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Declarations under Rule 4.17:

- as to the identity of the inventor (Rule 4.17(i)) for all designations
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations
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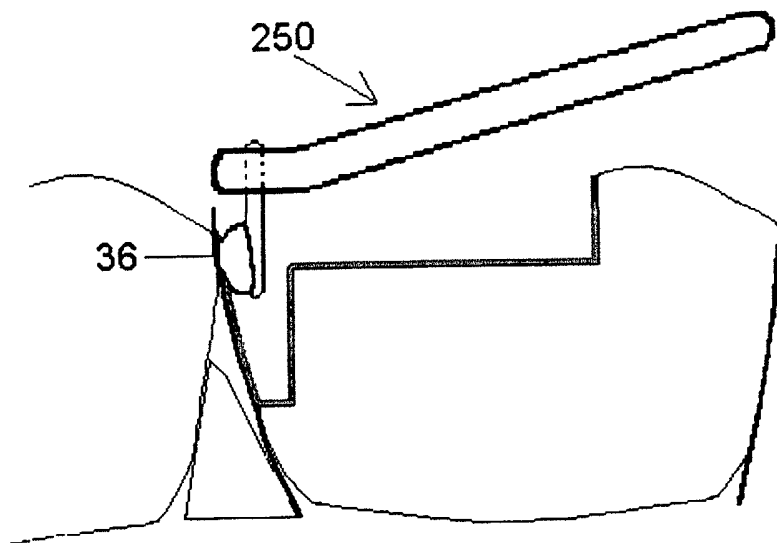
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: MATRIX, TOOL, COMPOSITE AND METHOD FOR FILLING A TOOTH



(57) Abstract: A method, with requisite tools, for producing a boat-shaped adhesive crust, contoured for dental composite filling, including the steps of: removing decay from a tooth, and exposing new tooth surfaces; arranging a flexible metal band (36), supported by at least one wedge, around the tooth, so an inner surface of the metal band (36) and new tooth surfaces form a cavity and provide a contour for the restored tooth; applying acid solutions to new tooth surfaces, dissolving inorganic material, leaving an organic matrix on the new tooth surfaces; coating the new tooth surfaces and the inner surface of the metal band (36) with adhesive films (33); providing a pressing tool (250) having at least one tip; pressing the coated metal band

(36) with the tip against an adjacent tooth, creating a desired contact area of the restored tooth; and simultaneously with pressing, light-curing the adhesive films, forming the boat-shaped adhesive crust having the desired contact area and sufficient strength to maintain it when the tip of the pressing tool (250) is removed.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/IL02/00419

A. CLASSIFICATION OF SUBJECT MATTER
 IPC(7) : A61C 5/04; A61C 3/00
 US CL : 433/141, 226
 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. : Please See Continuation Sheet

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)
 Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,035,615 A (DIN) 30 July 1991 (30.07.1991), column 3, lines 26-28, column 5, lines 4-11 and lines 22-40.	1-6, 23-26
Y	US 5,318,446 A (SLONE) 07 June 1994 (07.06.1994), column 4, lines 47-63, and Fig. 4.	1-6, 23-26
X ---	US 5,586,883 A (NAKISHER et al) 24 December 1996 (24.12.1996), column 2, lines 60-65.	27
Y		----- 2, 3
Y	US 5,342,194 A (FELDMAN) 30 August 1994) 30.08.1994), column 3, lines 37-40, and column 6, lines 2-5.	2, 3
X	US 5,718,583 A (FLANAGAN) 17 February 1998 (17.02.1998), column 2, lines 35-45.	28
X	US 4,726,770 A (KURER) 23 February 1988 (23.02.1988), column 1, lines 52-54, and Figs. 4 and 5.	28-30, 34, 35
X	US 5,607,302 A (GARRISON et al) 04 March 1997 (04.03.1997), column 4, lines 7-8, and Fig. 2.	28, 31
X	US 3,074,169 A (FREEMAN) 22 January 1963 (22.01.1963), column 3, lines 1-30.	28, 32

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

<p>* Special categories of cited documents:</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>"&" document member of the same patent family</p>
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Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703)305-3230	Authorized officer <i>John J. Wilson</i> John J. Wilson Telephone No. 703-308-0861

INTERNATIONAL SEARCH REPORT

PCT/IL02/00419

Continuation of Item 4 of the first sheet:

The existing title is not precise

TITLE:

Matrix, Tool, Composite and Method of Filling a Tooth

Continuation of B. FIELDS SEARCHED Item 1:

433/39, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 226

Continuation of B. FIELDS SEARCHED Item 3:

BRS

search terms: matrix, band, pad, resilient, spring, piston, pressing, expander

INTERNATIONAL SEARCH REPORT

PCT/IL02/00419

C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,385,471 A (CHUEN) 31 January 1995 (31.01.1995), column 2, lines 55-69.	28, 33
X	US 360,695 A (HOLMES) 05 April 1887 (05.04.1887), page 2, lines 1-15.	28, 36