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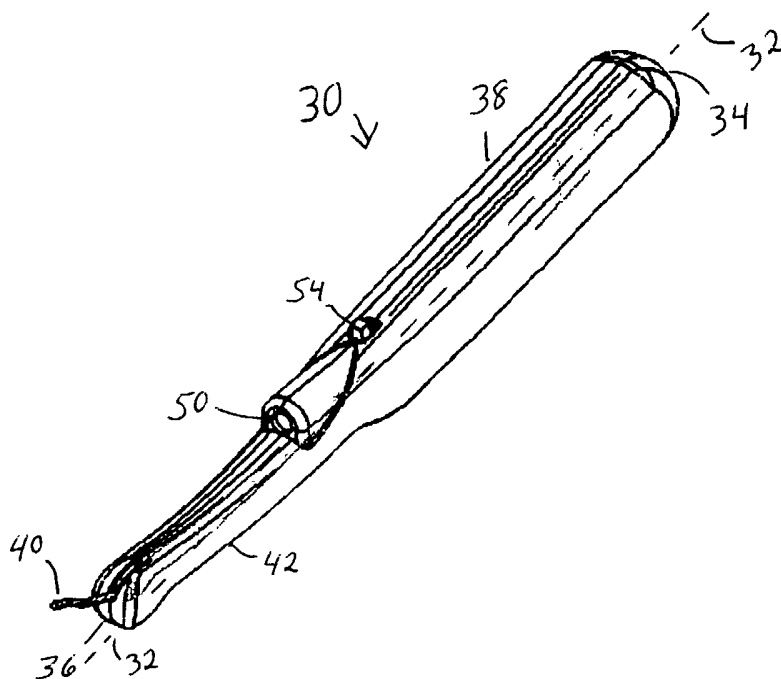
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(54) Title: TOOL AND METHOD FOR ADJUSTING ORTHODONTIC EXPANSION SCREWS



(57) Abstract: An adjusting tool (300) and associated method of use for turning orthodontic expansion screws are described. The tool or device (30) consists of a contra-angled molded plastic handle or housing (38) with a rotatable pin (40) at the distal end for inserting into an expansion screw located in a patient's mouth. The tool housing (38) is designed to limit the angular rotation of the pin (40) to the arc required for insertion and subsequent activation of the orthodontic screw. When rotated to the position associated with screw activation, the pin (40) is captured and held in place by a locking mechanism (90) which then requires the tool (30) to be disengaged from the screw prior to its removal from the patient's mouth. This feature eliminates the possibility of reversing and deactivating the expansion screw by pulling the expansion key straight out of the mouth. A manual release mechanism (104) on the tool frees the pin (40) to

allow the pin to be rotated back to the insertion position. A built-in light (50) assists with sighting the end of the wire and the insertion holes in the expansion screw.



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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.

INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER												
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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. : 433/3, 29, 141												
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.										
A	US 5,133,659 A (SHILLIDAY) 28 July 1992 (28.07.1992), see entire document.	1-22										
A	US 4,791,940 A (HIRSCHFELD et al) 20 December 1988 (20.12.1988), column 7, lines 12-14.	7, 18, 22										
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.												
* Special categories of cited documents: <table border="0"> <tr> <td>"A" document defining the general state of the art which is not considered to be of particular relevance</td> <td>"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</td> </tr> <tr> <td>"E" earlier application or patent published on or after the international filing date</td> <td>"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</td> </tr> <tr> <td>"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)</td> <td>"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</td> </tr> <tr> <td>"O" document referring to an oral disclosure, use, exhibition or other means</td> <td>"&" document member of the same patent family</td> </tr> <tr> <td>"P" document published prior to the international filing date but later than the priority date claimed</td> <td></td> </tr> </table>			"A" document defining the general state of the art which is not considered to be of particular relevance	"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	"E" earlier application or patent published on or after the international filing date	"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	"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)	"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	"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family	"P" document published prior to the international filing date but later than the priority date claimed	
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Continuation of B. FIELDS SEARCHED Item 3:

BRS

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