

2003057999

26 SEP 2003

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
28 November 2002 (28.11.2002)

PCT

(10) International Publication Number
WO 02/094497 A3(51) International Patent Classification⁷: B23K 15/08, 26/08, 26/38

(21) International Application Number: PCT/GB02/02237

(22) International Filing Date: 14 May 2002 (14.05.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0112234.0 18 May 2001 (18.05.2001) GB(71) Applicant: THE WELDING INSTITUTE [GB/GB];
Granta Park, Great Abington, Cambridge CB1 6AL (GB).(72) Inventor: DANCE, Bruce, Guy, Irvine; 46 Metcalfe
Road, Cambridge CB4 2DD (GB).(74) Agent: GIL JENNINGS & EVERY; Broadgate House, 7
Eldon Street, London EC2M 7LH (GB).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZM, ZW.

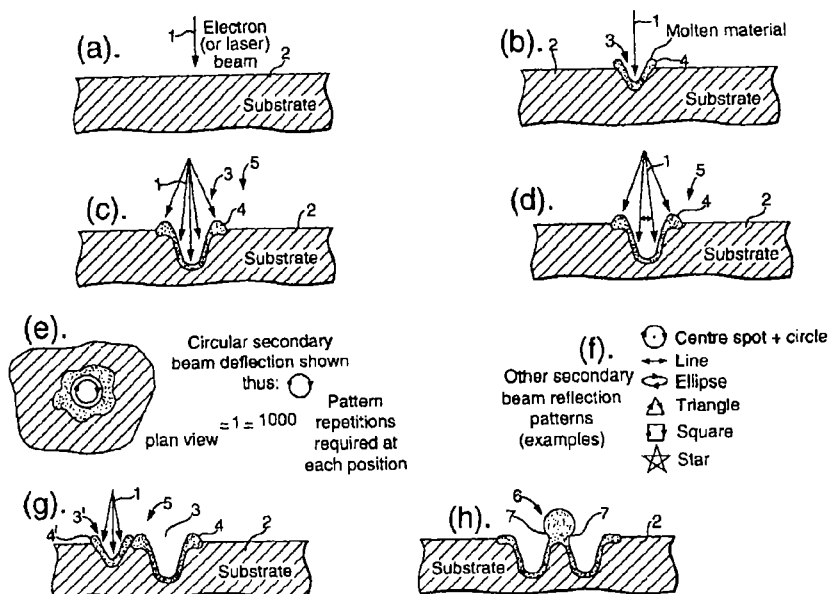
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: SURFACE MODIFICATION



(57) Abstract: A method of operating on a workpiece comprises causing relative movement between the workpiece and a power beam in a traverse direction so as to expose a series of locations on the workpiece to the power beam. At each location the power beam is caused to move relative to the workpiece in a predetermined manner having a component transverse to the traverse direction, and workpiece material is melted and displaced by the power beam so as to form a cavity or hole.

WO 02/094497 A3



162162



ACTION