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(54) Title: MULTIPLEX SYSTEM FOR THE DETECTION OF SURGICAL IMPLEMENTS WITHIN THE WOUND CAVITY

(57) Abstract: The present invention provides a multiplex system for identifying the presence of surgical sponges, metal instruments, and other implements in a surgical wound by employing a plurality of discrete sensing systems. At least two modalities of operation are chosen from a plurality of detection modalities, which can include: 1) magnetomechanically resonant marker tags; 2) "smart markers" or RFID markers; and 3) a system designed to detect metallic objects solely based upon their metal content, without need for a separate, affixed marker. The selected modes of operation can operate sequentially or simultaneously. Consequently, the use of such a multiplex system eliminates the possibility that surgical implements, non-metallic or metallic, will be left behind within a surgical cavity.

INTERNATIONAL SEARCH REPORT

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PCT/US06/04670

A. CLASSIFICATION OF SUBJECT MATTER
IPC: **A61B 19/00**(2007.01)

USPC: 128/899;600/424
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. : 128/899; 600/424

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.
Y	US 5,190,059 A (FABIAN et al.) 02 March 1993 (02.03.1993), see entire document.	1-39
Y	US 6,759,959 B2 (WILDMAN) 06 July 2004 (06.07.2004), see column 13, lines 58-66.	1-39

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

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