GB; AN 2014-V42473 XP002763862, -& CN 104 014 717 A (ZHU X) 3 September 2014 (2014-09-03) abstract -----	1-15



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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP S5731463	A	19-02-1982	NONE	

CN 104014717	A	03-09-2014	NONE	
