



US00D790069S

(12) **United States Design Patent** (10) **Patent No.:** **US D790,069 S**
Wong et al. (45) **Date of Patent:** **** Jun. 20, 2017**

(54) **MEDICAL SENSOR**

(71) Applicant: **COVIDIEN LP**, Mansfield, MA (US)

(72) Inventors: **Alissa K. Wong**, Superior, CO (US);
David P. Besko, Thornton, CO (US)

(73) Assignee: **COVIDIEN LP**, Mansfield, MA (US)

(**) Term: **15 Years**

(21) Appl. No.: **29/544,324**

(22) Filed: **Nov. 2, 2015**

(51) **LOC (10) Cl.** **24-01**

(52) **U.S. Cl.**
USPC **D24/187**

(58) **Field of Classification Search**
USPC D24/186-187, 168, 165, 167; D13/133,
D13/147

(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,964,408 A 10/1990 Hink et al.
5,069,213 A 12/1991 Polczynski
(Continued)

FOREIGN PATENT DOCUMENTS

EP 1945099 7/2008
JP 6016774 3/1994
(Continued)

OTHER PUBLICATIONS

INVOS Cerebral/Somatic Oximeter, Reflects Site-Specific Tissue Perfusion Noninvasively, 11-PM-0258 mn21410; 883-11-PM-0258BRC_INVOSNeonatalBrochure-singles-1320864559 (2010).
(Continued)

Primary Examiner — Wan Laymon

(74) *Attorney, Agent, or Firm* — Fletcher Yoder, P.C.

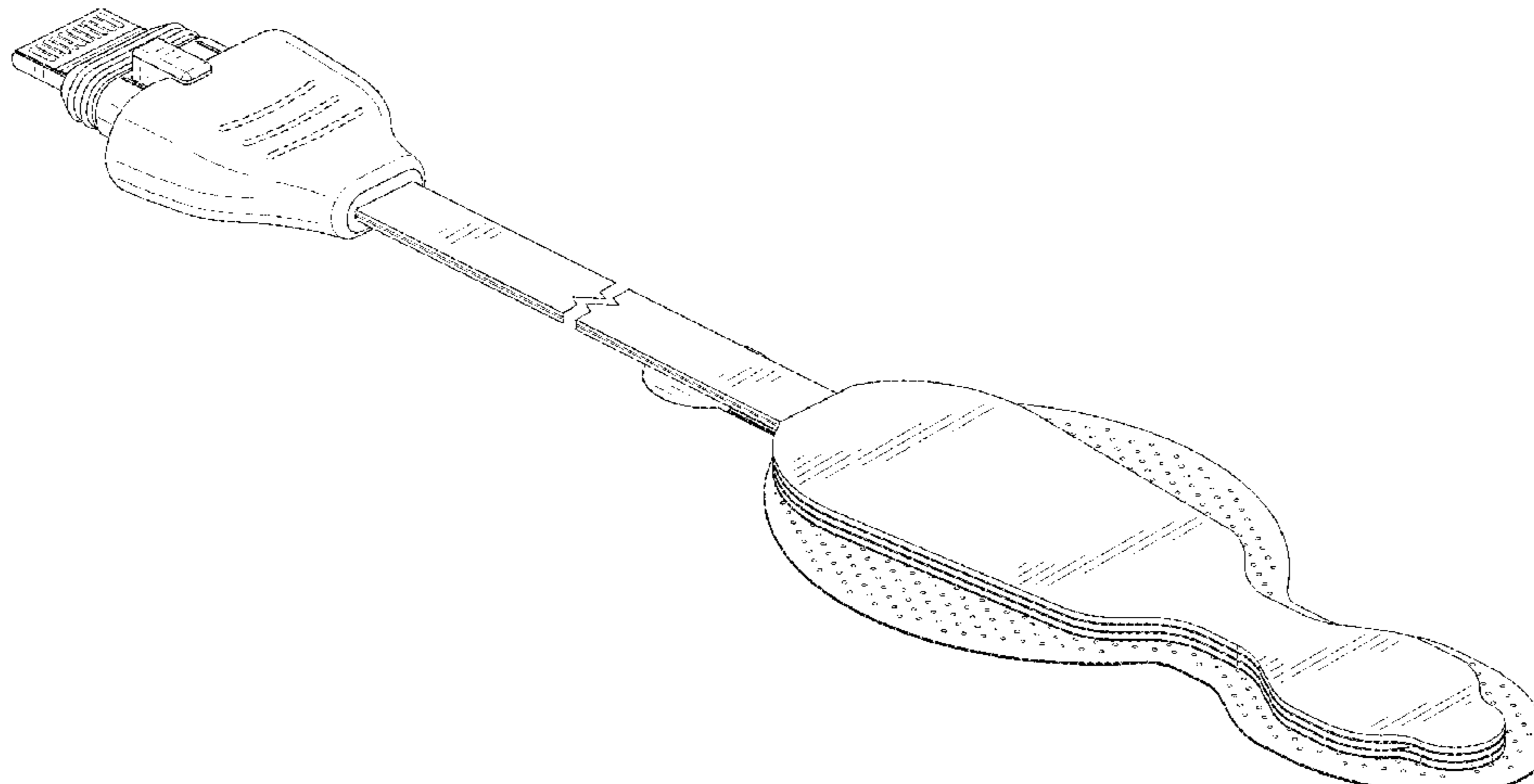
(57) **CLAIM**

We claim the ornamental design for a medical sensor, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of the medical sensor of the present invention;
FIG. 2 is a top view of the medical sensor of FIG. 1;
FIG. 3 is a bottom view of the medical sensor of FIG. 1;
FIG. 4 is a right side view of the medical sensor of FIG. 1;
FIG. 5 is a left side view of the medical sensor of FIG. 1;
FIG. 6 is a front view of the medical sensor of FIG. 1;
FIG. 7 is a rear view of the medical sensor of FIG. 1;
FIG. 8 is a perspective view of an alternate embodiment of the medical sensor;
FIG. 9 is a top view of the medical sensor of FIG. 8;
FIG. 10 is a bottom view of the medical sensor of FIG. 8;
FIG. 11 is a left or right side view of the medical sensor of FIG. 8;
FIG. 12 is a perspective view of an alternate embodiment of the medical sensor;
FIG. 13 is a top view of the medical sensor of FIG. 12;
FIG. 14 is a bottom view of the medical sensor of FIG. 12;
FIG. 15 is a right side view of the medical sensor of FIG. 12;
FIG. 16 is a left side view of the medical sensor of FIG. 12;
FIG. 17 is a front view of the medical sensor of FIG. 12;
FIG. 18 is a rear view of the medical sensor of FIG. 12;
FIG. 19 is a perspective view of an alternate embodiment of the medical sensor;
FIG. 20 is a top view of the medical sensor of FIG. 19;
FIG. 21 is a bottom view of the medical sensor of FIG. 19;
and,
FIG. 22 is a left or right side view of the medical sensor of FIG. 19.
Any subject matter shown in broken lines in the drawings constitutes the environment only and forms no part of the protection sought. The broken away symbols in the drawings indicated that any portion of the article beyond what is shown forms no part of the claimed design.

1 Claim, 14 Drawing Sheets



(58) **Field of Classification Search**
 CPC A61B 5/0048; A61B 5/02; A61B 5/1455;
 A61B 5/14551; A61B 5/14552; A61B
 5/6813; A61B 5/6826; A61B 5/6833;
 A61B 2562/12; A61B 2562/16; A61B
 2562/22; A61B 2562/221; A61B
 2562/222; A61B 2562/223; A61B
 2562/225; A61B 2562/227; A61B
 2562/228

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,154,175	A	10/1992	Gunther
5,228,440	A	7/1993	Chung et al.
5,249,576	A	10/1993	Goldberger et al.
5,287,853	A	2/1994	Vester et al.
5,343,869	A	9/1994	Pross et al.
5,387,122	A	2/1995	Goldberger et al.
5,425,362	A	6/1995	Siker et al.
D366,528	S *	1/1996	Crouse D24/187
5,491,299	A	2/1996	Naylor et al.
5,645,440	A	7/1997	Tobler et al.
5,660,567	A	8/1997	Nierlich et al.
5,743,260	A	4/1998	Chung et al.
5,790,729	A	8/1998	Pologe et al.
5,851,178	A	12/1998	Aronow
5,890,929	A	4/1999	Mills et al.
5,934,925	A	8/1999	Tobler et al.
5,961,452	A	10/1999	Chung et al.
5,997,343	A	12/1999	Mills et al.
6,014,576	A	1/2000	Raley
6,026,312	A	2/2000	Shemwell et al.
6,112,107	A	8/2000	Hannula
6,152,754	A	11/2000	Gerhardt et al.
6,165,005	A	12/2000	Mills et al.
6,253,097	B1	6/2001	Aronow et al.
6,280,213	B1	8/2001	Tobler et al.
6,370,409	B1	4/2002	Chung et al.
6,541,756	B2	4/2003	Schultz et al.
6,678,543	B2	1/2004	Diab et al.
6,850,788	B2	2/2005	Al-Ali
7,117,590	B2	10/2006	Koenig et al.
7,132,641	B2	11/2006	Schulz et al.
7,210,959	B1	5/2007	Teves
7,225,006	B2	5/2007	Al-Ali et al.
7,248,910	B2	7/2007	Li et al.
7,371,981	B2	5/2008	Abdul-Hafiz
7,377,794	B2	5/2008	Al-Ali et al.

7,427,165	B2	9/2008	Benaron et al.
8,188,433	B2 *	5/2012	Gonopolskiy A61B 5/14552 250/338.1
8,428,967	B2 *	4/2013	Olsen A61B 5/14551 705/2
8,726,496	B2 *	5/2014	Besko A61B 5/14552 29/831
8,764,671	B2 *	7/2014	Kiani A61B 5/0048 600/500
9,138,182	B2 *	9/2015	Al-Ali A61B 5/14552
9,211,072	B2 *	12/2015	Kiani A61B 5/0048
D756,817	S *	5/2016	Fries D24/186
2002/0103423	A1	8/2002	Chin et al.
2003/0135099	A1	7/2003	Al-Ali
2003/0162414	A1	8/2003	Schulz et al.
2004/0267103	A1	12/2004	Li et al.
2005/0113704	A1	5/2005	Lawson et al.
2006/0211932	A1	9/2006	Al-Ali et al.
2006/0241363	A1	10/2006	Al-Ali et al.
2007/0123783	A1	5/2007	Chang
2008/0064940	A1 *	3/2008	Raridan A61B 5/14551 600/344
2008/0071153	A1	3/2008	Al-Ali et al.
2008/0076980	A1	3/2008	Hoarau
2008/0076995	A1	3/2008	Hoarau
2008/0076996	A1	3/2008	Hoarau
2008/0081954	A1	4/2008	Meyer et al.
2008/0220633	A1	9/2008	Al-Ali et al.
2008/0255435	A1	10/2008	Al-Ali et al.
2008/0316488	A1	12/2008	Mao et al.
2014/0228659	A1 *	8/2014	Besko A61B 5/14552 600/324
2015/0216459	A1 *	8/2015	Al-Ali A61B 5/14552 600/344

FOREIGN PATENT DOCUMENTS

JP	24329406	11/2004
JP	25052385	3/2005
JP	25110816	4/2005
JP	26061566	3/2006
JP	27117641	5/2007
JP	27167183	7/2007
JP	27167184	7/2007
JP	27190122	8/2007

OTHER PUBLICATIONS

A monitor designed to help treat a range of complex patients;
 12673-DesignedtoTreat-1402592390 (2012 INVOS brochure).

* cited by examiner

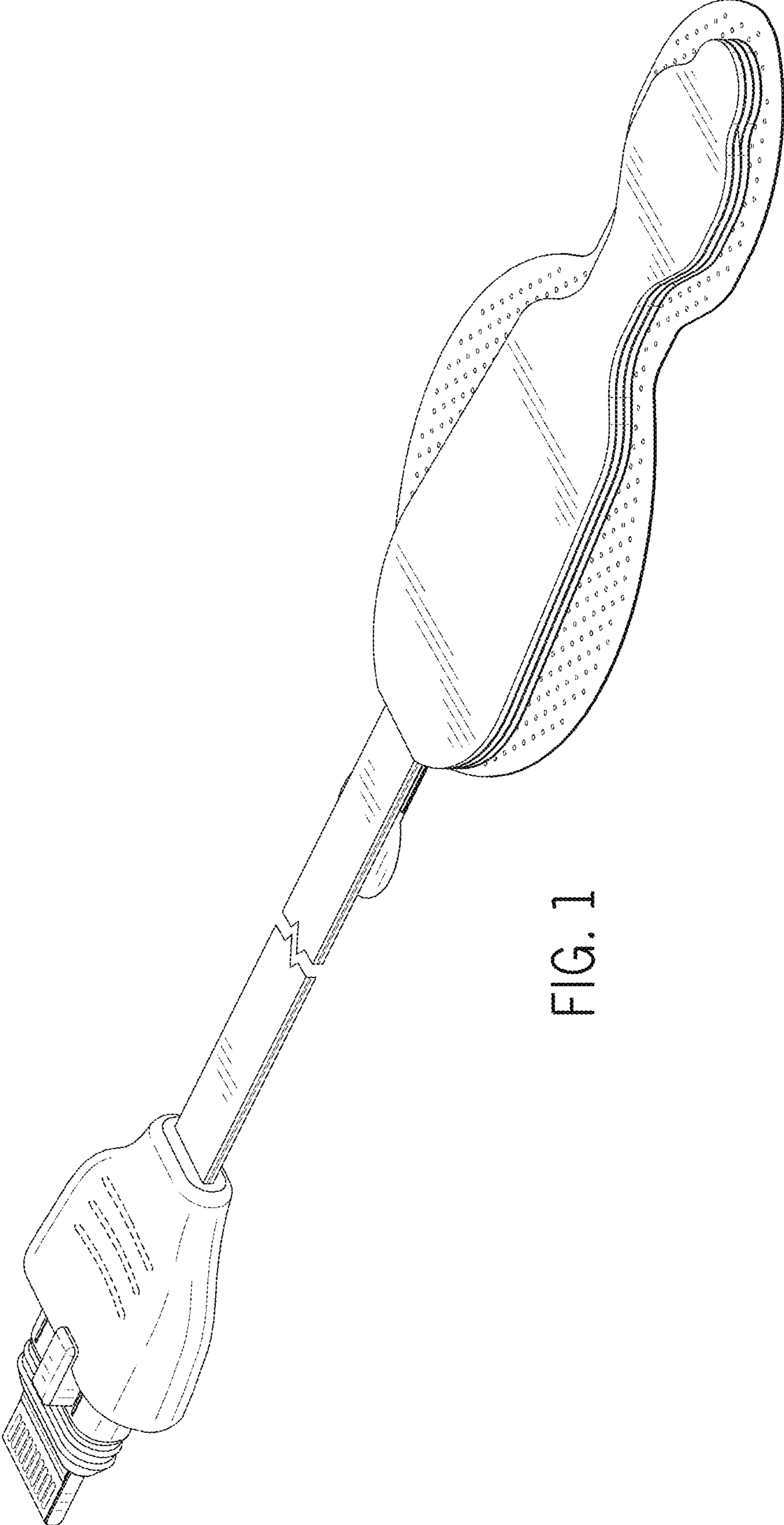


FIG. 1

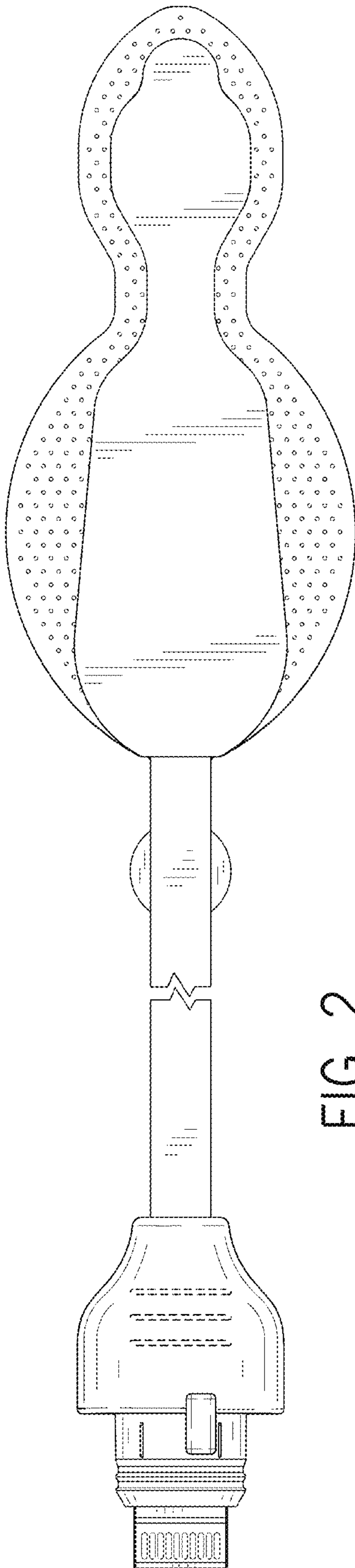


FIG. 2

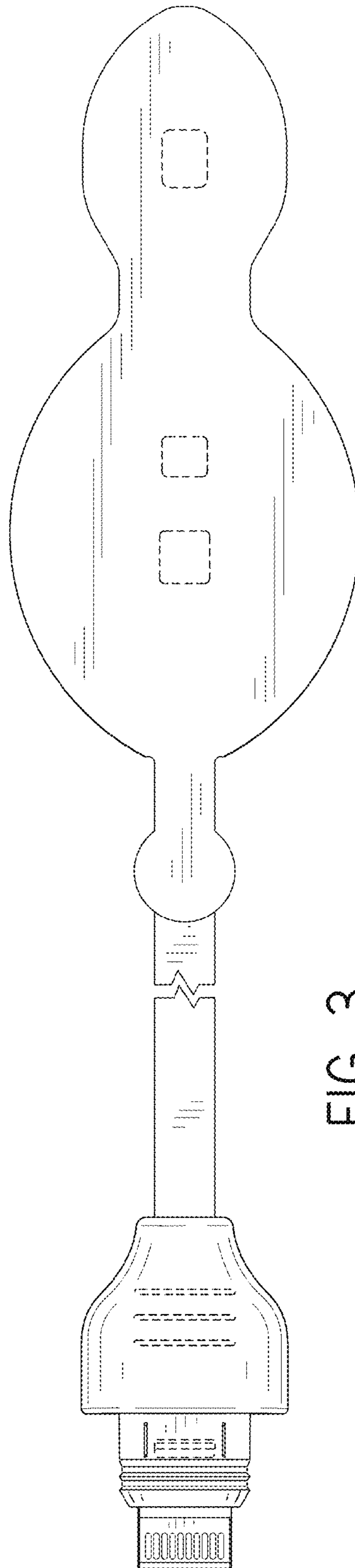


FIG. 3

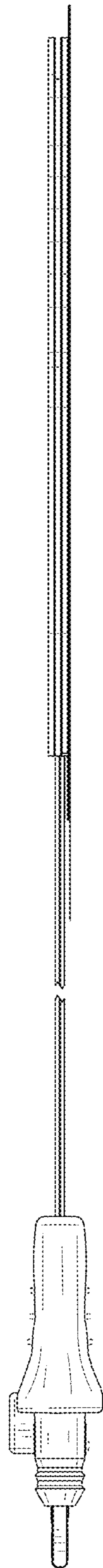


FIG. 4

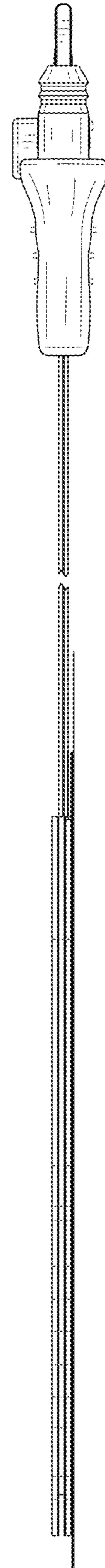


FIG. 5

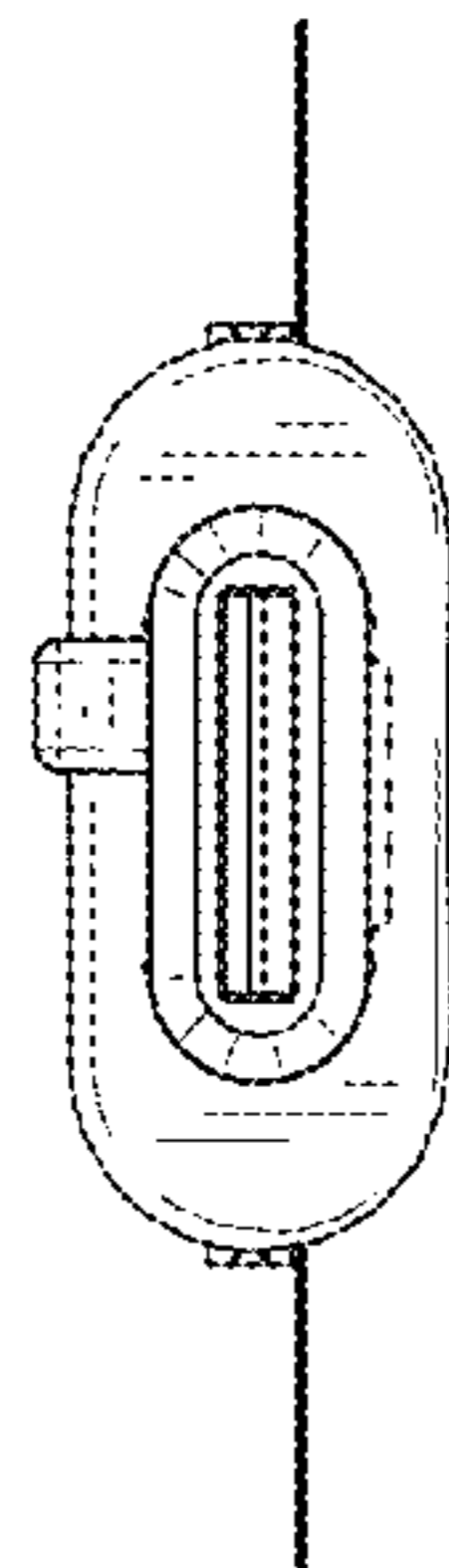


FIG. 6

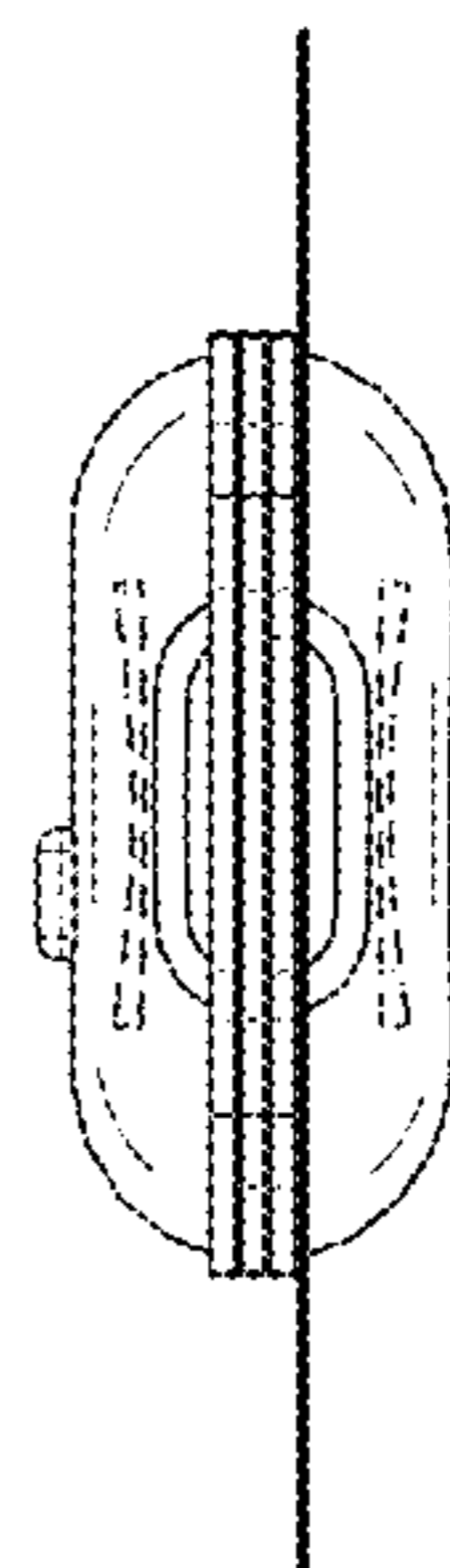


FIG. 7

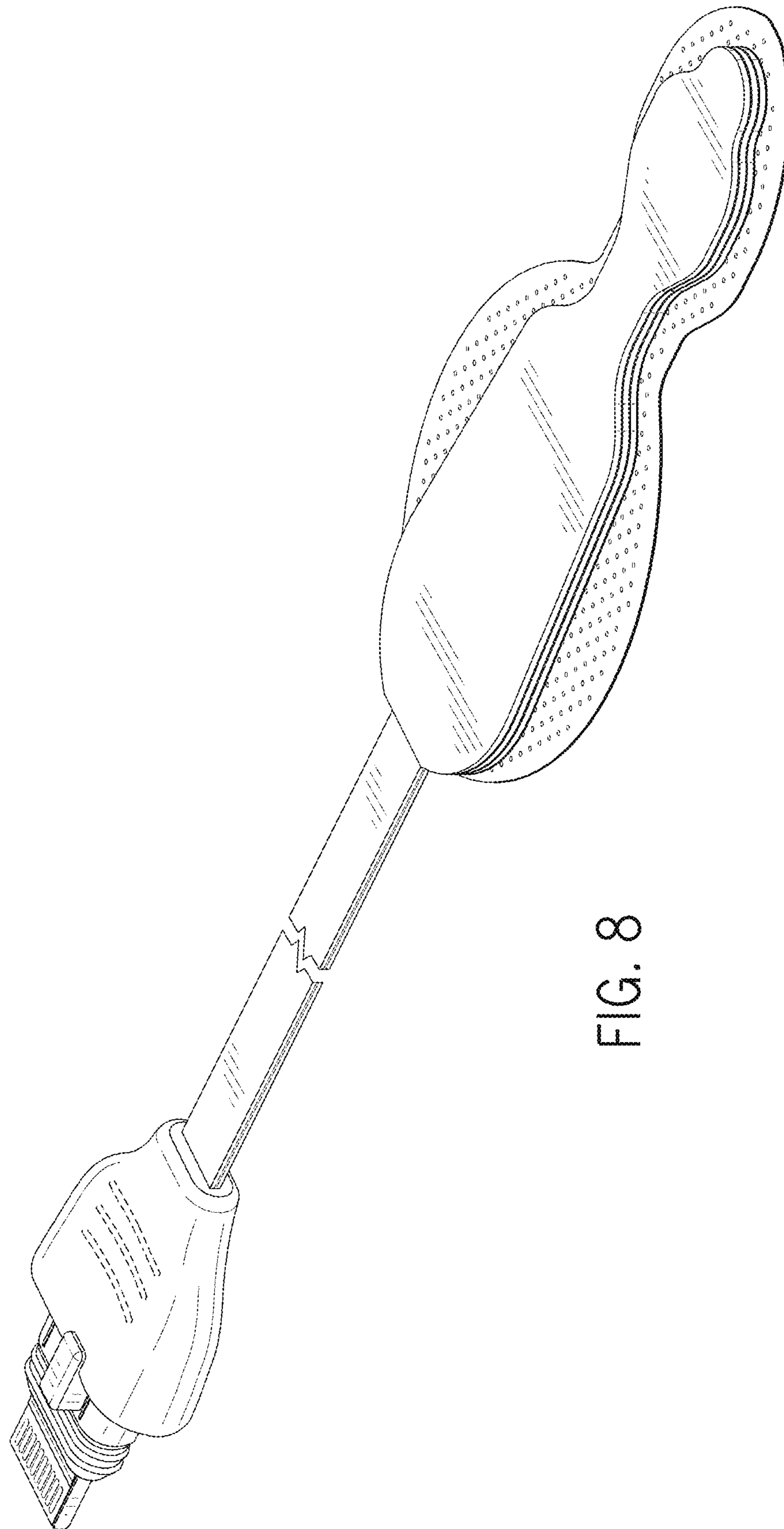
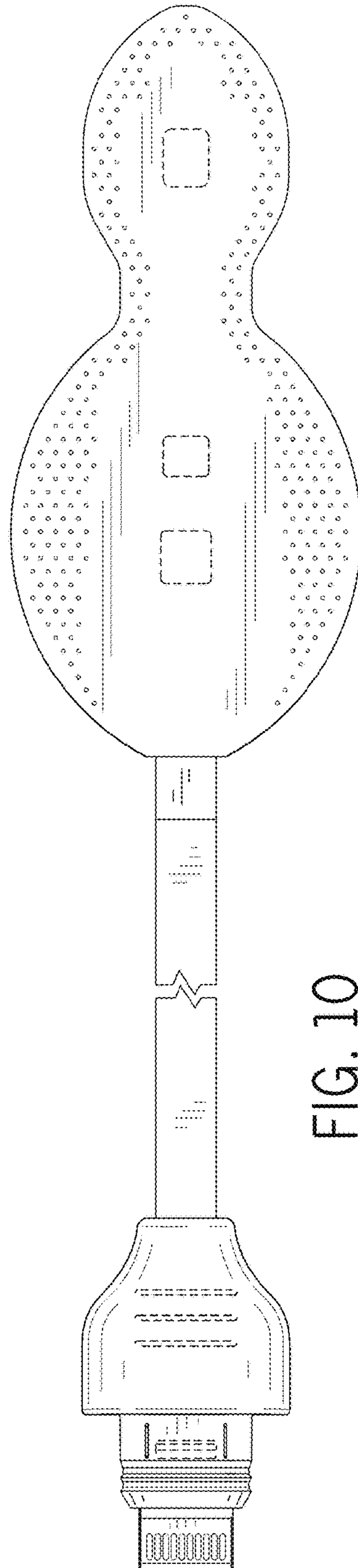
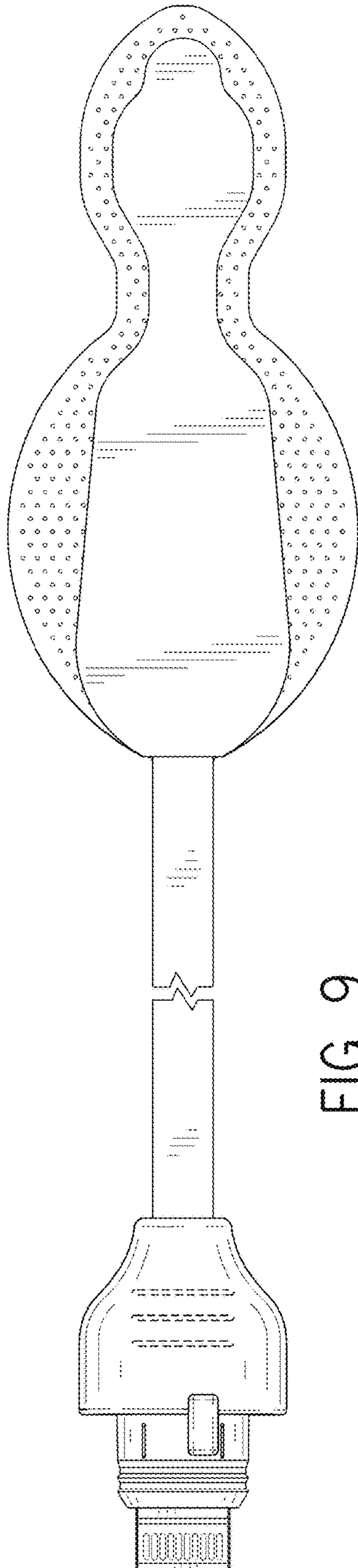


FIG. 8



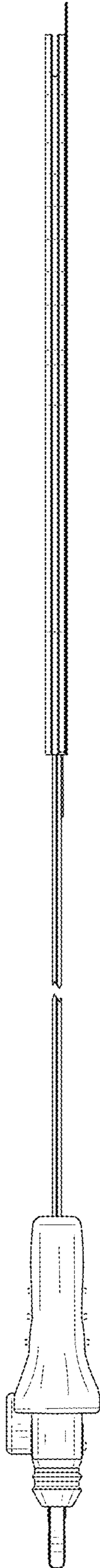


FIG. 11

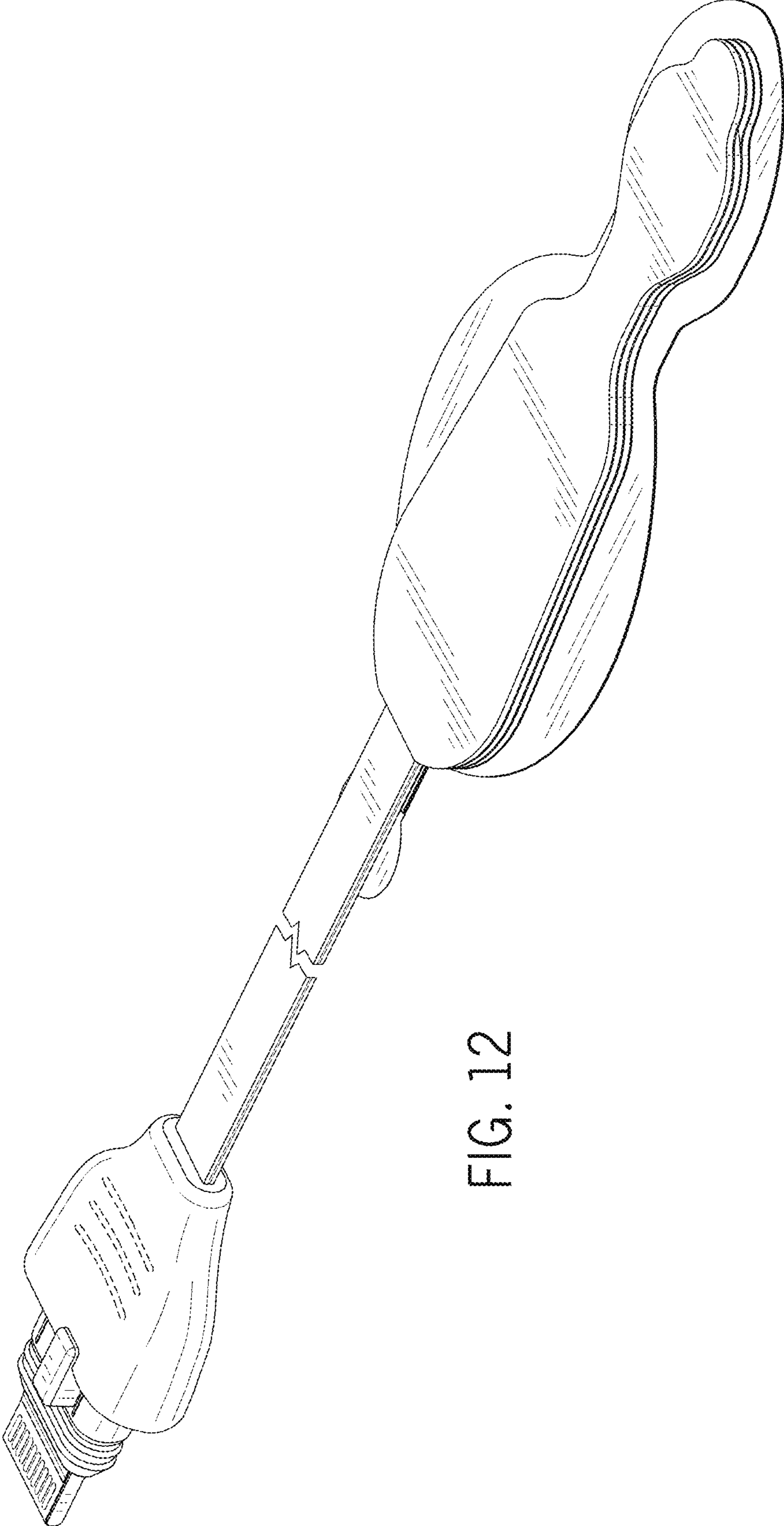


FIG. 12

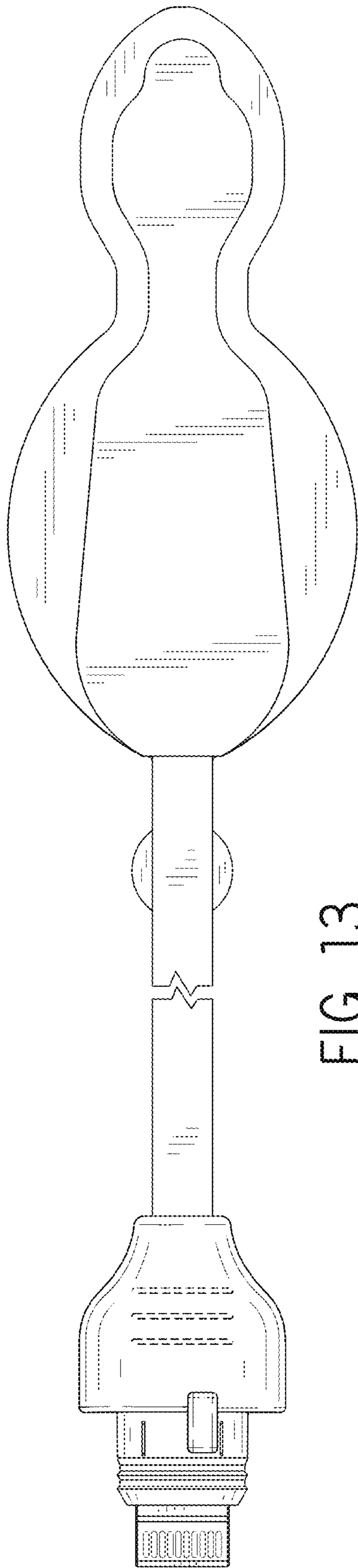


FIG. 13

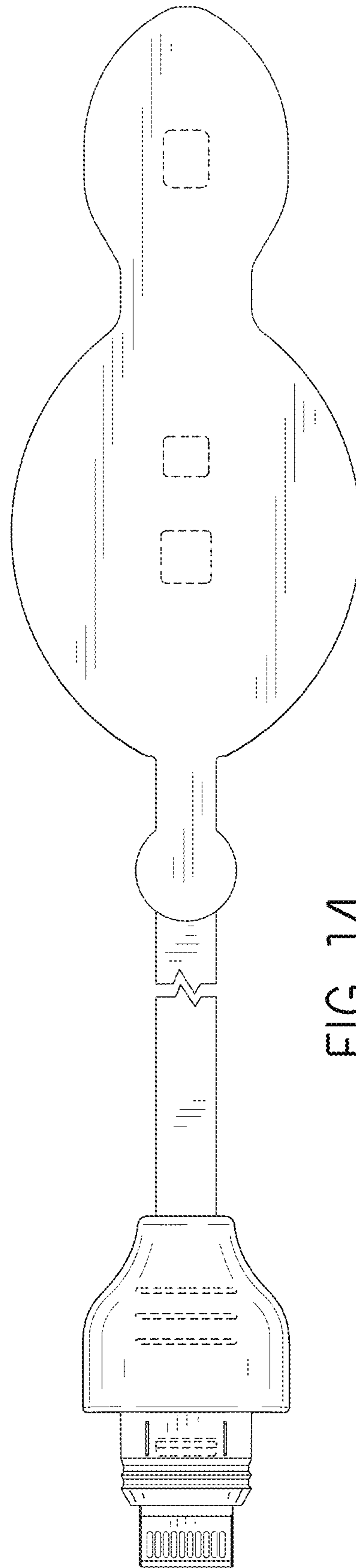


FIG. 14

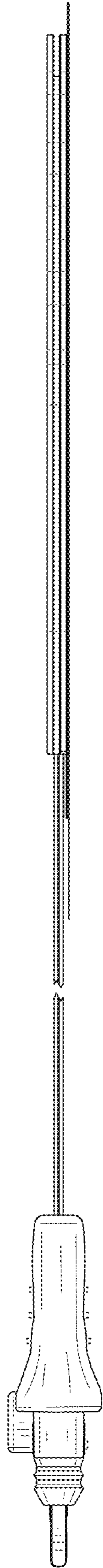


FIG. 15

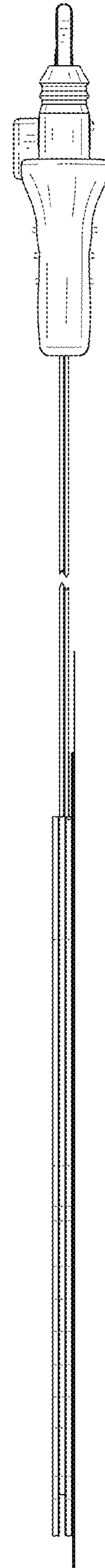


FIG. 16

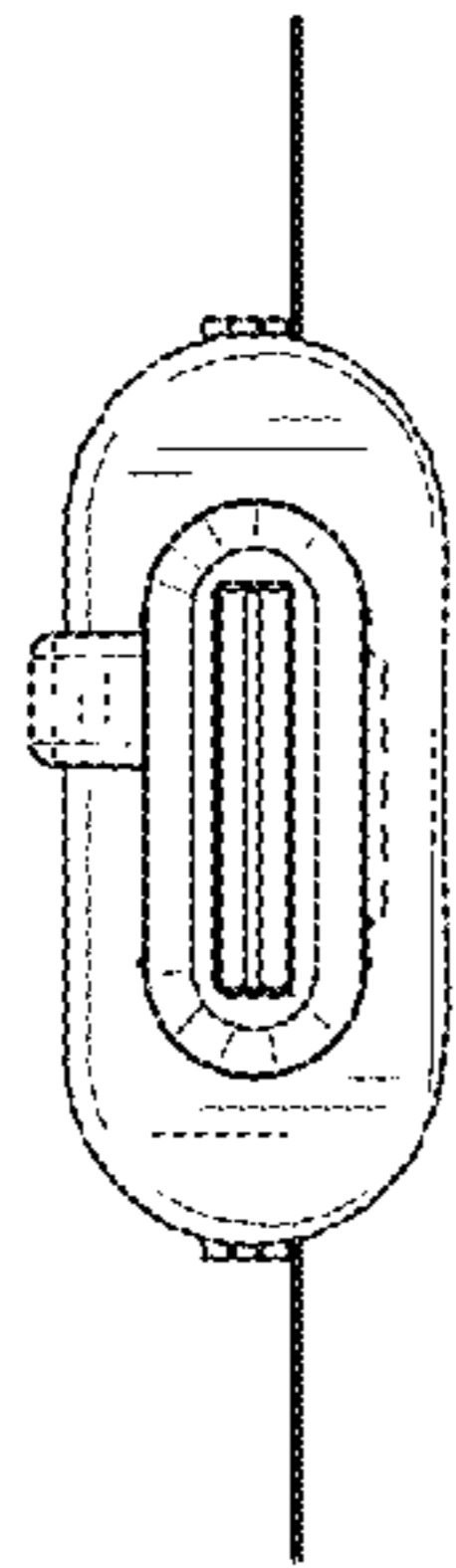


FIG. 17

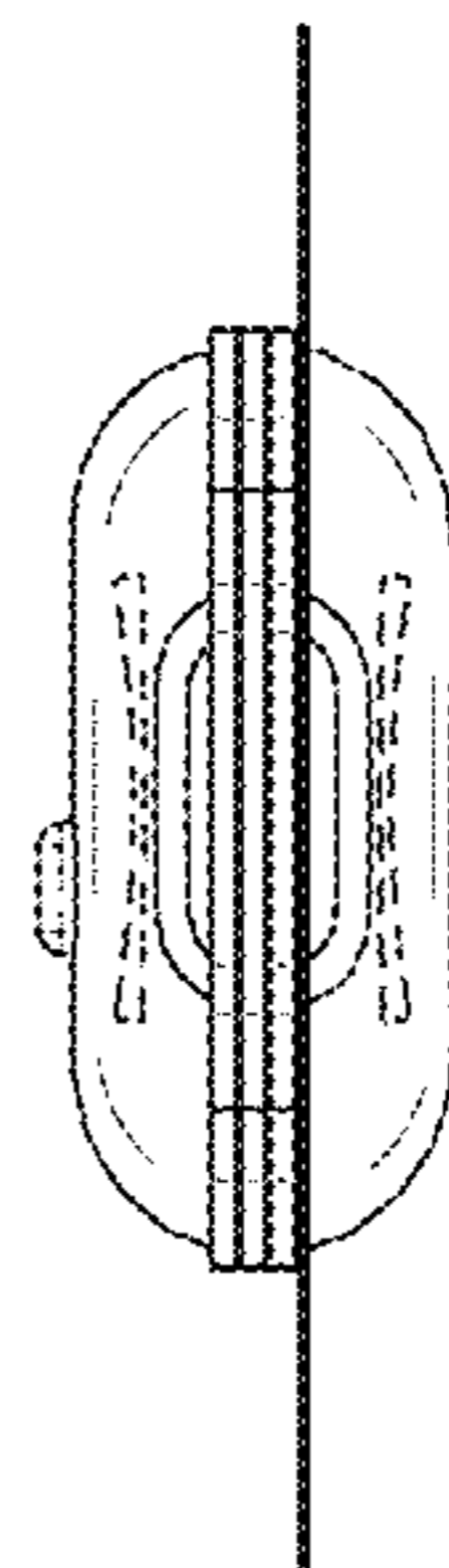


FIG. 18

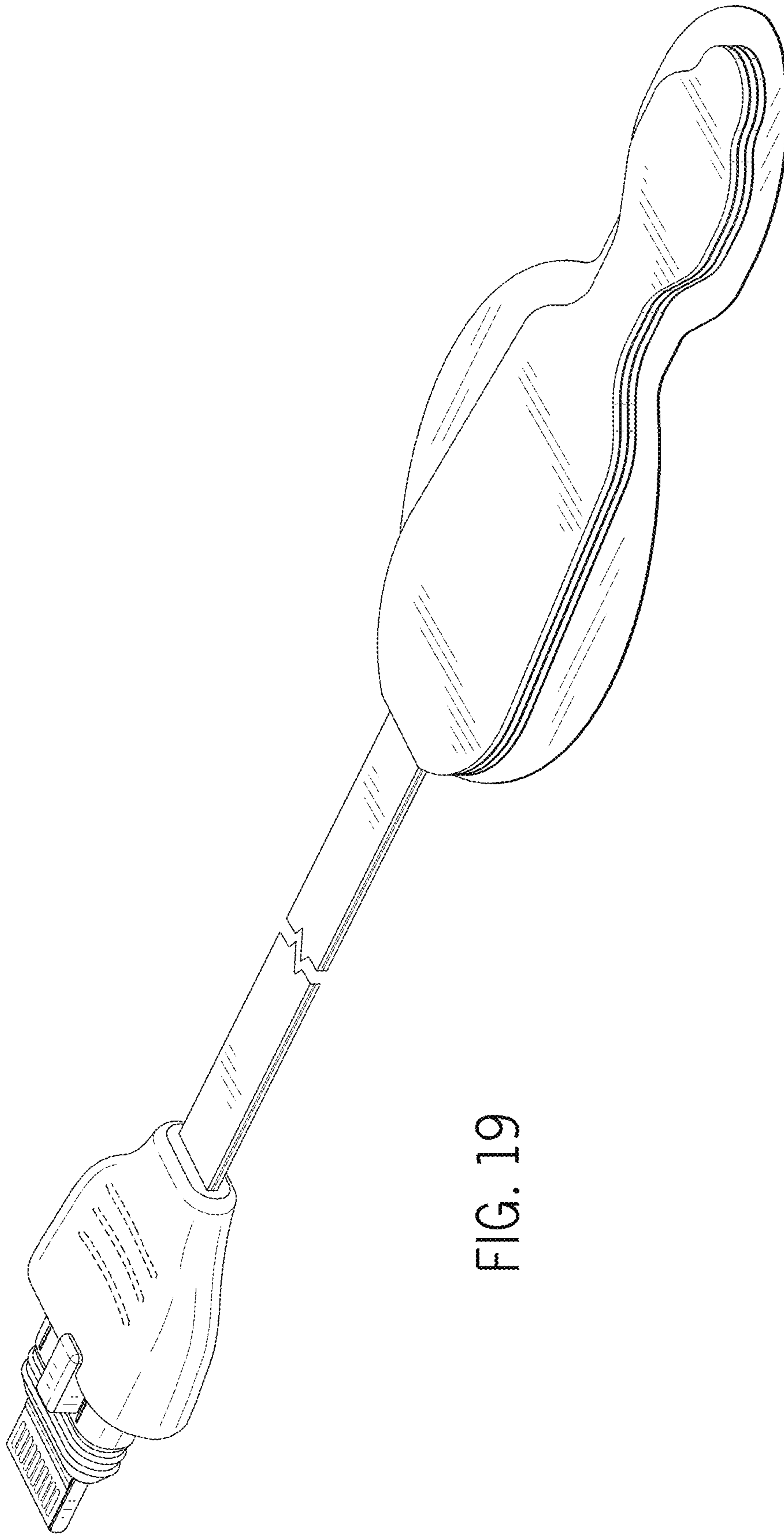


FIG. 19

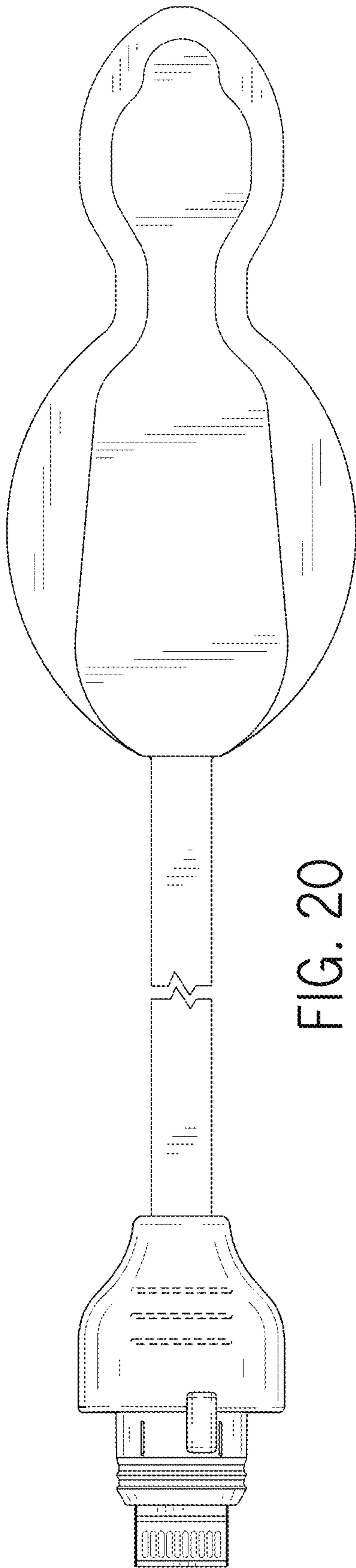


FIG. 20

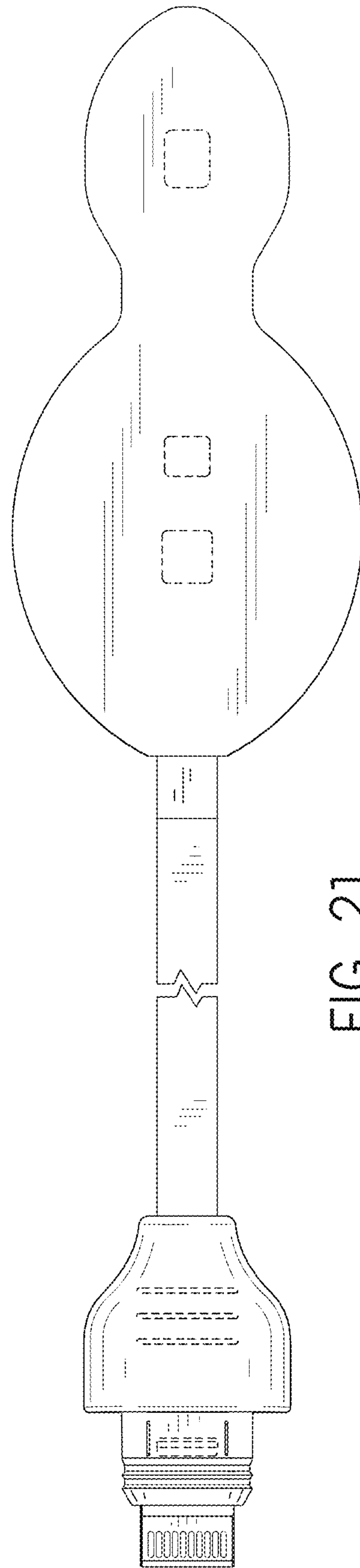


FIG. 21

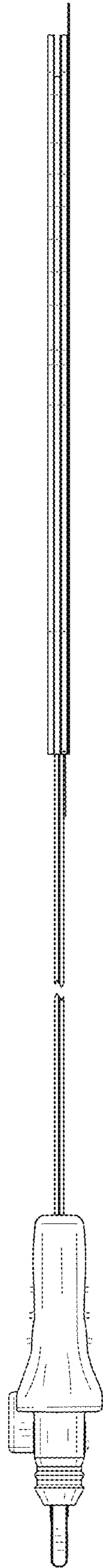


FIG. 22