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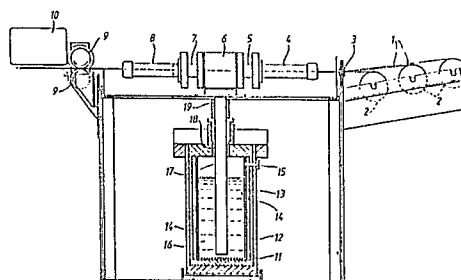
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(54) Production of fibre reinforced metal sections.

57) Fibre reinforced metal sections are produced by forcing molten metal into a die chamber 6 through which fibres are fed at a controlled speed from a fibre inlet orifice in ingate 5 to an exit die 7 having an exit orifice corresponding to the cross-section of the desired reinforced cast section. The molten metal is held in a pressurisable second chamber 11 from which it is forced by the pressure of an inert gas into the die chamber 6 so as to infiltrate the fibres. Important parameters in operation of the process are infiltration pressure, ingate die temperature and exit die temperature, molten metal temperature, and fibre feed rate.





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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) |
| X | PATENT ABSTRACTS OF JAPAN, vol. 10, no. 265 (M-515)[2321], 10th September 1986; & JP-A-61 88 944 (TORAY IND., INC.) 07-05-1986 * Abstract * | 1,3 | B 22 D 19/14 C 22 C 1/09 |
| Y | IDEM --- | 2,4-7,9 -11,13 | |
| Y | US-A-3 095 642 (P.A. LOCKWOOD) * Column 3, lines 39-59; column 5, lines 21-43; column 5, line 65 - column 6, line 14; figures 5,6 * | 2,4,7, 10,11, 13 | |
| Y | DE-A-2 236 640 (BROWN, BOVERI & CIE.) * Page 4, lines 1-17; figure 6 * | 5,6 | |
| Y,D | US-A-3 547 180 (C.N. COCHRAN et al.) * Column 4, lines 7-15 * | 9 | |
| A | PATENT ABSTRACTS OF JAPAN, vol. 9, no. 145 (C-287)[1868], 20th June 1985; & JP-A-60 29 433 (TORAY K.K.) 14-02-1985 * Abstract * ----- | 1 | TECHNICAL FIELDS SEARCHED (Int. Cl.4) B 22 D C 22 C C 23 C |
| The present search report has been drawn up for all claims | | | |
| Place of search THE HAGUE | | Date of completion of the search 28-02-1989 | Examiner DOUGLAS K.P.R. |
| 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 | | | |