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(72) Inventor: **Watson, Thomas J.**
South Windsor, CT Connecticut 06074 (US)

(74) Representative: **Hall, Matthew Benjamin**
Dehns
St. Bride's House
10 Salisbury Square
London EC4Y 8JD (GB)

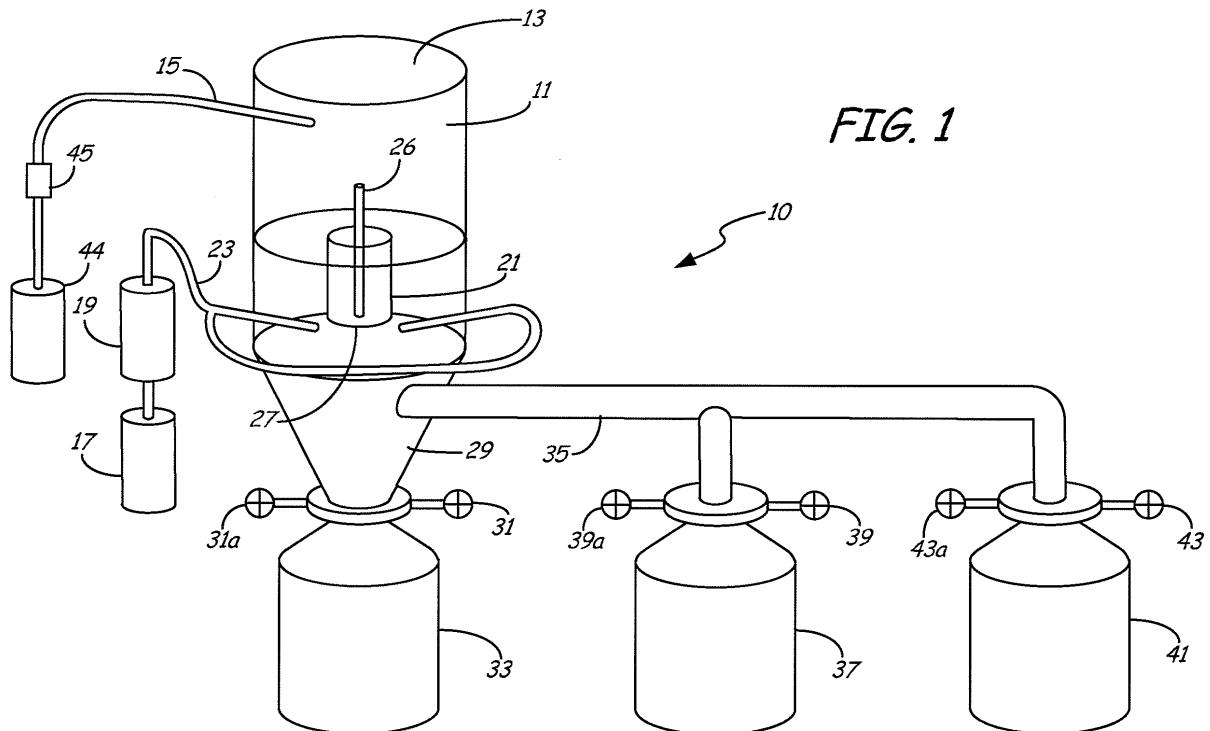
(30) Priority: **27.06.2011 US 201113169207**

(71) Applicant: **United Technologies Corporation**
Hartford, CT 06101 (US)

(54) **Production of atomized powder for glassy aluminum-based alloys**

(57) A system and method for producing atomized powder for glassy aluminum-based alloys in an inert gas

atmosphere. A melt chamber (11) melts the alloy and it is atomized to form powder. The powder is deposited in at least one catch tank (33, 37, 41).





EUROPEAN SEARCH REPORT

Application Number
EP 12 16 2575

| DOCUMENTS CONSIDERED TO BE RELEVANT | | | |
|---|--|---|---|
| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (IPC) |
| X | BAOLONG ZHENG ET AL: "Gas Atomization of Amorphous Aluminum Powder: Part II. Experimental Investigation", METALLURGICAL AND MATERIALS TRANSACTIONS B, SPRINGER-VERLAG, NEW YORK, vol. 40, no. 6, 26 August 2009 (2009-08-26), pages 995-1004, XP019755006, ISSN: 1543-1916, DOI: 10.1007/S11663-009-9277-4 | 1,2,5-7 | INV. B22F9/00 B22F9/08 C22C1/04 C22C45/08 |
| Y | * page 996, paragraph 4-6; figures 1-12; | 3,4 | |
| A | tables 1-2 * | 11-15 | |
| Y | ----- US 5 433 978 A (SHIELD JEFFREY E [US] ET AL) 18 July 1995 (1995-07-18) * column 3, line 45 - line 60; figure 1 * ----- | 3,4 | |
| | | | TECHNICAL FIELDS SEARCHED (IPC) |
| | | | B22F C22C |
| The present search report has been drawn up for all claims | | | |
| Place of search Munich | | Date of completion of the search 8 October 2013 | Examiner Liu, Yonghe |
| CATEGORY OF CITED DOCUMENTS | | 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 | |
| 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 | | | |

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 12 16 2575

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| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|--|------------------|-------------------------|------------------|
| US 5433978 | A | 18-07-1995 | NONE |
| ----- | | | |

EPC FORM P 0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82