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- (71) Applicant (for all designated States except US):  
**ETHICON ENDO-SURGERY, INC.** [US/US]; 4545  
Creek Road, Cincinnati, OH 45242 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **MILLER, Matthew, C.** [US/US]; 3524 Zumstein Avenue, Cincinnati, OH 45208 (US). **PRICE, Daniel, W.** [US/US]; 185 Overlook Drive, Loveland, OH 45140 (US). **KIMBALL, Cory, G.** [US/US]; 6136 Lagrange Lane, Cincinnati, OH 45239 (US). **WOODRUFF, Scott, A.** [US/US]; 3582 Harbor Bay Drive, Loveland, OH 45140 (US). **CLEM, William, E.** [US/US]; 560 Evening Star Lane, Bozeman,

MT 59715 (US). **DIETZ, Timothy, G.** [US/US]; 2 Elm Ledge, Terrace Park, OH 45174 (US).

(74) Agents: **MORENO, Victor, C.** et al.; Johnson & Johnson, One Johnson & Johnson Plaza, New Brunswick, NJ 08933 (US).

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Declarations under Rule 4.17:

[Continued on next page]

(54) Title: ULTRASONIC DEVICE FOR FINGERTIP CONTROL

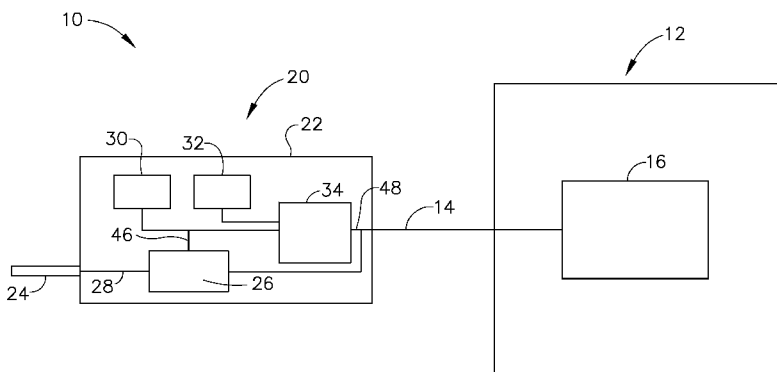


FIG. 1

(57) Abstract: An ultrasonic surgical instrument comprises a handpiece and an ultrasonically actuated blade distal to the handpiece. The instrument includes an activation member that is operable to selectively activate the blade and a controller that is operable to select the energy level at which the blade will be activated. The activation member may comprise capacitive switches; resistive sensors; resonant cavity switching technology; infrared sensing technology; technology that uses a resonant, standing wave on a surface that is perturbed by the presence of a finger; and/or any other suitable type of technology. The controller may comprise the same. The controller may permit selection from three or more available ultrasonic energy levels. The activation member and/or controller may be manipulated from various longitudinal positions on the handpiece and/or various rotational positions about the handpiece, such that the handpiece may be gripped in a variety of ways.



WO 2010/030850 A3



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— *as to the identity of the inventor (Rule 4.17(i))*

**Published:**

— *with international search report (Art. 21(3))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

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17 June 2010

## INTERNATIONAL SEARCH REPORT

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<b>A. CLASSIFICATION OF SUBJECT MATTER</b>		
INV. A61B17/22	A61B17/32	A61C17/20
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols)		
A61B A61C		
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 practical, search terms used)		
EPO-Internal		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2008/200940 A1 (EICHMANN STEPHEN E [US] ET AL) 21 August 2008 (2008-08-21)  paragraph [0086] - paragraph [0096]; figures	1,6-7, 12-15, 17-18
A	US 2002/049464 A1 (DONOFRIO WILLIAM T [US] ET AL) 25 April 2002 (2002-04-25) figures	1-15, 17-18
A	DE 36 00 990 A1 (SIEMENS AG [DE]) 16 July 1987 (1987-07-16) the whole document	1-15, 17-18
A	US 2002/087179 A1 (CULP JERRY A [US] ET AL) 4 July 2002 (2002-07-04) abstract	1-15, 17-18
-/--		
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> 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	"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 document but 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		
Date of the actual completion of the international search	Date of mailing of the international search report	
27 January 2010	03/05/2010	
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer  Held, Günter	

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2009/056616

## 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.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
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:

see additional sheet

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 fees, this Authority did not invite payment of additional fees.
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.:  
1-15, 17-18

### 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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-15, 17-18

An ultrasonic surgical instrument wherein the activation member is accessible from a plurality of positions along the length of the handpiece. The essential feature is addressed to an elongate strip running longitudinally along the handpiece and wherein the controller is responsive to a longitudinal position at which a user presses the strip. The problem to be solved is to ease the operation of the instrument.

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2. claim: 16

The essential features of claim 16 are directed to the cable for providing power to the handpiece wherein the cable and the handpiece are rotatable relative to each other. The problem to be solved is to avoid twisted cables.

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3. claims: 19-20

A surgical instrument comprising a handpiece and an end effector wherein the instrument is configured to permit a user to apply a force to tissue with the end effector. The essential feature is a power source which is integral with the handpiece. Thus, the problem to be solved is a compact handpiece.

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# INTERNATIONAL SEARCH REPORT

International application No

PCT/US2009/056616

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2004/116952 A1 (SAKURAI TOMOHISA [JP] ET AL) 17 June 2004 (2004-06-17) figures -----	1-15, 17-18

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

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