



US00D745146S

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

(10) **Patent No.:** **US D745,146 S**
(45) **Date of Patent:** **** Dec. 8, 2015**

(54) **SURGICAL SUTURING DEVICE**
(71) Applicant: **Ethicon Endo-Surgery, Inc.**, Cincinnati, OH (US)
(72) Inventors: **Christopher J. Hess**, Cincinnati, OH (US); **James G. Lee**, Cincinnati, OH (US); **Daniel J. Mumaw**, Liberty Township, OH (US)

4,557,265 A 12/1985 Andersson
4,899,746 A 2/1990 Brunk
5,209,747 A 5/1993 Knoepfler
5,282,806 A 2/1994 Haber et al.
5,289,963 A 3/1994 McGarry et al.
5,306,281 A 4/1994 Beurrier
5,308,353 A 5/1994 Beurrier
5,318,578 A 6/1994 Hasson
5,383,888 A 1/1995 Zvenyatsky et al.
5,403,347 A 4/1995 Roby et al.

(Continued)

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FOREIGN PATENT DOCUMENTS

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

DE 4310315 A1 10/1993
EP 0739184 B1 9/1998

(Continued)

(21) Appl. No.: **29/493,229**

OTHER PUBLICATIONS

(22) Filed: **Jun. 6, 2014**

U.S. Appl. No. 13/832,595, filed Mar. 15, 2013 by Ethicon Endo-Surgery, Inc.

(51) **LOC (10) Cl.** **24-02**

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

(Continued)

(58) **Field of Classification Search**
USPC D24/147, 133, 146, 148-149; D8/49-51, 68, 57, 107; 227/175.1, 227/175.2, 180.1, 901-902; 606/1, 39, 130, 606/139, 142-143, 148, 169-170, 174, 606/175.1, 175.2, 180.1, 205
CPC A61B 17/0684; A61B 17/0401; A61B 17/0469; A61B 17/320092; A61B 2017/00424; A61B 2017/2929; A61B 2017/2925; A61B 2017/00429
See application file for complete search history.

Primary Examiner — Wan Laymon
Assistant Examiner — Mark Booker

(57) **CLAIM**
The ornamental design for a surgical suturing device, as shown and described.

DESCRIPTION

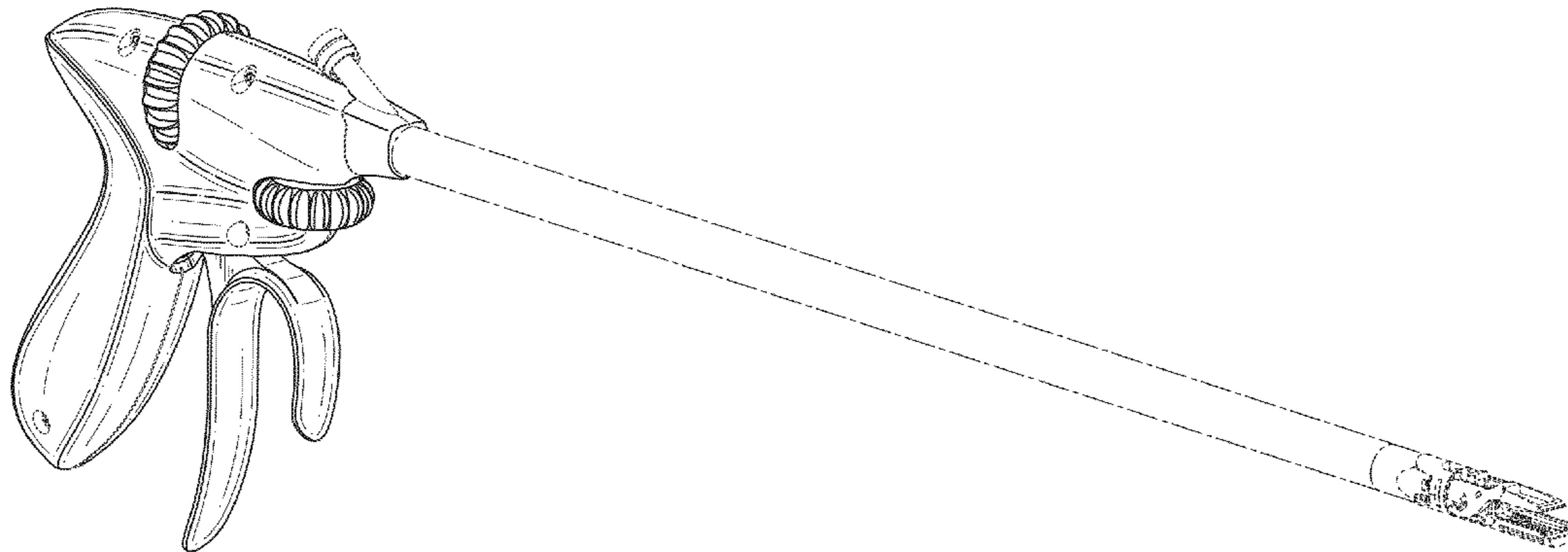
FIG. 1 is a perspective view of a surgical suturing device; FIG. 2 is a top plan view thereof; FIG. 3 is a right side elevation view thereof; FIG. 4 is a bottom plan view thereof; FIG. 5 is a front elevation view thereof; and, FIG. 6 is an end elevation view thereof. The broken lines shown in the drawings are included for the purpose of illustrating structural environment and form no part of the claimed design.

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,579,379 A 4/1926 Marbel
1,822,330 A 9/1931 Ainslie
2,291,181 A 7/1942 Alderman
3,168,097 A 2/1965 Dormia
3,749,238 A 7/1973 Taylor
4,027,608 A 6/1977 Arbuckle

1 Claim, 3 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

5,403,354 A	4/1995	Adams et al.	7,588,583 B2	9/2009	Hamilton et al.
5,437,681 A	8/1995	Meade et al.	7,615,060 B2	11/2009	Stokes et al.
5,454,823 A	10/1995	Richardson et al.	7,628,796 B2	12/2009	Shelton, IV et al.
5,478,344 A	12/1995	Stone et al.	7,637,369 B2	12/2009	Kennedy et al.
5,478,345 A	12/1995	Stone et al.	7,666,194 B2	2/2010	Field et al.
5,480,406 A	1/1996	Nolan et al.	7,686,831 B2	3/2010	Stokes et al.
5,540,704 A	7/1996	Gordon et al.	D618,797 S *	6/2010	Price et al. D24/145
5,540,705 A	7/1996	Meade et al.	7,763,036 B2	7/2010	Stokes et al.
5,553,477 A	9/1996	Eisensmith et al.	7,766,925 B2	8/2010	Stokes et al.
5,554,170 A	9/1996	Roby et al.	7,815,654 B2	10/2010	Chu
5,560,532 A	10/1996	DeFonzo et al.	7,828,812 B2	11/2010	Stokes et al.
5,569,301 A	10/1996	Granger et al.	7,833,235 B2	11/2010	Chu
5,571,090 A	11/1996	Sherts	7,833,236 B2	11/2010	Stokes et al.
5,591,181 A	1/1997	Stone et al.	7,842,048 B2	11/2010	Ma
5,610,653 A	3/1997	Abecassis	7,846,169 B2	12/2010	Shelton, IV et al.
5,617,952 A	4/1997	Kranendonk	7,857,812 B2 *	12/2010	Dycus et al. 606/51
5,630,825 A	5/1997	de la Torre et al.	7,862,572 B2	1/2011	Meade et al.
5,669,490 A	9/1997	Colligan et al.	7,862,582 B2	1/2011	Ortiz et al.
5,674,229 A	10/1997	Tovey et al.	D631,965 S *	2/2011	Price et al. D24/145
5,674,230 A	10/1997	Tovey et al.	7,887,554 B2	2/2011	Stokes et al.
5,693,071 A	12/1997	Gorecki et al.	7,891,485 B2	2/2011	Prescott
5,707,379 A	1/1998	Fleenor et al.	7,896,890 B2	3/2011	Ortiz et al.
5,709,693 A	1/1998	Taylor	7,935,128 B2	5/2011	Rioux et al.
5,713,910 A	2/1998	Gordon et al.	7,942,886 B2	5/2011	Alvarado
5,728,107 A	3/1998	Zlock et al.	7,947,052 B2	5/2011	Baxter, III et al.
5,728,108 A	3/1998	Griffiths et al.	7,976,553 B2	7/2011	Shelton, IV et al.
5,733,293 A	3/1998	Scirica et al.	7,976,555 B2	7/2011	Meade et al.
5,741,277 A	4/1998	Gordon et al.	7,993,354 B1	8/2011	Brecher et al.
5,759,188 A	6/1998	Yoon	8,012,161 B2	9/2011	Primavera et al.
5,766,186 A	6/1998	Faraz et al.	8,016,840 B2	9/2011	Takemoto et al.
5,766,196 A	6/1998	Griffiths	8,048,092 B2	11/2011	Modesitt et al.
5,776,186 A	7/1998	Uflacker	8,057,386 B2	11/2011	Aznoian et al.
5,792,151 A	8/1998	Heck et al.	8,066,737 B2	11/2011	Meade et al.
5,814,054 A	9/1998	Kortenbach et al.	8,118,820 B2	2/2012	Stokes et al.
5,830,221 A *	11/1998	Stein et al. 606/157	8,123,762 B2	2/2012	Chu et al.
5,860,992 A	1/1999	Daniel et al.	8,123,764 B2	2/2012	Meade et al.
5,865,836 A	2/1999	Miller	8,136,656 B2	3/2012	Kennedy et al.
5,871,488 A	2/1999	Tovey et al.	8,187,288 B2	5/2012	Chu et al.
5,897,563 A	4/1999	Yoon et al.	D661,801 S *	6/2012	Price et al. D24/145
5,908,428 A	6/1999	Scirica et al.	D661,802 S *	6/2012	Price et al. D24/145
5,911,727 A	6/1999	Taylor	D661,803 S *	6/2012	Price et al. D24/145
5,938,668 A	8/1999	Scirica et al.	D661,804 S *	6/2012	Price et al. D24/145
5,947,982 A	9/1999	Duran	8,196,739 B2	6/2012	Kirsch
5,954,731 A	9/1999	Yoon	8,206,284 B2	6/2012	Aznoian et al.
5,954,733 A	9/1999	Yoon	8,211,143 B2	7/2012	Stefanchik et al.
5,993,466 A	11/1999	Yoon	8,236,010 B2	8/2012	Ortiz et al.
6,016,905 A	1/2000	Gemma et al.	8,236,013 B2	8/2012	Chu
6,071,289 A	6/2000	Stefanchik et al.	8,246,637 B2	8/2012	Viola et al.
6,086,601 A	7/2000	Yoon	8,252,008 B2	8/2012	Ma
6,096,051 A	8/2000	Kortenbach et al.	8,256,613 B2	9/2012	Kirsch et al.
6,126,666 A	10/2000	Trapp et al.	8,257,369 B2	9/2012	Gellman et al.
6,135,385 A	10/2000	Martinez de Lahidalga	8,257,371 B2	9/2012	Hamilton et al.
6,136,010 A	10/2000	Modesitt et al.	8,292,067 B2	10/2012	Chowaniec et al.
6,138,440 A	10/2000	Gemma	8,292,906 B2	10/2012	Taylor et al.
6,332,888 B1	12/2001	Levy et al.	8,328,822 B2 *	12/2012	Huitema et al. 606/142
6,443,962 B1	9/2002	Gaber	8,361,072 B2 *	1/2013	Dumbauld et al. 606/51
6,454,778 B2	9/2002	Kortenbach	8,361,089 B2	1/2013	Chu
6,719,764 B1	4/2004	Gellman et al.	D685,907 S *	7/2013	Park et al. D24/133
6,743,239 B1	6/2004	Kuehn et al.	D687,549 S *	8/2013	Johnson et al. D24/133
D496,997 S *	10/2004	Dycus et al. D24/144	8,500,756 B2	8/2013	Papa et al.
6,923,819 B2	8/2005	Meade et al.	8,512,243 B2	8/2013	Stafford
6,936,054 B2	8/2005	Chu	8,518,058 B2	8/2013	Gellman et al.
6,939,358 B2	9/2005	Palacios et al.	8,579,918 B2 *	11/2013	Whitfield et al. 606/142
6,955,643 B2	10/2005	Gellman et al.	8,603,089 B2 *	12/2013	Viola 606/41
7,004,951 B2	2/2006	Gibbens, III	8,641,728 B2	2/2014	Stokes et al.
7,041,111 B2	5/2006	Chu	D700,699 S *	3/2014	O'Leary et al. D24/146
7,131,979 B2	11/2006	DiCarlo et al.	8,696,687 B2	4/2014	Gellman et al.
7,144,401 B2	12/2006	Yamamoto et al.	D709,194 S *	7/2014	Miller et al. D24/143
7,232,447 B2	6/2007	Gellman et al.	D716,945 S *	11/2014	Miller et al. D24/148
7,235,087 B2	6/2007	Modesitt et al.	8,910,846 B2 *	12/2014	Viola 227/175.1
7,235,087 B2	6/2007	Modesitt et al.	9,060,769 B2 *	6/2015	Coleman et al.
7,338,504 B2	3/2008	Gibbens, III et al.	2002/0193809 A1	12/2002	Meade et al.
7,442,198 B2	10/2008	Gellman et al.	2003/0208100 A1	11/2003	Levy
7,520,382 B2	4/2009	Kennedy et al.	2004/0050721 A1	3/2004	Roby et al.
D594,983 S *	6/2009	Price et al. D24/145	2004/0172047 A1	9/2004	Gellman et al.
7,582,096 B2	9/2009	Gellman et al.	2005/0015101 A1	1/2005	Gibbens, III et al.
			2005/0216038 A1	9/2005	Meade et al.
			2006/0036232 A1	2/2006	Primavera et al.
			2006/0069396 A1	3/2006	Meade et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

2006/0111732 A1 5/2006 Gibbens et al.
 2006/0173491 A1 8/2006 Meade et al.
 2006/0281970 A1 12/2006 Stokes et al.
 2006/0282096 A1 12/2006 Papa et al.
 2006/0282097 A1 12/2006 Ortiz et al.
 2006/0282099 A1 12/2006 Stokes et al.
 2007/0088372 A1 4/2007 Gellman et al.
 2007/0173864 A1 7/2007 Chu
 2007/0256945 A1 11/2007 Kennedy et al.
 2008/0091220 A1 4/2008 Chu
 2008/0103357 A1 5/2008 Zeiner et al.
 2008/0109015 A1 5/2008 Chu et al.
 2008/0132919 A1 6/2008 Chui et al.
 2008/0228204 A1 9/2008 Hamilton et al.
 2008/0243146 A1 10/2008 Sloan et al.
 2008/0255590 A1 10/2008 Meade et al.
 2009/0024145 A1 1/2009 Meade et al.
 2009/0105750 A1* 4/2009 Price et al. 606/206
 2009/0205987 A1 8/2009 Kennedy et al.
 2009/0209980 A1 8/2009 Harris
 2009/0287226 A1 11/2009 Gellman et al.
 2009/0312772 A1 12/2009 Chu
 2010/0016866 A1 1/2010 Meade et al.
 2010/0023024 A1 1/2010 Zeiner et al.
 2010/0042116 A1 2/2010 Chui et al.
 2010/0152751 A1 6/2010 Meade et al.
 2010/0274265 A1 10/2010 Wingardner et al.
 2011/0028999 A1 2/2011 Chu
 2011/0042245 A1 2/2011 McClurg et al.
 2011/0046667 A1 2/2011 Culligan et al.
 2011/0060352 A1 3/2011 Chu
 2011/0082476 A1 4/2011 Furnish et al.
 2011/0288582 A1 11/2011 Meade et al.
 2011/0295278 A1 12/2011 Meade et al.
 2012/0004672 A1 1/2012 Giap et al.
 2012/0035626 A1 2/2012 Chu
 2012/0041456 A1 2/2012 Gellman et al.
 2012/0055828 A1 3/2012 Kennedy et al.
 2012/0059396 A1 3/2012 Harris et al.
 2012/0078243 A1* 3/2012 Worrell et al. 606/33
 2012/0109163 A1 5/2012 Chu et al.
 2012/0130404 A1 5/2012 Meade et al.
 2012/0143248 A1 6/2012 Brecher et al.
 2012/0184946 A1* 7/2012 Price et al. 606/1
 2012/0215234 A1 8/2012 Chowaniec et al.
 2012/0226292 A1 9/2012 Hirzel
 2012/0228163 A1 9/2012 Kirsch
 2012/0232567 A1 9/2012 Fairney
 2012/0283748 A1 11/2012 Ortiz et al.
 2012/0283750 A1 11/2012 Saliman et al.
 2012/0283755 A1 11/2012 Gellman et al.
 2013/0041388 A1 2/2013 Lane et al.
 2013/0123782 A1* 5/2013 Trees et al. 606/45
 2013/0331866 A1 12/2013 Gellman et al.

2014/0005681 A1* 1/2014 Gee et al. 606/130
 2014/0005704 A1* 1/2014 Vakharia et al. 606/169
 2015/0090765 A1* 4/2015 Hess et al. 227/176.1

FOREIGN PATENT DOCUMENTS

EP 1791476 A2 6/2007
 EP 2292157 A2 3/2011
 EP 2308391 A1 4/2011
 FR 2540377 A1 8/1984
 GB 18602 A 0/1909
 GB 2389313 A 12/2003
 JP S 55-151956 A 11/1980
 WO WO 95/19149 A1 7/1995
 WO WO 97/29694 A1 8/1997
 WO WO 99/12482 A1 3/1999
 WO WO 99/40850 A1 8/1999
 WO WO 99/47050 A2 9/1999
 WO WO 01/12084 A1 2/2001
 WO WO 02/102226 A2 12/2002
 WO WO 03/028541 A2 4/2003
 WO WO 2004/012606 A1 2/2004
 WO WO 2004/021894 A1 3/2004
 WO WO 2006/034209 A2 3/2006
 WO WO 2007/089603 A2 8/2007
 WO WO 2008/045333 A2 4/2008
 WO WO 2008/045376 A2 4/2008
 WO WO 2008/147555 A2 12/2008
 WO WO 2010/062380 A2 6/2010
 WO WO 2012/044998 A2 4/2012

OTHER PUBLICATIONS

U.S. Appl. No. 13/832,660, filed Mar. 15, 2013 by Ethicon Endo-Surgery, Inc.
 U.S. Appl. No. 13/832,709, filed Mar. 15, 2013 by Ethicon Endo-Surgery, Inc.
 U.S. Appl. No. 13/832,786, filed Mar. 15, 2013 by Ethicon Endo-Surgery, Inc.
 U.S. Appl. No. 13/832,816, filed Mar. 15, 2013 by Ethicon Endo-Surgery, Inc.
 U.S. Appl. No. 13/832,867, filed Mar. 15, 2013 by Ethicon Endo-Surgery, Inc.
 U.S. Appl. No. 13/832,897, filed Mar. 15, 2013 by Ethicon Endo-Surgery, Inc.
 U.S. Appl. No. 13/832,986, filed Mar. 15, 2013 by Ethicon Endo-Surgery, Inc.
 U.S. Appl. No. 13/833,042, filed Mar. 15, 2013 by Ethicon Endo-Surgery, Inc.
 U.S. Appl. No. 13/833,121, filed Mar. 15, 2013 by Ethicon Endo-Surgery, Inc.
 Endo 360 “Laparoscopic & Minimally Invasive Suturing Devices” Catalog—2 Pages—EndoEvolution, LLC—2011.
 Covidien Endo Stitch (Features and Benefits) “Suturing Made Easy” Brochure—4 Pages—2008.
 Pages from www.endoevolution.com. Printed on Jun. 3, 2014, but publication date unknown.

* cited by examiner

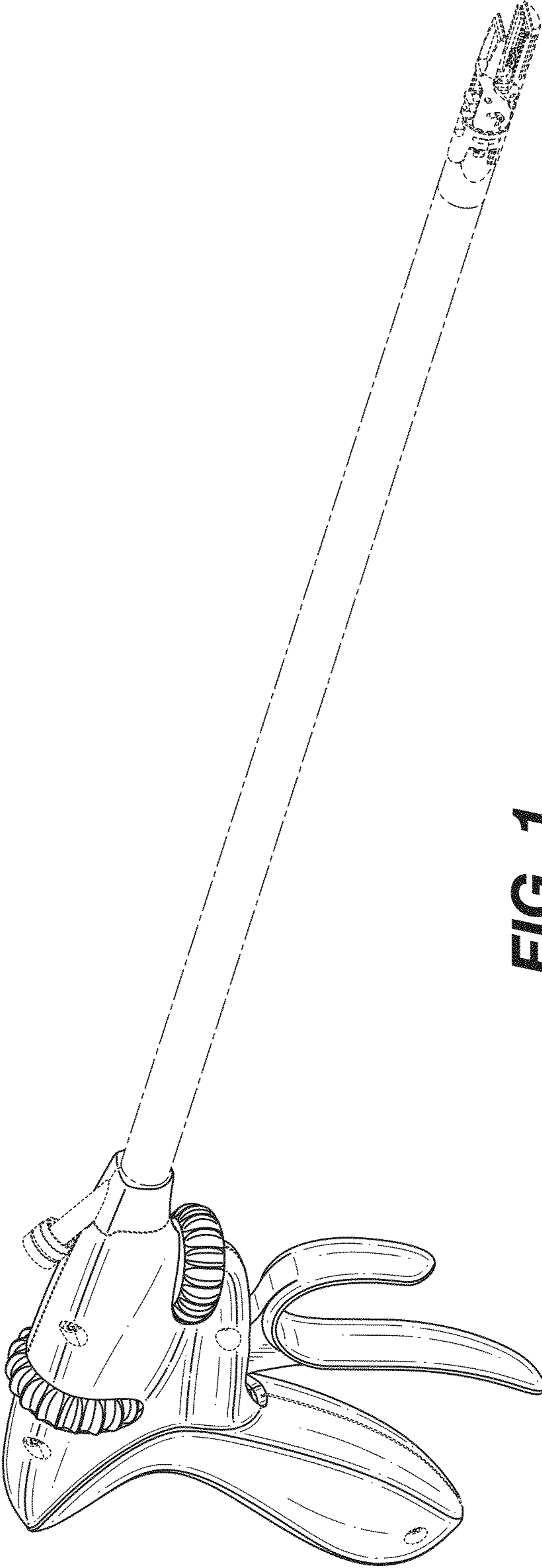


FIG. 1

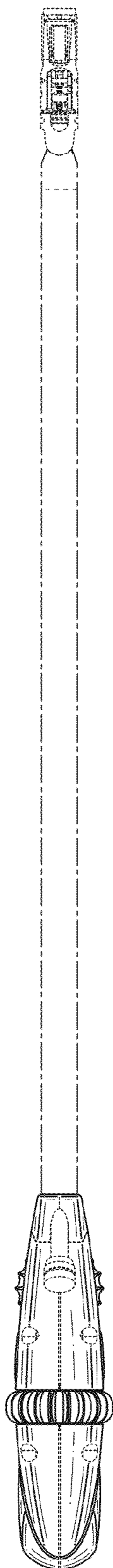


FIG. 2

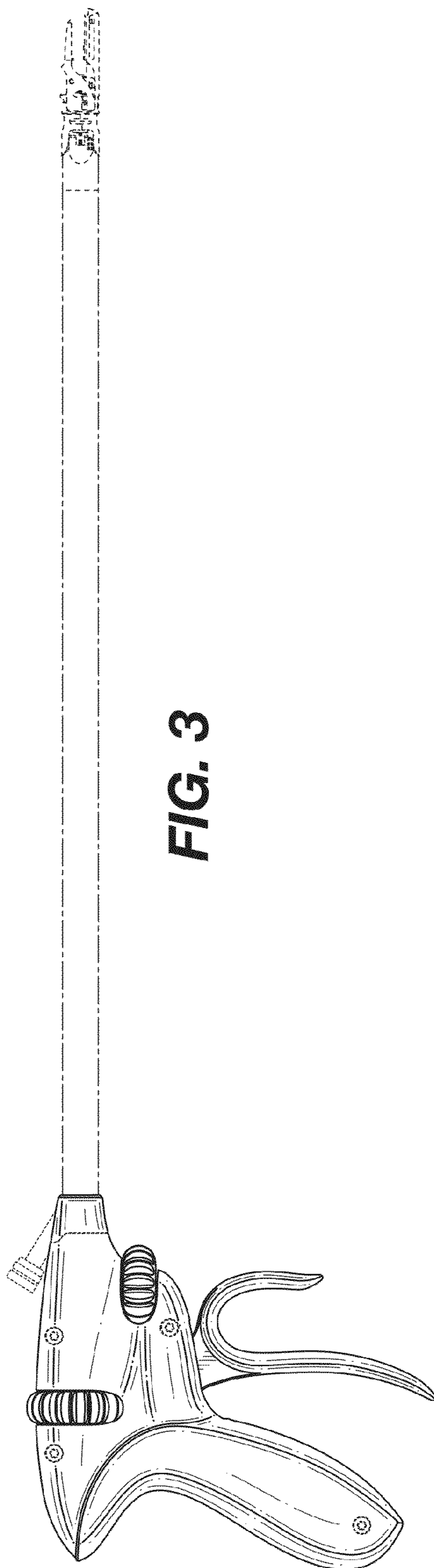


FIG. 3

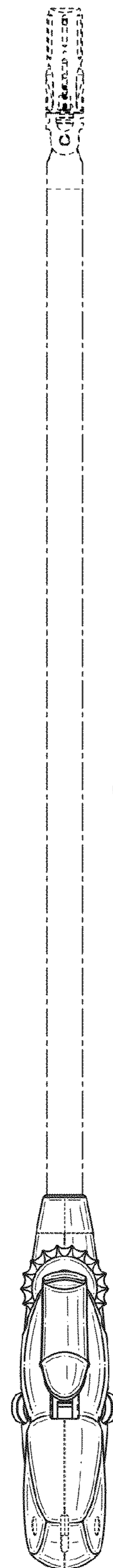


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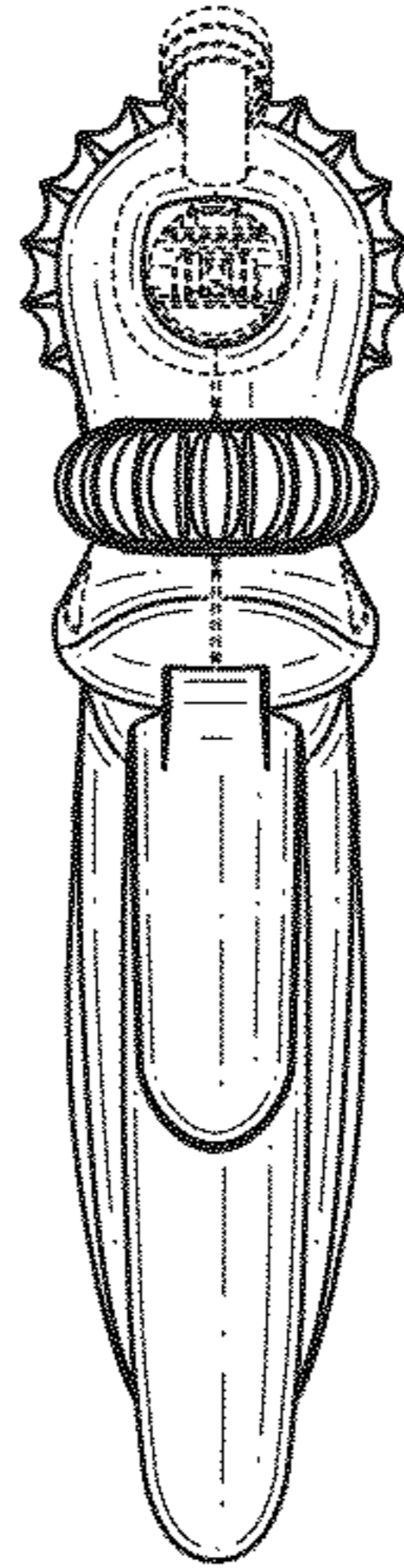


FIG. 5

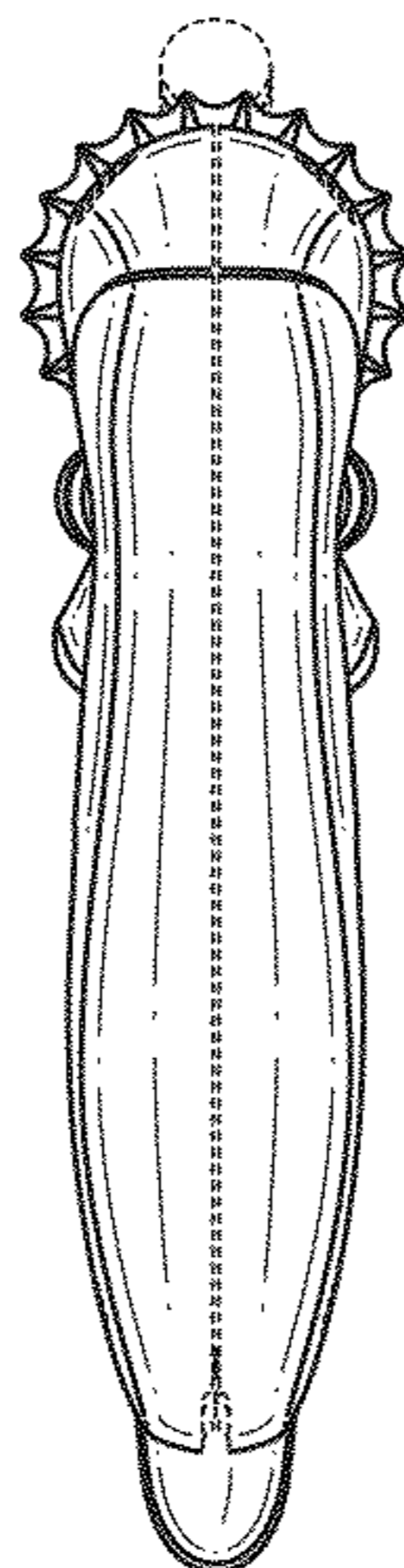


FIG. 6