



US00D533942S

(12) **United States Design Patent**
Kerr et al.

(10) **Patent No.:** **US D533,942 S**

(45) **Date of Patent:** **** Dec. 19, 2006**

(54) **OPEN VESSEL SEALER WITH MECHANICAL CUTTER**

(75) Inventors: **Duane E. Kerr**, Berthoud, CO (US);
Paul R. Romero, Loveland, CO (US);
Michael C. Moses, Boulder, CO (US)

(73) Assignee: **Sherwood Services AG**, Schaffhausen (CH)

(**) Term: **14 Years**

(21) Appl. No.: **29/208,610**

(22) Filed: **Jun. 30, 2004**

(51) **LOC (8) Cl.** **24-02**

(52) **U.S. Cl.** **D24/144; D24/133**

(58) **Field of Classification Search** D24/144,
D24/133, 146, 147, 149, 143, 153; 606/51,
606/52, 41, 44, 48, 171, 205, 206, 207
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

371,664	A	10/1887	Brannan et al.
702,472	A	6/1902	Pignolet
728,883	A	5/1903	Downes
1,586,645	A	6/1926	Bierman
2,002,594	A	5/1935	Wappler et al.
2,011,169	A	8/1935	Wappler
2,031,682	A	2/1936	Wappler et al.
2,176,479	A	10/1939	Willis
2,305,156	A	12/1942	Grubel

(Continued)

FOREIGN PATENT DOCUMENTS

CA	2104423	2/1994
DE	2415263	10/1975
DE	19608716	4/1997
DE	19751108	5/1999
EP	0364216 A1	4/1990
EP	518230 A1	12/1992

EP	0 541 930 B1	5/1993
EP	0572131	12/1993
EP	584787 A1	3/1994
EP	0623316 A1	11/1994

(Continued)

OTHER PUBLICATIONS

US 6,663,629, 12/2003, Buysse et al. (withdrawn)
 Sigel et al. "The Mechanism of Blood Vessel Closure by High Frequency Electrocoagulation" *Surgery Gynecology & Obstetrics*, Oct. 1965 pp. 823-831.
 Bergdahl et al. "Studies on Coagulation and the Development of an Automatic Computerized Bipolar Coagulator" *J.Neurosurg*, vol. 75, Jul. 1991, pp. 148-151.
 Kennedy et al. "High-burst-strength, feedback-controlled bipolar vessel sealing" *Surgical Endoscopy* (1998) 12: 876-878.
 Peterson et al. "Comparison of Healing Process Following Ligation with Sutures and Bipolar Vessel Sealing" *Surgical Technology International* (2001).

(Continued)

Primary Examiner—Ian Simmons
Assistant Examiner—Christopher Lee

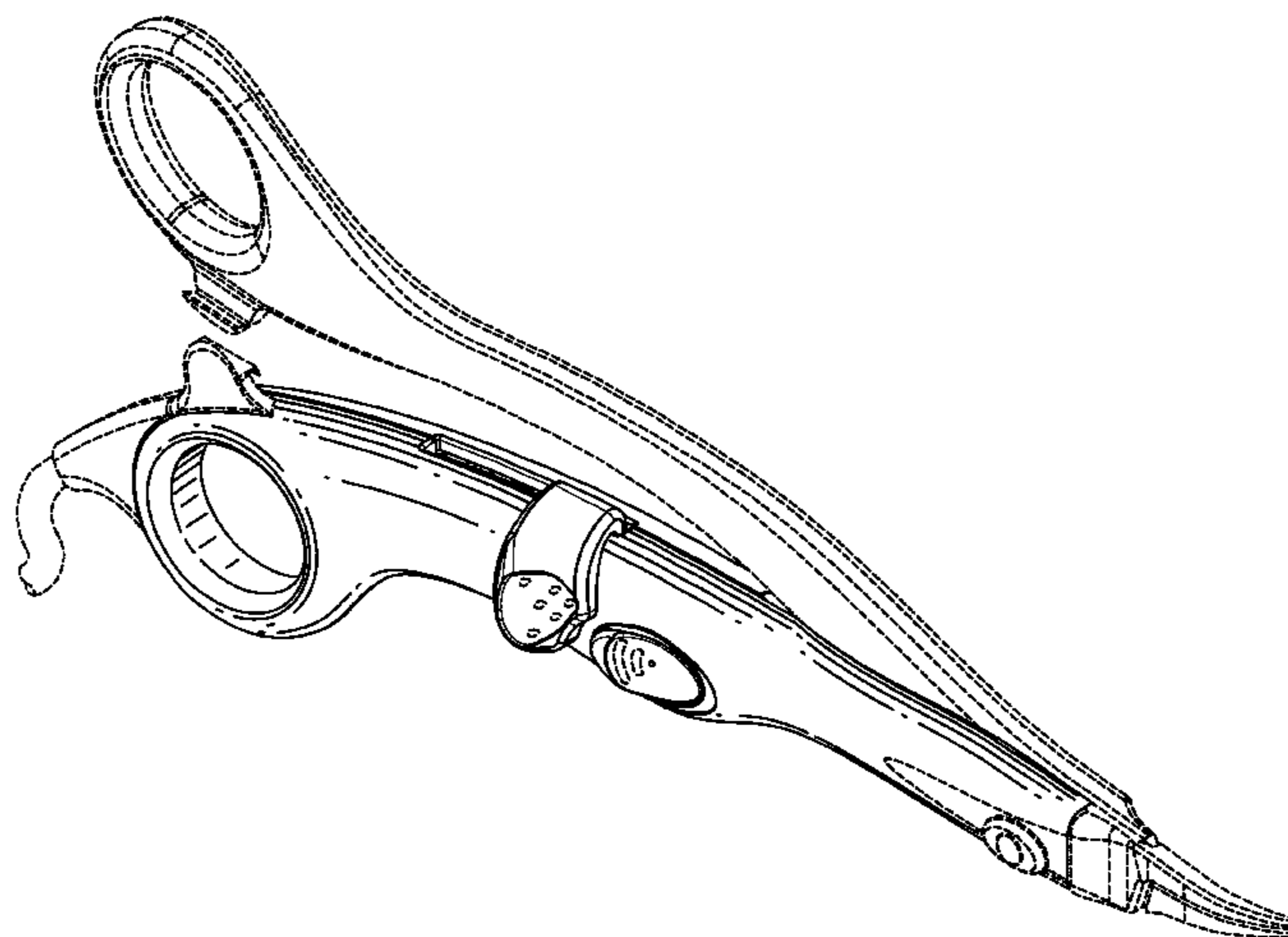
(57) **CLAIM**

We claim the ornamental design for an open vessel sealer with mechanical cutter, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of an open vessel sealer with mechanical cutter showing our new design. The broken line showing is for illustrative purposes only and forms no part of the claimed design;
 FIG. 2 is a left view thereof;
 FIG. 3 is a right view thereof;
 FIG. 4 is a bottom view thereof;
 FIG. 5 is a top view thereof;
 FIG. 6 is a front view thereof; and,
 FIG. 7 is a rear view thereof.

1 Claim, 5 Drawing Sheets



U.S. PATENT DOCUMENTS							
2,632,661	A	3/1953	Cristofv	5,383,897	A	1/1995	Wholey
2,668,538	A	2/1954	Baker	5,389,098	A	2/1995	Tsuruta et al.
2,796,065	A	6/1957	Kapp	5,389,104	A	2/1995	Hahnen et al.
3,459,187	A	8/1969	Pallotta	5,391,166	A	2/1995	Eggers
3,643,663	A	2/1972	Sutter	5,391,183	A	2/1995	Janzen et al.
3,651,811	A	3/1972	Hildebrandt et al.	5,403,312	A	4/1995	Yates et al.
3,862,630	A	1/1975	Balamuth	5,411,519	A	5/1995	Tovey et al.
3,866,610	A	2/1975	Kletschka	5,411,520	A	5/1995	Nash et al.
3,911,766	A	10/1975	Fridolph et al.	5,413,571	A	5/1995	Katsaros et al.
3,920,021	A	11/1975	Hiltebrandt	5,415,657	A	5/1995	Taymor-Luria
3,921,641	A	11/1975	Hulka	5,422,567	A	6/1995	Matsunaga
3,938,527	A	2/1976	Rioux et al.	5,423,810	A	6/1995	Goble et al.
3,952,749	A	4/1976	Fridolph et al.	5,425,739	A	6/1995	Jessen
4,005,714	A	2/1977	Hiltebrandt	5,429,616	A	7/1995	Schaffer
4,074,718	A	2/1978	Morrison, Jr.	5,431,674	A	7/1995	Basile et al.
4,088,134	A	5/1978	Mazzariello	5,437,292	A	8/1995	Kipshidze et al.
4,165,746	A	8/1979	Burgin	5,438,302	A	8/1995	Goble
4,300,564	A	11/1981	Furihata	5,441,517	A	8/1995	Kensey et al.
4,370,980	A	2/1983	Lottick	5,443,463	A	8/1995	Stern et al.
4,452,246	A	6/1984	Bader et al.	5,443,464	A	8/1995	Russell et al.
4,492,231	A	1/1985	Auth	5,443,480	A	8/1995	Jacobs et al.
4,552,143	A	11/1985	Lottick	5,445,638	A	8/1995	Rydell et al.
4,574,804	A	3/1986	Kurwa	5,445,658	A	8/1995	Durrfeld et al.
4,597,379	A	7/1986	Kihn et al.	5,451,224	A	9/1995	Goble et al.
4,600,007	A	7/1986	Lahodny et al.	5,456,684	A	10/1995	Schmidt et al.
4,657,016	A	4/1987	Garito et al.	5,458,598	A	10/1995	Feinberg et al.
4,662,372	A	5/1987	Sharkany et al.	5,460,629	A	10/1995	Shlain et al.
4,671,274	A	6/1987	Sorochenko	5,462,546	A	10/1995	Rydell
4,685,459	A	8/1987	Koch et al.	5,472,443	A	12/1995	Cordis et al.
D295,893	S	5/1988	Sharkany et al.	5,478,351	A	12/1995	Meade et al.
D295,894	S	5/1988	Sharkany et al.	5,484,436	A	1/1996	Eggers et al.
4,763,669	A	8/1988	Jaeger	5,496,317	A	3/1996	Goble et al.
4,827,929	A	5/1989	Hodge	5,499,997	A	3/1996	Sharpe et al.
4,887,612	A	12/1989	Esser et al.	5,509,922	A	4/1996	Aranyi et al.
4,938,761	A	7/1990	Ensslin	5,514,134	A	5/1996	Rydell et al.
4,985,030	A	1/1991	Melzer et al.	5,527,313	A	6/1996	Scott et al.
5,007,908	A	4/1991	Rydell	5,531,744	A	7/1996	Nardella et al.
5,026,370	A	6/1991	Lottick	5,536,251	A	7/1996	Evard et al.
5,099,840	A	3/1992	Goble et al.	5,540,684	A	7/1996	Hassler, Jr.
5,116,332	A	5/1992	Lottick	5,540,685	A	7/1996	Parins et al.
5,147,357	A	9/1992	Rose et al.	5,540,715	A	7/1996	Katsaros et al.
5,151,102	A	9/1992	Kamiyama et al.	5,558,672	A	9/1996	Edwards et al.
5,176,695	A	1/1993	Dulebohn	5,569,241	A	10/1996	Edwards
5,197,964	A	3/1993	Parins	5,569,243	A	10/1996	Kortenbach et al.
5,215,101	A	6/1993	Jacobs et al.	5,571,100	A	11/1996	Goble et al.
5,217,457	A	6/1993	Delahuerga et al.	5,573,424	A	11/1996	Poppe
5,217,458	A	6/1993	Parins	5,573,535	A	11/1996	Viklund
5,244,462	A	9/1993	Delahuerga et al.	5,582,611	A	12/1996	Tsukagoshi et al.
5,250,047	A	10/1993	Rydell	5,585,896	A	12/1996	Yamazaki et al.
5,258,006	A	11/1993	Rydell et al.	5,590,570	A	1/1997	LeMaire, III et al.
5,261,918	A	11/1993	Phillips et al.	5,603,711	A	2/1997	Parins et al.
5,275,615	A	1/1994	Rose	5,603,723	A	2/1997	Aranyi et al.
5,277,201	A	1/1994	Stern	5,626,578	A	5/1997	Tihon
5,282,799	A	2/1994	Rydell	5,626,609	A	5/1997	Zvenyatsky et al.
5,290,286	A	3/1994	Parins	5,630,833	A	5/1997	Katsaros et al.
5,304,203	A	4/1994	El-Mallawany et al.	5,637,110	A	6/1997	Pennybacker et al.
5,308,357	A	5/1994	Lichtman	5,643,294	A	7/1997	Tovey et al.
5,318,589	A	6/1994	Lichtman	5,647,869	A	7/1997	Goble et al.
5,324,289	A	6/1994	Eggers	5,647,871	A	7/1997	Levine et al.
5,330,471	A	7/1994	Eggers	5,649,959	A	7/1997	Hannam et al.
5,334,183	A	8/1994	Wuchinich	5,658,281	A	8/1997	Heard
5,334,215	A	8/1994	Chen	5,662,667	A	9/1997	Knodel
5,336,221	A	8/1994	Anderson	5,667,526	A	9/1997	Levin
5,342,359	A	8/1994	Rydell	5,674,220	A	10/1997	Fox et al.
5,342,381	A	8/1994	Tidemand	5,693,051	A	12/1997	Schulze et al.
5,342,393	A	8/1994	Stack	5,695,522	A	12/1997	LeMaire, III et al.
5,352,222	A	10/1994	Rydell	5,700,261	A	12/1997	Brinkerhoff
5,354,271	A	10/1994	Voda	5,702,390	A	12/1997	Austin et al.
5,356,408	A	10/1994	Rydell	5,707,369	A	1/1998	Vaitekunas et al.
5,366,477	A	11/1994	LeMarie, III et al.	5,709,680	A	1/1998	Yates et al.
				5,716,366	A	2/1998	Yates

US D533,942 S

Page 3

5,720,744 A	2/1998	Eggleston et al.	6,174,309 B1	1/2001	Wrublewski et al.
5,727,428 A	3/1998	LeMaire, III et al.	6,179,834 B1	1/2001	Buysse et al.
5,735,848 A	4/1998	Yates et al.	6,179,837 B1	1/2001	Hooven
5,743,906 A	4/1998	Parins et al.	6,183,467 B1	2/2001	Shapeton et al.
5,755,717 A	5/1998	Yates et al.	6,187,003 B1	2/2001	Buysse et al.
5,766,130 A	6/1998	Selmonosky	6,190,386 B1	2/2001	Rydell
5,766,166 A	6/1998	Hooven	6,193,718 B1	2/2001	Kortenbach et al.
5,766,170 A	6/1998	Eggers	6,206,876 B1	3/2001	Levine et al.
5,769,849 A	6/1998	Eggers	6,206,877 B1	3/2001	Kese et al.
5,776,128 A	7/1998	Eggers	6,224,593 B1	5/2001	Ryan et al.
5,776,130 A	7/1998	Buysse et al.	6,228,080 B1	5/2001	Gines
5,779,701 A	7/1998	McBrayer et al.	6,228,083 B1	5/2001	Lands et al.
5,792,137 A	8/1998	Carr et al.	6,267,761 B1	7/2001	Ryan
5,792,177 A	8/1998	Kaseda	6,270,508 B1	8/2001	Klieman et al.
5,797,938 A	8/1998	Paraschac et al.	6,273,887 B1	8/2001	Yamauchi et al.
5,797,958 A	8/1998	Yoon	6,277,117 B1	8/2001	Tetzlaff et al.
5,800,449 A	9/1998	Wales	6,280,458 B1	8/2001	Boche et al.
5,810,808 A	9/1998	Eggers	6,283,961 B1	9/2001	Underwood et al.
5,810,811 A	9/1998	Yates et al.	D449,886 S	10/2001	Tetzlaff et al.
5,814,043 A	9/1998	Shapeton	6,322,561 B1	11/2001	Eggers et al.
5,817,093 A	10/1998	Williamson, IV et al.	6,334,860 B1	1/2002	Dorn
5,820,630 A	10/1998	Lind	6,334,861 B1	1/2002	Chandler et al.
5,827,271 A	10/1998	Buysse et al.	6,350,264 B1	2/2002	Hooven
5,827,279 A	10/1998	Hughett et al.	6,352,536 B1	3/2002	Buysse et al.
5,827,281 A	10/1998	Levin	D457,958 S	5/2002	Dycus et al.
5,833,690 A	11/1998	Yates et al.	D457,959 S	5/2002	Tetzlaff et al.
5,843,080 A	12/1998	Fleenor et al.	6,398,779 B1	6/2002	Buysse et al.
5,849,022 A	12/1998	Sakashita et al.	6,409,728 B1	6/2002	Ehr et al.
5,853,412 A	12/1998	Mayenberger	H2037 H	7/2002	Yates et al.
5,876,401 A	3/1999	Schulze et al.	6,419,675 B1	7/2002	Gallo, Sr.
5,891,141 A	4/1999	Rydell	6,425,896 B1	7/2002	Baltschun et al.
5,891,142 A	4/1999	Eggers et al.	6,443,970 B1	9/2002	Schulze et al.
5,893,863 A	4/1999	Yoon	6,451,018 B1	9/2002	Lands et al.
5,893,875 A	4/1999	O'Connor et al.	6,458,128 B1	10/2002	Schulze
5,902,301 A	5/1999	Olig	6,458,130 B1	10/2002	Frazier et al.
5,906,630 A	5/1999	Anderhub et al.	6,464,704 B1	10/2002	Schmaltz et al.
5,908,420 A	6/1999	Parins et al.	6,503,248 B1	1/2003	Levine
5,913,874 A	6/1999	Berns et al.	6,506,189 B1	1/2003	Rittman, III et al.
5,921,984 A	7/1999	Sutcu et al.	6,508,815 B1	1/2003	Strul et al.
5,935,126 A	8/1999	Riza	6,511,480 B1	1/2003	Tetzlaff et al.
5,944,718 A	8/1999	Dafforn et al.	6,514,251 B1	2/2003	Ni et al.
5,951,549 A	9/1999	Richardson et al.	6,544,264 B1	4/2003	Levine et al.
5,954,720 A	9/1999	Wilson et al.	6,569,162 B1	5/2003	He
5,976,132 A	11/1999	Morris	6,585,735 B1	7/2003	Frazier et al.
5,989,277 A	11/1999	LeMaire, III et al.	6,620,161 B1	9/2003	Schulze et al.
6,004,335 A	12/1999	Vaitekunas et al.	6,682,528 B1	1/2004	Frazier et al.
6,010,516 A	1/2000	Hulka	6,743,229 B1	6/2004	Buysse et al.
6,024,741 A	2/2000	Williamson et al.	D496,997 S	10/2004	Dycus et al.
6,024,744 A	2/2000	Kese et al.	D499,181 S	11/2004	Dycus et al.
6,033,399 A	3/2000	Gines	2002/0188294 A1	12/2002	Couture et al.
6,039,733 A	3/2000	Buysse et al.	2003/0018331 A1	1/2003	Dycus et al.
6,041,679 A	3/2000	Slater et al.	2003/0069571 A1	4/2003	Treat et al.
6,050,996 A	4/2000	Schmaltz et al.	2003/0139742 A1	7/2003	Wampler et al.
6,053,914 A	4/2000	Eggers et al.	2003/0158549 A1	8/2003	Swanson
6,053,933 A	4/2000	Balazs et al.	2003/0199869 A1	10/2003	Johnson et al.
D424,694 S	5/2000	Tetzlaff et al.	2004/0147925 A1	7/2004	Buysse et al.
D425,201 S	5/2000	Tetzlaff et al.	2004/0225288 A1	11/2004	Buysse et al.
RE36,795 E	7/2000	Rydell	2004/0236325 A1	11/2004	Tetzlaff et al.
6,083,223 A	7/2000	Baker	2004/0243125 A1	12/2004	Dycus et al.
6,086,586 A	7/2000	Hooven	2004/0249371 A1	12/2004	Dycus et al.
6,090,107 A	7/2000	Borgmeier et al.	2004/0249374 A1	12/2004	Tetzlaff et al.
6,096,031 A	8/2000	Mitchell et al.	2004/0250419 A1	12/2004	Sremcich et al.
6,096,037 A	8/2000	Mulier et al.	2004/0254573 A1	12/2004	Dycus et al.
6,099,550 A	8/2000	Yoon	2005/0004568 A1	1/2005	Lawes et al.
6,102,909 A	8/2000	Chen et al.	2005/0004570 A1	1/2005	Chapman et al.
6,110,171 A	8/2000	Rydell	2005/0021025 A1	1/2005	Buysse et al.
6,113,596 A	9/2000	Hooven et al.	2005/0021026 A1	1/2005	Baily
6,113,598 A	9/2000	Baker	2005/0021027 A1	1/2005	Shields et al.
H1904 H	10/2000	Yates et al.			
6,126,658 A	10/2000	Baker			
6,152,923 A	11/2000	Ryan			

FOREIGN PATENT DOCUMENTS

EP 0624348 A2 11/1994

EP	0650701	A1	5/1995
EP	0694290	A3	3/1996
EP	0717966	A1	6/1996
EP	0754437	A3	3/1997
EP	853922	A1	7/1998
EP	0887046	A3	1/1999
EP	0923907	A1	6/1999
EP	1034747	A1	9/2000
EP	1034748	A1	9/2000
EP	1025807	A3	10/2000
EP	1034746	A3	10/2000
EP	1050278	A1	11/2000
EP	1053719	A1	11/2000
EP	1053720	A1	11/2000
EP	1055399	A1	11/2000
EP	1055400	A1	11/2000
EP	1080694	A1	3/2001
EP	1082944	A1	3/2001
EP	1159926	A2	12/2001
GB	2214430		6/1989
JP	5-40112		2/1993
JP	06343644	A2	12/1994
JP	07265328	A2	10/1995
JP	08056955	A2	3/1996
JP	08252263	A2	10/1996
JP	09010223	A2	1/1997
JP	11244298	A2	9/1999
JP	2000342599	A2	12/2000
JP	2000350732	A2	12/2000
JP	2001008944	A2	1/2001
JP	2001029356	A2	2/2001
JP	2001128990	A2	5/2001
SU	401367		10/1973
WO	WO 92/06642		4/1992
WO	WO 94/08524	A	4/1994
WO	WO 95/02369		1/1995
WO	WO 96/13218		9/1996
WO	WO 97/00646		1/1997
WO	WO 97/00647		1/1997
WO	WO 97/24073		7/1997
WO	WO 97/24993		7/1997
WO	WO 98/27880		7/1998
WO	WO 99/03407		1/1999
WO	WO 99/03408		1/1999
WO	WO 99/03409		1/1999
WO	WO 99/12488	A	3/1999
WO	WO 99/40857		8/1999
WO	WO 99/51158		10/1999
WO	WO 99/66850	A	12/1999
WO	WO 00/24330		5/2000
WO	WO 00/41638		7/2000
WO	WO 00/53112		9/2000
WO	WO 01/17448	A	3/2001
WO	WO 01/54604		8/2001
WO	WO 02/080795		10/2002
WO	WO 02/080796	A1	10/2002
WO	WO 02/080798		10/2002
WO	WO 02/080799		10/2002
WO	WO 2004/052221	A1	6/2004
WO	WO 2004/082495	A1	9/2004
WO	WO 2004/098383	A1	11/2004

OTHER PUBLICATIONS

Linahan et al. "A Phase I Study of the LigaSure Vessel Sealing System in Hepatic Surgery" Section of HPB Surger, Washington University School of Medicine, St. Louis MO, Presented at AHPBA, Feb. 2001.

Johnson et al. "Evaluation of the LigaSure Vessel Sealing System in Hemorrhoidectomy" American College of Surgeons (ACS) Clinica Congress Poster (2000).

Sayfan et al. "Sutureless Closed Hemorrhoidectomy: A New Technique" *Annals of Surgery* vol. 234 No. 1 Jul. 2001 pp. 21-24.

Heniford et al. "Initial Results with an Electrothermal Bipolar Vessel Sealer" *Surgival Endoscopy* (2000) 15:799-801.

Heniford et al. "Initial Research and Clinical Results with an Electrothermal Bipolar Vessel Sealer" Oct. 1999.

McLellan et al. "Vessel Sealing for Hemostasis During Pelvic Surgery" *Int'l Federation of Gynecology and Obstetrics Figo World Congress 2000*, Washington, D.C.

Levy et al. "Use of a New Energy-based Vessel Ligation Device During Vaginal Hysterectomy" *Int'l Federation of Gynecology and Obstetrics (FIGO) World Congress*.

Crawford et al. "Use of the LigaSure Vessel Sealing System in Urologic Cancer Surger" *Grand Rounds in Urology* 1999 vol. 1 Issue 4 pp. 10-17.

Rothenberg et al. "Use of the LigaSure Vessel Sealing System in Minimally Invasive Surgery in Children" *Int'l Pediatric Endosurgery Group (IPEG) 2000*.

Palazzo et al. "Randomized clinical trial of Ligasure versus open haemorrhoidectomy" *British Journal of Surgery* 2002, 89, 154-157.

"Innovations in Electrosurgery" Sales/Product Literature.

LigaSure Vessel Sealing System, the Seal of Confidence in General, Gynecologic, Urologic, and Lapareoscopic Surgery Sales/Product Literature.

Carbonell et al., "Comparison of theGyrus PlasmaKinetic Sealer and the Valleylab LigaSure Device in the Hemostasis of Small, Medium, and Large-Sized Arteries" *Carolinas Laparoscopic and Advanced Surgery Program, Carolinas Medical Center, Charlotte, NC*.

"Reducing Needlestick Injuries in the Operating Room" Sales/Product Literature.

Chung et al., "Clinical Experience of Sutureless Closed Hemorrhoidectomy with LigaSure" *Diseases of the Colon & Rectum* vol. 46, No. 1 Jan. 2003.

Strasberg et al., "Use of a Bipolar Vessel-Sealing Device for Parenchymal Transaction During Liver Surgery" *Journal of Gastrointestinal Surgery*, vol. 6, No. 4, Jul./Aug. 2002 pp. 569-574.

Paul G. Horgan, "A Novel Technique for Parenchymal Division During Hepatectomy" *The American Journal of Surgery*, vol. 181, No. 3 □Apr. 2001 pp. 236-237.

W. Scott Helton, "LigaSure Vessel Sealing System: Revolutionary Hemostasis Product for General Surgery" Sales/Product Literature.

Michael Choti, "Abdominoperineal Resection with the Liga-Sure Vessel Sealing System and LigaSure Atlas 20 cm Open Instrument" *Innovations That Work*, □Jun. 2003.

Craig Johnson, "Use of the LigaSure Vessel Sealing System in Bloodless Hemorrhoidectomy" *Innovations That Work*, □Mar. 2000.

Muller et al., "Extended Left Hemicolectomy Using the LigaSure Vessel Sealing System" *Innovations That Work*, □Sep. 1999.

Herman et al., "Laparoscopic Intestinal Resection With the LigaSure Vessel Sealing System: A Case Report" *Innovations That Work*,□Feb. 2002.

Carus et al., "Initial Experience With the LigaSure Vessel Sealing System in Abdominal Surgery" *Innovations That Work*,□Jun. 2002.

Levy et al. "Randomized Trial of Suture Versus Electrosurgical Bipolar Vessel Sealing in Vaginal Hysterectomy" *Obstetrics & Gynecology*, vol. 102, No. 1, Jul. 2003.

Levy et al., "Update on Hysterectomy—New Technologies and Techniques" OBG Management, Feb. 2003.

Barbara Levy, "Use of a New Vessel Ligation Device During Vaginal Hysterectomy" FIGO 2000, Washington, D.C.

McLellan et al. "Vessel Sealing For Hemostasis During Gynecologic Surgery" Sales/Product Literature.

Sengupta et al., "Use of a Computer-Controlled Bipolar Diathermy System in Radical Prostatectomies and Other Open Urological Surgery" ANZ Journal of Surgery (2001) 71.9 pp. 538–540.

Olsson et al. "Radical Cystectomy in Females" Current Surgical Techniques in Urology, vol. 14, Issue 3.

E. David Crawford "Use of a Novel Vessel Sealing Technology in Management of the Dorsal Venous Complex" Sales/Product Literature.

Jarrett et al., "Use of the LigaSure Vessel Sealing System for Pari-Hilar Vessels in Laparoscopic Nephrectomy" Sales/Product Literature.

E. David Crawford "Evaluation of a New Vessel Sealing Device in Urologic Cancer Surgery" Sales/Product Literature.

Joseph Ortenberg "LigaSure System Used in Laparoscopic 1st and 2nd Stage Orchiopaxy" Innovations That Work, Nov. 2002.

Koyle et al., "Laparoscopic Palomo Varicocele Ligation in Children and Adolescents" Pediatric Endosurgery & Innovative Techniques, vol. 6, No. 1, 2002.

Dulemba et al. "Use of a Bipolar Electrothermal Vessel Sealer in Laparoscopically Assisted Vaginal Hysterectomy" Sales/Product Literature.

Johnson et al. "Evaluation of a Bipolar electrothermal Vessel Sealing Device in Hemorrhoidectomy" Sales/Product Literature.

Int'l Search Report PCT/US01/11218.

Int'l Search Report PCT/US99/24869.

Int'l Search Report PCT/US98/18640.

Int'l Search Report PCT/US98/23950.

PCT/US01/11340 International Search Report.

PCT/US01/11420 International Search Report.

PCT/US02/01890 International Search Report.

PCT/US02/11100 International Search Report.

PCT/US04/03436 International Search Report.

PCT/US04/13273 International Search Report.

PCT/US04/15311 International Search Report.

EP 98944778 International Search Report.

EP 98958575 International Search Report.

EP 04027479 International Search Report.

EP 04027705 International Search Report.

EP 04027314 International Search Report.

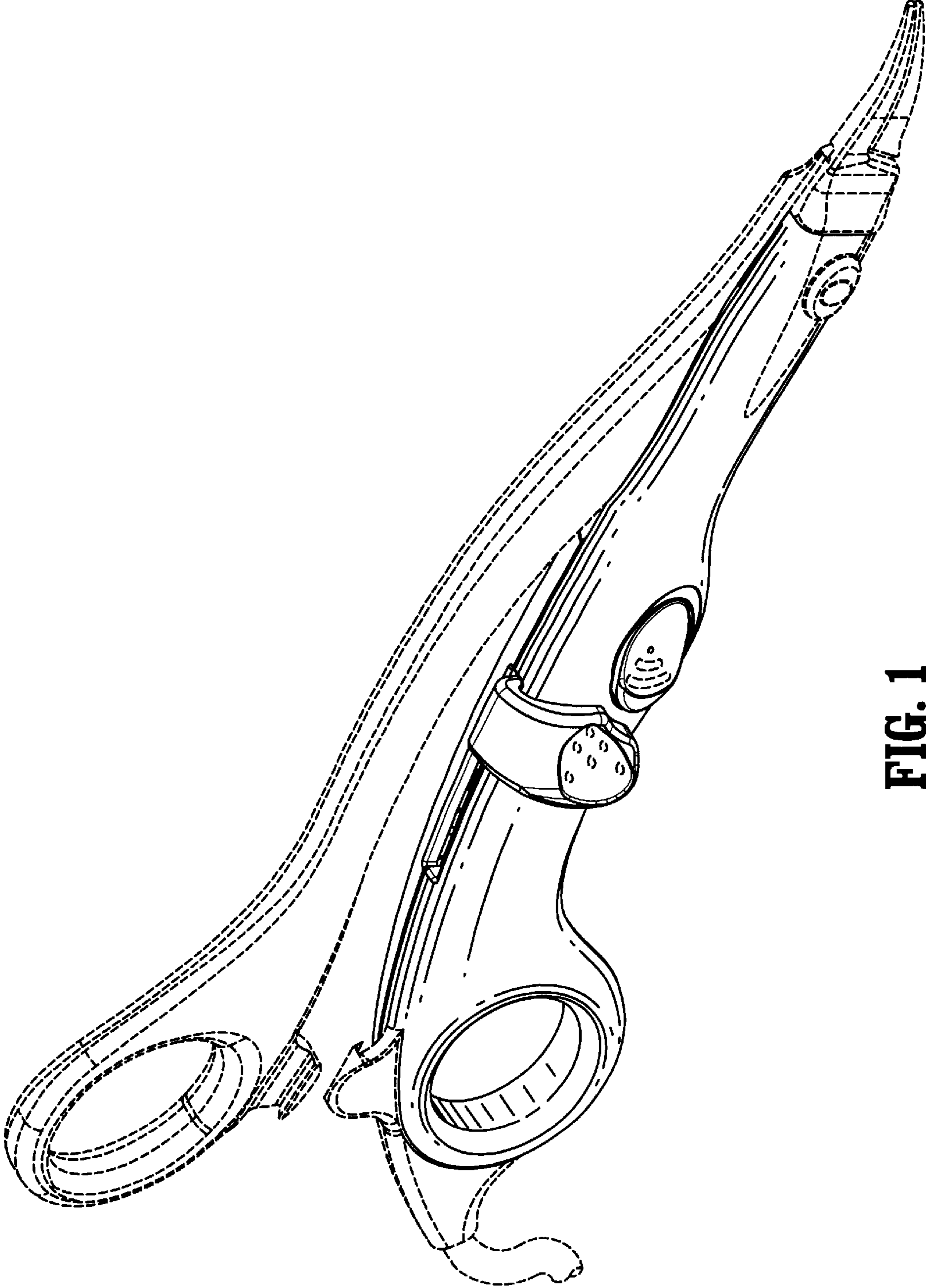


FIG. 1

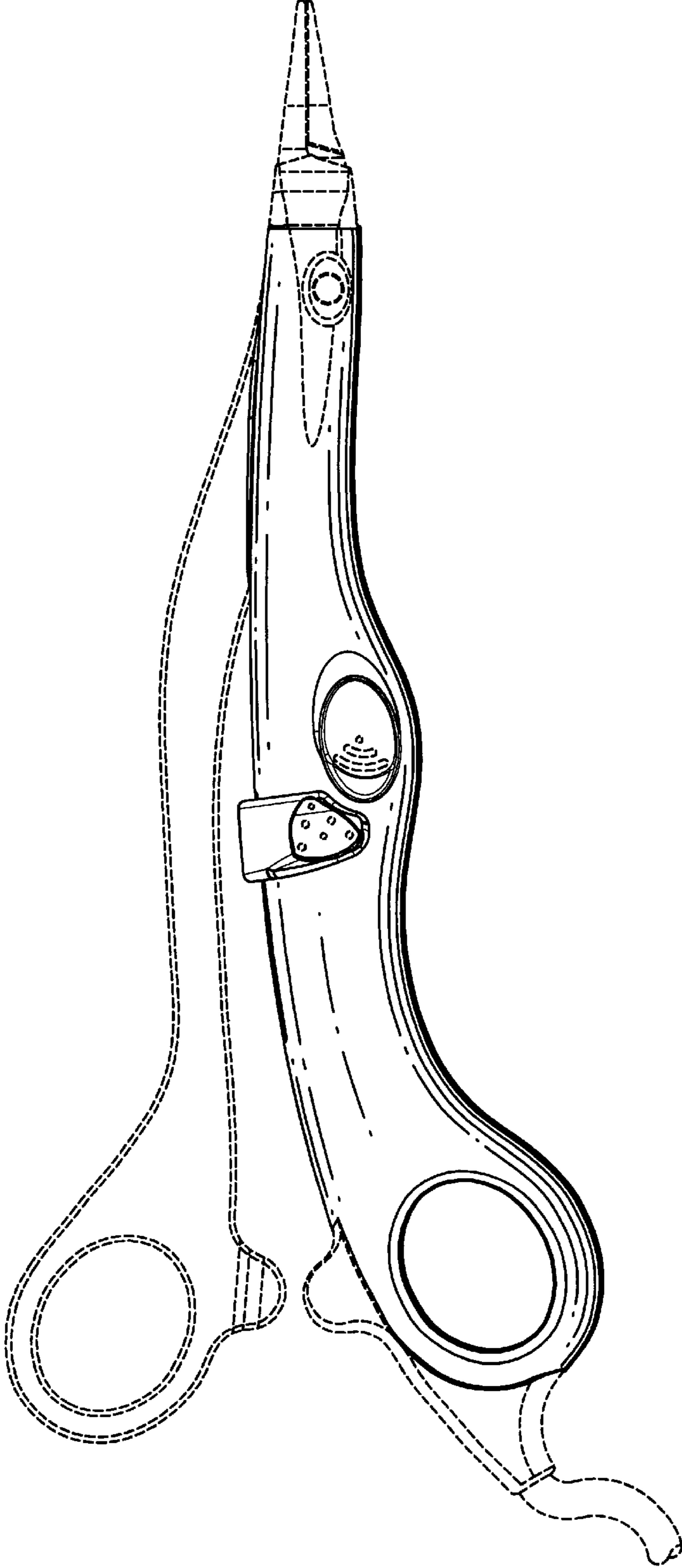


FIG. 2

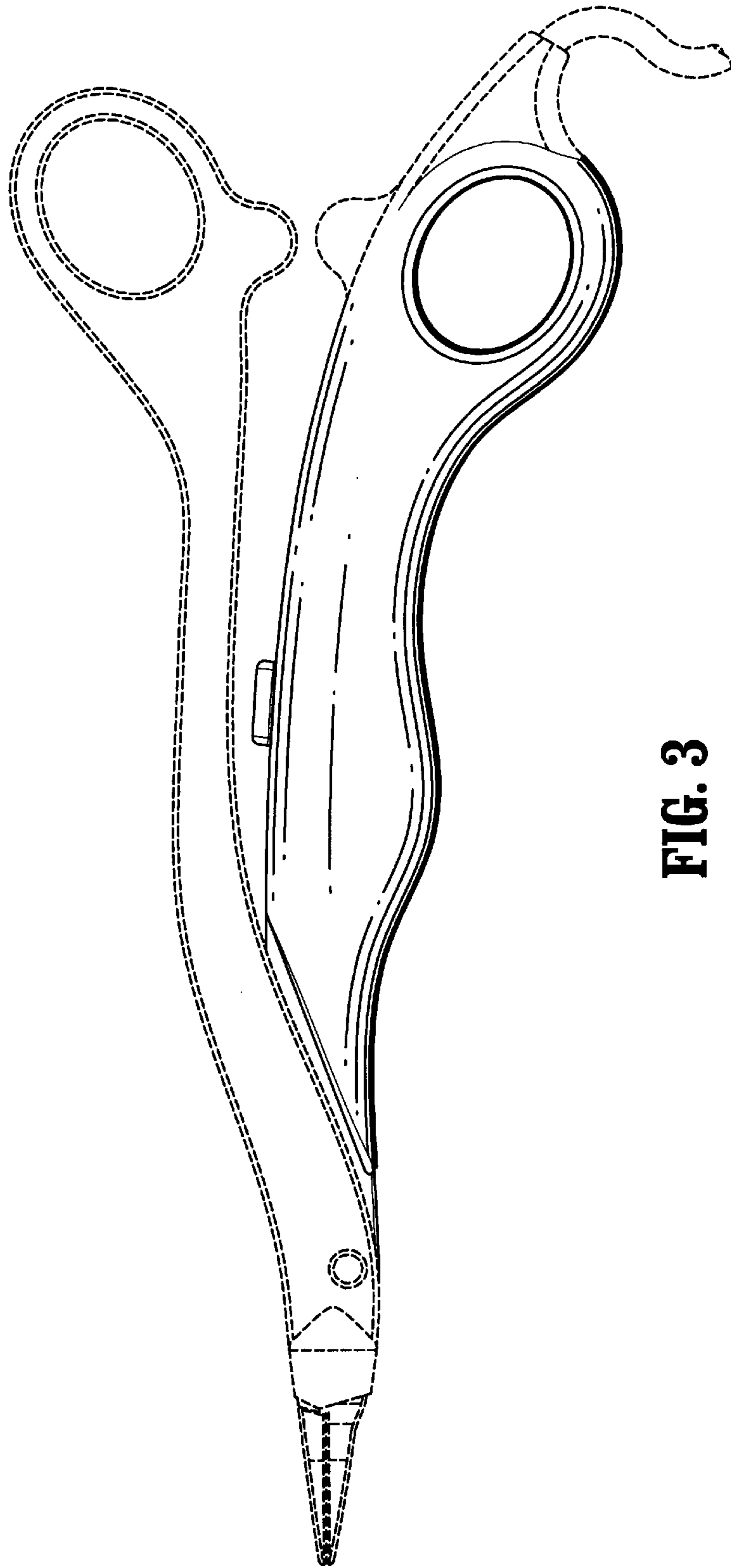


FIG. 3

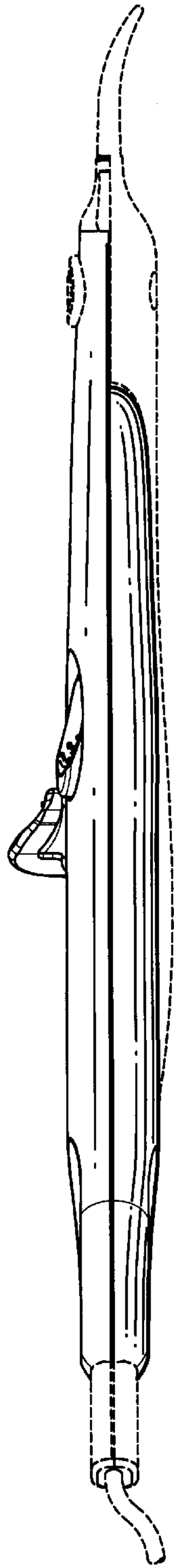


FIG. 4

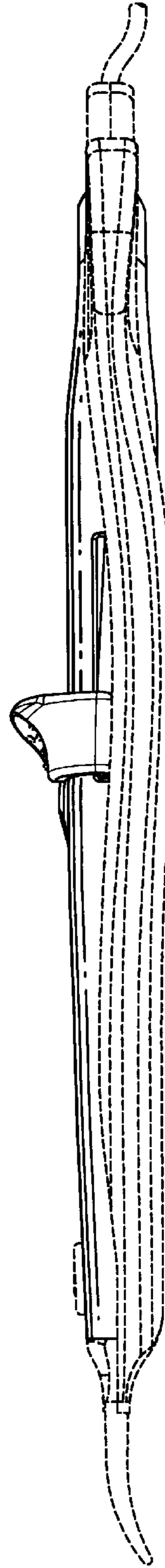


FIG. 5

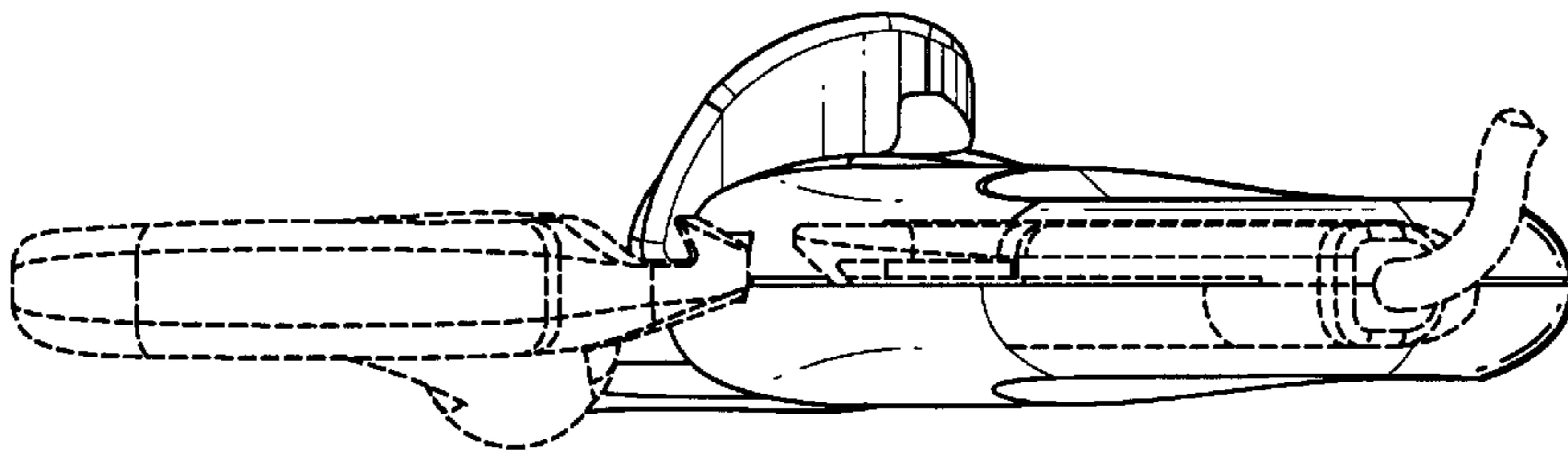


FIG. 7

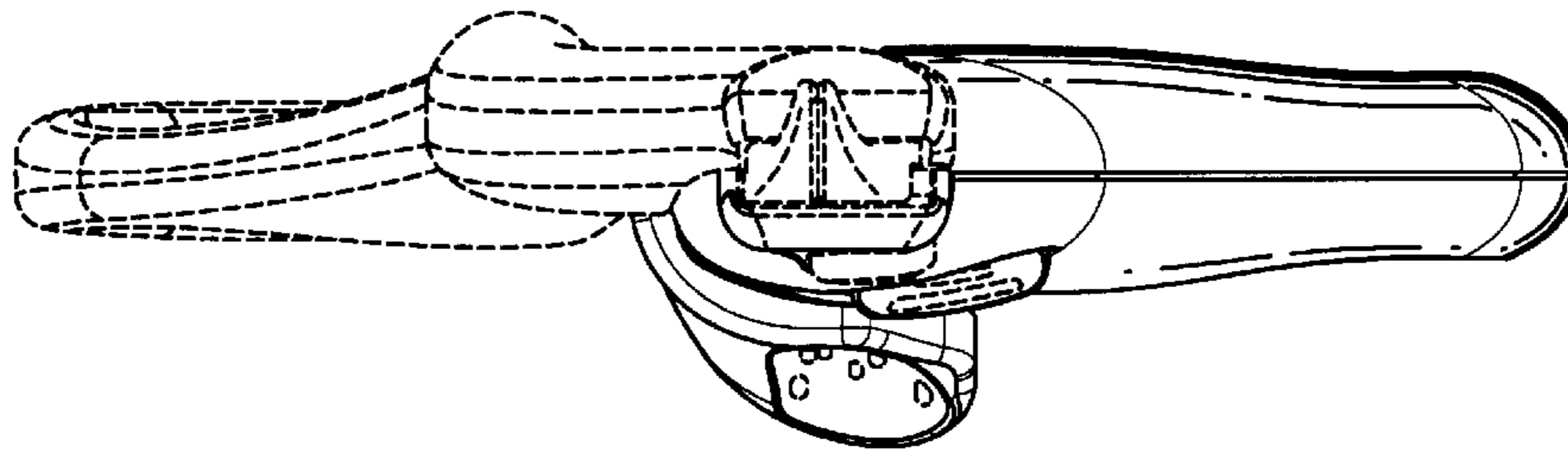


FIG. 6