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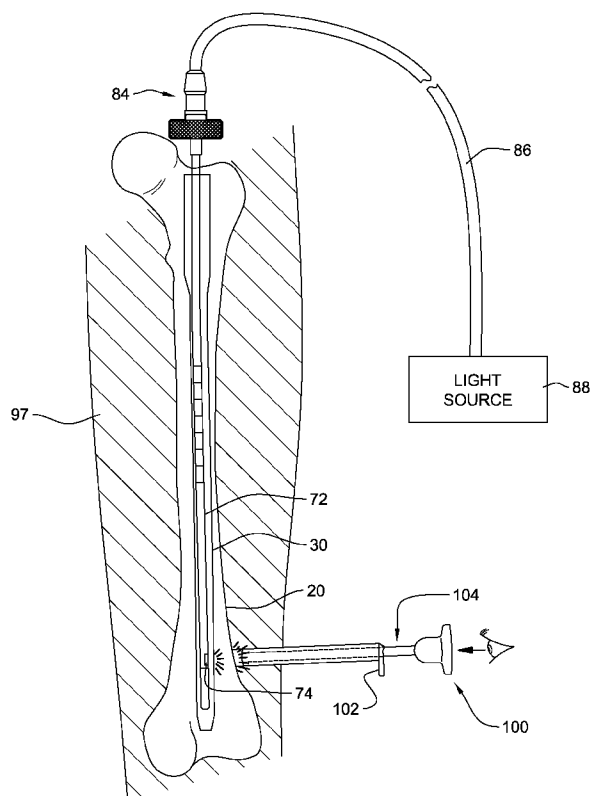
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[Continued on next page]

(54) Title: INTRAMEDULLARY TRANSILLUMINATION APPARATUS, SURGICAL KIT AND METHOD FOR ACCURATE PLACEMENT OF LOCKING SCREWS IN LONG BONE INTRAMEDULLARY RODDING



(57) Abstract: Apparatus, including a surgical kit, for use with a surgical drill, in the repair of bones using an intramedullary nail (30) insertable into a patient's bone (20), comprising a rod like device (70, 72) for insertion into the intramedullary nail (30), the device having a light source (73, 74, 75, 86, 88) emitting electromagnetic non-ionizing radiation, and the device being positionable so that the light source (74) emits the radiation through a distal transverse hole of the intramedullary nail; and a surgical instrument (95, 99, 102, 104) for exposing an exterior surface of a portion of the bone (20) illuminated by the radiation for view by the surgeon or a surgical robot. The radiation can be detected on the exterior surface of the bone (20) to align the surgical drill (110) to the radiation passing through a transverse hole (42, 44) of the intramedullary nail (30), permitting accurate drilling of a hole through the bone and passage of the drill through the transverse hole (42, 44) of the intramedullary nail (30).



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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USPC: 606/60,62,64,96,98

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. : 606/60,62,64,96,98

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 --- Y	US 5,540,691 A (ELSTROM et al) 30 July 1996 (30.7.1996), Figures 1-5 and 10, column 3, lines 44-67, column 4, lines 1-61 and column 6, lines 44-67.	1, 6, 8-13, 18, and 20-25 -----
Y	US 4,621,628 A (BRUDERMANN) 11 November 1986 (11.11.1986), Figure 1 and column 7, lines 3-68.	2-5, 7, 14-17 and 19 2-5, 7, 14-17 and 19

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Further documents are listed in the continuation of Box C.

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See patent family annex.

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