(11) **EP 1 199 733 A3**

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: **24.03.2004 Bulletin 2004/13**

(51) Int CI.7: **H01H 9/00**

(43) Date of publication A2: **24.04.2002 Bulletin 2002/17**

(21) Application number: 01308926.3

(22) Date of filing: 19.10.2001

AL LT LV MK RO SI

(84) Designated Contracting States:

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU

MC NL PT SE TR

Designated Extension States:

(30) Priority: **20.10.2000 US 242272 P**

04.06.2001 US 874556

(71) Applicant: ETHICON ENDO-SURGERY Cincinnati, Ohio 45242-2839 (US)

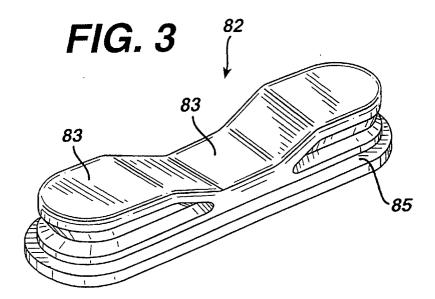
(72) Inventor: Donofrio, William T. Cincinnati, OH 45249 (US)

 (74) Representative: Fisher, Adrian John et al CARPMAELS & RANSFORD
 43 Bloomsbury Square London WC1A 2RA (GB)

(54) Flexible switch members for hand activation handpiece switches

(57) Methods of controlling fluid flow (e.g., flow of liquids, water vapor and gases) through switch members, e.g., switch buttons, which are used to seal an interior cavity of a surgical handpiece are provided. The switch members provide improved sealing properties

which prevent gas and water vapor transmission across the switch member and into and out of the sealed internal switch chamber. The switch members are also resistant to puncture due to striking by tools or cleaning instruments, or the like.





EUROPEAN SEARCH REPORT

Application Number

EP 01 30 8926

	DOCUMENTS CONSIDER	• • • • • • • • • • • • • • • • • • • •				
Category	Citation of document with indic of relevant passage		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)		
Υ	US 5 226 904 A (GENTE 13 July 1993 (1993-07		1,3	H01H9/00		
A X	•		2,7,28 45			
	* column 6, paragraph * column 7, paragraph * column 8, paragraph	5 *				
Y	US 4 373 124 A (FRAME 8 February 1983 (1983 * abstract *	NORMAN J) -02-08)	1,3			
				TECHNICAL FIELDS SEARCHED (Int.Ci.7)		
				H01H A61B		
	The present search report has been	drawn up for all claims				
Place of search		Date of completion of the search		Examiner		
Munich		12 November 2003	Socher, G			
X : partic Y : partic docur A : techn	TEGORY OF CITED DOCUMENTS ularly relevant if taken alone ularly relevant if combined with another nent of the same category ological background	E : earlier patent do after the filing da D : document cited L : document cited	in the application for other reasons	vention led on, or		
O : non-written disclosure P : intermediate document		& : member of the s document	 a: member of the same patent family, corresponding 			



Application Number

EP 01 30 8926

CLAIMS INCURRING FEES
The present European patent application comprised at the time of filing more than ten claims.
Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.
LACK OF UNITY OF INVENTION
The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:
see sheet B
All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims: 1-24,28-31,45-47
As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee. Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims: None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



LACK OF UNITY OF INVENTION SHEET B

Application Number

EP 01 30 8926

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-24,28-31,45-47

A depressable switch member for use in a surgical handpiece to seal interior of the handpiece comprising a body and a skirt and an impermeable skirt or a metallic layer or a permeability barrier disposed on the body or the skirt.

2. claims: 25-27,32-34

A vent assembly for use in a surgical handpiece for sealing an interior of the handpiece comprising a vent and a membrane.

3. claims: 35-44

A switch assembly for use in a surgical handpiece to seal interior of the handpiece comprising a compressible switch member.

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 01 30 8926

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

12-11-2003

Patent document cited in search report	n	Publication date		Patent family member(s)	Publication date
US 5226904	Α	13-07-1993	NONE		
US 4373124	А	08-02-1983	US AU CA JP US	4367385 A 7984282 A 1173131 A1 57154728 A 4373122 A	04-01-198 05-08-198 21-08-198 24-09-198 08-02-198

	·				
				•	
				•	

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

FORM P0459