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(54) Title: SURGICAL RETRACTOR APPARATUS AND METHOD

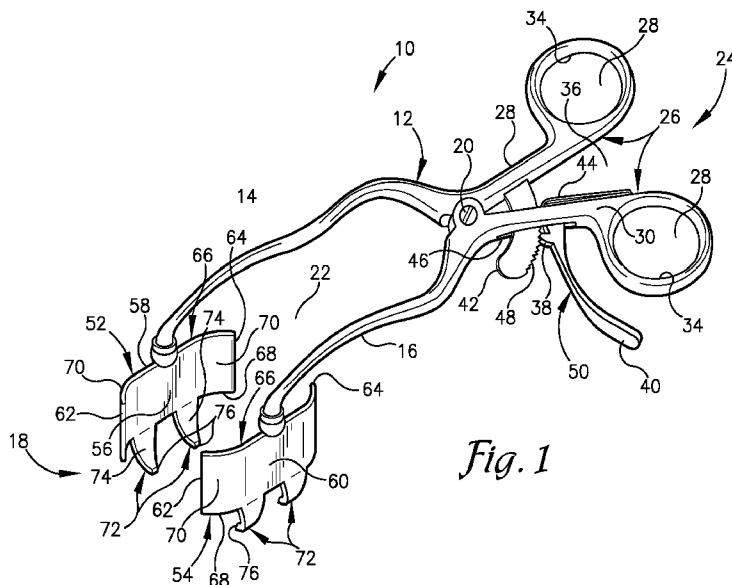


Fig. 1

(57) Abstract: A surgical retractor is provided to retain tissue in a retracted position and expose an interior surface during a surgical procedure. The surgical retractor is self-retaining and includes opposing blades that are removably mountable on arms of the surgical retractor via a ball-and-socket assembly that permits swiveling and hinging of the opposing blades independent from each other and the arms. Each of the opposing blades have a plurality of talons with a curved surface to slidably receive and partially enwrap bone matter so that the plurality of talons securely engage the bone matter while permitting slidable adjustment therebetween.



A. CLASSIFICATION OF SUBJECT MATTER*A61B 17/02(2006.01)i*

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)

A61B 17/02; A61B 17/00; A61B 1/32; A61B 17/56

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: retractor, blade, ball and socket, pivot

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 05931777 A (SAVA; GERARD A.) 03 August 1999 See abstract, column 3, lines 52-58, column 4, lines 30-34, column 4, lines 36-37, column 4, lines 42-47; claims 1,3-4 and figures 1,5-6.	1-17
A	US 2003-0055319 A1 (DAVID CHANG) 20 March 2003 See abstract, paragraphs[0038]-[0040]; claims 1-2,21 and figures 1-2,5.	1-17
A	US 2006-0063978 A1 (STEPHEN RITLAND) 23 March 2006 See abstract, paragraphs[0016],[0022]-[0025]; claims 1,9 and figures 1-3.	1-17
A	US 6261296 B1 (AEBI; MAX et al.) 17 July 2001 See abstract, column 4, lines 5-9, column 5, line 65-column 6, line 3, column 7, lines 7-9; claim 1 and figures 1,3,7.	1-17
A	WO 2005-037089 A1 (MINNESOTA SCIENTIFIC, INC.) 28 April 2005 See abstract, page 3, lines 3-10, page 12, lines 1-6, page 12, lines 13-18; claims 1-2 and figures 1,6-7.	1-17

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

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"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

"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

"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

"&" document member of the same patent family

Date of the actual completion of the international search

28 JANUARY 2013 (28.01.2013)

Date of mailing of the international search report

29 JANUARY 2013 (29.01.2013)

Name and mailing address of the ISA/KR

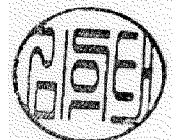
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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: 18-20
because they relate to subject matter not required to be searched by this Authority, namely:

Claims 18-20 pertain to methods for treatment of the human body and thus relate to a subject matter which this International Searching Authority is not required, under Article 17(2)(a)(i) of the PCT and Rule 39.1(iv) of the Regulations under the PCT, to search.

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2012/038167

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 05931777 A	03.08.1999	None	
US 2003-0055319 A1	20.03.2003	US 6663562 B2	16.12.2003
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