

US00D661801S

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

(10) **Patent No.:** **US D661,801 S**
(45) **Date of Patent:** **** Jun. 12, 2012**

(54) **USER INTERFACE FOR A SURGICAL INSTRUMENT**

(75) Inventors: **Daniel W. Price**, Loveland, OH (US);
Galen C. Robertson, Apex, NC (US);
Cory G. Kimball, Cincinnati, OH (US);
Scott A. Woodruff, Boston, MA (US);
Matthew C. Miller, Cincinnati, OH (US);
Carrie I. Fihe, Ponte Vedra Beach, FL (US);
Carl J. Draginoff, Jr., Mason, OH (US)

3,900,823 A 8/1975 Sokal et al.
3,918,442 A 11/1975 Nikolaev et al.
3,946,738 A 3/1976 Newton et al.
3,955,859 A 5/1976 Stella et al.
3,956,826 A 5/1976 Perdreaux, Jr.
4,156,187 A 5/1979 Murry et al.
4,188,927 A 2/1980 Harris
4,200,106 A 4/1980 Douvas et al.
4,445,063 A 4/1984 Smith
4,491,132 A 1/1985 Aikins
4,574,615 A 3/1986 Bower et al.

(Continued)

(73) Assignee: **Ethicon Endo-Surgery, Inc.**, Cincinnati, OH (US)

FOREIGN PATENT DOCUMENTS
CN 1634601 A 7/2005
(Continued)

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

(21) Appl. No.: **29/402,697**

(22) Filed: **Sep. 26, 2011**

OTHER PUBLICATIONS

Technology Overview, printed from www.harmonicscalpel.com, Internet site, website accessed on Jun. 13, 2007, (3 pages).

(Continued)

Related U.S. Application Data

(63) Continuation of application No. 12/245,158, filed on Oct. 3, 2008.

Primary Examiner — Wan Laymon

(74) *Attorney, Agent, or Firm* — Verne E. Kreger, Jr.

(51) **LOC (9) Cl.** **24-02**

(52) **U.S. Cl.** **D24/145; D24/133**

(58) **Field of Classification Search** D24/133,
D24/143-149; 606/1, 45, 52, 51, 142-145,
606/167, 170-171, 205-207, 34

See application file for complete search history.

(57)

CLAIM

The ornamental design for a user interface for a surgical instrument, as shown and described.

DESCRIPTION

FIG. 1 is a left perspective view of a user interface for a surgical instrument showing our design.

FIG. 2 is a left side view thereof.

FIG. 3 is a right side view thereof.

FIG. 4 is a top view thereof.

FIG. 5 is a bottom view thereof.

FIG. 6 is a front view thereof; and,

FIG. 7 is a rear view thereof.

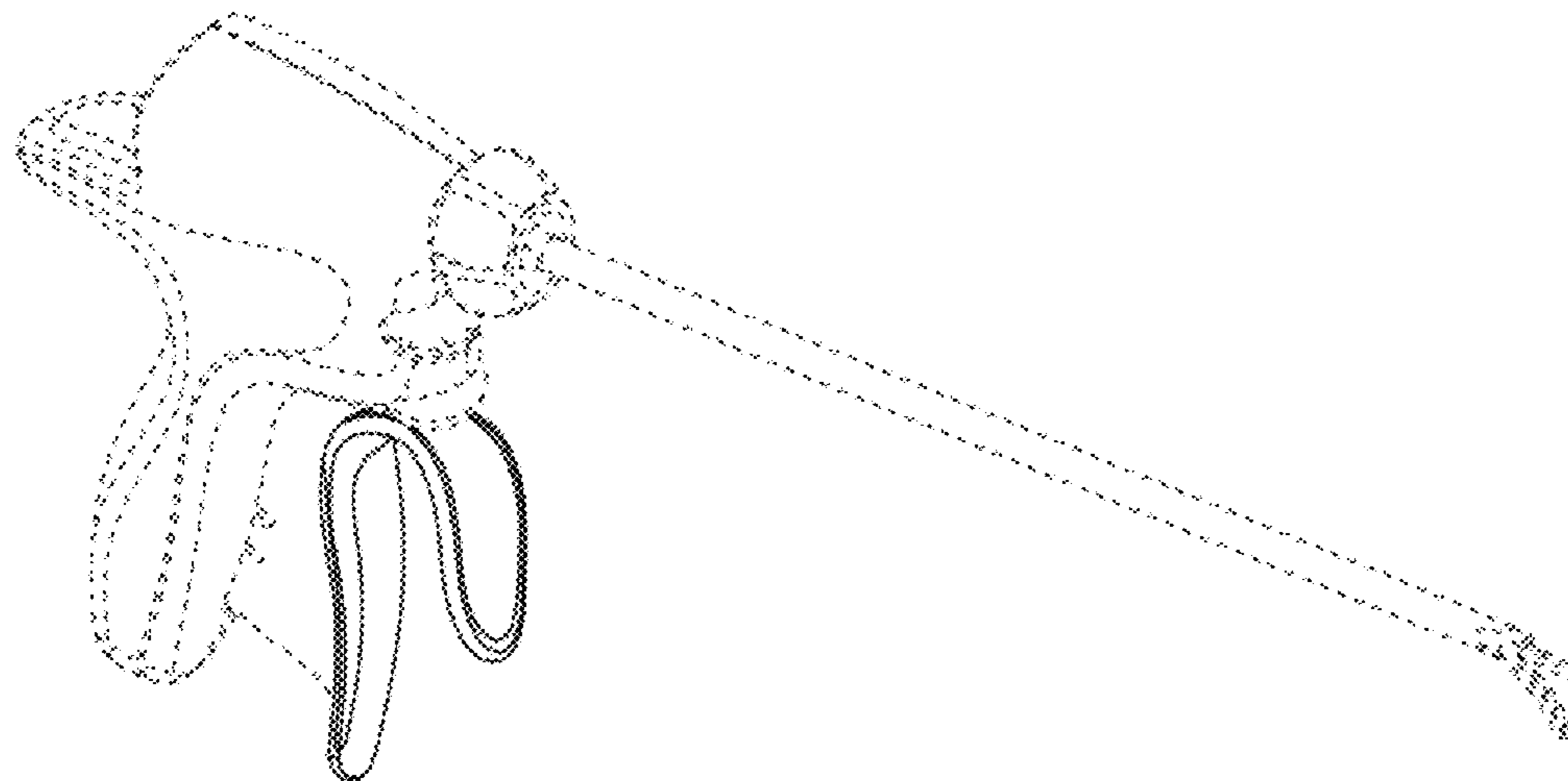
Portions of the user interface for a surgical instrument shown in broken lines form no part of the claimed design.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,736,960 A 3/1956 Armstrong
2,849,788 A 9/1958 Creek
3,015,961 A 1/1962 Roney
3,513,848 A 5/1970 Winston et al.
3,526,219 A 9/1970 Balamuth
3,614,484 A 10/1971 Shoh
3,636,943 A 1/1972 Balamuth
3,776,238 A 12/1973 Peyman et al.
3,805,787 A 4/1974 Banko
3,862,630 A 1/1975 Balamuth

1 Claim, 3 Drawing Sheets



US D661,801 S

U.S. PATENT DOCUMENTS							
4,617,927	A	10/1986	Manes	5,938,633	A	8/1999	Beaupre
4,633,119	A	12/1986	Thompson	5,944,718	A	8/1999	Austin et al.
4,634,420	A	1/1987	Spinosa et al.	5,944,737	A	8/1999	Tsonton et al.
4,640,279	A	2/1987	Beard	5,954,736	A	9/1999	Bishop et al.
4,708,127	A	11/1987	Abdelghani	5,954,746	A	9/1999	Holthaus et al.
4,712,722	A	12/1987	Hood et al.	5,957,882	A	9/1999	Nita et al.
4,827,911	A	5/1989	Broadwin et al.	5,957,943	A	9/1999	Vaitekunas
4,832,683	A	5/1989	Idemoto et al.	5,968,007	A	10/1999	Simon et al.
4,838,853	A	6/1989	Parisi	5,968,060	A	10/1999	Kellogg
4,850,354	A	7/1989	McGurk-Burleson et al.	D416,089	S	11/1999	Barton et al.
4,865,159	A	9/1989	Jamison	5,980,510	A	11/1999	Tsonton et al.
4,896,009	A	1/1990	Pawlowski	5,989,274	A	11/1999	Davison et al.
4,922,902	A	5/1990	Wuchinich et al.	5,989,275	A	11/1999	Estabrook et al.
4,965,532	A	10/1990	Sakurai	5,993,972	A	11/1999	Reich et al.
4,981,756	A	1/1991	Rhandhawa	6,024,741	A	2/2000	Williamson, IV et al.
5,026,387	A	6/1991	Thomas	6,033,375	A	3/2000	Brumbach
5,112,300	A	5/1992	Ureche	6,063,098	A	5/2000	Houser et al.
5,123,903	A	6/1992	Quaid et al.	6,066,132	A	5/2000	Chen et al.
5,126,618	A	6/1992	Takahashi et al.	6,068,647	A	5/2000	Witt et al.
5,162,044	A	11/1992	Gahn et al.	6,077,285	A	6/2000	Boukhny
5,167,725	A	12/1992	Clark et al.	6,083,191	A	7/2000	Rose
D332,660	S	1/1993	Rawson et al.	6,086,584	A	7/2000	Miller
5,176,695	A	1/1993	Dulebohn	6,090,120	A	7/2000	Wright et al.
5,184,605	A	2/1993	Grezeszykowski	6,109,500	A	8/2000	Alli et al.
5,213,569	A	5/1993	Davis	6,110,127	A	8/2000	Suzuki
5,221,282	A	6/1993	Wuchinich	6,113,594	A	9/2000	Savage
5,226,910	A	7/1993	Kajiyama et al.	6,139,320	A	10/2000	Hahn
5,241,236	A	8/1993	Sasaki et al.	6,152,902	A	11/2000	Christian et al.
5,257,988	A	11/1993	L'Esperance, Jr.	6,159,160	A	12/2000	Hsei et al.
5,261,922	A	11/1993	Hood	6,159,175	A	12/2000	Strukel et al.
5,263,957	A	11/1993	Davison	6,204,592	B1	3/2001	Hur
5,275,609	A	1/1994	Pingleton et al.	6,206,844	B1	3/2001	Reichel et al.
5,282,800	A	2/1994	Foshee et al.	6,210,403	B1	4/2001	Klicek
5,304,115	A	4/1994	Pflueger et al.	6,214,023	B1	4/2001	Whipple et al.
D347,474	S	5/1994	Olson	6,233,476	B1	5/2001	Strommer et al.
5,322,055	A	6/1994	Davison et al.	6,238,366	B1	5/2001	Savage et al.
5,324,299	A	6/1994	Davison et al.	D444,365	S	7/2001	Bass et al.
5,344,420	A	9/1994	Hilal et al.	6,254,623	B1	7/2001	Haibel, Jr. et al.
5,346,502	A	9/1994	Estabrook et al.	6,258,034	B1	7/2001	Hanafy
5,366,466	A	11/1994	Christian et al.	6,267,761	B1	7/2001	Ryan
D354,564	S	1/1995	Medema	6,270,831	B2	8/2001	Kumar et al.
5,381,067	A	1/1995	Greenstein et al.	6,273,852	B1	8/2001	Lehe et al.
5,403,312	A	4/1995	Yates et al.	6,274,963	B1	8/2001	Estabrook et al.
5,411,481	A	5/1995	Allen et al.	6,277,115	B1	8/2001	Saadat
5,419,761	A	5/1995	Narayanan et al.	6,278,218	B1	8/2001	Madan et al.
5,421,829	A	6/1995	Olichney et al.	6,283,981	B1	9/2001	Beaupre
5,449,370	A	9/1995	Vaitekunas	6,309,400	B2	10/2001	Beaupre
5,483,501	A	1/1996	Park et al.	6,319,221	B1	11/2001	Savage et al.
5,486,162	A	1/1996	Brumbach	6,325,811	B1	12/2001	Messerly
5,500,216	A	3/1996	Julian et al.	6,328,751	B1	12/2001	Beaupre
5,501,654	A	3/1996	Failla et al.	6,352,532	B1	3/2002	Kramer et al.
5,505,693	A	4/1996	Mackool	6,379,320	B1	4/2002	Lafon et al.
5,562,609	A	10/1996	Brumbach	D457,958	S *	5/2002	Dycus et al. D24/144
5,562,610	A	10/1996	Brumbach	6,383,194	B1	5/2002	Pothula
5,601,601	A	2/1997	Tal et al.	6,387,109	B1	5/2002	Davison et al.
5,607,436	A	3/1997	Pratt et al.	6,388,657	B1	5/2002	Natoli
5,618,492	A	4/1997	Auten et al.	6,391,042	B1	5/2002	Cimino
5,628,760	A	5/1997	Knoepfler	6,405,733	B1	6/2002	Fogarty et al.
5,630,420	A	5/1997	Vaitekunas	6,416,486	B1	7/2002	Wampler
D381,077	S	7/1997	Hunt	6,423,073	B2	7/2002	Bowman
5,651,780	A	7/1997	Jackson et al.	6,423,082	B1	7/2002	Houser et al.
5,653,713	A	8/1997	Michelson	6,432,118	B1	8/2002	Messerly
5,669,922	A	9/1997	Hood	6,436,114	B1	8/2002	Novak et al.
5,674,235	A	10/1997	Parisi	6,436,115	B1	8/2002	Beaupre
5,690,269	A	11/1997	Bolanos et al.	6,443,969	B1	9/2002	Novak et al.
5,694,936	A	12/1997	Fujimoto et al.	6,454,781	B1	9/2002	Witt et al.
5,713,896	A	2/1998	Nardella	6,454,782	B1	9/2002	Schwemberger
5,733,074	A	3/1998	Stöck et al.	6,458,142	B1	10/2002	Faller et al.
5,741,226	A	4/1998	Strukel et al.	6,480,796	B2	11/2002	Wiener
5,810,859	A	9/1998	DiMatteo et al.	6,485,490	B2	11/2002	Wampler et al.
5,827,323	A	10/1998	Klieman et al.	6,491,708	B2	12/2002	Madan et al.
5,828,160	A	10/1998	Sugishita	6,497,715	B2	12/2002	Satou
5,843,109	A	12/1998	Mehta et al.	6,500,176	B1	12/2002	Truckai et al.
5,879,364	A	3/1999	Bromfield et al.	6,500,188	B2	12/2002	Harper et al.
5,893,835	A	4/1999	Witt et al.	6,524,316	B1	2/2003	Nicholson et al.
5,897,569	A	4/1999	Kellogg et al.	6,533,784	B2	3/2003	Truckai et al.
5,935,143	A	8/1999	Hood	6,537,291	B2	3/2003	Friedman et al.
5,935,144	A	8/1999	Estabrook	6,543,452	B1	4/2003	Lavigne
				6,543,456	B1	4/2003	Freeman

2007/0063618 A1 3/2007 Bromfield
 2007/0129716 A1 6/2007 Daw et al.
 2007/0130771 A1 6/2007 Ehlert et al.
 2007/0131034 A1 6/2007 Ehlert et al.
 2007/0149881 A1 6/2007 Rabin
 2007/0162050 A1 7/2007 Sartor
 2007/0173872 A1 7/2007 Neuenfeldt
 2007/0185380 A1 8/2007 Kucklick
 2007/0219481 A1 9/2007 Babaev
 2007/0249941 A1 10/2007 Salehi et al.
 2007/0260234 A1 11/2007 McCullagh et al.
 2007/0265560 A1 11/2007 Soltani et al.
 2007/0275348 A1 11/2007 Lemon
 2007/0282335 A1 12/2007 Young et al.
 2007/0287933 A1 12/2007 Phan et al.
 2008/0009848 A1 1/2008 Paraschiv et al.
 2008/0058585 A1 3/2008 Novak et al.
 2008/0058775 A1 3/2008 Darian et al.
 2008/0058845 A1 3/2008 Shimizu et al.
 2008/0082039 A1 4/2008 Babaev
 2008/0082098 A1 4/2008 Tanaka et al.
 2008/0172051 A1 7/2008 Masuda et al.
 2008/0177268 A1 7/2008 Daum et al.
 2008/0188878 A1 8/2008 Young
 2008/0200940 A1 8/2008 Eichmann et al.
 2008/0208231 A1 8/2008 Ota et al.
 2008/0234708 A1 9/2008 Houser et al.
 2008/0234709 A1 9/2008 Houser
 2008/0234710 A1 9/2008 Neurohr et al.
 2008/0234711 A1 9/2008 Houser et al.
 2008/0262490 A1 10/2008 Williams
 2008/0281200 A1 11/2008 Voic et al.
 2008/0287948 A1 11/2008 Newton et al.
 2009/0030311 A1 1/2009 Stulen et al.
 2009/0030351 A1 1/2009 Wiener et al.
 2009/0030437 A1 1/2009 Houser et al.
 2009/0030438 A1 1/2009 Stulen
 2009/0030439 A1 1/2009 Stulen
 2009/0036911 A1 2/2009 Stulen
 2009/0036912 A1 2/2009 Wiener et al.
 2009/0036913 A1 2/2009 Wiener et al.
 2009/0036914 A1 2/2009 Houser
 2009/0076506 A1 3/2009 Baker
 2009/0082716 A1 3/2009 Akahoshi
 2009/0105750 A1* 4/2009 Price et al. 606/206
 2009/0118802 A1 5/2009 Mioduski et al.
 2009/0143806 A1 6/2009 Witt et al.
 2009/0270853 A1 10/2009 Yachi et al.
 2010/0036370 A1 2/2010 Mirel et al.
 2010/0036405 A1 2/2010 Giordano et al.
 2010/0158307 A1 6/2010 Kubota et al.
 2010/0179577 A1 7/2010 Houser
 2010/0187283 A1 7/2010 Crainich et al.
 2010/0298743 A1 11/2010 Nield et al.
 2010/0298851 A1 11/2010 Nield
 2010/0331869 A1 12/2010 Voegele et al.
 2010/0331870 A1 12/2010 Wan et al.
 2010/0331871 A1 12/2010 Nield et al.
 2010/0331872 A1 12/2010 Houser et al.
 2011/0009850 A1* 1/2011 Main et al. 606/1
 2011/0015627 A1 1/2011 DiNardo et al.
 2011/0015631 A1 1/2011 Wiener et al.
 2011/0015660 A1 1/2011 Wiener et al.
 2011/0082486 A1 4/2011 Messerly et al.
 2011/0087212 A1 4/2011 Aldridge et al.
 2011/0087213 A1 4/2011 Messerly et al.
 2011/0087214 A1 4/2011 Giordano et al.
 2011/0087215 A1 4/2011 Aldridge et al.
 2011/0087216 A1 4/2011 Aldridge et al.
 2011/0087217 A1 4/2011 Yates et al.
 2011/0087218 A1* 4/2011 Boudreaux et al. 606/45
 2011/0087256 A1 4/2011 Wiener et al.
 2011/0092972 A1* 4/2011 Allen 606/45
 2011/0125175 A1 5/2011 Stulen et al.
 2011/0196286 A1 8/2011 Robertson et al.
 2011/0196287 A1 8/2011 Robertson et al.
 2011/0196398 A1 8/2011 Robertson et al.
 2011/0196399 A1 8/2011 Robertson et al.
 2011/0196400 A1 8/2011 Robertson et al.

2011/0196401 A1 8/2011 Robertson et al.
 2011/0196402 A1 8/2011 Robertson et al.
 2011/0196403 A1 8/2011 Robertson et al.
 2011/0196404 A1 8/2011 Dietz et al.
 2011/0196405 A1 8/2011 Dietz
 2011/0288452 A1 11/2011 Houser et al.
 2012/0029546 A1 2/2012 Robertson

FOREIGN PATENT DOCUMENTS

CN 1640365 A 7/2005
 CN 1694649 A 11/2005
 CN 1922563 A 2/2007
 CN 101040799 A 9/2007
 EP 0171967 A2 2/1986
 EP 0443256 A1 8/1991
 EP 0456470 A1 11/1991
 EP 0482195 B1 1/1996
 EP 0612570 B1 6/1997
 EP 0908148 B1 1/2002
 EP 0908155 B1 6/2003
 EP 1199044 B1 12/2005
 EP 1844720 A1 10/2007
 EP 1862133 A1 12/2007
 EP 1974771 A1 10/2008
 EP 1832259 B1 6/2009
 EP 2074959 A1 7/2009
 GB 2032221 A 4/1980
 GB 2447767 B 8/2011
 WO WO 92/22259 A2 12/1992
 WO WO 93/14708 A1 8/1993
 WO WO 98/37815 A1 9/1998
 WO WO 01/54590 A1 8/2001
 WO WO 2005/122917 A1 12/2005
 WO WO 2006/042210 A2 4/2006
 WO WO 2006/058223 A2 6/2006
 WO WO 2006/129465 A1 12/2006
 WO WO 2007/047531 A2 4/2007
 WO WO 2007/143665 A2 12/2007
 WO WO 2008/016886 A2 2/2008
 WO WO 2008/130793 A1 10/2008
 WO WO 2009/018406 A2 2/2009
 WO WO 2009/027065 A1 3/2009

OTHER PUBLICATIONS

Sherrit et al., "Novel Horn Designs for Ultrasonic/Sonic Cleaning Welding, Soldering, Cutting and Drilling," Proc. SPIE Smart Structures Conference, vol. 4701, Paper No. 34, San Diego, CA, pp. 353-360, Mar. 2002.
 AST Products, Inc., "Principles of Video Contact Angle Analysis," 20 pages, (2006).
 Lim et al., "A Review of Mechanism Used in Laparoscopic Surgical Instruments," Mechanism and Machine Theory, vol. 38, pp. 1133-1147, (2003).
 Gooch et al., "Recommended Infection-Control Practices for Dentistry, 1993," Published: May 28, 1993; [retrieved on Aug. 23, 2008]. Retrieved from the internet: URL: <http://wonder.cdc.gov/wonder/prevguid/p0000191/p0000191.asp> (15 pages).
 Huston et al., "Magnetic and Magnetostrictive Properties of Cube Textured Nickel for Magnetostrictive Transducer Applications," IEEE Transactions on Magnetics, vol. 9(4), pp. 636-640 (Dec. 1973).
 Incropera et al., Fundamentals of Heat and Mass Transfer, Wiley, New York (1990). (Book—not attached).
 F. A. Duck, "Optical Properties of Tissue Including Ultraviolet and Infrared Radiation," pp. 43-71 in *Physical Properties of Tissue* (1990).
 Orr et al., "Overview of Bioheat Transfer," pp. 367-384 in *Optical-Thermal Response of Laser-Irradiated Tissue*, A. J. Welch and M. J. C. van Gemert, eds., Plenum, New York (1995).
 Campbell et al., "Thermal Imaging in Surgery," p. 19-3, in *Medical Infrared Imaging*, N. A. Diakides and J. D. Bronzino, Eds. (2008).
 U.S. Appl. No. 12/896,351, filed Oct. 1, 2010.
 U.S. Appl. No. 12/896,411, filed Oct. 1, 2010.
 U.S. Appl. No. 12/896,420, filed Oct. 1, 2010.
 U.S. Appl. No. 13/270,459, filed Oct. 11, 2011.
 U.S. Appl. No. 13/251,766, filed Oct. 3, 2011.

US D661,801 S

Page 5

U.S. Appl. No. 29/404,676, filed Oct. 24, 2011.
U.S. Appl. No. 13/296,829, filed Nov. 15, 2011.
Partial International Search Report for PCT/US2008/078645, Mar.
10, 2009 (2 pages).
International Preliminary Report on Patentability for PCT/US2008/
078645, Apr. 15, 2010 (9 pages).

U.S. Appl. No. 29/402,699, filed Sep. 26, 2011.
U.S. Appl. No. 29/402,700, filed Sep. 26, 2011.
U.S. Appl. No. 29/402,701, filed Sep. 26, 2011.

* cited by examiner

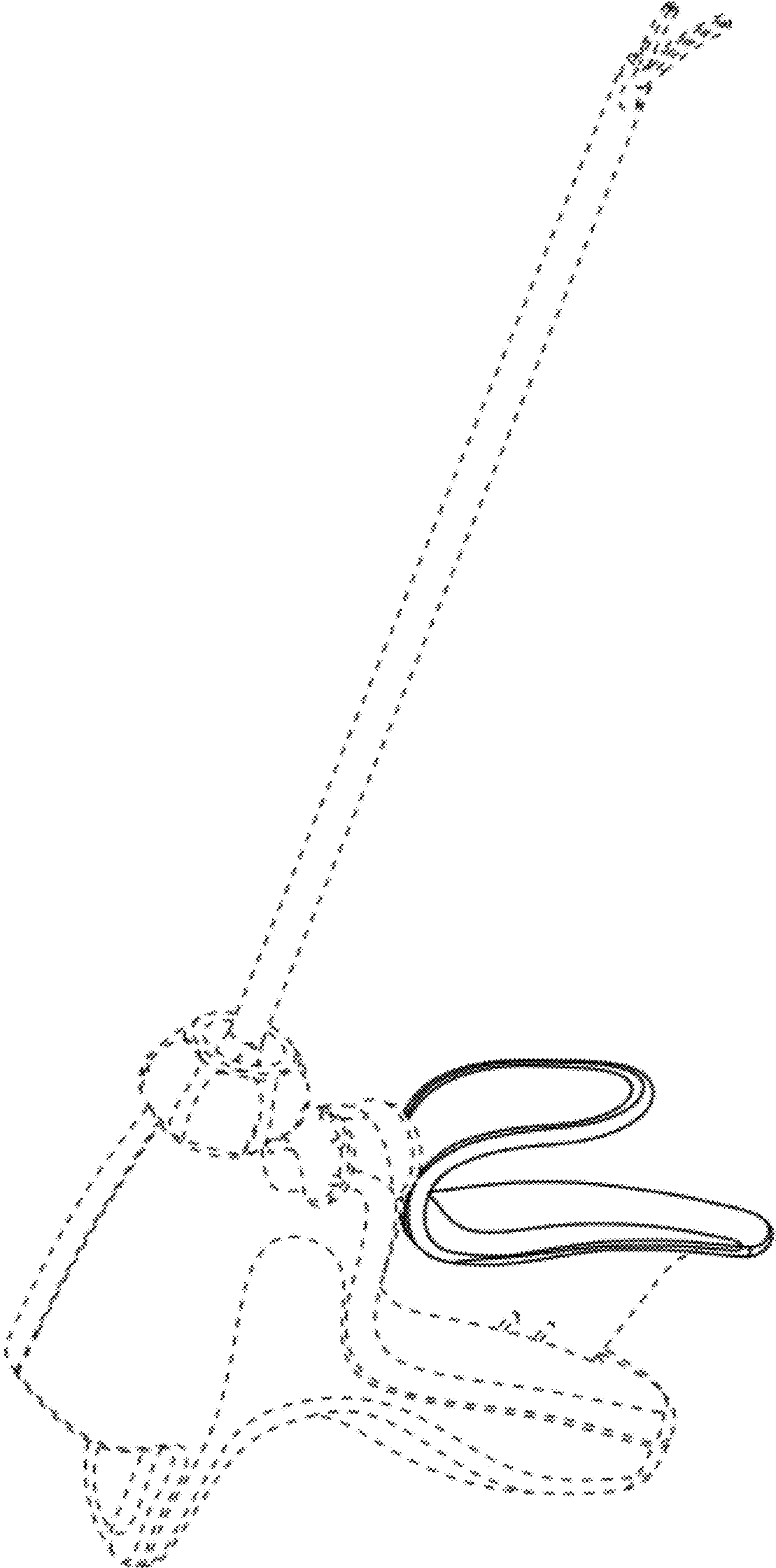


FIG. 1

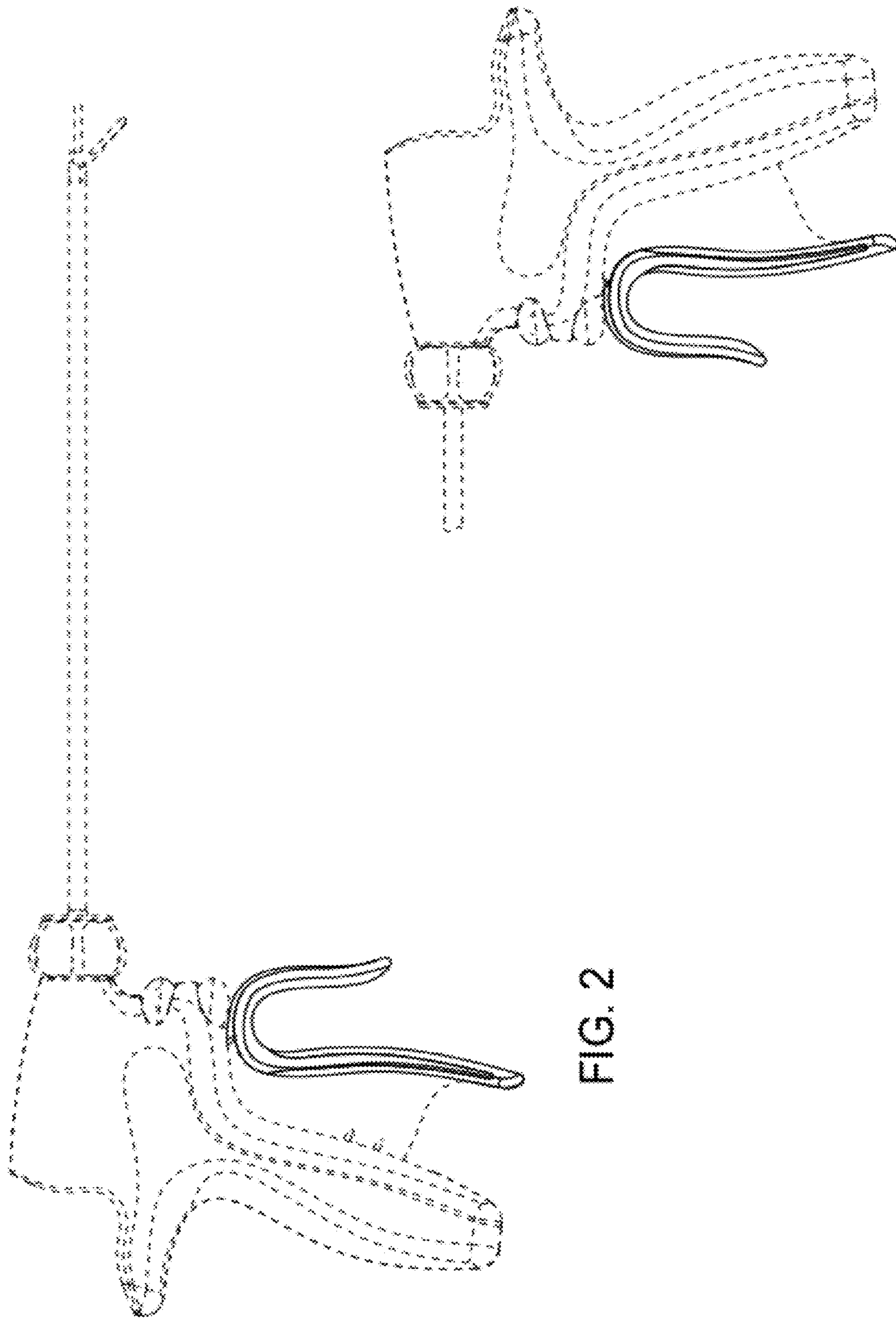


FIG. 2

FIG. 3

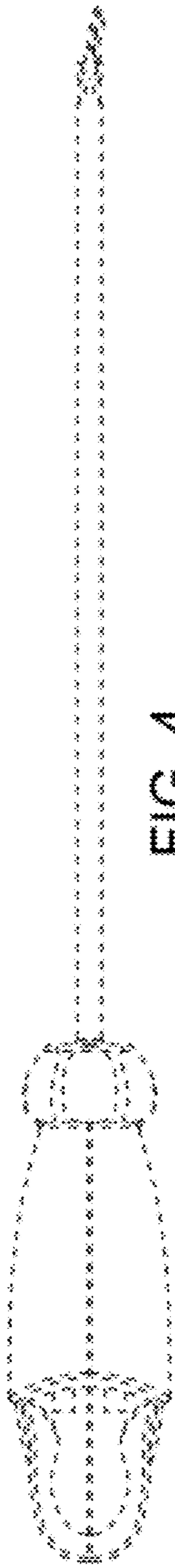


FIG. 4

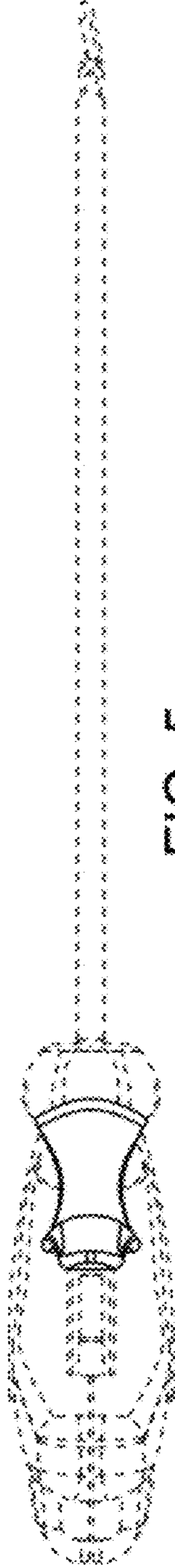


FIG. 5

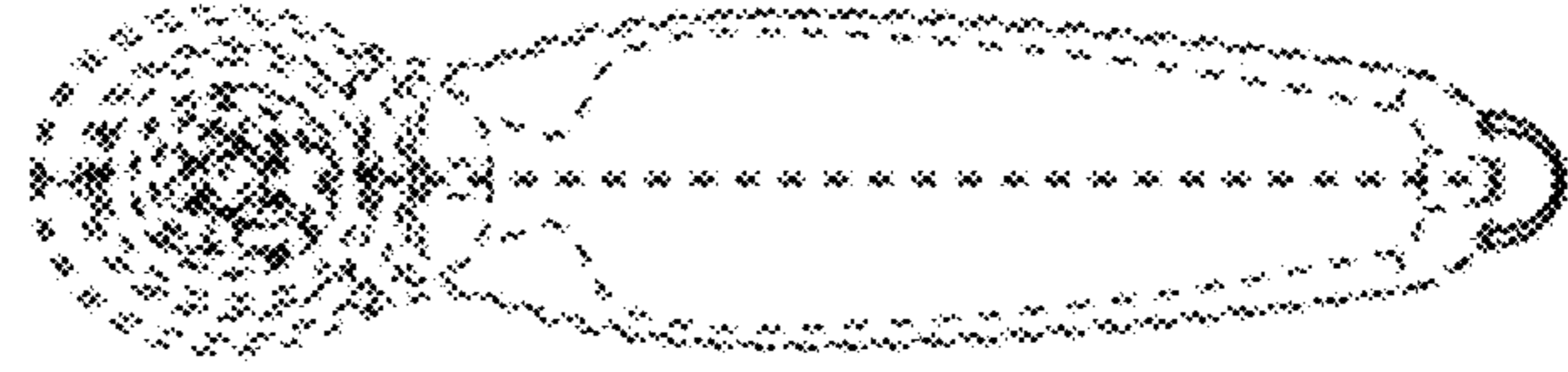


FIG. 6

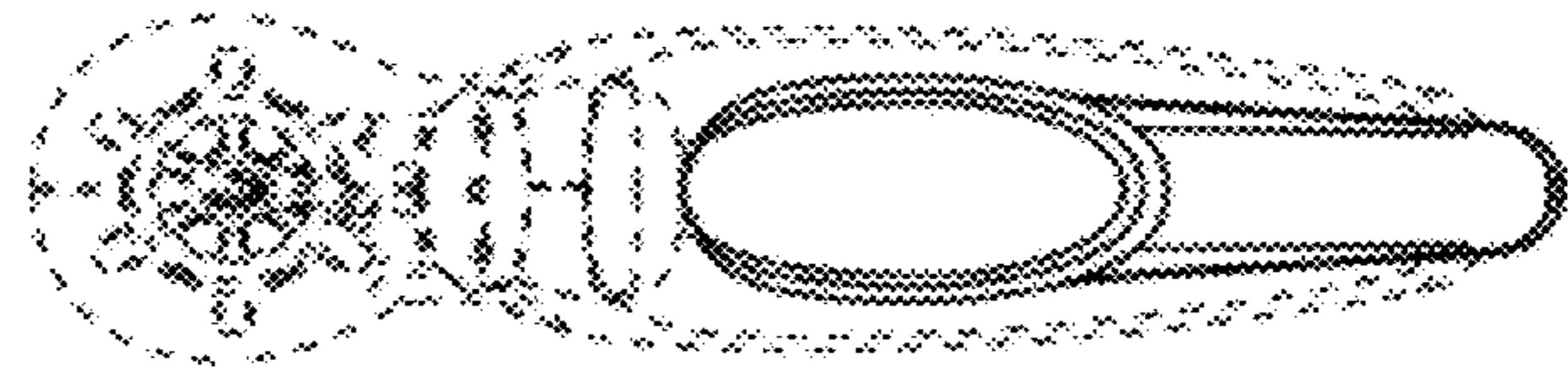


FIG. 7