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EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
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ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,
MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR),
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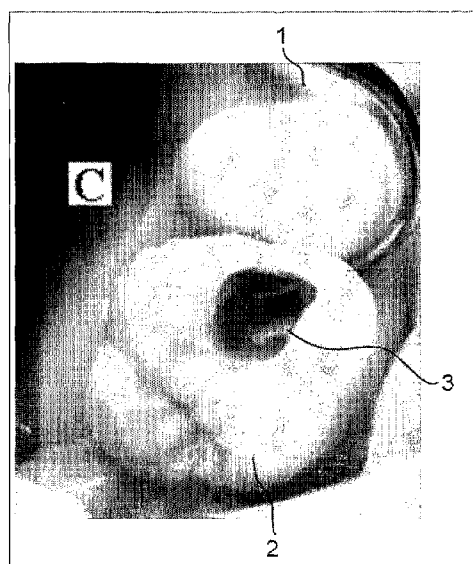


FIG. 1

(57) Abstract: Methods, systems, and apparatus for programmable selective ablating or cutting of a targeted area of a material with a laser, producing a succession of pulses of the generated radiation with an energy level, pulse duration, and repetition rate specified to ablate or cut the material without causing harmful side effects; and concentrating the radiation pulses on the targeted material to a spot sufficiently small to cause ablating or cutting of the material; and means to direct the said spot to cover the programmed selected targeted area of a material.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL 09/00057

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A61B 18/18 (2009.01)

USPC - 606/10

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)

IPC(8) - A61B 18/18 (2009.01)

USPC - 606/10

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC - 606/2, 11

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PubWEST (PGPB,USPT,EPAB,JPAB); Google Patents; Google Scholar

Search Terms Used: ablation, laser, radiation, image, digital, standing, boundaries, target, align, overlap, outline, CO2, Nd, Er, YAG, dental, tooth, teeth, cavity

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X — Y	US 2006/0119743 A1 (LIN) 08 June 2006 (08.06.2006) para [0008], [0028], [0035], [0039], [0040], [0055], [0058], [0062], [0074]	1 — 2-20
Y	US 2004/0137408 A1 (EMBERT et al.) 15 July 2004 (15.07.2004) para [0055]	2-20
Y	US 6,156,030 A (NEEV) 05 December 2000 (05.12.2000) col 45, ln 44-52; col 47, ln 60-65; col 48, ln 45-48; col 54, ln 58-67; col 60, ln 9-21; col 64, ln 22-25	8, 10-12, 14, 15, 19, 20

☐ Further documents are listed in the continuation of Box C.

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