

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 5:

A61M 5/00

(11) International Publication Number:

WO 92/19292

(43) International Publication Date:

12 November 1992 (12.11.92)

(21) International Application Number:

A3

PCT/US92/03706 Published

(22) International Filing Date:

4 May 1992 (04.05.92)

With international search report.

(30) Priority data:

694,748

2 May 1991 (02.05.91)

US

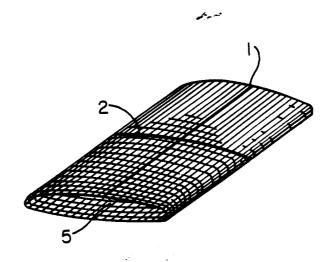
(71)(72) Applicant and Inventor: FEIBUS, Miriam, H. [US/US]; 2557 Morrocroft Lane, Charlotte, NC 28226 (US).

(74) Agents: TOBIN, Robert, T. et al.; Kenyon & Kenyon, One Broadway, New York, NY 10004 (US).

(81) Designated States: AT, AT (European patent), BE (European patent), BR, CA, CH (European patent), DE (European patent), European patent), Europe pean patent), DK (European patent), ES (European patent), FR (European patent), GB (European patent), GR (European patent), IT (European patent), JP, KR, LK, LU (European patent), MC (European patent), NL (European patent), RU, SE (European patent).

(88) Date of publication of the international search report: 18 February 1993 (18.02.93)

(54) Title: WOVEN SURGICAL DRAIN AND WOVEN SURGICAL SPONGE



(57) Abstract

The present invention relates to a surgical drain fabric and surgical drain device and surgical sponge for providing a channel of exit or discharge (5) from a wound or wound cavity and, more specifically, a woven surgical drain fabric, woven surgical drains, and woven surgical sponges having finished longitudinal edges useful for drawing wound drainage out of a patient's body. Preferably, the surgical drain fabric, surgical drains, and surgical sponges are woven with conductive yarns and nonconductive yarns (1 and 2) so as to provide enhanced drainage characteristics. The fabric, drains, and sponges prepared in accordance with the invention minimize the danger of sluffing and linting and other disadvantages asssociated with previous surgical drain and sponge materials.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AT	Austria	Fi	Finland	MN	Mongolia
AU	Australia	FR	France	MR	Mauritania
BB	Barbados	GA	Gabon	MW	Malawi
BE	Belgium	GB	United Kingdom	NL	Netherlands
BF	Burkina Faso	GN	Guinea	NO	Norway
BC	Bulgaria	GR	Greece	NZ	New Zealand
BJ	Benin	HU	Hungary	PL	Poland
BR	Brazil	ΙE	Ireland	PT	Portugal
CA	Canada	IT	Italy	RO	Romania
CF	Central African Republic	JP	Japan	RU	Russian Federation
CC	Congo	KP	Democratic People's Republic	SD	Sudan
CH	Switzerland		of Korea	SE	Sweden
CI	Côte d'Ivoire	KR	Republic of Korea	SK	Slovak Republic
CM	Cameroon	LI	Liechtenstein	SN	Senegal
CS	Czechoslovakia	LK	Sri Lanka	SU	Soviet Union
CZ	Czech Republic	LU	Luxembourg	TD	Chad
DE	Germany	MC	Monaco	TG	Togo
DK	Denmark	MG	Madagascar	UA	Ukraine
ES	Spain	ML.	Mali	US	United States of America

INTERNATIONAL SEARCH REPORT

International application No. PCT/US92/03706

	ASSIFICATION OF SUBJECT MATTER		· · · · · · · · · · · · · · · · · · ·					
IPC(5) US CL	:A61M 5/00 :604/264							
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.: 604/355,282,255,264,268,3,20,28,54,290,368,369,370;66/195,202;428/253;128/379,380,381,382,383,362,783,799								
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. DOC	CUMENTS CONSIDERED TO BE RELEVANT							
Category*	Citation of document, with indication, where a	appropriate, of the relevant passages	Relevant to claim No.					
Y	US, A, 4,016,868 (ALLISON) 12 April 1977, Se	1-12,16						
Y	US, A, 4,815,299 (BRYANT) 28 March 1989, Se	1-12,16						
A,P	US, A, 5,053,021 (FEIBUS) 01 October 1991, Sc	e col. 3, line 14-col. 8, line 67.	1-38					
Further documents are listed in the continuation of Box C. See patent family annex.								
	cial categories of cited documents:	*T* later document published after the inter date and not in conflict with the applica						
to b	nument defining the general state of the art which is not considered se part of particular relevance	principle or theory underlying the inve						
	tier document published on or after the international filing date ument which may throw doubts on priority claim(s) or which is	"X" document of particular relevance; the considered novel or cannot be consider when the document is taken slope						
cite	d to establish the publication date of another citation or other cial reason (as specified)	"Y" document of particular relevance; the	claimed invention cannot be					
"O" doc	ument referring to an oral disclosure, use, exhibition or other	considered to involve an inventive combined with one or more other such being obvious to a person skilled in the	documents, such combination					
P doc the	ument published prior to the internstional filing date but later than priority date claimed	"&" document member of the same patent	family					
Date of the	actual completion of the international search	Date of mailing of the international sea						
25 AUGU	ST 1992	28 OCT	1992 Nguyen					
Name and m Commission	ailing address of the ISA/U.	Authorized officer	Ngilejen					
Box PCT	, D.C. 20231	/⟨\ GINA M. GUALTIERI PEUYEN	K30C-IIO					
	D. NOT APPLICABLE	Telephone No. 308-2909	Michal Division					

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US92/03706

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)						
This international 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:						
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 II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)						
This International Searching Authority found multiple inventions in this international application, as follows: Please See Extra Sheet.						
1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.						
2. X As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.						
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 frist mentioned in the claims; it is covered by claims Nos.:						
Remark on Protest The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.						

INTERNATIONAL SEARCH REPORT

International application No. PCT/US92/03706

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING This ISA found multiple inventions as follows: Group I, claims 1-17, drawn to a woven surgical drain, classified in class 604, subclass 355. Group II, claims 18-32, drawn to a woven surgical sponge, classified in class 128, subclass 798. Group III, claims 33, 35 and 38, drawn to a method of making a surgical drain, classified in class 428, subclass 36.1. Group IV, claims 34, 38, drawn to a method of making a surgical drain, classified in class 428, subclass 36.9. Group V, claim 36, drawn to a method of draining a wound, classified in class 128, subclass 898. Group VI, claim 37, drawn to a method of absorbing surgical discharge, classified in class 128, subclass 898.