PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶:

A61B 17/04

A3

(11) International Publication Number: WO 98/25508

(43) International Publication Date: 18 June 1998 (18.06.98)

(21) International Application Number: PCT/US97/16440

(22) International Filing Date: 23 October 1997 (23.10.97)

(30) Priority Data: 08/710,167 9 December 1996 (09.12.96) U

(71)(72) Applicant and Inventor: ALLGEYER, Dean, Owen [US/US]; 762 Glenmont Avenue, Los Angeles, CA 90024 (US)

(74) Agent: ALBERSTADT, Samuel; Sheldon and Mack, 9th floor, 225 S. Lake Avenue, Pasadena, CA 91101 (US).

(81) Designated States: AT, AU, BR, CA, CH, CN, DE, DK, ES, FI, GB, IL, JP, KP, KR, MX, NO, NZ, RU, SE, SG, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published

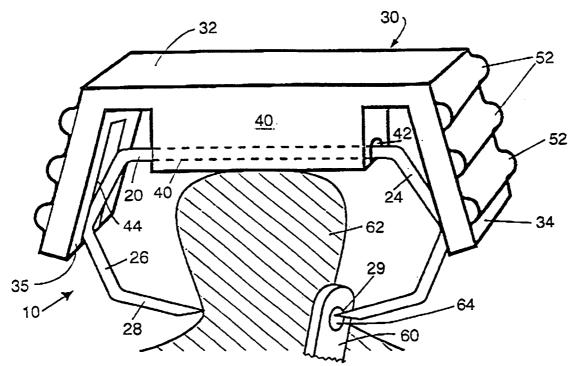
With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(88) Date of publication of the international search report:

3 September 1998 (03.09.98)

(54) Title: STAPLE AND STAPLE APPLICATOR FOR USE IN FIXATION OF CATHETERS



(57) Abstract

An inexpensive surgical stapler (10), such as for use in securing vascular catheters, has a plastic applicator (30) made for use with a single staple (10). The applicator has a backbone, and two identical arms (34). The inside face of the backbone (32) has a retaining channel (42) that secures the crown portion of the staple against movement. The inside faces (35) of the arms have guidance grooves (44) that direct the movement of the staple as the applicator arms are squeezed with finger pressure. The outside faces of the arms are configured to permit gripping by the operator's fingers. The stapler can be used in lieu of suturing. Other staple and applicator assemblies can include two or more of such assemblies.

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.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	ТJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav	TM	Turkmenistan
BF	Burkina Faso	GR	Greece		Republic of Macedonia	TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	$\mathbf{U}\mathbf{Z}$	Uzbekistan
CF	Central African Republic	JР	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's	NZ	New Zealand		
CM	Cameroon		Republic of Korea	PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	. LI	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		

INTERNATIONAL SEARCH REPORT

International application No. PCT/US97/16440

	SSIFICATION OF SUBJECT MATTER				
IPC(6) US CL	:A61B 17/04 :606/219				
	to International Patent Classification (IPC) or to both	national classification and IPC			
B. FIEI	LDS SEARCHED				
Minimum o	locumentation searched (classification system followed	d by classification symbols)			
U.S. :	227/175.1-180; 606/219				
Documenta	tion searched other than minimum documentation to the	extent that such documents are included	in the fields searched		
Electronic o	data base consulted during the international search (na	me of data base and, where practicable	e, search terms used)		
C. DOC	CUMENTS CONSIDERED TO BE RELEVANT				
Category*	Citation of document, with indication, where ap	propriate, of the relevant passages	Relevant to claim No.		
A	US 4,434,796 A (KARAPETIAN et document.	al) 06 March 1984, entire	1-19		
A	US 5,158,567 A (GREEN) 27 October	1992, Abstract.	1-19		
Α	US 4,526,174 A (FROEHLICH) 02 Ju	ly 1985, col. 4 lines 4-30.	1-19		
Furth	ner documents are listed in the continuation of Box C	. See patent family annex.			
A do	cument defining the general state of the art which is not considered	"T" later document published after the int date and not in conflict with the appi the principle or theory underlying the	lication but cited to understand		
"E" car	cument which may throw doubts on priority claim(s) or which is	"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			
O do	ecial reason (as specified) cument referring to an oral disclosure, use, exhibition or other sans	"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			
"P" do	and the state of t	"&" document member of the same patent family			
Date of the 04 JUNE		Date of mailing of the international se	arch report		
Commissio	mailing address of the ISA/US oner of Patents and Trademarks	Authorized officer	Rolins		
Box PCT Washington	n, D.C. 20231	GARY JACKSON	•		
•	Io. (703) 305-3230	Telephone No. (703) 308-4302			