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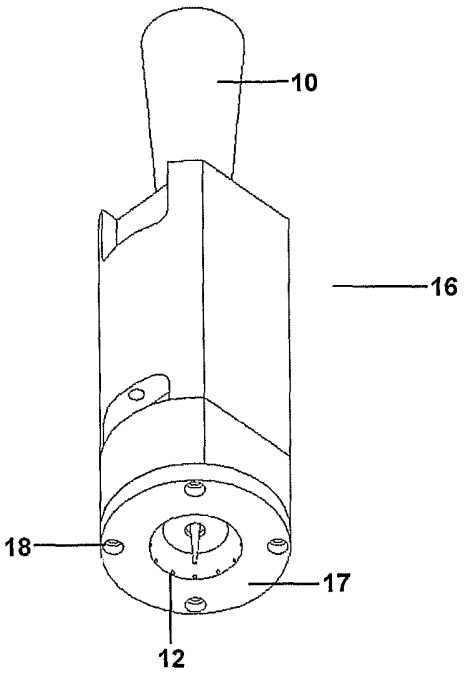
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(54) Title: GREATER ANGLE AND OVERHANGING MATERIALS DEPOSITION



(57) Abstract: Apparatuses and methods for producing greater angle or overhanging deposits on a structure. Nozzles (18) for propelling powder at a target or structure for subsequent laser processing are preferably at a greater angle of powder entry than currently used. The nozzles (18) are arranged around the laser beam (10) and can be individual or disposed around an annular ring (17). The individual nozzles (18) can be interchangeable with the annular ring (17). Discrete nozzles (18) can be used in addition to or in place of the other nozzles, allowing angles of powder entry up to approximately 180^0. The nozzles (18) may be translated or rotated with respect to the target along or about multiple axes.

WO 2005/107981 A3

INTERNATIONAL SEARCH REPORT

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PCT/US05/15590

A. CLASSIFICATION OF SUBJECT MATTER
IPC: **B22F 7/02**(2006.01)

USPC: 419/7,9;425/78
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)
U.S. : 419/7, 9; 425/78

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,391,251 B1 (KEICHER et al) 21 May 2002 (21.05.2002), figures 6, 7 and 29.	1-55

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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