



US00D867326S

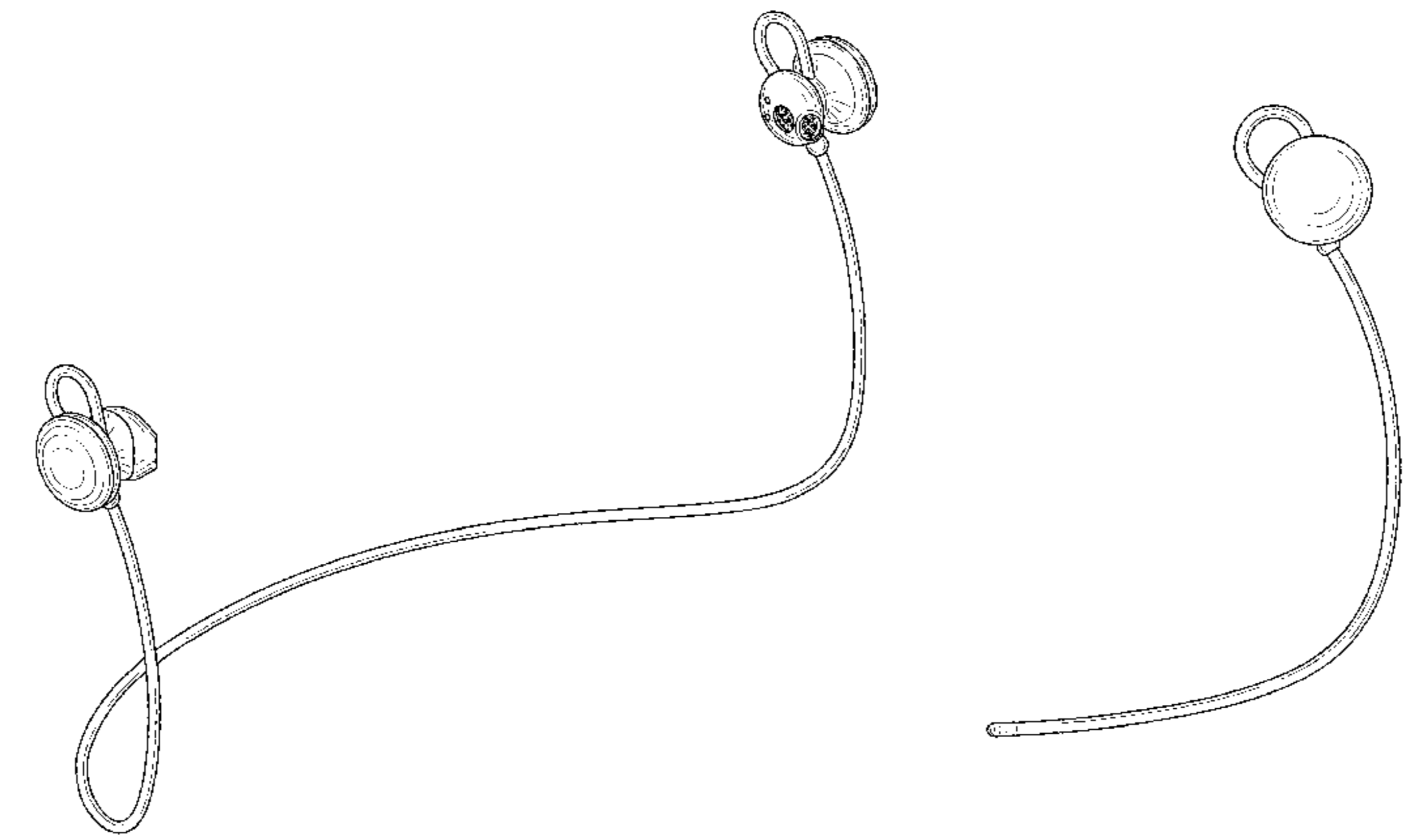
(12) **United States Design Patent** (10) **Patent No.:** **US D867,326 S**
Sweet et al. (45) **Date of Patent:** **** Nov. 19, 2019**

(54) **WIRELESS EARBUDS**
 (71) Applicant: **Google LLC**, Mountain View, CA (US)
 (72) Inventors: **Kenneth Sweet**, San Francisco, CA (US); **Maj Isabelle Olsson**, Sunnyvale, CA (US); **Peter Cazalet**, Los Gatos, CA (US); **Gina Reimann**, Sunnyvale, CA (US)
 (73) Assignee: **Google LLC**, Mountain View, CA (US)
 (**) Term: **15 Years**
 (21) Appl. No.: **29/611,494**
 (22) Filed: **Jul. 21, 2017**
 (51) **LOC (12) Cl.** **14-01**
 (52) **U.S. Cl.**
 USPC **D14/205; D14/223**
 (58) **Field of Classification Search**
 USPC D14/204, 205, 206, 223, 224, 225, 249, D14/372, 433, 138 R, 188, 192, 172, D14/203.1, 191, 496; D29/112; D28/41; D2/875; D24/174, 173, 106; D8/330, D8/341; D13/118, 108, 119
 CPC H04R 25/02; H04R 25/00; H04R 1/10; H04R 1/1016; H04R 1/105; H04R 1/1083; H04R 1/02; H04R 1/1041; H04R 1/28; H04R 5/033; H04R 2420/07; H04R 2430/00; H04R 2430/01
 See application file for complete search history.

3,712,409 A	1/1973	Kizakis et al.
3,789,164 A	1/1974	Ryder
4,133,984 A	1/1979	Akiyama
4,457,396 A	7/1984	James
D280,280 S	8/1985	Pestone
D281,033 S	10/1985	Mohri
D287,764 S	1/1987	Topholm
D287,765 S	1/1987	Topholm
4,669,129 A	6/1987	Chance
D299,344 S	1/1989	Stevens
D318,670 S	7/1991	Taniguchi
5,036,681 A	8/1991	Schaerer
5,054,079 A	10/1991	Frielingsdorf et al.
D326,655 S	6/1992	Iribe
D344,524 S	2/1994	Taniguchi
5,345,509 A	9/1994	Hofer et al.
5,606,743 A	2/1997	Vogt et al.
5,654,530 A	8/1997	Sauer et al.
5,655,026 A	8/1997	Peters et al.
5,880,773 A	3/1999	Suzuki
5,887,720 A	3/1999	Lin
6,122,369 A	9/2000	Hwang et al.
6,122,388 A	9/2000	Feldman
D435,036 S	12/2000	Koss et al.
D436,960 S	1/2001	Budd et al.
D469,755 S	2/2003	Hlas et al.
D470,122 S	2/2003	Hlas et al.
D470,123 S	2/2003	Hlas et al.
D470,833 S	2/2003	Rath et al.
6,616,080 B1	9/2003	Edwards et al.
D481,709 S	11/2003	Solderits
6,690,807 B1	2/2004	Meyer
6,729,726 B2	5/2004	Miller et al.
6,868,164 B2	3/2005	Ito et al.
D505,132 S	5/2005	Linville et al.
D505,411 S	5/2005	Sakai
6,950,531 B2	9/2005	Rickards
6,975,644 B2	12/2005	Tordera et al.
6,978,034 B2	12/2005	Lazzeroni et al.
D514,551 S	2/2006	Lee et al.
D514,552 S	2/2006	Lee et al.
D515,070 S *	2/2006	Andre D14/205
D519,108 S	4/2006	Yang
D521,493 S	5/2006	Wai
D521,927 S	5/2006	Franck et al.
D529,901 S	10/2006	Ohta
D531,169 S	10/2006	Tokioka et al.
7,182,820 B2	2/2007	Campbell et al.
D539,268 S	3/2007	Suzuki
D541,228 S	4/2007	Thursfield
D558,735 S	1/2008	Carr et al.
D560,311 S	1/2008	Li et al.
D569,841 S	5/2008	Chung et al.

(56) **References Cited**
 U.S. PATENT DOCUMENTS

1,668,890 A	5/1928	Curran et al.
1,668,910 A	5/1928	Jones
1,953,437 A	4/1934	Schier
D102,655 S	1/1937	Nicholides
2,474,135 A	6/1949	White
2,619,960 A	12/1952	Reynolds
2,910,679 A	10/1959	Baldwin
2,971,065 A	2/1961	Busse
3,034,320 A	5/1962	Feibelman
3,049,582 A	8/1962	Shinn
3,324,253 A	6/1967	Uemura et al.
3,440,365 A	4/1969	Bryant et al.



US D867,326 S

D573,978 S	7/2008	Ledbetter et al.		D697,962 S	1/2014	Olsson	
D578,507 S	10/2008	Ando		D698,026 S	1/2014	Kuwata et al.	
D579,006 S	10/2008	Kim et al.		D698,750 S	2/2014	Yoon	
D582,389 S	12/2008	Bose et al.		D698,760 S	2/2014	Lee et al.	
D582,889 S *	12/2008	Bose	D14/205	D698,762 S	2/2014	Zheng et al.	
7,461,936 B2	12/2008	Jannard		D699,226 S	2/2014	Yoon	
D584,284 S	1/2009	Carr et al.		D700,167 S	2/2014	Hardi	
D587,681 S	3/2009	Yanai		8,655,006 B2	2/2014	Aase et al.	
D589,932 S *	4/2009	Komiyama	D14/205	D703,634 S	4/2014	Han	
D591,264 S	4/2009	Hong et al.		8,712,087 B2	4/2014	Ozawa	
7,551,748 B2	6/2009	Kamo et al.		D707,206 S	6/2014	Akana et al.	
D596,561 S	7/2009	Chon et al.		8,755,555 B2	6/2014	Dougherty et al.	
D599,785 S	9/2009	Matsuda et al.		8,776,801 B2	7/2014	McIntosh	
D601,126 S *	9/2009	Christopher	D14/206	D710,335 S	8/2014	Yang	
D602,004 S	10/2009	Matsuoka		D711,356 S	8/2014	Yang	
D602,064 S	10/2009	Mitsui et al.		D712,382 S *	9/2014	Brunner	D14/223
D603,380 S	11/2009	Hutchieson		D713,384 S	9/2014	McNamara	
D604,501 S	11/2009	Lee		D715,777 S	10/2014	Huang et al.	
D606,971 S	12/2009	Christopher et al.		D717,767 S	11/2014	Mistry et al.	
D612,595 S	3/2010	McCurdy		D718,272 S *	11/2014	Clayton	D14/205
D614,166 S	4/2010	Brickstad		D718,273 S	11/2014	Harata et al.	
D614,168 S	4/2010	Rogers et al.		D718,286 S	11/2014	Yang	
D618,211 S	6/2010	Oguro et al.		8,891,798 B1	11/2014	Laffon de Mazieres et al.	
D620,256 S	7/2010	Fujimura et al.		D718,745 S	12/2014	Thompson et al.	
D620,257 S	7/2010	Fujimura et al.		D719,131 S	12/2014	Toelle et al.	
D620,482 S	7/2010	Chen		D719,132 S	12/2014	Toelle et al.	
D621,389 S	8/2010	Nagayama et al.		D719,551 S	12/2014	Yang	
D622,265 S *	8/2010	Rye	D14/223	8,908,899 B1	12/2014	Yang	
D622,266 S *	8/2010	Tzeng	D14/223	D725,625 S	3/2015	Hsieh et al.	
D624,902 S	10/2010	Kolton		D727,279 S	4/2015	Schaal et al.	
D627,764 S	11/2010	Tsai et al.		D727,871 S	4/2015	Orbach	
D630,186 S *	1/2011	Yang	D14/205	9,031,264 B2	5/2015	Yang	
D632,676 S *	2/2011	Behar	D14/223	D730,876 S *	6/2015	Dahlberg	D14/223
7,930,007 B2	4/2011	Andreasson		D731,456 S	6/2015	Dahlberg	
D637,585 S	5/2011	Nagayama et al.		D731,793 S	6/2015	Houghton et al.	
D637,998 S	5/2011	Brunner et al.		D732,007 S *	6/2015	Oksman	D14/223
D639,282 S	6/2011	Ohori et al.		D732,511 S	6/2015	Masters	
D641,009 S	7/2011	Olodort et al.		D733,101 S *	6/2015	Pi	D14/223
D642,163 S	7/2011	Lee et al.		D736,185 S	8/2015	Yaegashi et al.	
D643,405 S	8/2011	Rath		D736,251 S	8/2015	Kim	
D643,414 S	8/2011	Lee et al.		D737,251 S	8/2015	Thompson et al.	
D648,217 S	11/2011	Fahey et al.		D740,653 S	10/2015	Akana et al.	
D648,316 S	11/2011	Lee et al.		D740,692 S	10/2015	Christie et al.	
8,073,181 B2	12/2011	Bakalos et al.		D742,070 S	10/2015	Park	
D652,817 S	1/2012	Lee et al.		D742,355 S	11/2015	Toelle et al.	
D654,056 S	2/2012	Hoggarth et al.		D742,356 S	11/2015	Toelle et al.	
D654,866 S	2/2012	Rautiainen		D743,370 S	11/2015	Toelle et al.	
D658,157 S	4/2012	McManigal		D743,932 S	11/2015	Toelle et al.	
D659,682 S *	5/2012	Cheng	D14/223	D744,855 S	12/2015	Akana et al.	
D659,991 S	5/2012	Long, Jr. et al.		D746,792 S	1/2016	Kim	
D660,290 S	5/2012	Weedon		9,241,209 B2	1/2016	Toelle et al.	
8,174,569 B2	5/2012	Tanijiri et al.		D757,682 S *	5/2016	Perez	D14/205
8,175,315 B2	5/2012	Tanaka et al.		D760,202 S *	6/2016	Hsieh	D14/223
D662,079 S	6/2012	Fahrendorff et al.		D770,412 S *	11/2016	Son	D14/205
D663,715 S	7/2012	Glezerman et al.		D774,760 S	12/2016	Martinetti	
8,218,808 B2	7/2012	Ku		D776,083 S	1/2017	Lee et al.	
8,229,154 B2	7/2012	Ito		D777,100 S	1/2017	Price	
8,249,286 B2	8/2012	Nault		D777,710 S	1/2017	Palmborg et al.	
D666,581 S	9/2012	Perez		D778,873 S *	2/2017	Chen	D14/205
8,265,325 B2	9/2012	Park		D780,157 S	2/2017	Uggla	
8,275,166 B2	9/2012	Wu		D781,269 S	3/2017	Choe et al.	
D668,632 S *	10/2012	Enquist	D14/205	D781,821 S	3/2017	Petersen	
D674,373 S	1/2013	Combs et al.		D785,594 S	5/2017	Zaihui	
8,345,913 B2	1/2013	Pang et al.		D786,216 S *	5/2017	Silva	D14/205
D678,242 S	3/2013	Von Euler		D788,079 S *	5/2017	Son	D14/223
8,406,448 B2	3/2013	Lin et al.		D796,473 S *	9/2017	Kim	D14/205
D681,001 S	4/2013	Murchison et al.		D796,475 S	9/2017	Wang et al.	
D681,015 S *	4/2013	Akana	H04R 1/10 D14/223	D801,314 S *	10/2017	Akana	D14/223
8,442,257 B2	5/2013	Aase et al.		D813,849 S *	3/2018	Andreen	D14/223
8,447,062 B2	5/2013	Lin		9,924,010 B2	3/2018	Watson et al.	
D685,750 S	7/2013	Nakagawa		D816,994 S	5/2018	Fischer et al.	
D685,761 S	7/2013	Fletcher et al.		9,980,032 B2	5/2018	Yajima	
D685,764 S	7/2013	Coulter		D820,808 S *	6/2018	Petersen	D14/205
D687,410 S	8/2013	Fletcher et al.		D821,999 S *	7/2018	Guo	D14/205
D691,580 S *	10/2013	Cho	D14/205	D822,636 S	7/2018	Liu	
D692,408 S	10/2013	Dugger et al.		D824,876 S *	8/2018	Wei	D14/205
D692,409 S	10/2013	Takeo		D824,878 S *	8/2018	Kim	D14/206
D693,326 S	11/2013	Takeo		D825,523 S *	8/2018	Adams	D14/205
				D830,336 S *	10/2018	Cai	D14/205

D830,345 S *	10/2018	Cai	D14/223
2004/0113867 A1	6/2004	Tomine et al.	
2004/0125977 A1	7/2004	Hong et al.	
2004/0204177 A1	10/2004	Pon	
2006/0008106 A1	1/2006	Harper	
2006/0203998 A1	9/2006	Ben-Arie	
2006/0281502 A1	12/2006	Chang et al.	
2007/0064967 A1	3/2007	Feeley et al.	
2007/0098201 A1	5/2007	Chen	
2007/0201000 A1	8/2007	Jackson et al.	
2007/0272686 A1	11/2007	Yu	
2008/0101633 A1	5/2008	Ledbetter et al.	
2008/0106693 A1	5/2008	Wang	
2008/0123893 A1	5/2008	Lee	
2008/0159579 A1	7/2008	Park	
2008/0317274 A1	12/2008	Kim	
2009/0033574 A1	2/2009	Hung	
2009/0268935 A1	10/2009	Dillinger	
2009/0304220 A1	12/2009	Fujikura et al.	
2009/0323975 A1	12/2009	Groesch	
2010/0027824 A1*	2/2010	Atamaniuk	H04M 1/05 381/322
2010/0045928 A1	2/2010	Levy	
2010/0104126 A1	4/2010	Greene	
2011/0012814 A1	1/2011	Tanaka	
2011/0044487 A1	2/2011	Nault	
2011/0216932 A1	9/2011	Wu	
2011/0249856 A1	10/2011	Takei	
2011/0255723 A1	10/2011	Obradovic et al.	
2012/0020501 A1	1/2012	Lee	
2012/0087510 A1	4/2012	Sampimon et al.	
2012/0237074 A1*	9/2012	Aase	H04R 1/1016 381/380
2013/0077815 A1	3/2013	Stephenson	
2013/0127980 A1	5/2013	Haddick et al.	
2013/0272560 A1	10/2013	Dougherty et al.	
2013/0315431 A1	11/2013	Grinker et al.	
2014/0068944 A1*	3/2014	Aase	H04R 31/006 29/896.2
2014/0079275 A1	3/2014	Minarik et al.	
2014/0138150 A1	5/2014	Huang	
2014/0140562 A1	5/2014	Huang	
2015/0023542 A1	1/2015	Shimizu	
2016/0037248 A1	2/2016	Cheng	
2016/0142808 A1	5/2016	Monahan et al.	
2016/0269818 A1*	9/2016	Mackay	H04R 1/1033
2017/0094389 A1	3/2017	Saulsbury et al.	
2017/0164087 A1*	6/2017	Kurtz	H04R 1/1091
2017/0311105 A1	10/2017	Hariharan et al.	
2018/0160208 A1*	6/2018	Lee	H04R 1/1083

FOREIGN PATENT DOCUMENTS

CN	1302275	A	7/2001
CN	2449439	Y	9/2001
CN	3490589	*	12/2005
CN	1788523	A	6/2006
CN	1893731	A	1/2007
CN	301751068	*	12/2011
CN	302020226	*	8/2012
CN	302091993	*	9/2012
CN	102918443	A	2/2013
CN	302569316	*	9/2013
CN	302650378	*	11/2013
CN	302924109	S	8/2014
CN	303133872	*	10/2014
CN	303113723		2/2015
CN	303691269	S	6/2016
CN	303815854	S	8/2016
JP	2005318112	A	11/2005
JP	2007013873	A	1/2007
JP	1509978	S	10/2017
JP	1509979	S	10/2017
JP	1516490	S	1/2018
JP	1516491	S	1/2018
WO	2011077160	A1	6/2011
WO	WO D088186-008	*	3/2016

OTHER PUBLICATIONS

S500, published 2019 [online], [retrieved Feb. 7, 2018], Available from Internet, URL: <<https://www.walmart.com/ip/IPhone-7-7-Plus-Bluetooth-Earbuds-Ultra-Lightweight-4-1-Wireless-In-Ear-Running-Earbuds-IPX4-Water-Resistant-Mic-Stereo-Earphones-CVC-6-0-Noise-Cance/255045428>>.*

MRtech S500 Bluetooth Wireless Earphones Headphone with Mic, published Oct. 15, 2017 [online], [retrieved Feb. 7, 2018], Available from Internet, URL: <<https://www.amazon.com/MRtech-Bluetooth-Earphones-Headphone-Sweat-proof/dp/B075TQPZZT>>.*

Xrmai Bluetooth Headphones, published Feb. 10, 2018 [online], [retrieved Feb. 7, 2018], Available from Internet, URL: <<https://www.amazon.com/Xrmai-Headphones-Waterproof-Sweatproof-Cancelling/dp/B071DV3JBH>>.*

Pugz, published Sep. 6, 2015 [online], [retrieved Feb. 7, 2018], Available from Internet, URL: <<https://web.archive.org/web/20150906075350/https://www.kickstarter.com/projects/pugz/pugz-worlds-smallest-wireless-earbuds-you-charge-w>>.*

Headphones for Digital 2006 Summer. OMX 90 VC and LX 90. Autumn, p. 7. Cited in Notice of Allowance dated Oct. 30, 2018 for Japanese Design Patent Application No. 2018-013966.

Notice of Allowance for Japanese Design Patent Application No. 2018-013966, dated Oct. 30, 2018. 3 pages.

Notice of Allowance for Japanese Design Patent Application No. 2018-011899, dated Oct. 26, 2018.

Notice of Allowance for Japanese Design Patent Application No. 2018-011886, dated Oct. 26, 2018.

Office Action for Japanese Design Patent Application No. 2018-014315, dated Oct. 30, 2018.

Office Action for Japanese Design Patent Application No. 2018-014316, dated Oct. 30, 2018.

Office Action for Japanese Design Patent Application No. 2018-014317, dated Oct. 30, 2018.

Office Action for Japanese Design Patent Application No. 2018-014318, dated Oct. 30, 2018.

Office Action for Japanese Design Patent Application No. 2018-014319, dated Oct. 30, 2018.

Office Action for Chinese Patent Application No. 201710555456.8, dated Nov. 26, 2018.

Earin, "The World's Smallest Wireless Earbuds", [retrieved on Jul. 24, 2015]. Retrieved from the Internet: <URL: <<http://www.earin.com/>>> (undated) 1 page. Product publicly available prior to Jun. 29, 2015.

Nokia Luna Bluetooth Headset With Wireless Charging BH-220p (Cyan). [retrieved on Jul. 24, 2015]. Retrieved from the Internet: <URL: <<http://shopping.indiatimes.com/mobiles/bluetooth-headset/nokia-luna-bluetooth-headset-with-wireless-charging-bh-220p-cyan/10011/p>> B1420619 (undated) 1 page. Product publicly available prior to Jun. 25, 2015.

Notice of Allowance for Japanese Design Patent Application No. 2017-027181, dated Aug. 21, 2018. 3 pages.

Notice of Allowance for Japanese Design Patent Application No. 2017-027182, dated Aug. 21, 2018. 3 pages.

Notice of Allowance for Japanese Design Patent Application No. 2017-027492, dated Aug. 17, 2018.

Wanstonic Electronics Ltd. ER-III. High-Res Audio Earphone. Page 6, Notice of Allowance for Japanese Design Patent Application No. 2017-027492, dated Aug. 17, 2018.

International Search Report and Written Opinion for Application No. PCT/US2014/043804 dated Sep. 24, 2014.

Notification of the First Office Action for Chinese Patent Application No. 201480036676.4, dated Oct. 8, 2016.

* cited by examiner

Primary Examiner — Barbara Fox

Assistant Examiner — Mary Claire Ramirez

(74) *Attorney, Agent, or Firm* — Lerner, David,
Littenberg, Krumholz & Mentlik, LLP

(57) **CLAIM**

The ornamental design for a wireless earbuds, as shown and described.

DESCRIPTION

The present application is related to U.S. Design patent application Ser. No. 29/611,496, entitled Earbud Charging Case, filed concurrently herewith, the entire disclosure of which is incorporated herein by reference.

FIG. 1 is a front perspective view of the wireless earbuds according to a first embodiment of our design;
FIG. 2 is a front elevation view thereof;
FIG. 3 is a rear elevation view thereof;
FIG. 4 is a right side elevation view thereof;
FIG. 5 is a left side elevation view thereof;
FIG. 6 is a top elevation view thereof;
FIG. 7 is a bottom elevation view thereof;
FIG. 8 is a front perspective view of the wireless earbuds according to a second embodiment of our design;
FIG. 9 is a front elevation view thereof;
FIG. 10 is a rear elevation view thereof;
FIG. 11 is a right side elevation view thereof;
FIG. 12 is a left side elevation view thereof;
FIG. 13 is a top elevation view thereof;
FIG. 14 is a bottom elevation view thereof;
FIG. 15 is a front perspective view of the wireless earbuds according to a third embodiment of our design;
FIG. 16 is a front elevation view thereof;
FIG. 17 is a rear elevation view thereof;
FIG. 18 is a right side elevation view thereof;
FIG. 19 is a left side elevation view thereof;
FIG. 20 is a top elevation view thereof;

FIG. 21 is a bottom elevation view thereof;
FIG. 22 is a front perspective view of the wireless earbuds according to a fourth embodiment of our design;
FIG. 23 is a front elevation view thereof;
FIG. 24 is a rear elevation view thereof;
FIG. 25 is a right side elevation view thereof;
FIG. 26 is a left side elevation view thereof;
FIG. 27 is a top elevation view thereof;
FIG. 28 is a bottom elevation view thereof;
FIG. 29 is a front perspective view of the wireless earbuds according to a fifth embodiment of our design;
FIG. 30 is a front elevation view thereof;
FIG. 31 is a rear elevation view thereof;
FIG. 32 is a right side elevation view thereof;
FIG. 33 is a left side elevation view thereof;
FIG. 34 is a top elevation view thereof;
FIG. 35 is a bottom elevation view thereof;
FIG. 36 is a front perspective view of the wireless earbuds according to a sixth embodiment of our design;
FIG. 37 is a front elevation view thereof;
FIG. 38 is a rear elevation view thereof;
FIG. 39 is a right side elevation view thereof;
FIG. 40 is a left side elevation view thereof;
FIG. 41 is a top elevation view thereof; and,
FIG. 42 is a bottom elevation view thereof.

The broken lines shown in the drawings depict portions of the wireless earbuds that form no part of the claimed invention. In embodiments 2-6, the circular and oval shaped grill elements along the inner portions of the earbuds are in broken lines and form no part of the claimed design.

The wireless earbuds are shown with symbolic breaks in length. The appearance of any portion of the wireless earbuds between the break lines forms no part of the claimed design.

1 Claim, 42 Drawing Sheets

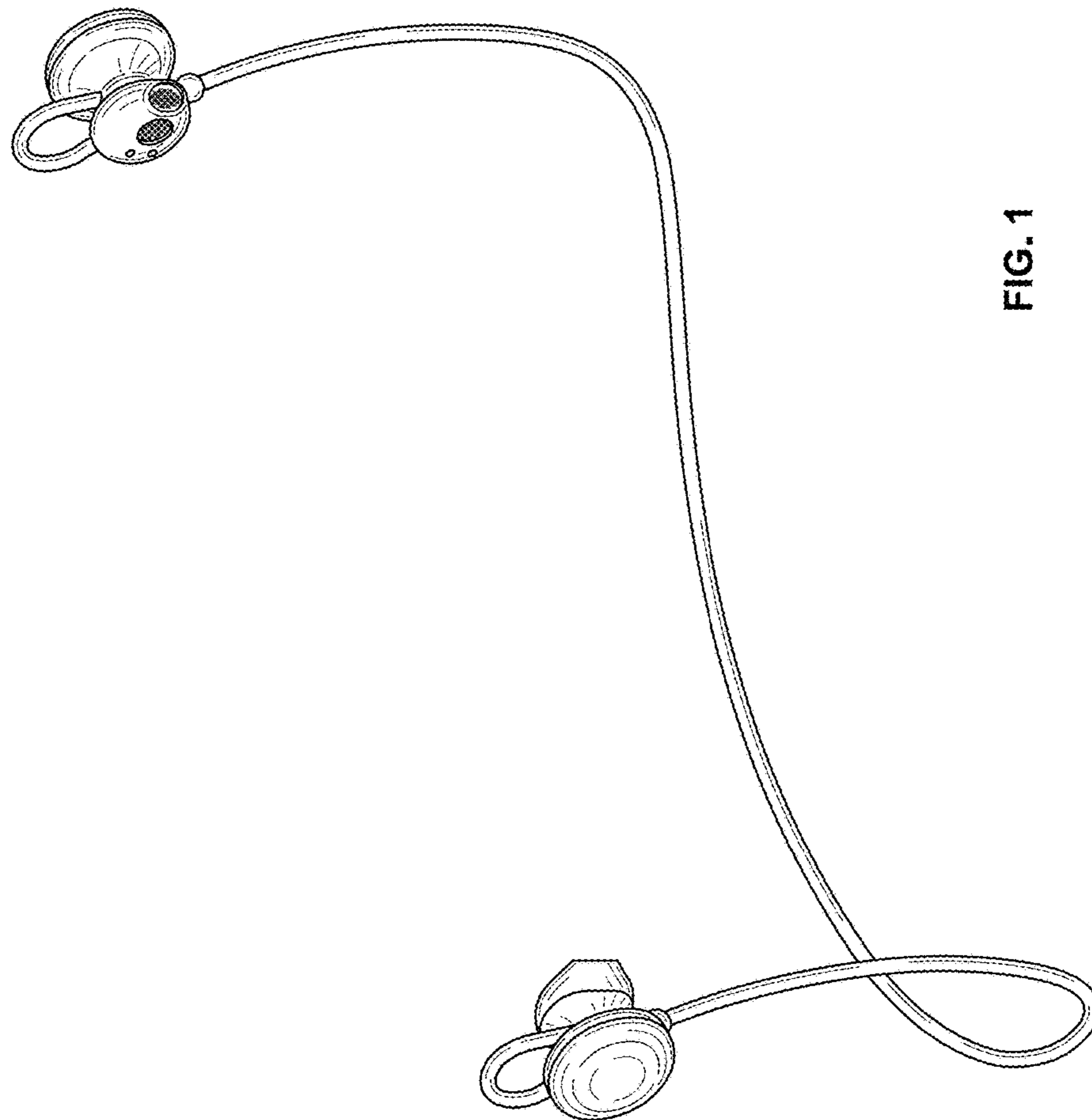


FIG. 1

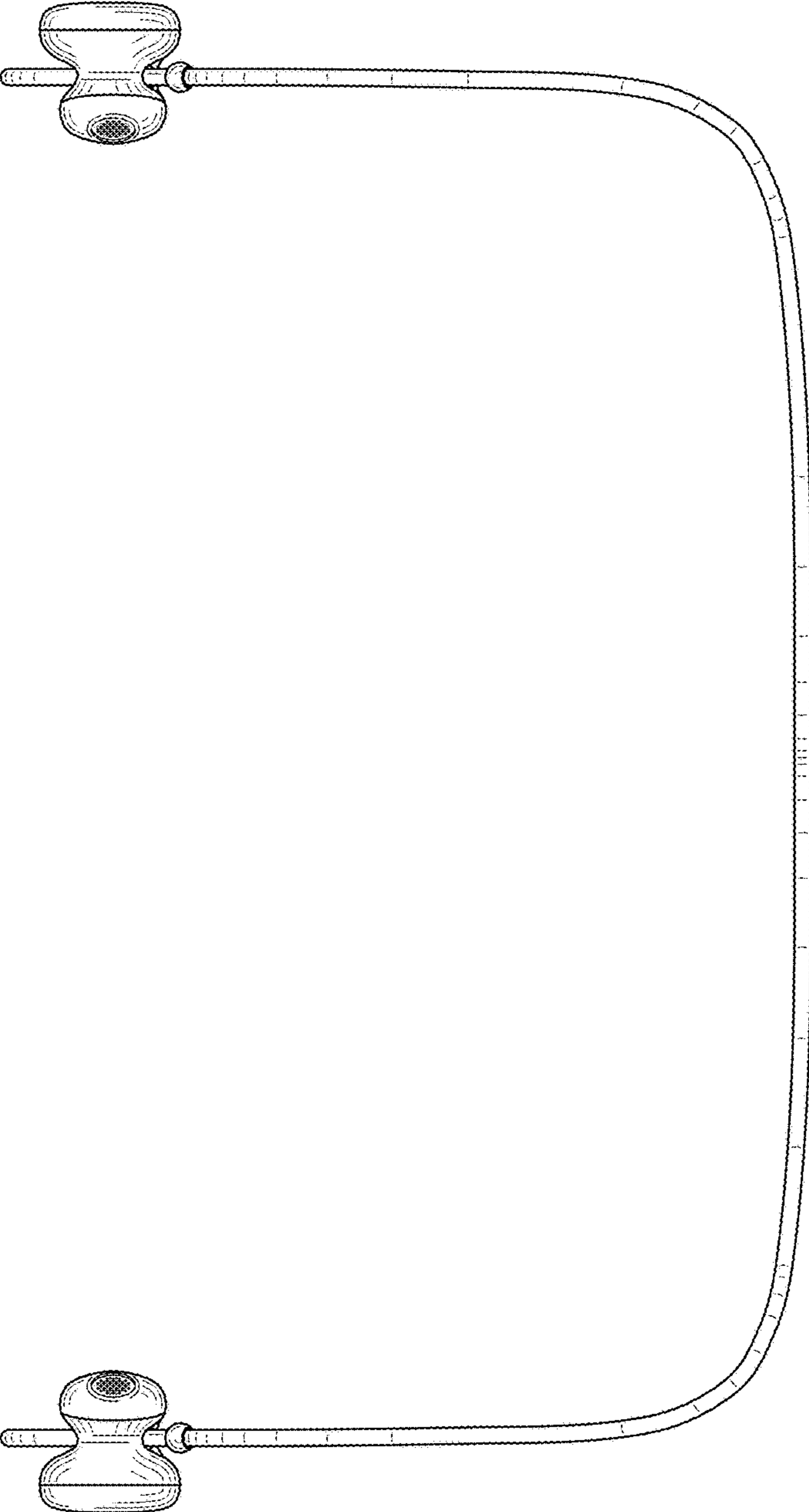


FIG. 2

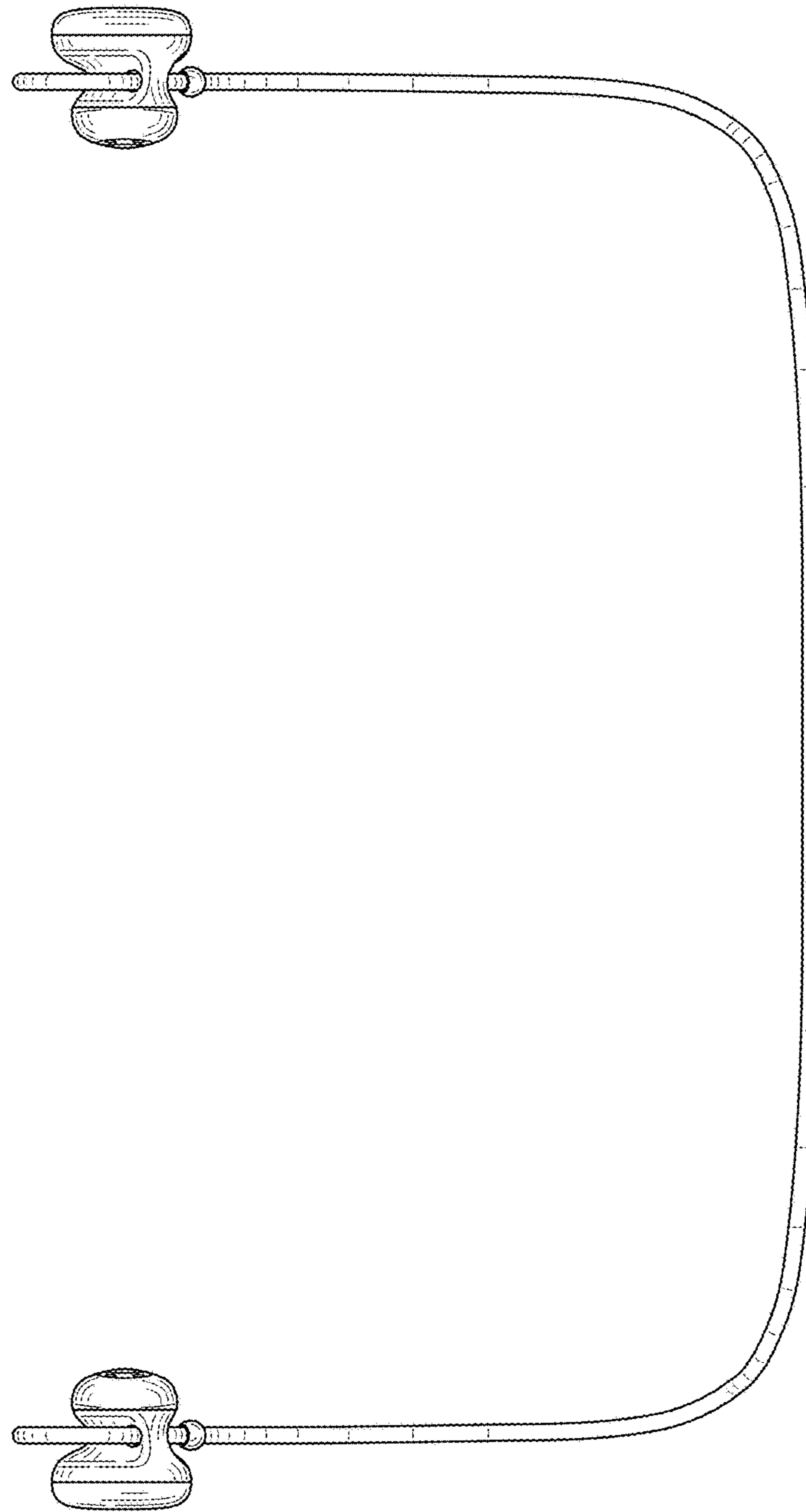


FIG. 3

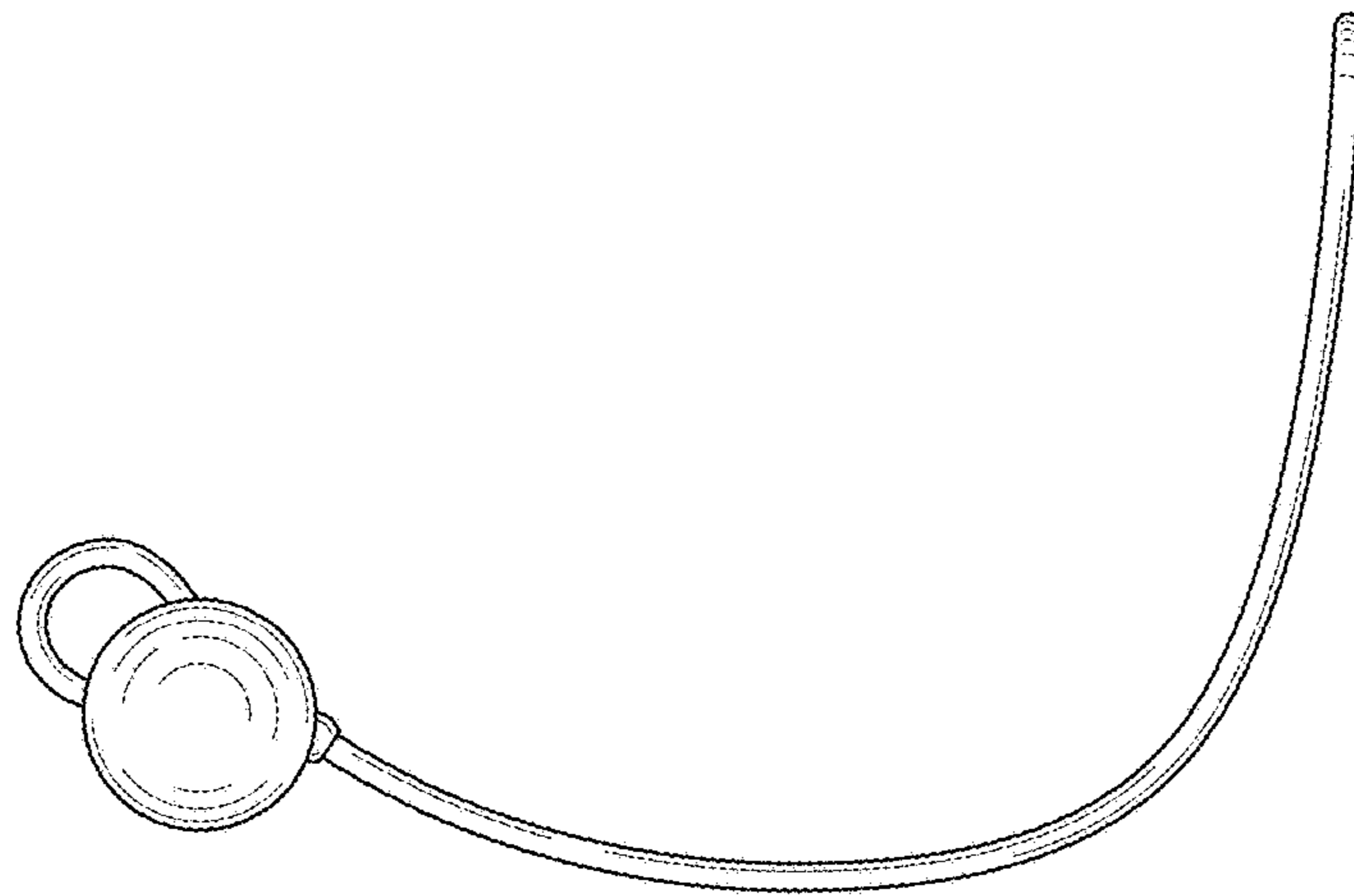


FIG. 4

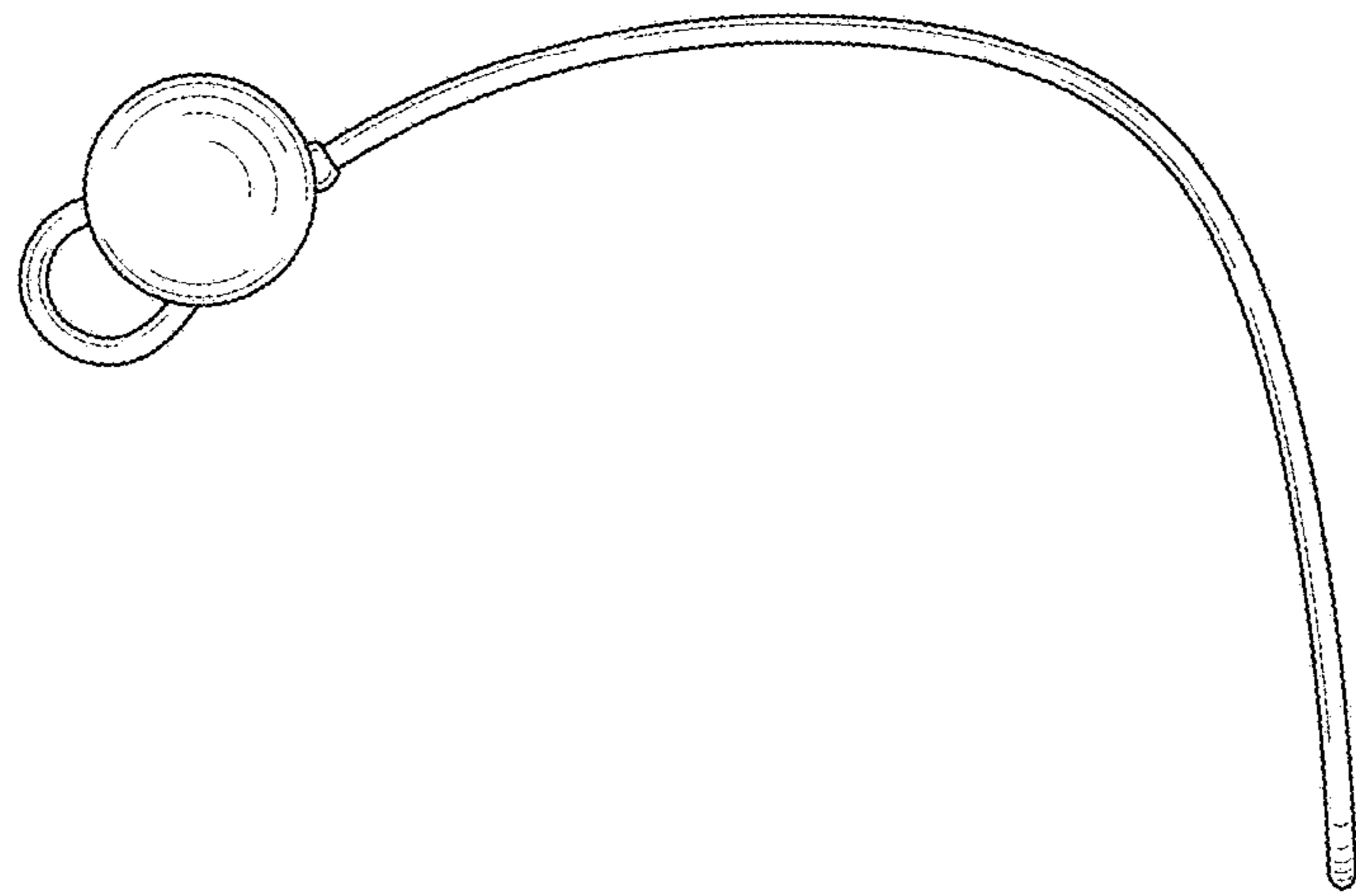


FIG. 5

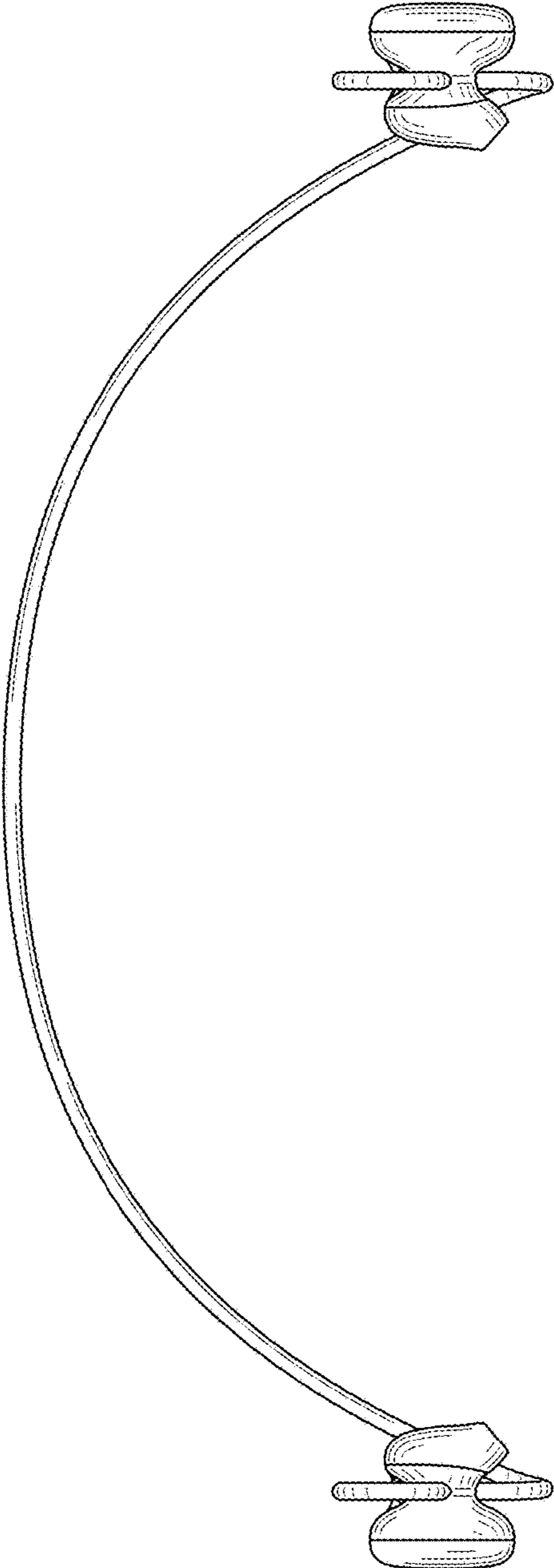


FIG. 6

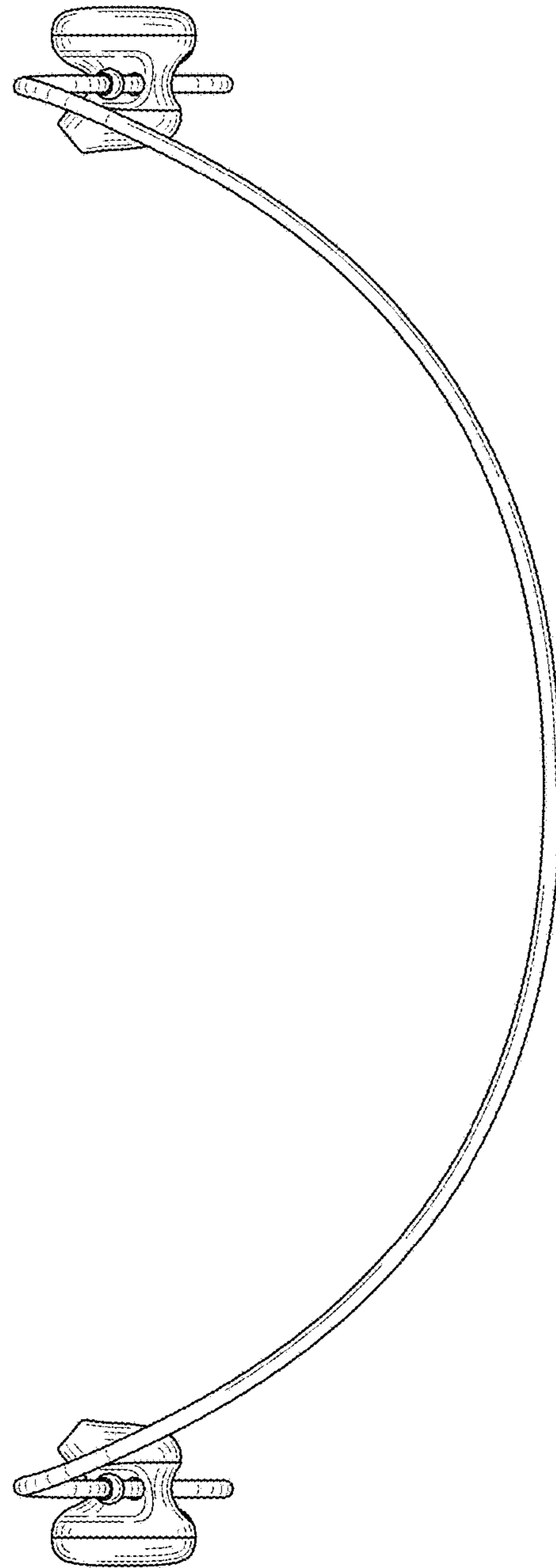


FIG. 7

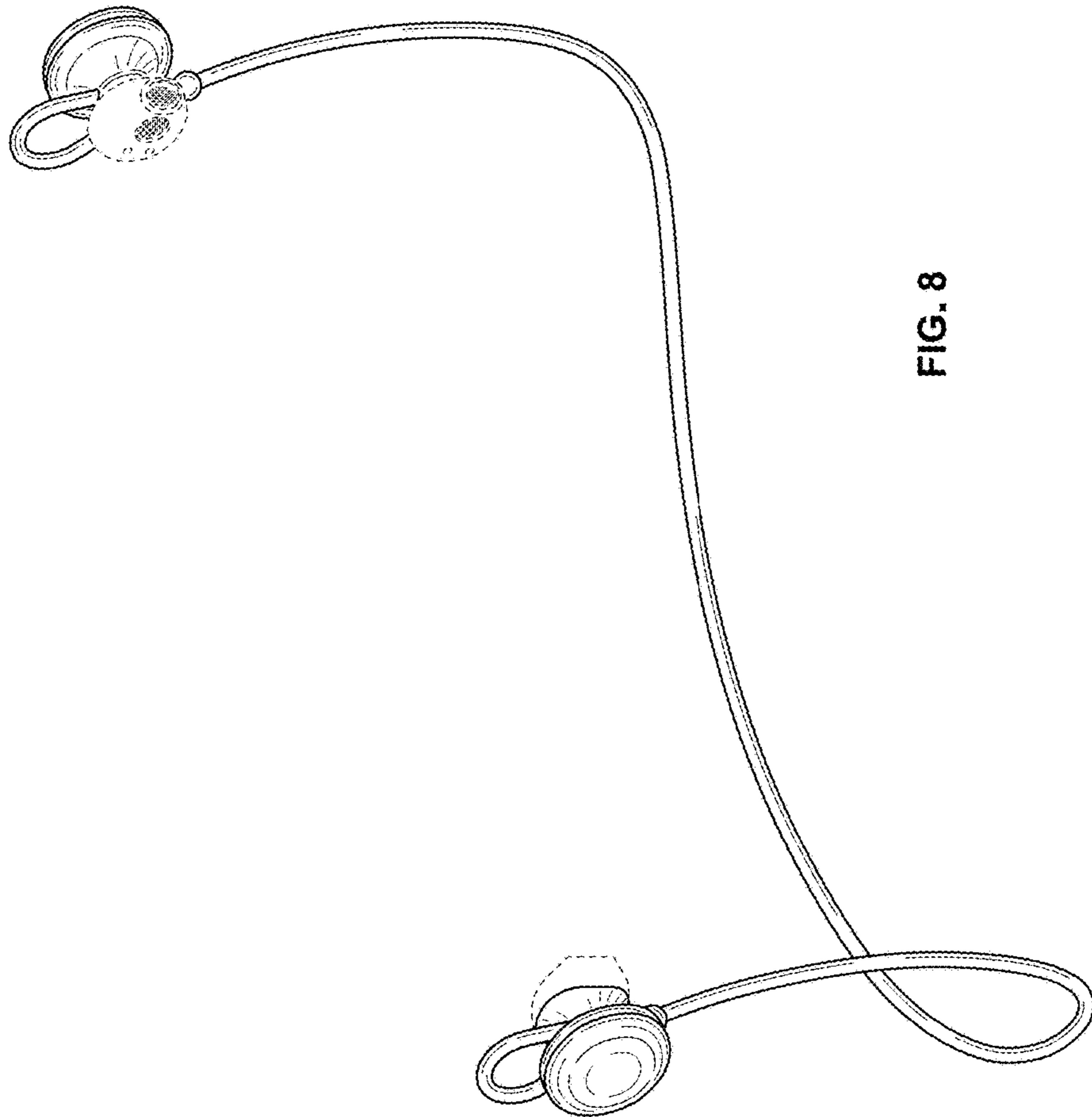


FIG. 8

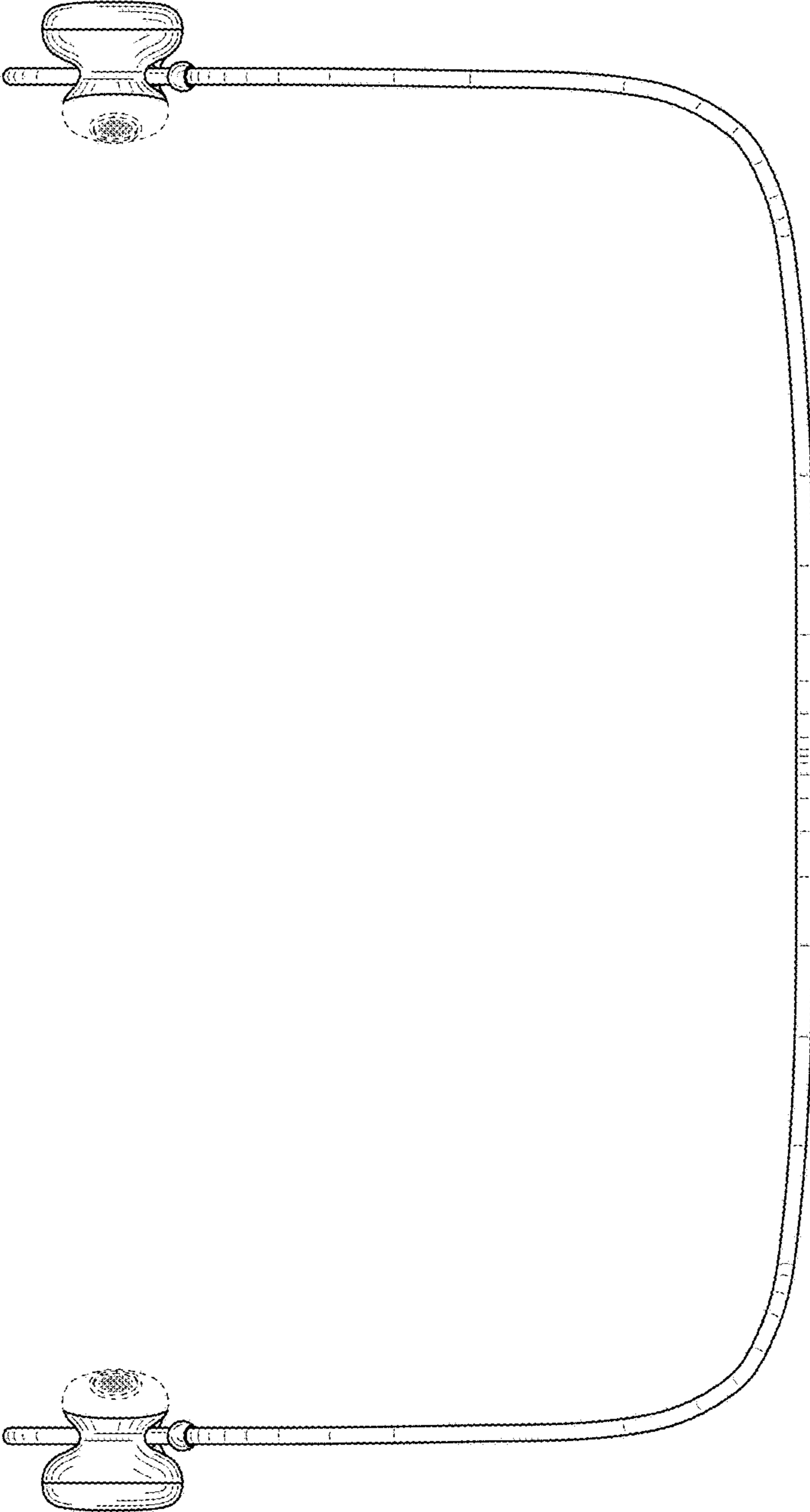


FIG. 9

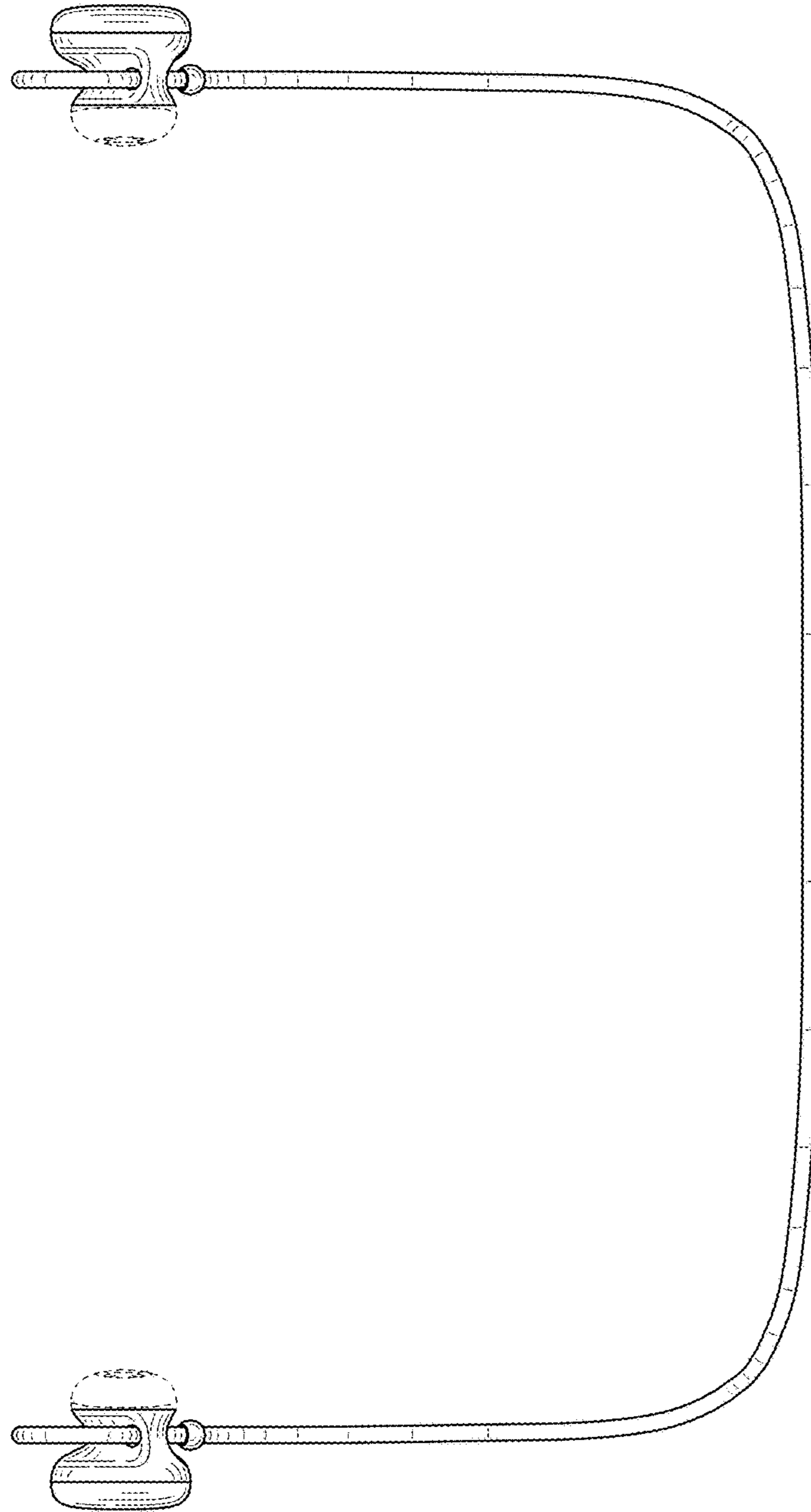


FIG. 10

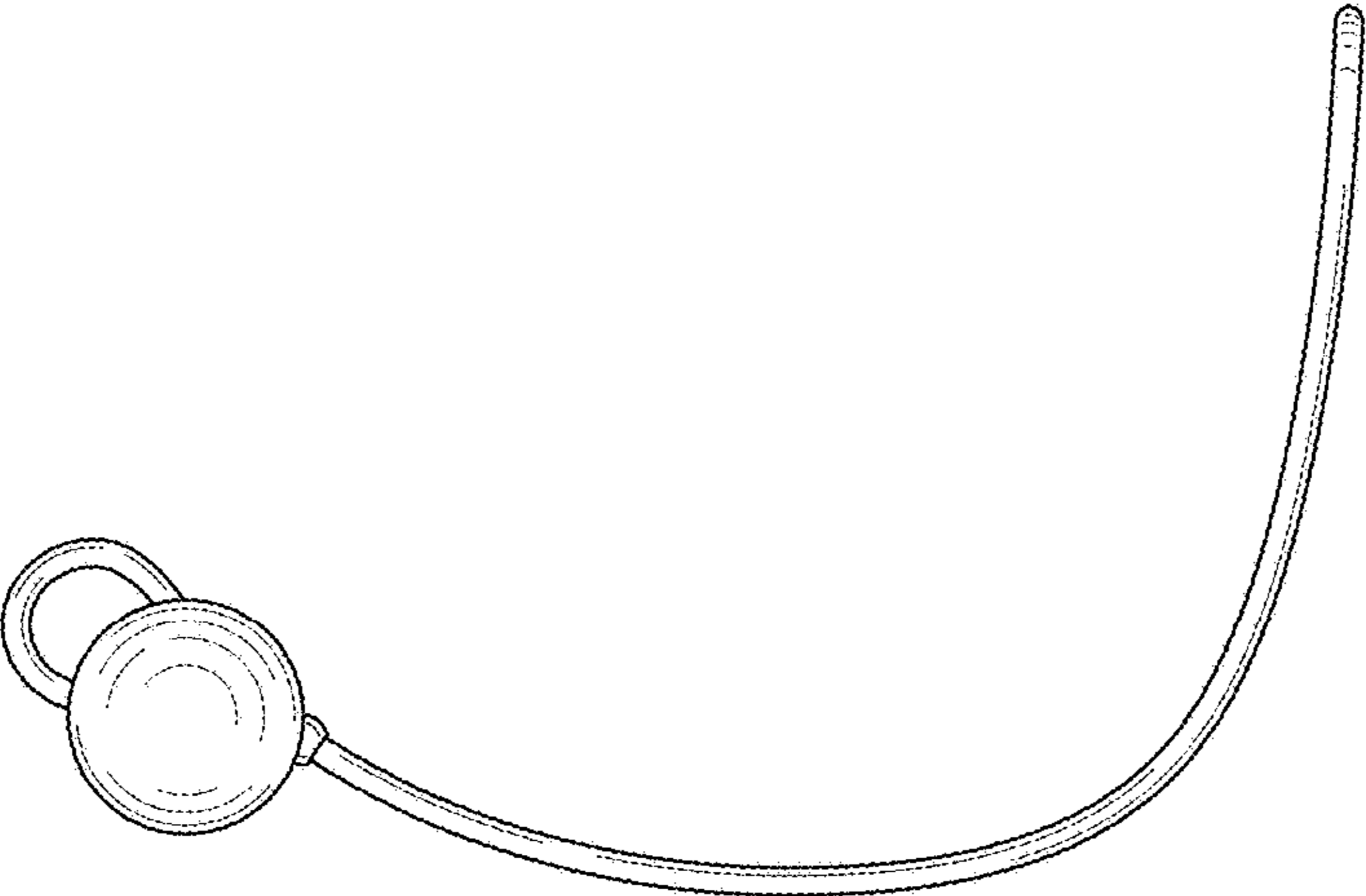


FIG. 11

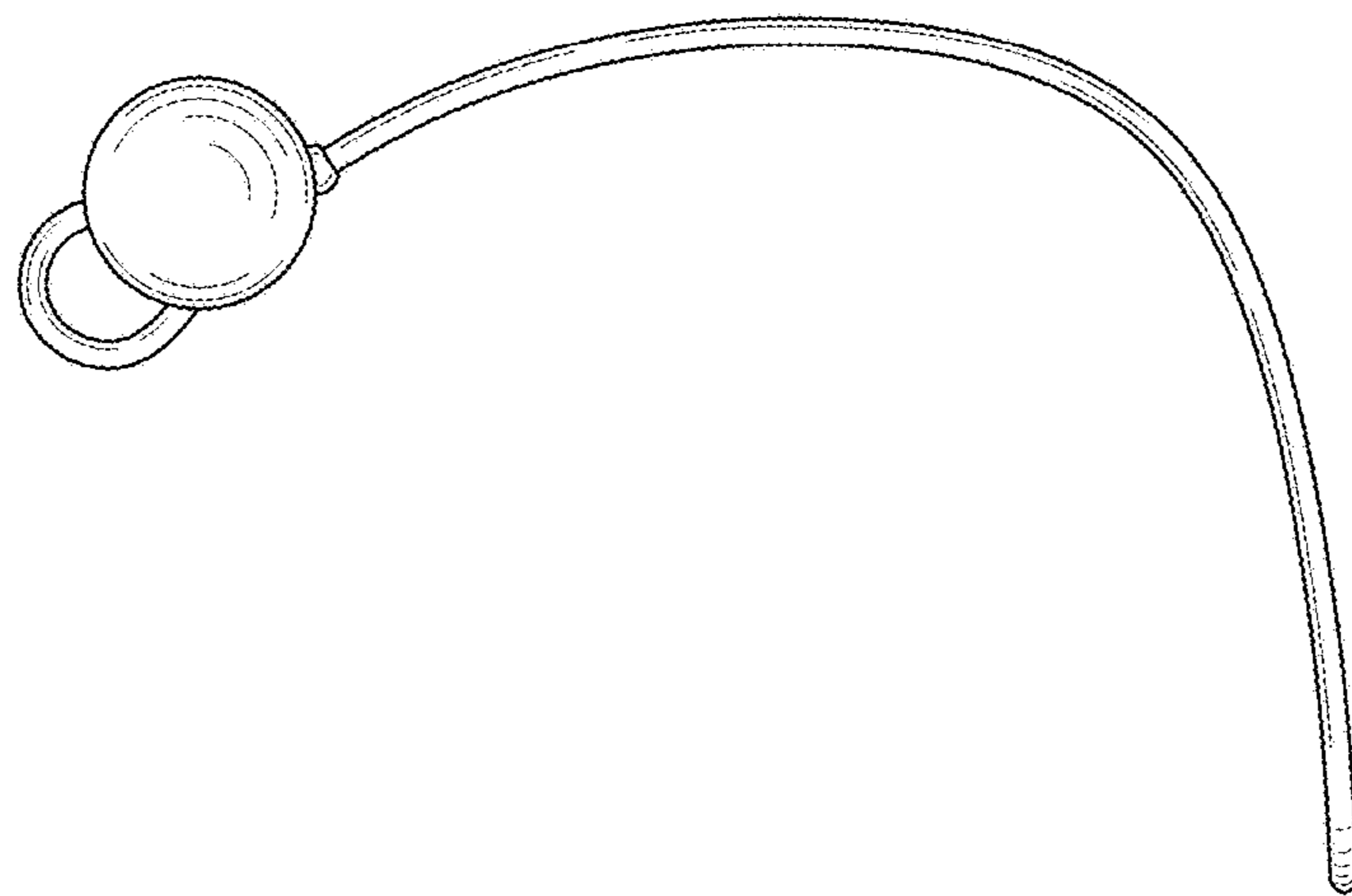


FIG. 12

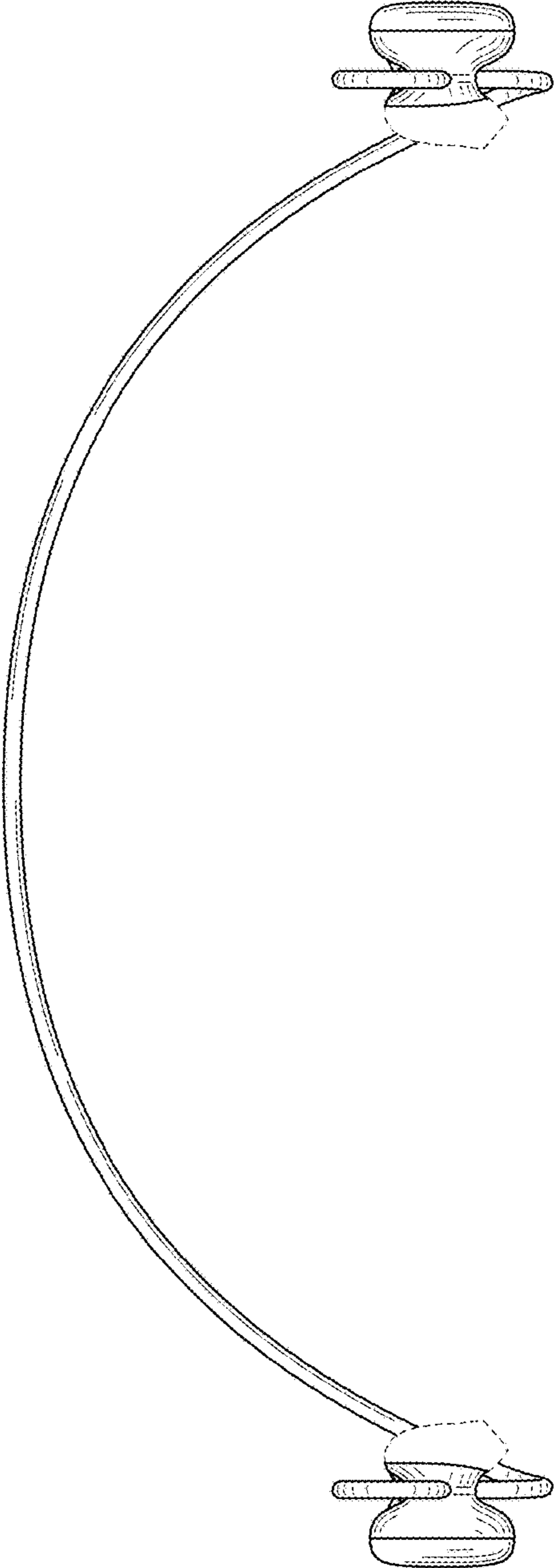


FIG. 13

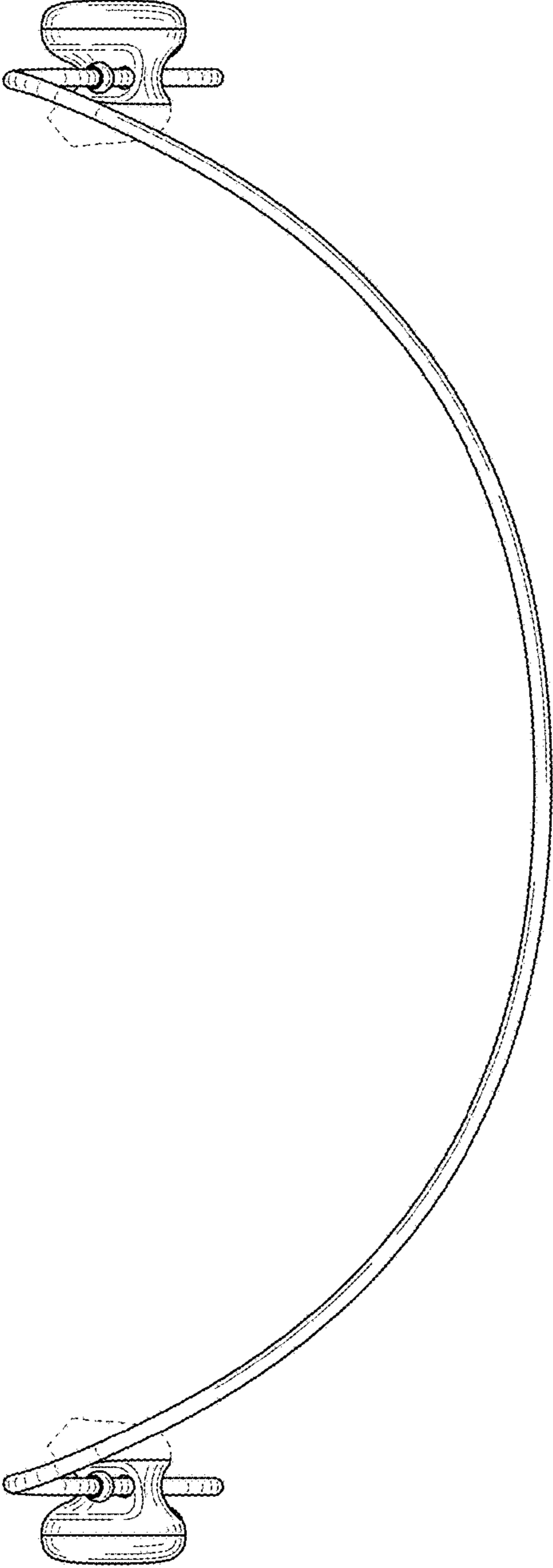


FIG. 14

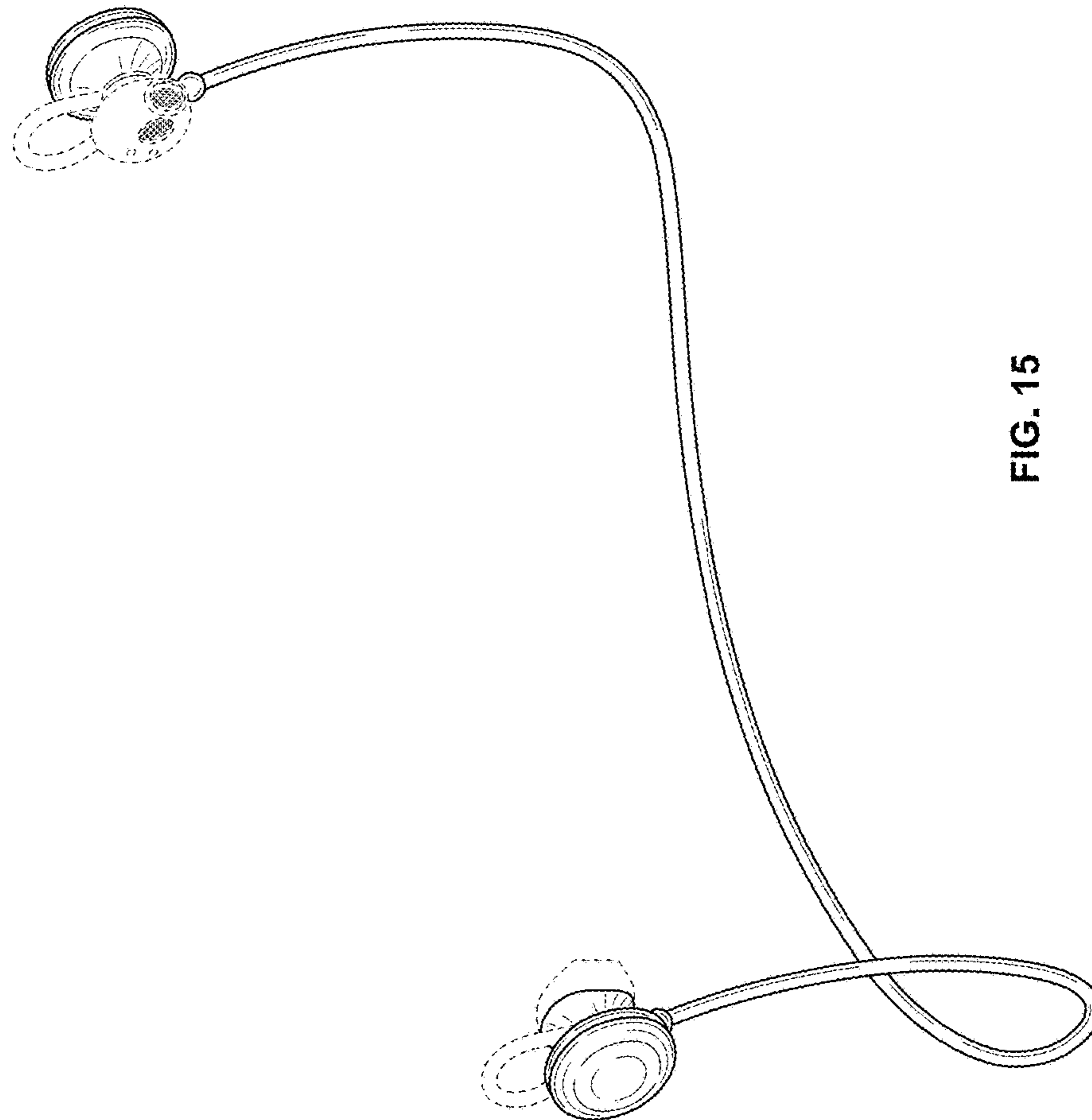


FIG. 15

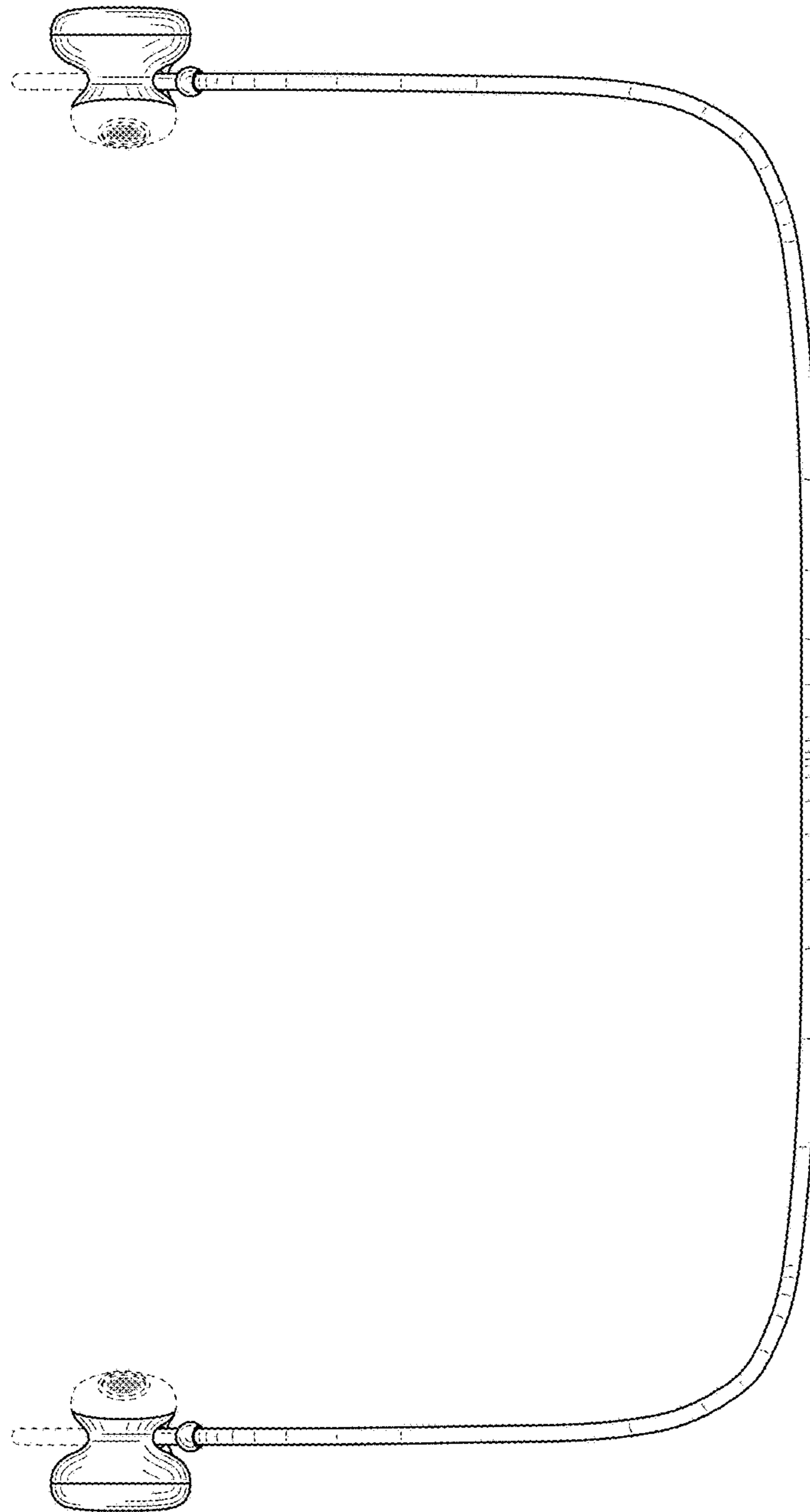


FIG. 16

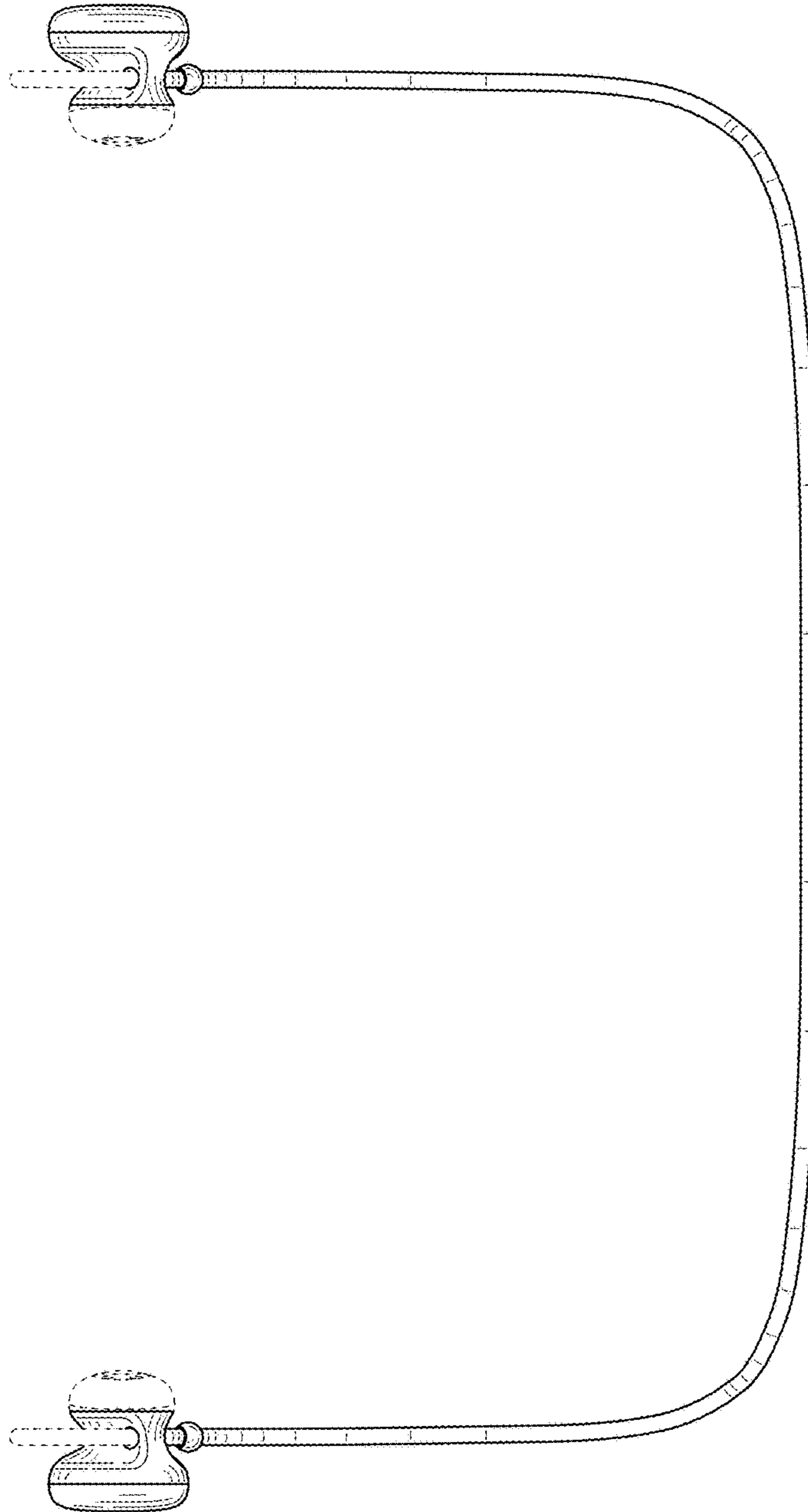


FIG. 17

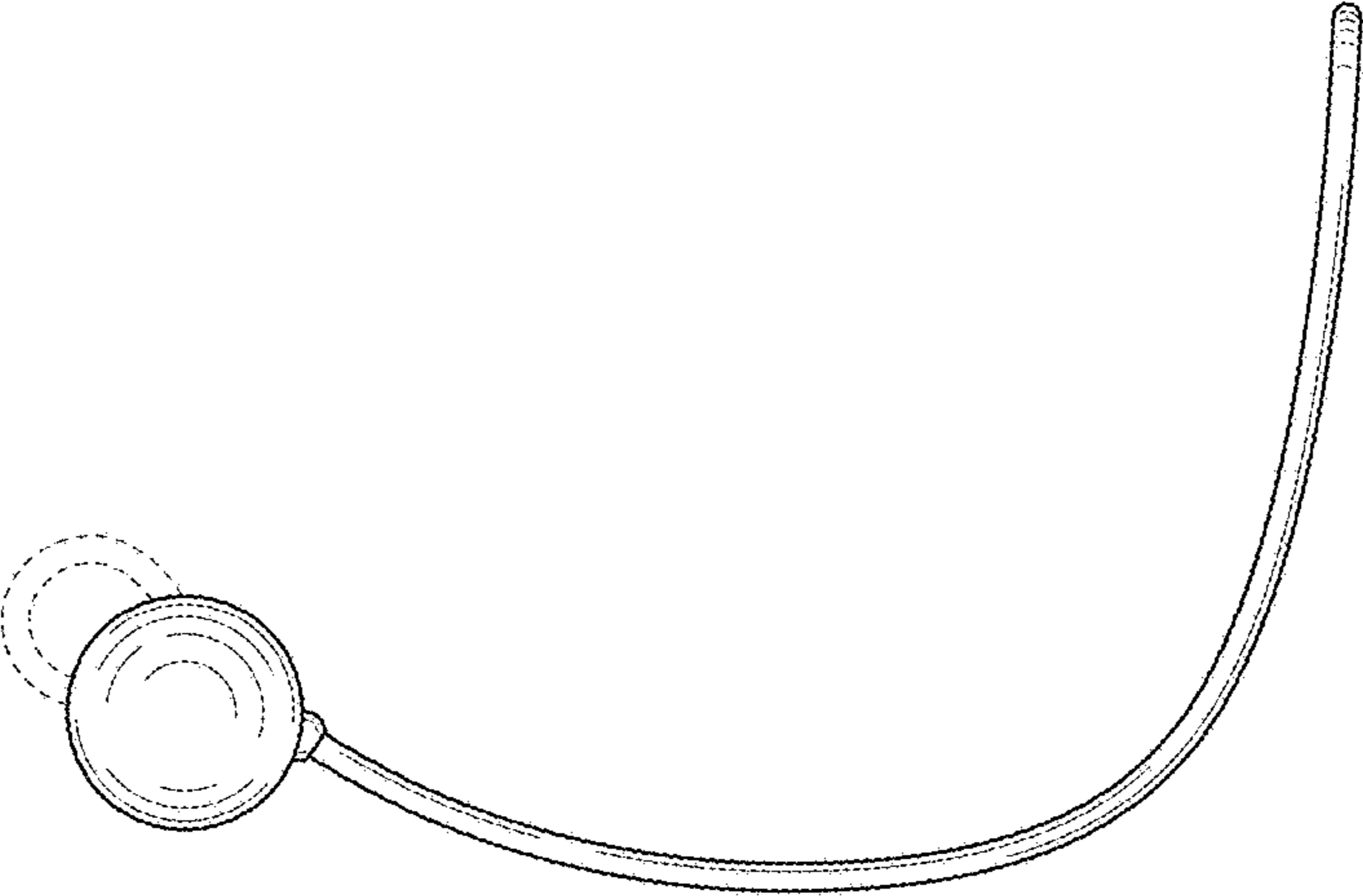


FIG. 18

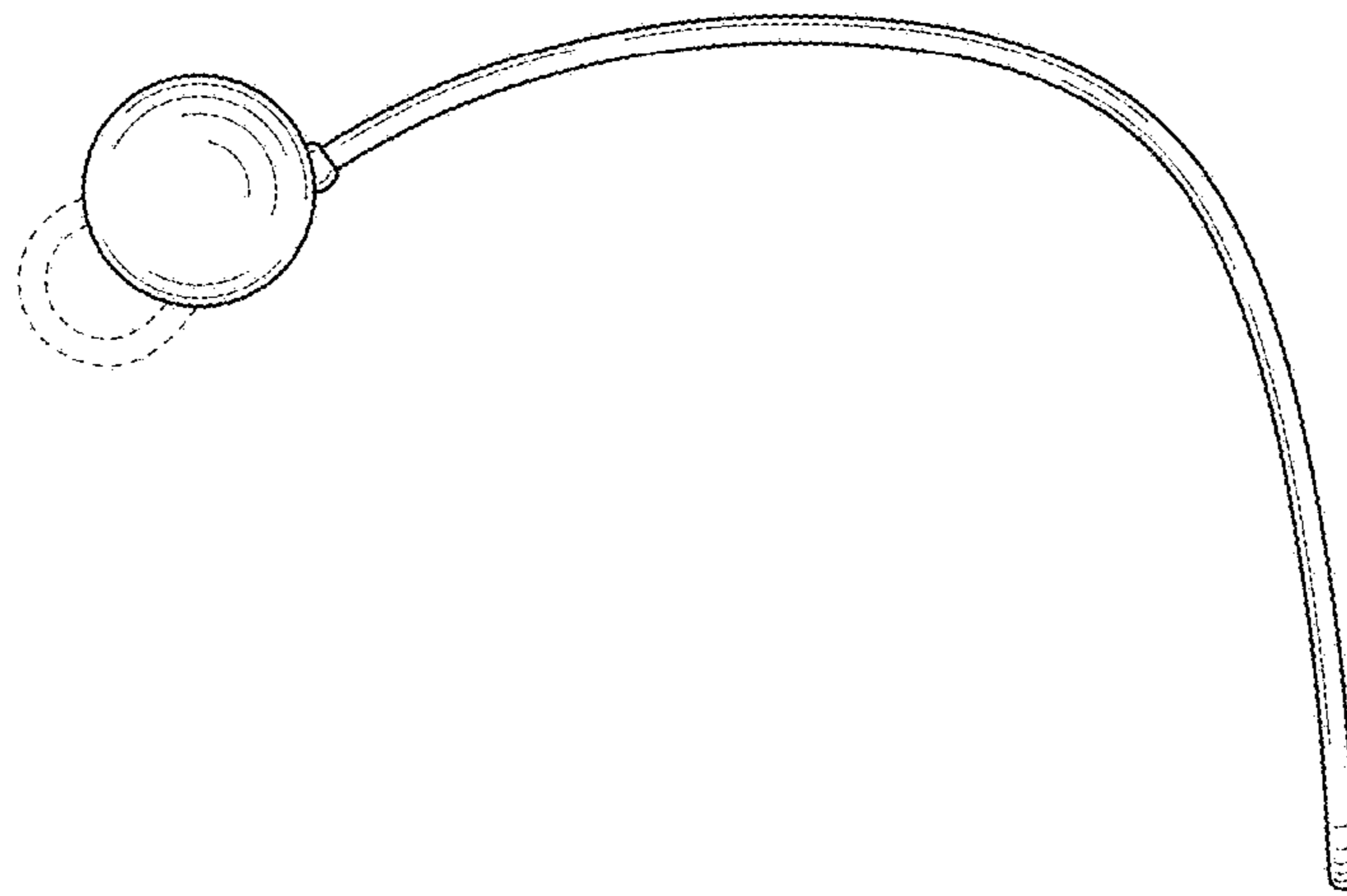


FIG. 19

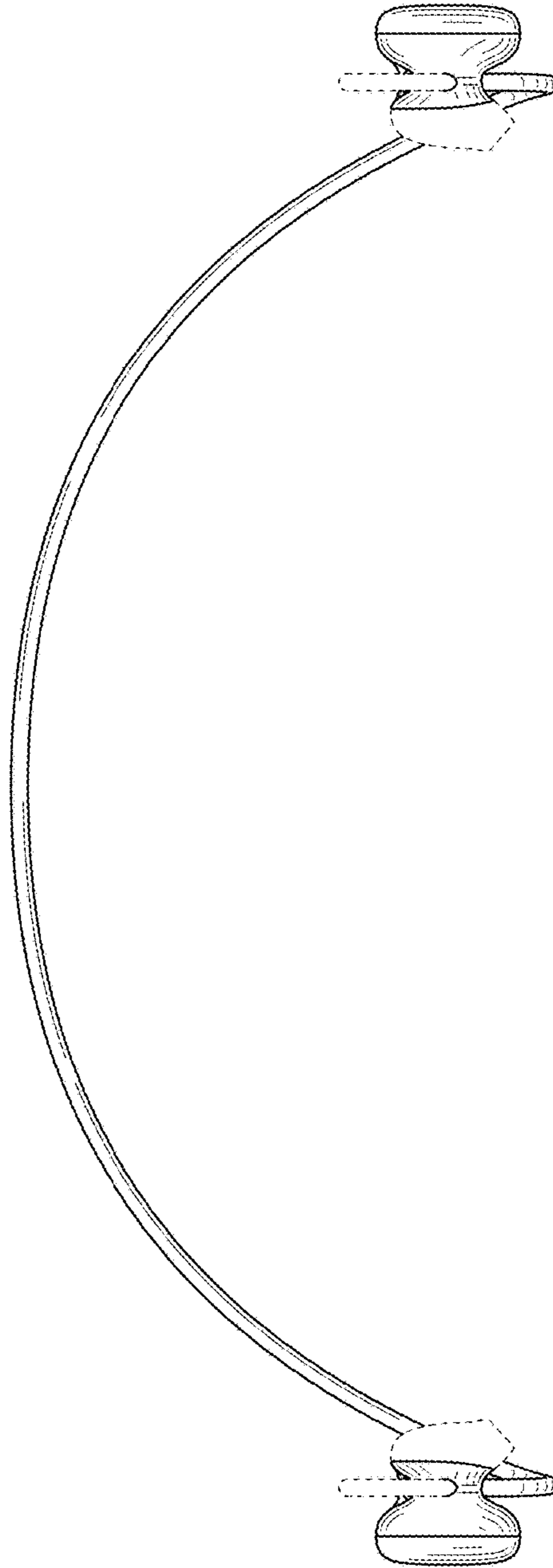


FIG. 20

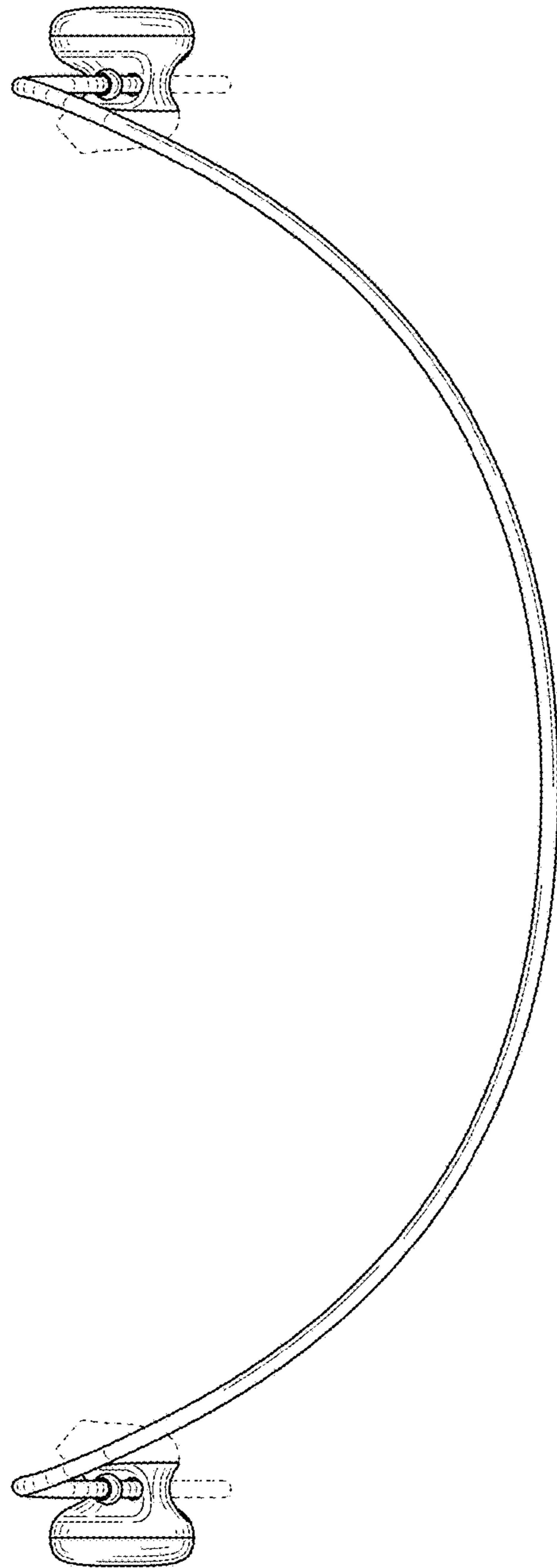


FIG. 21

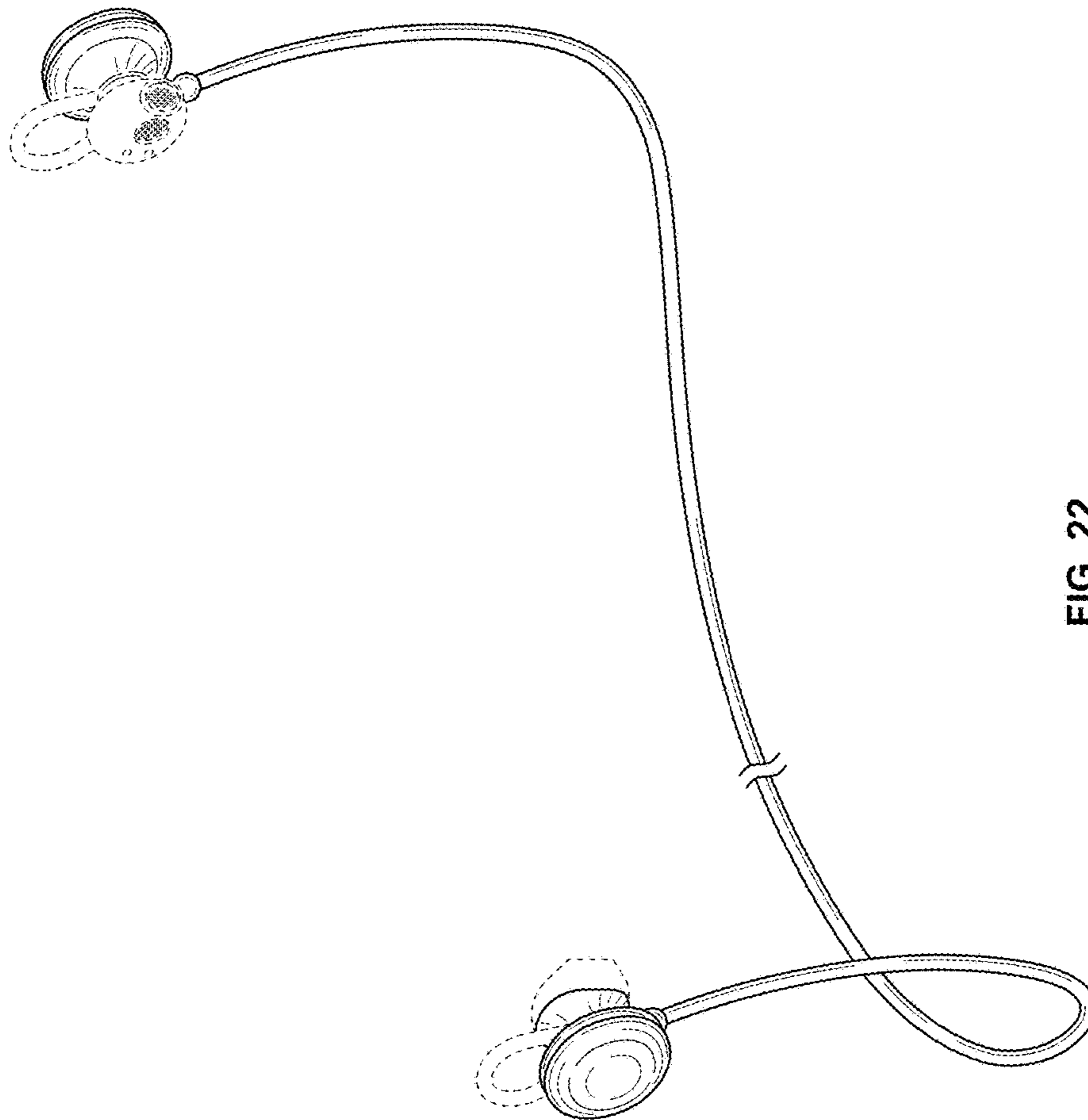


FIG. 22

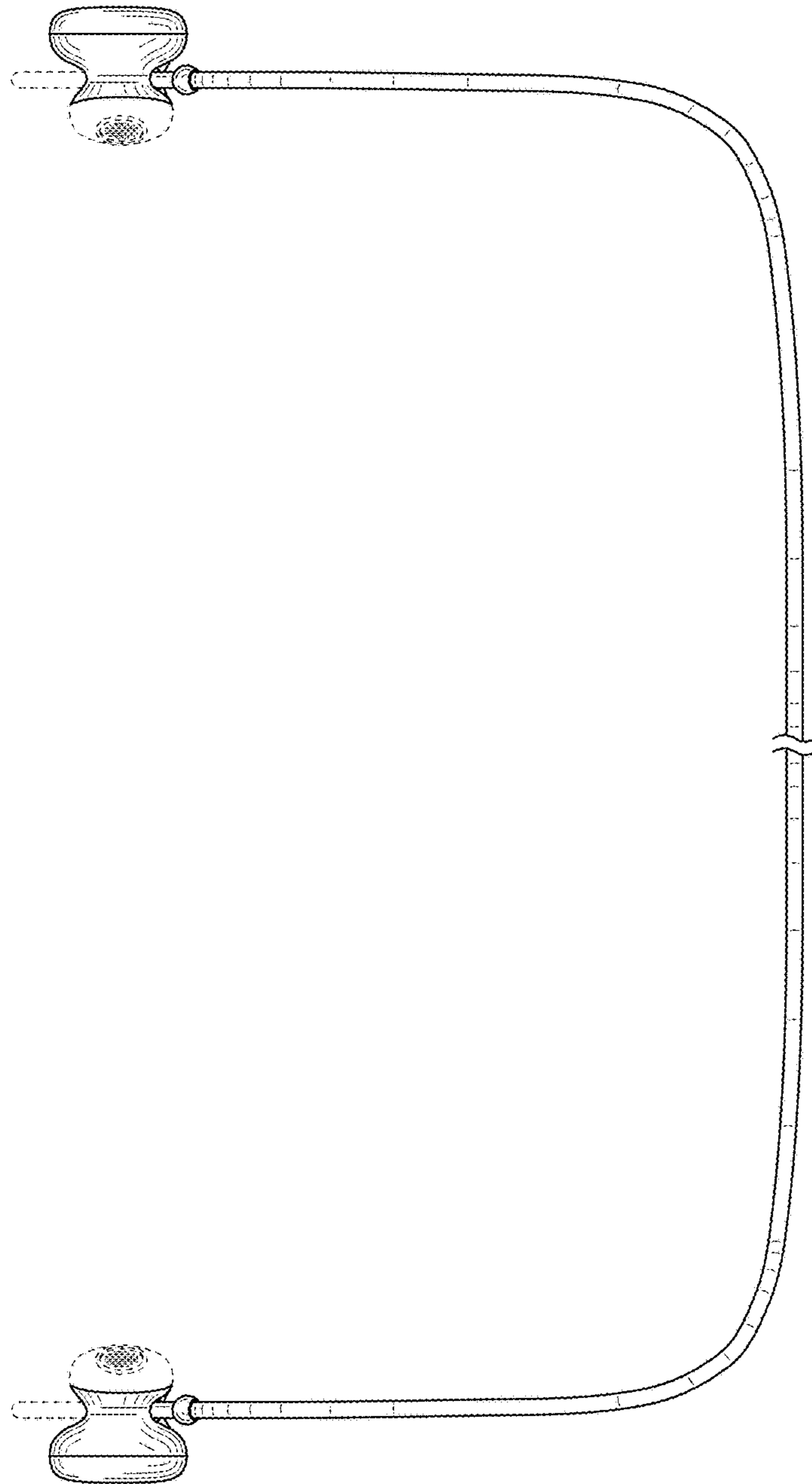


FIG. 23

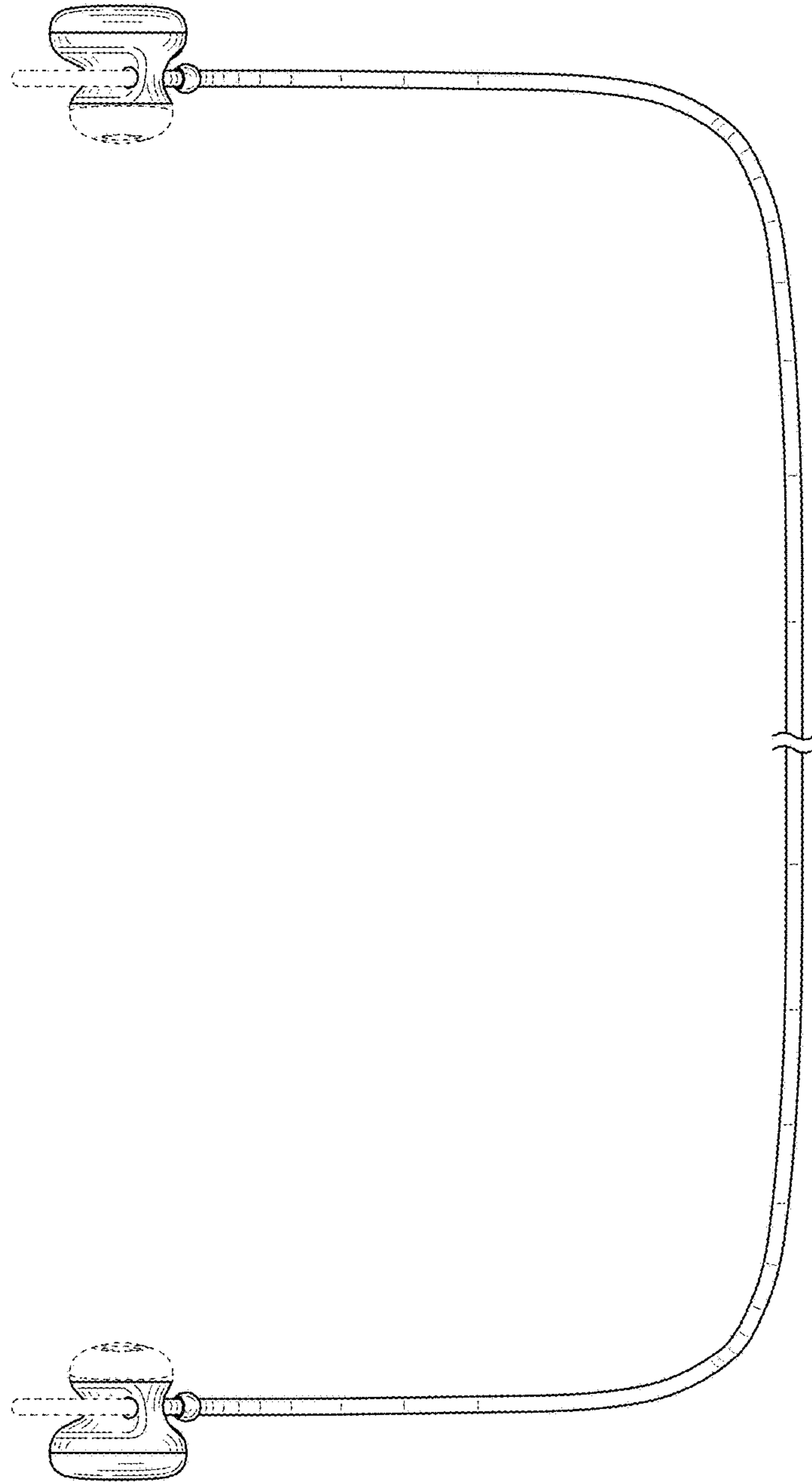


FIG. 24

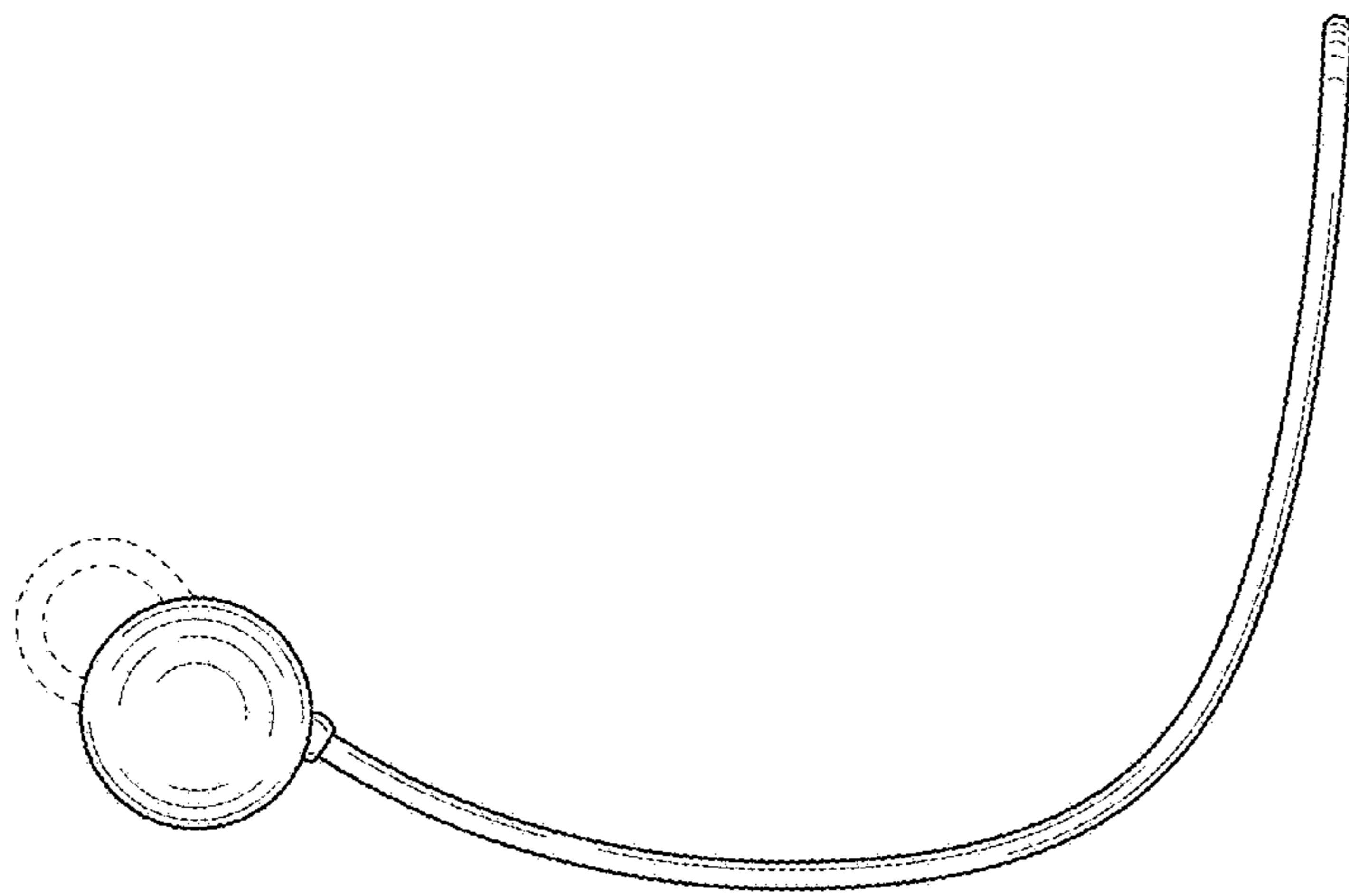


FIG. 25

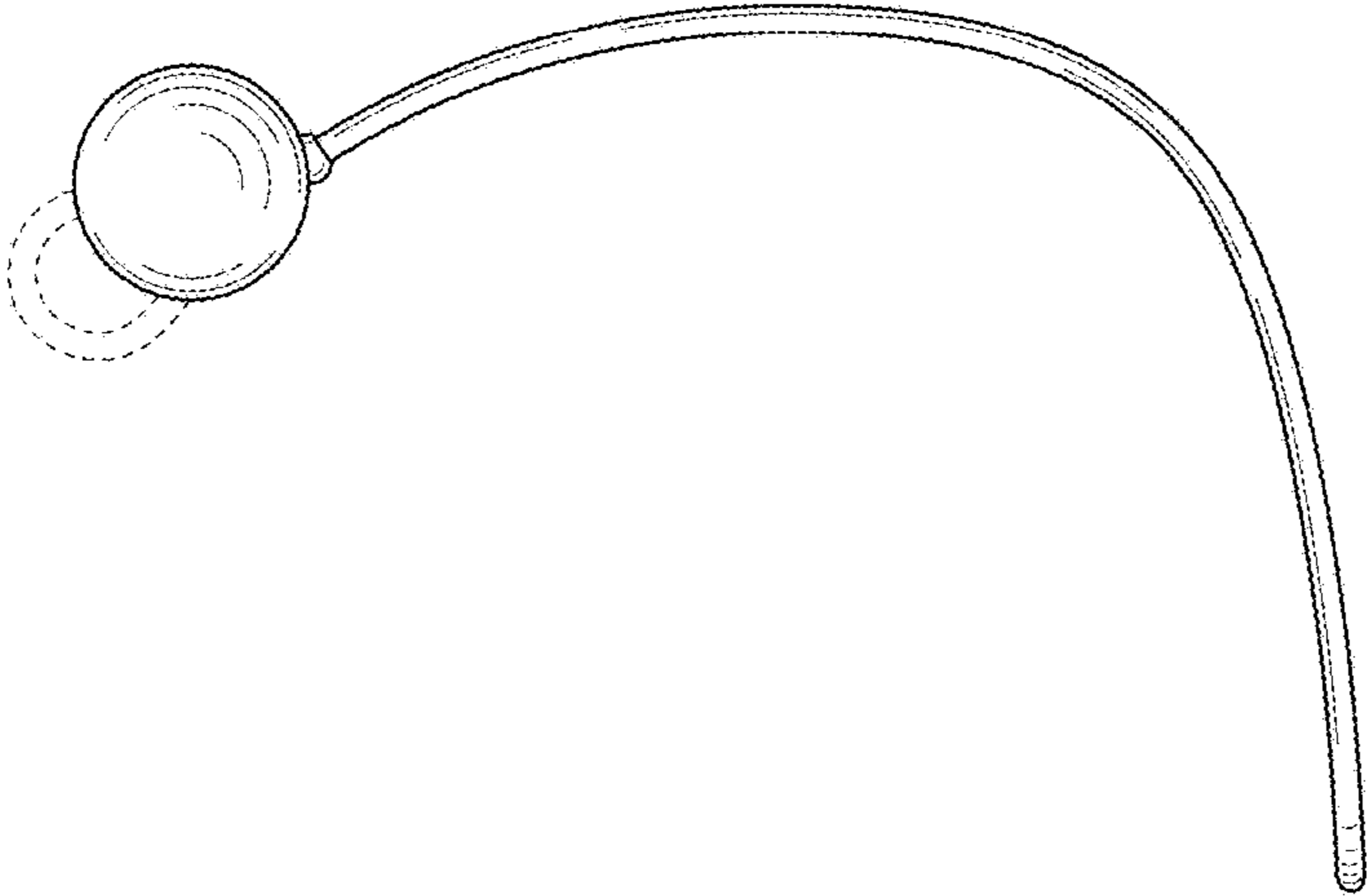


FIG. 26

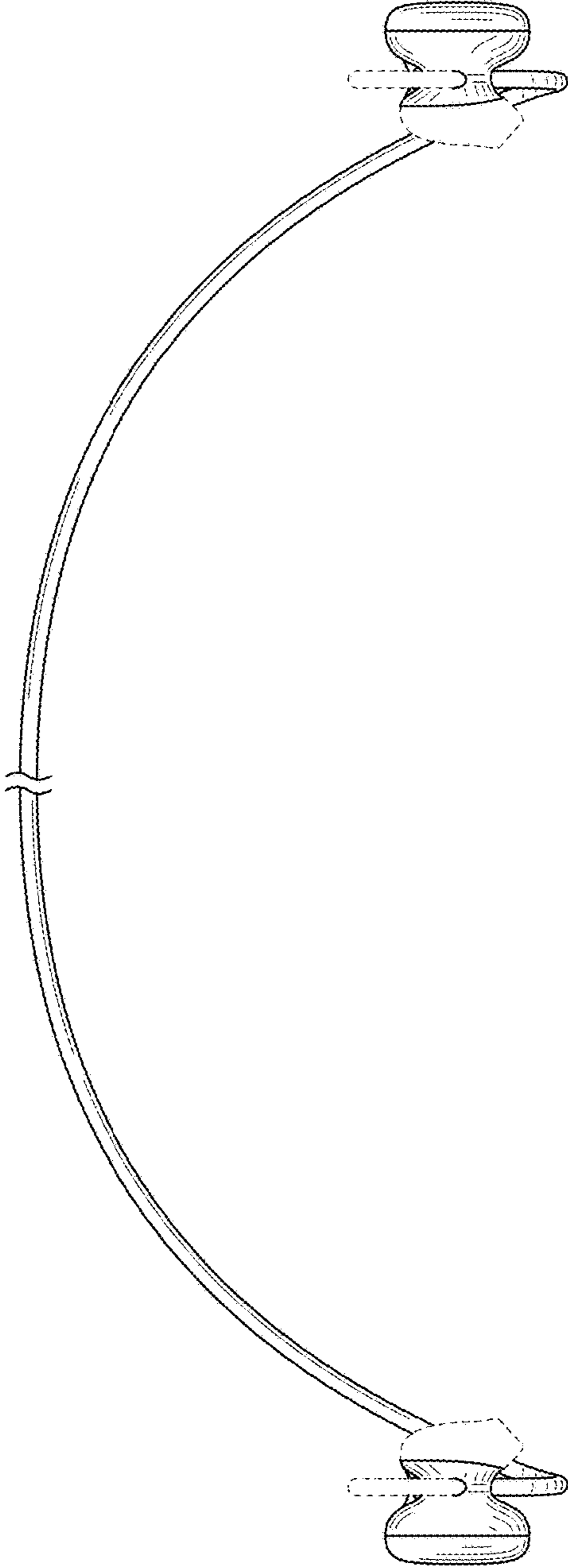


FIG. 27

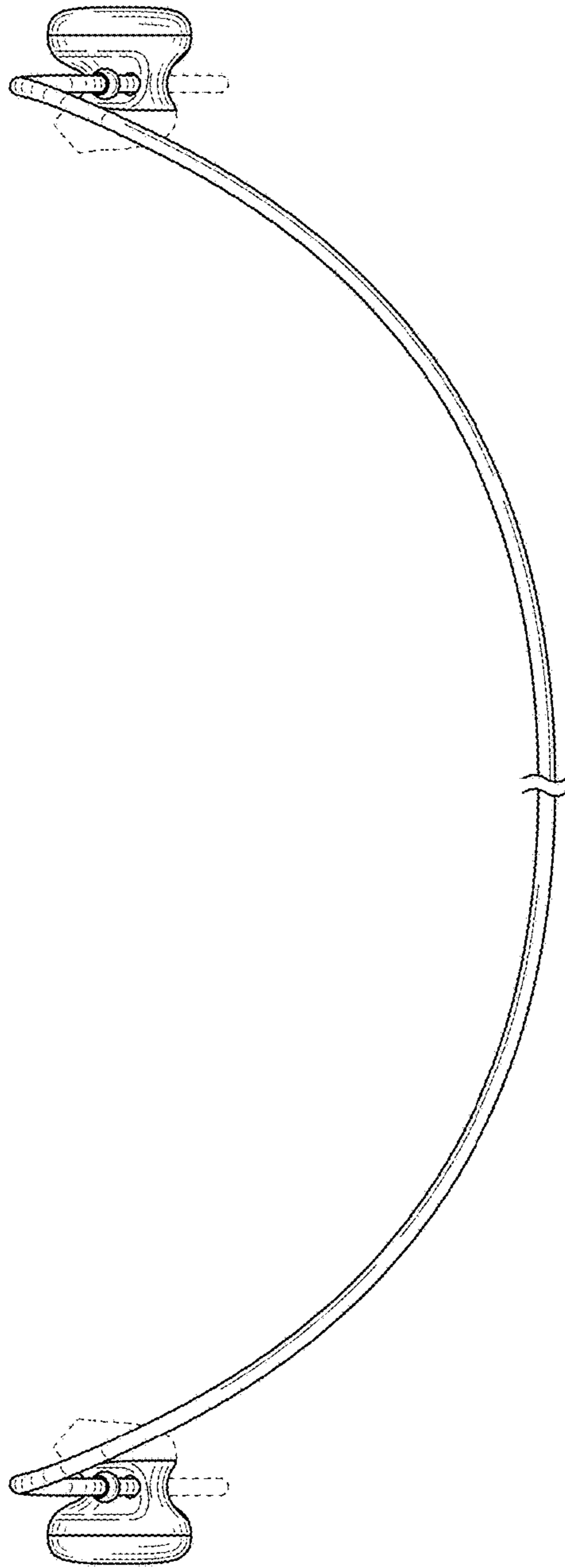


FIG. 28

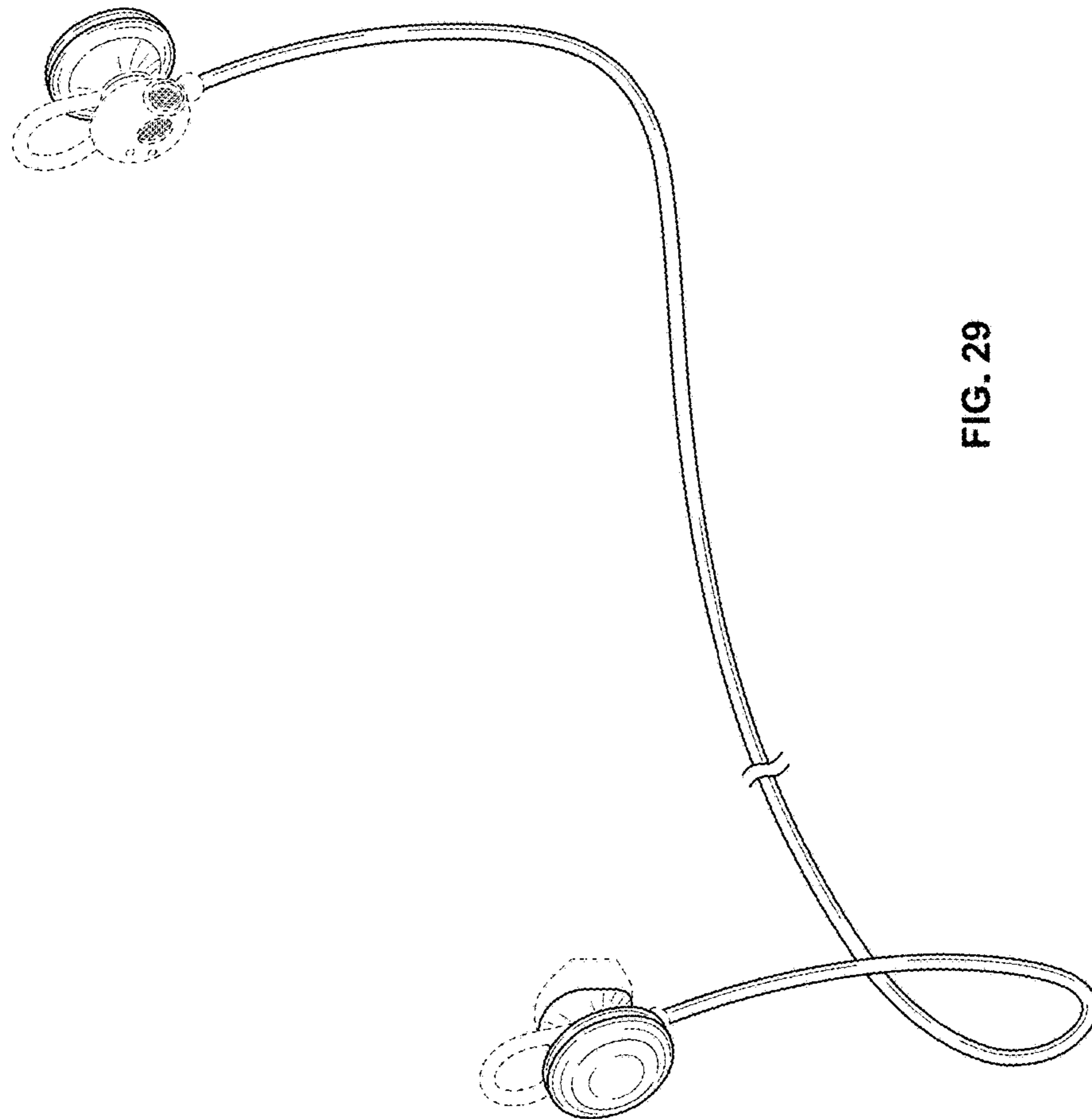


FIG. 29

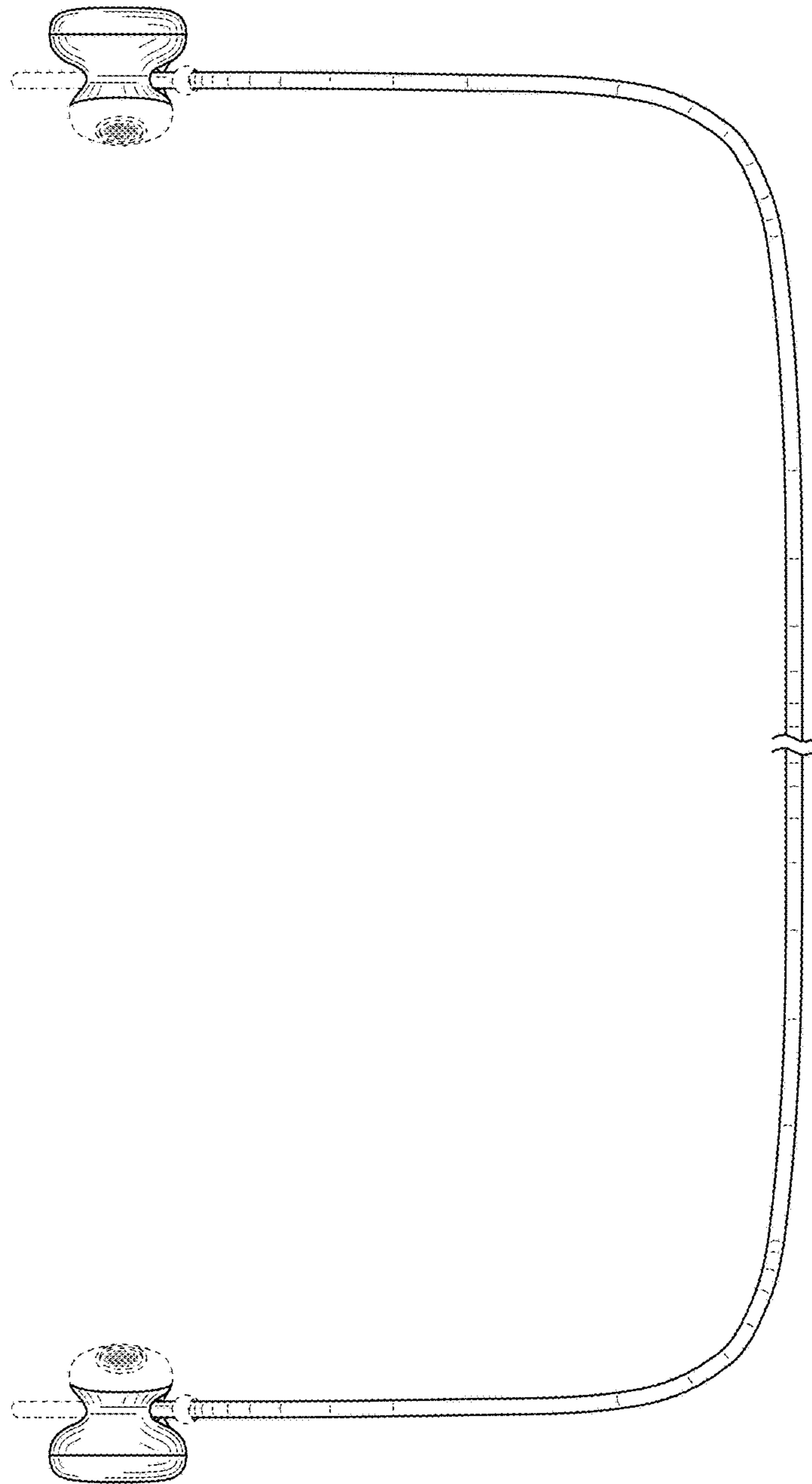


FIG. 30

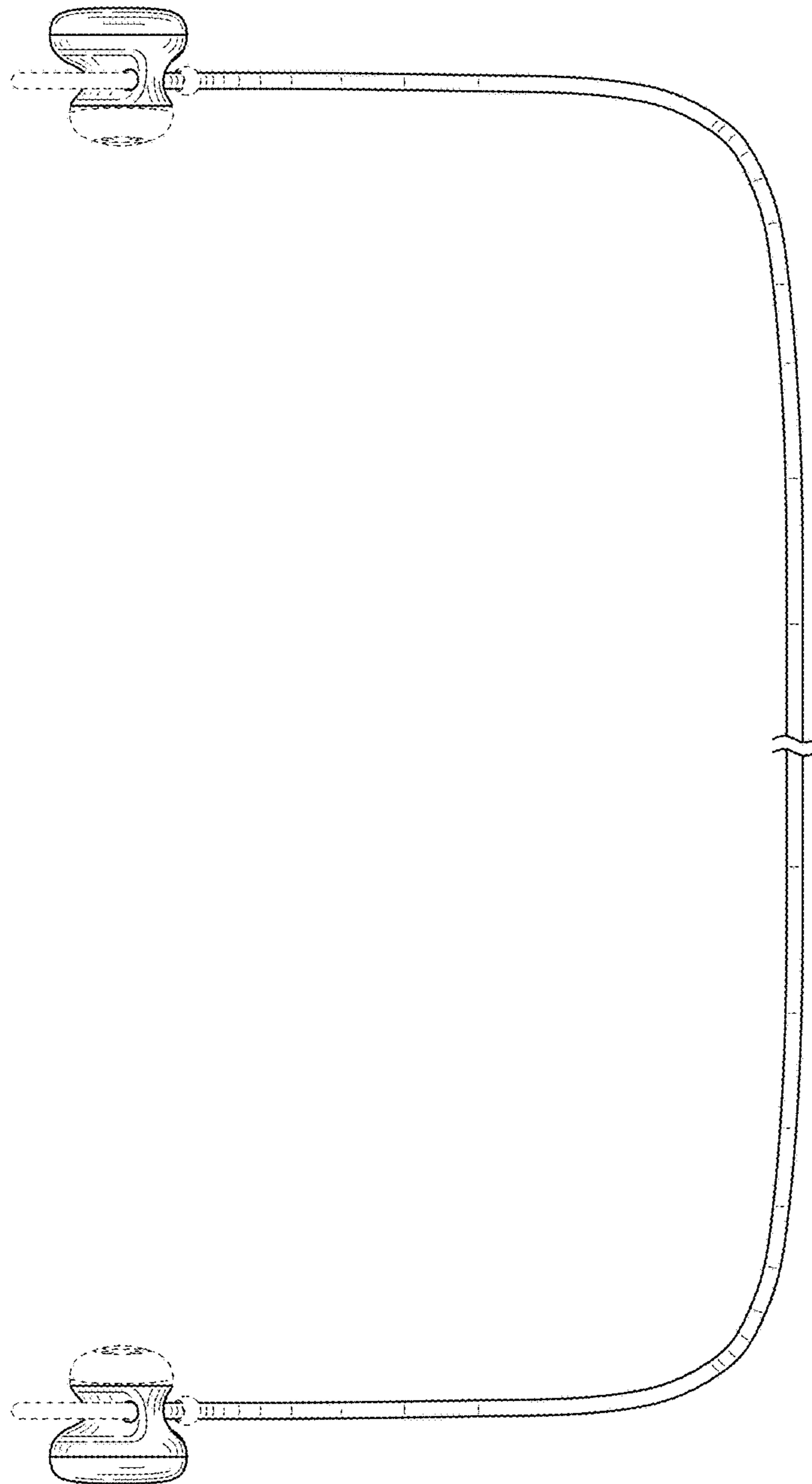


FIG. 31

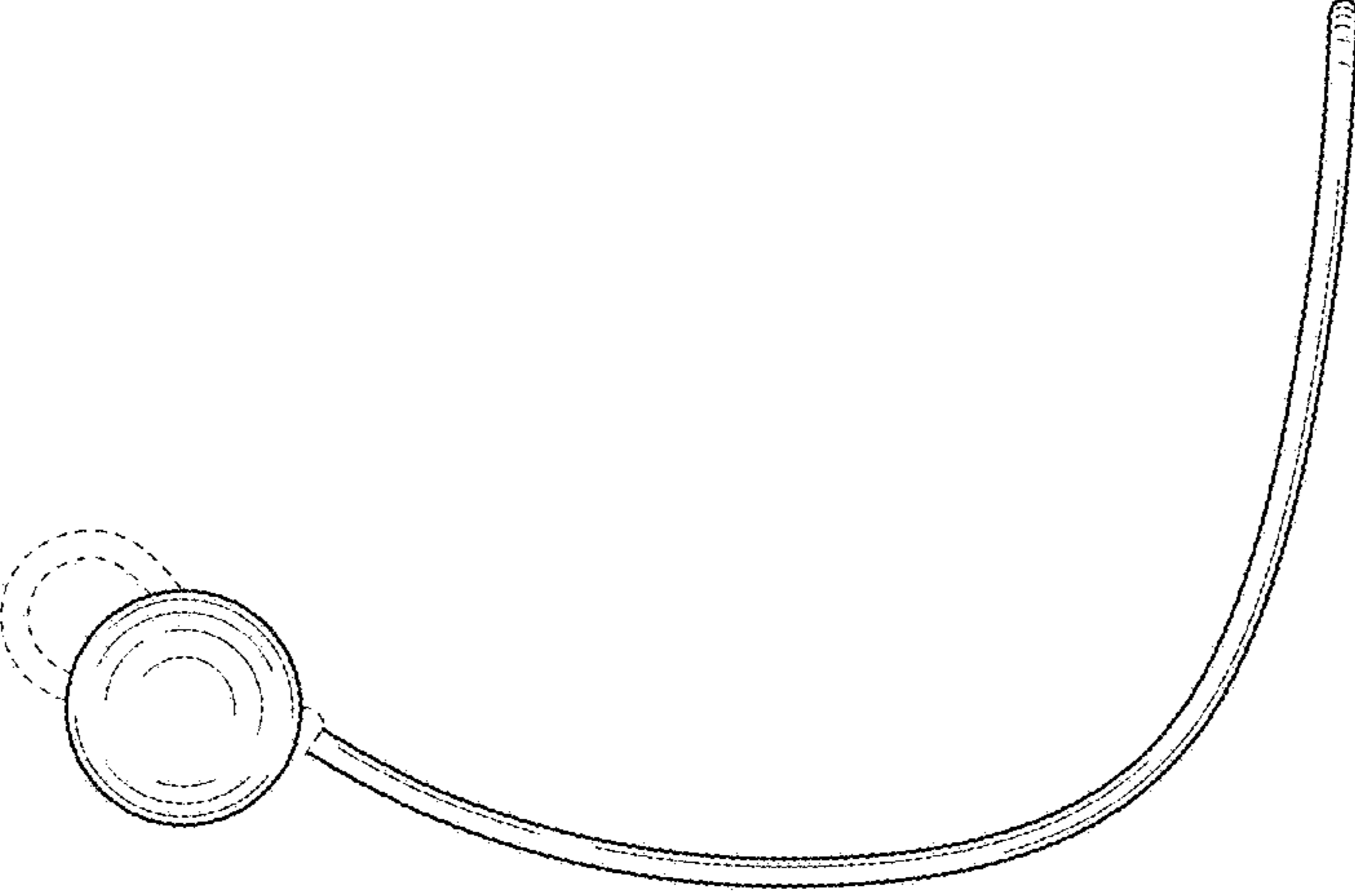


FIG. 32

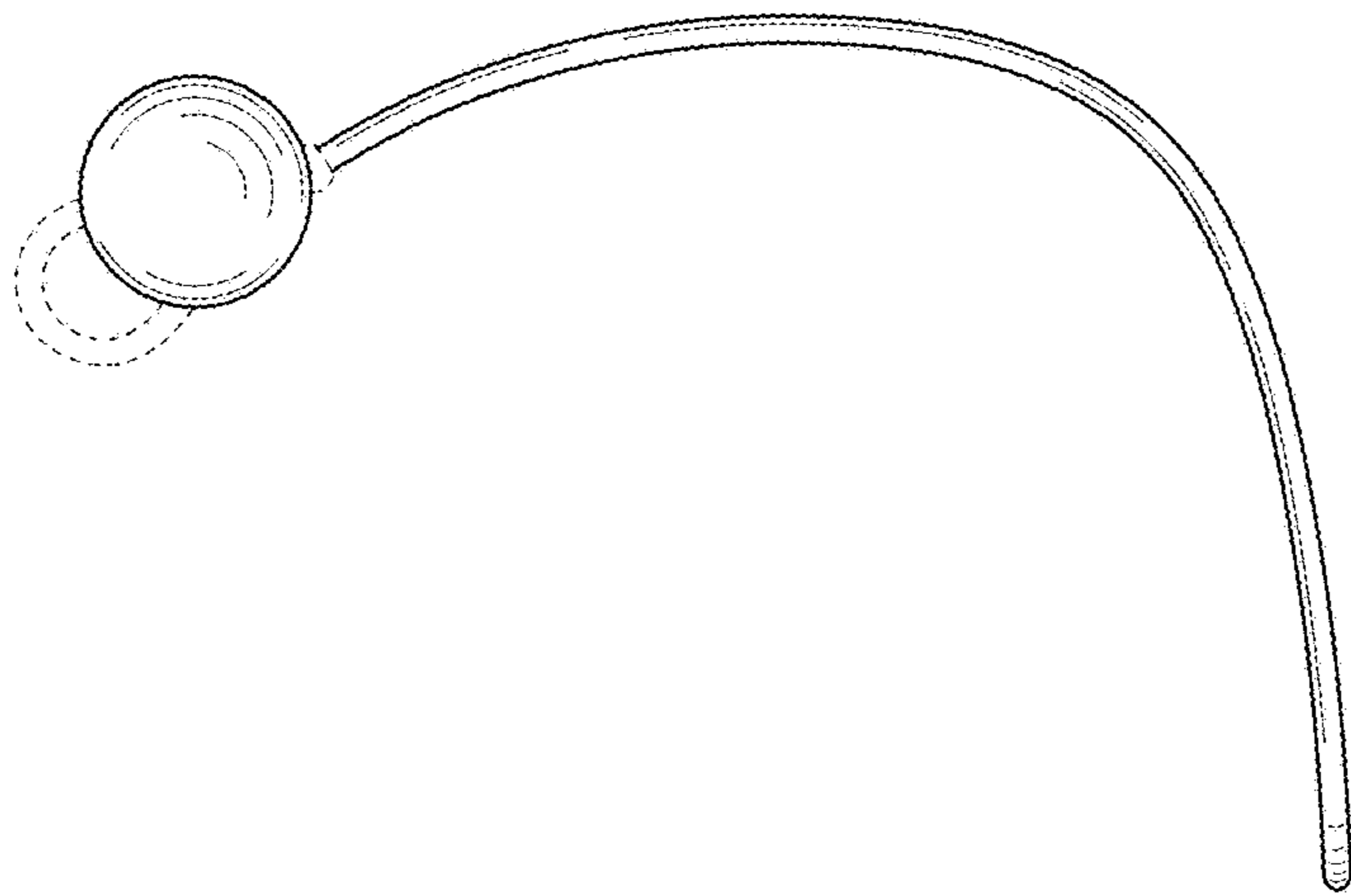


FIG. 33

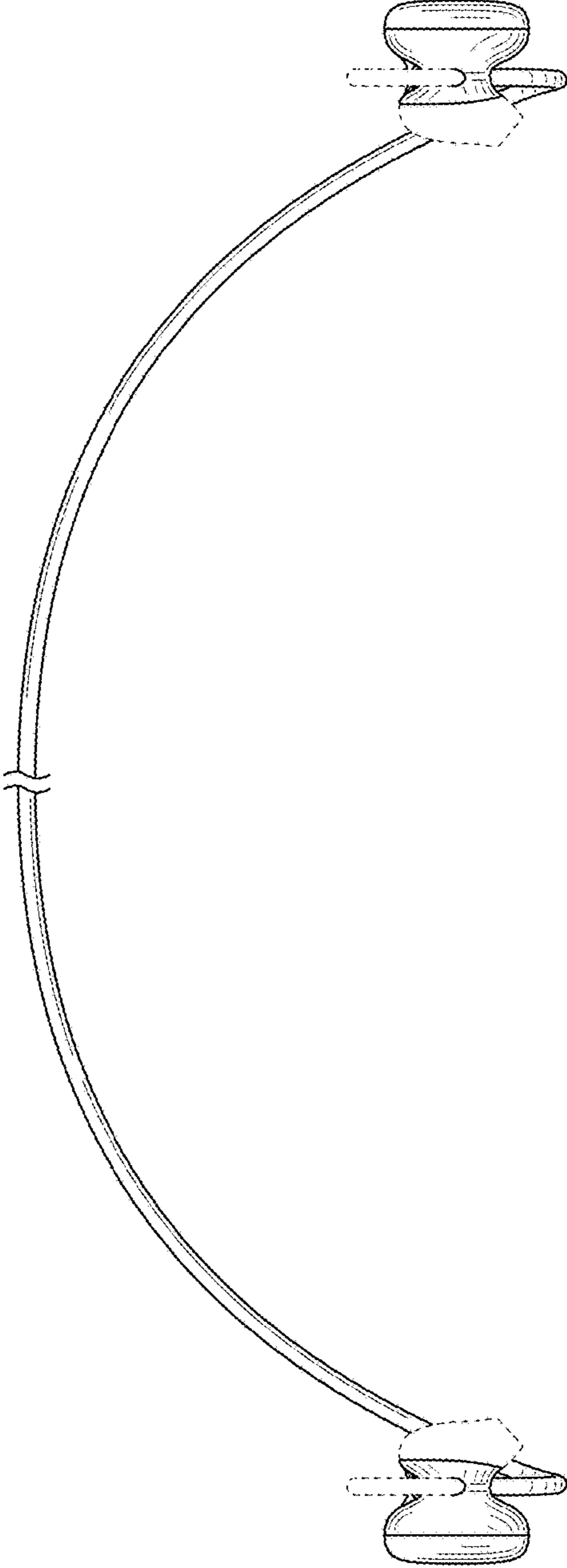


FIG. 34

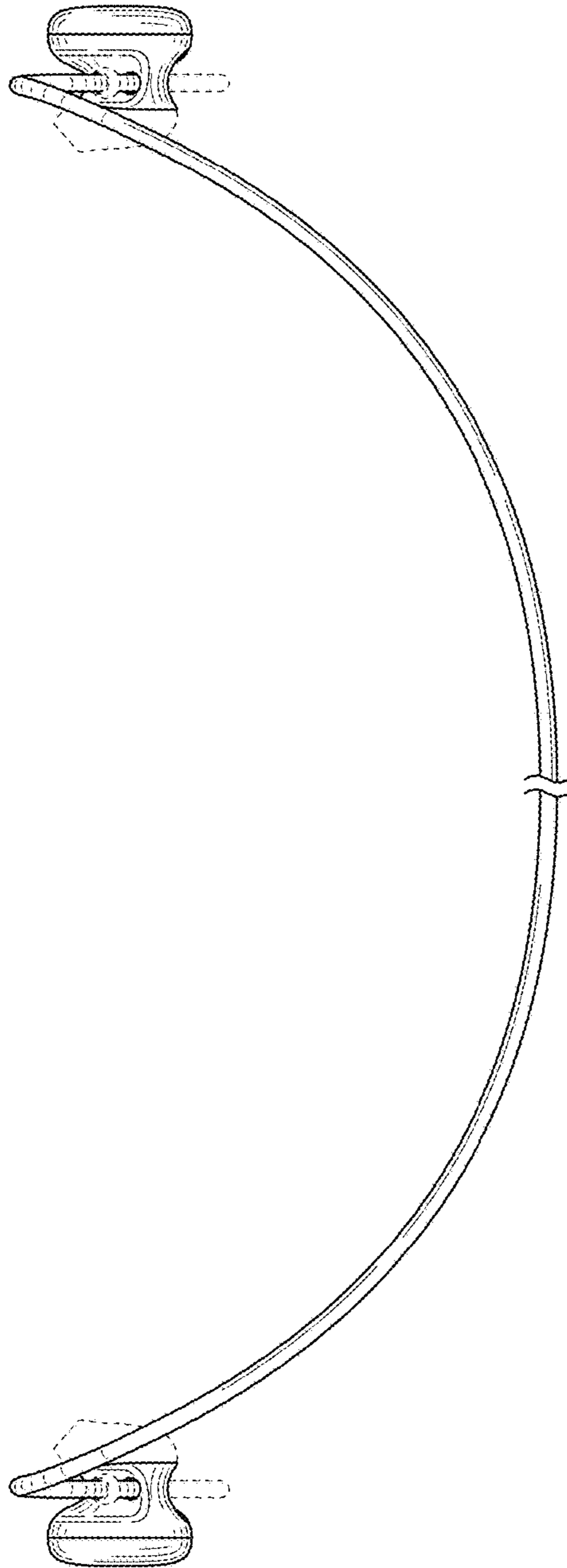


FIG. 35

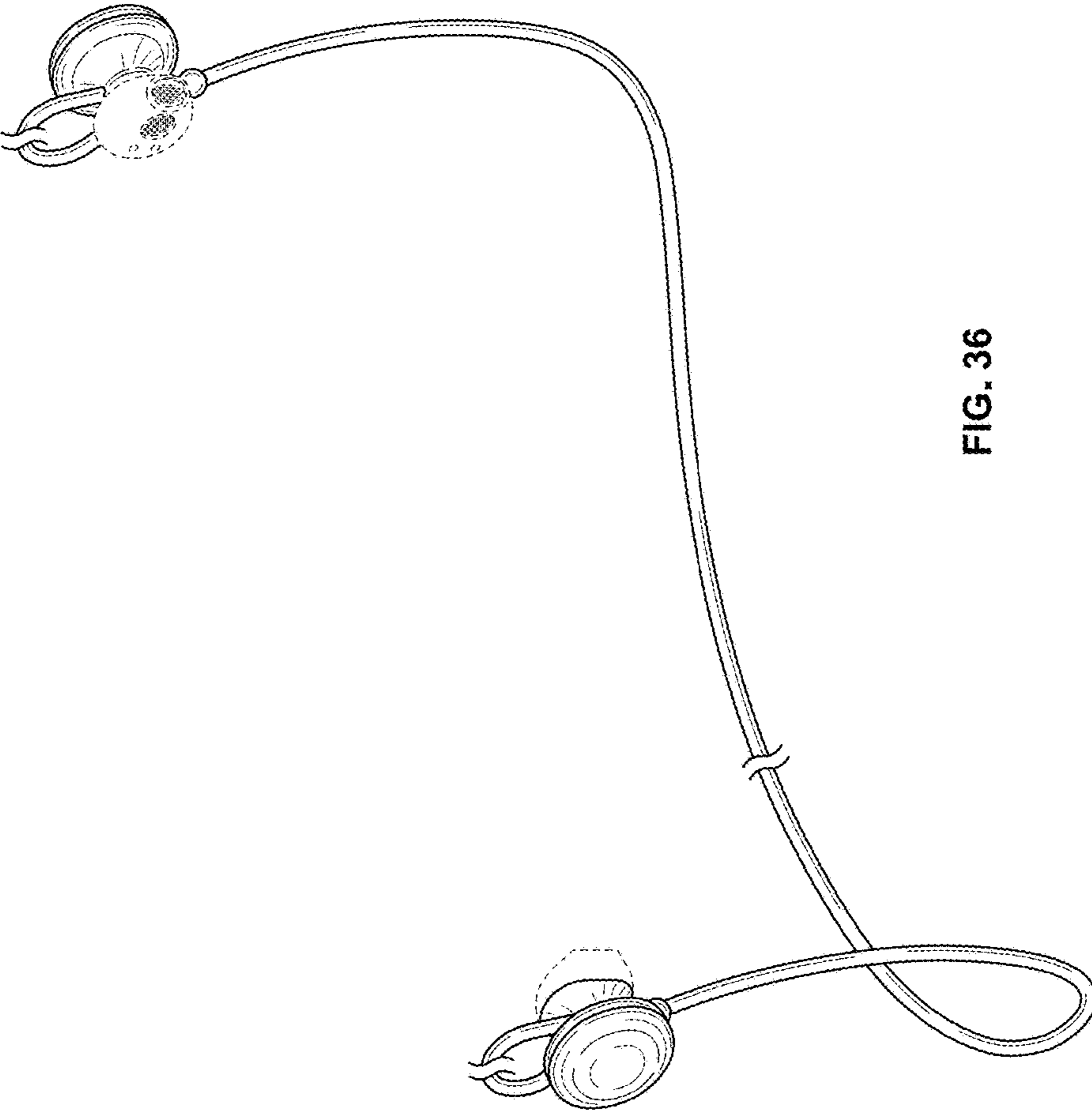


FIG. 36

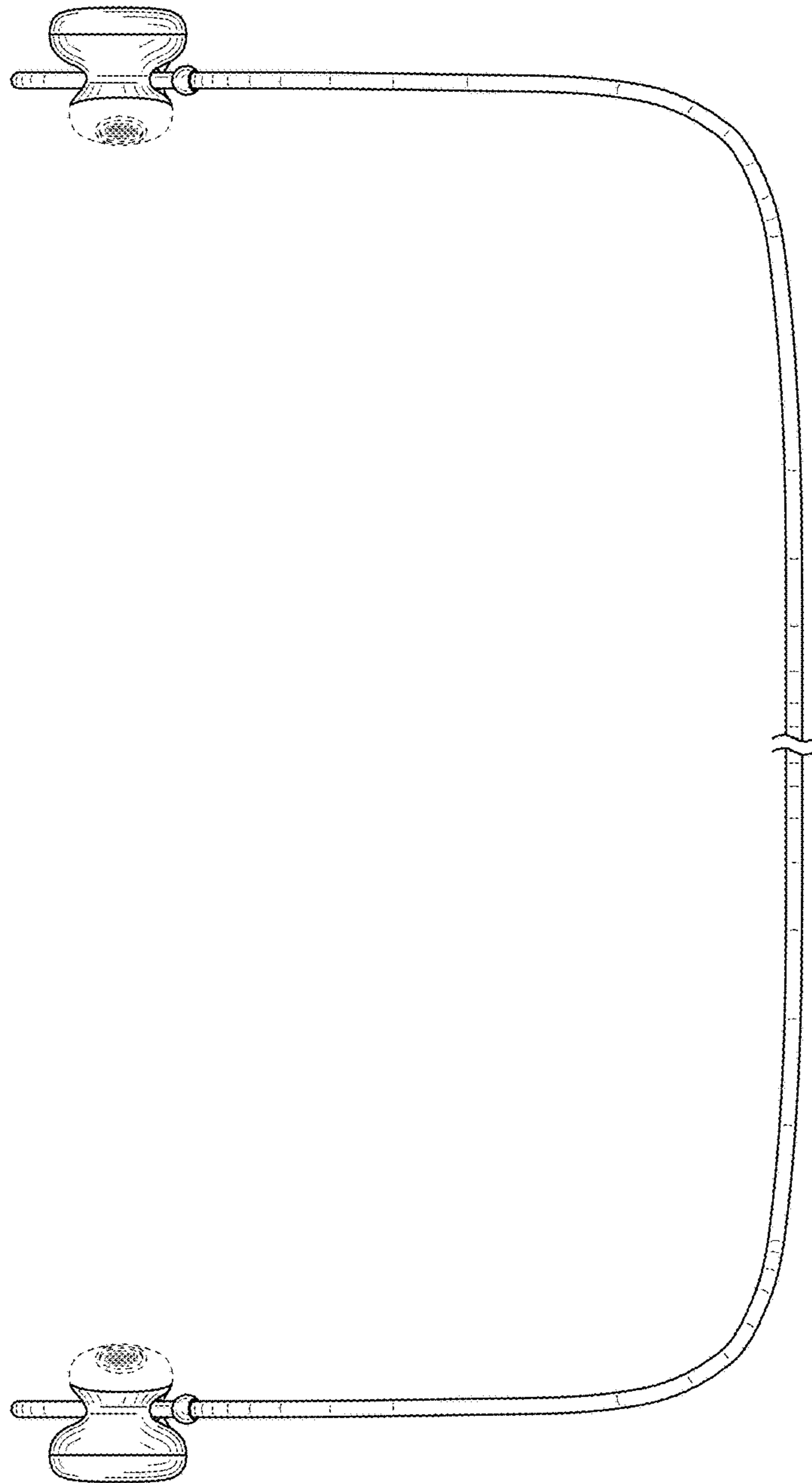


FIG. 37

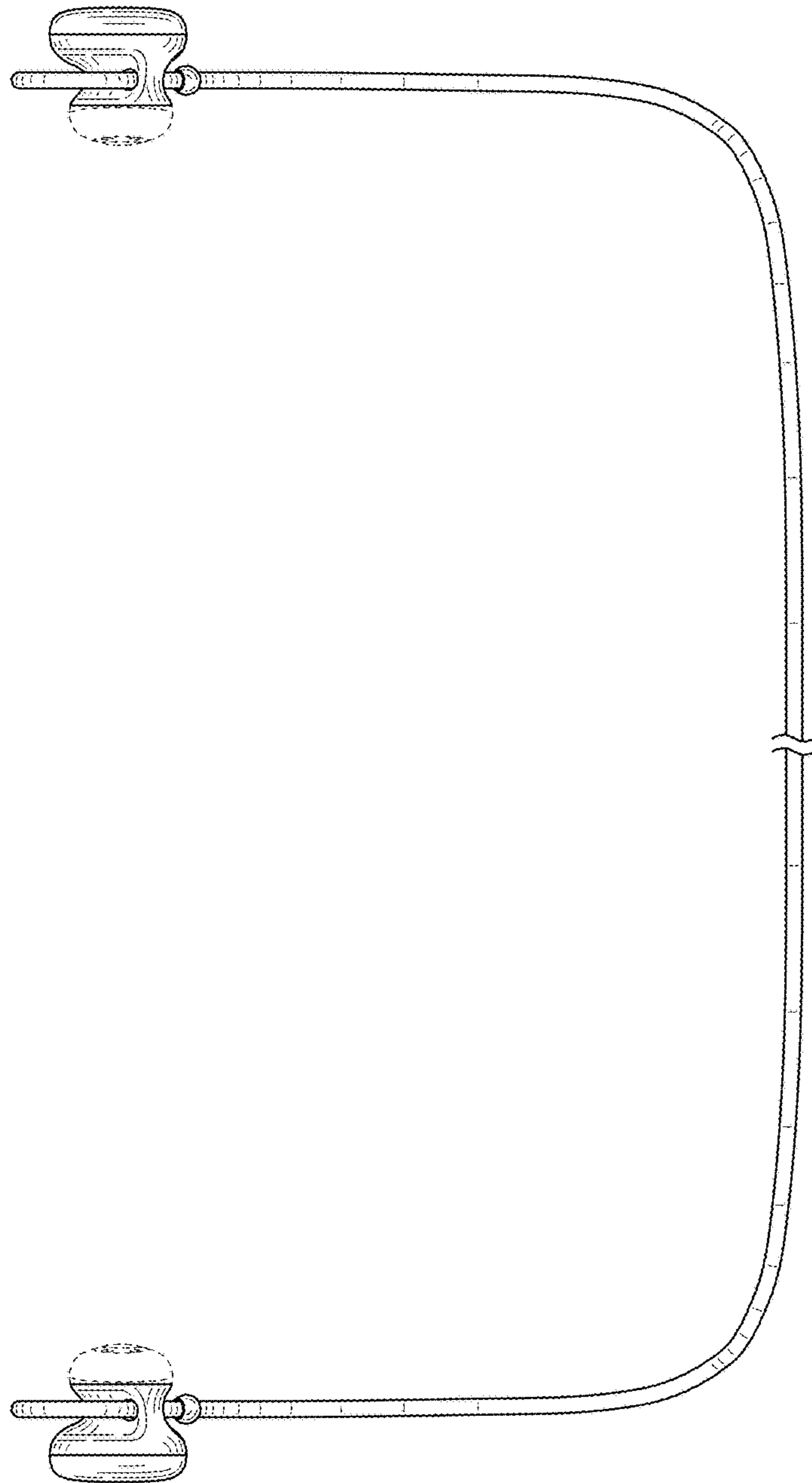


FIG. 38

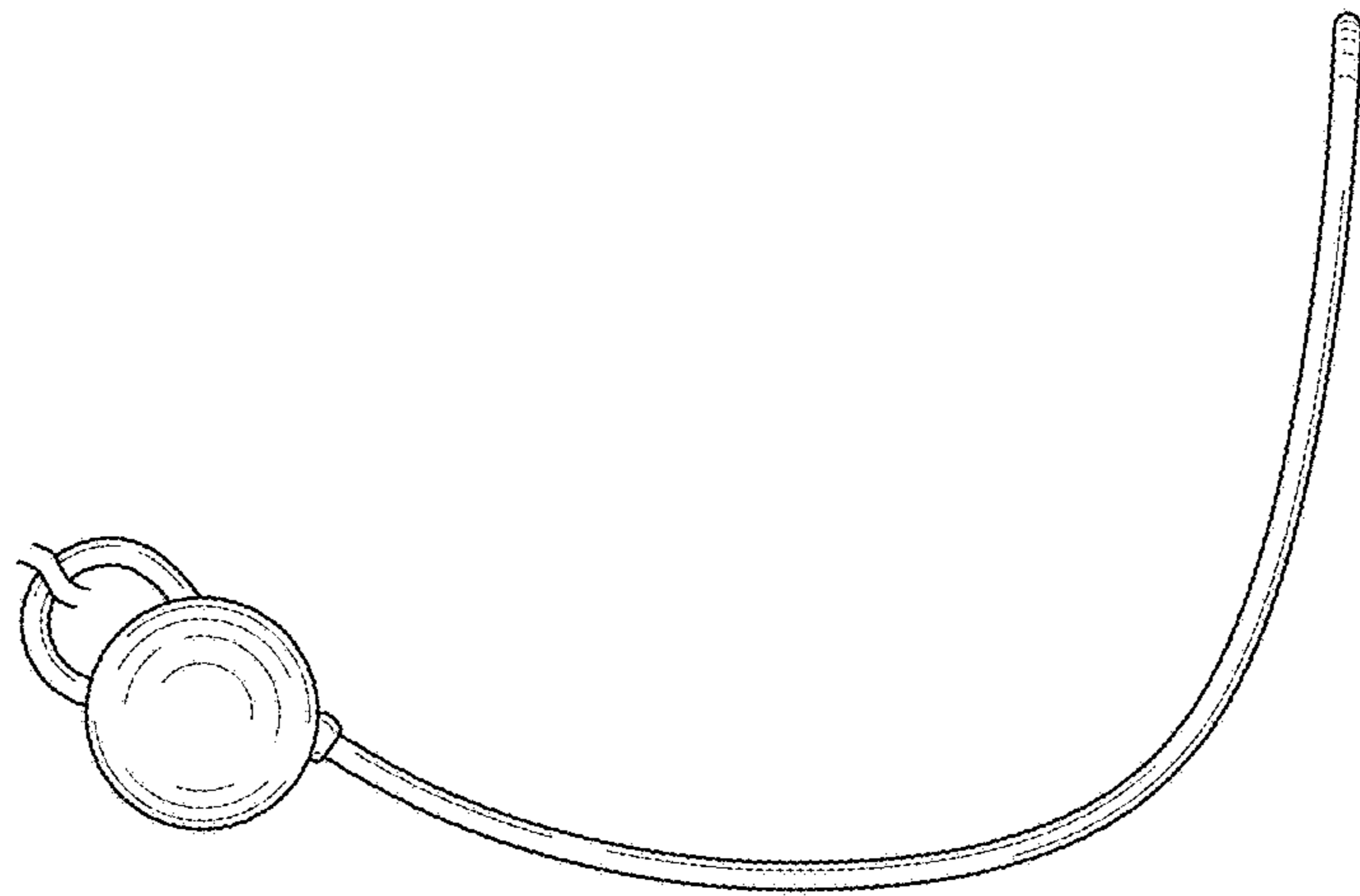


FIG. 39

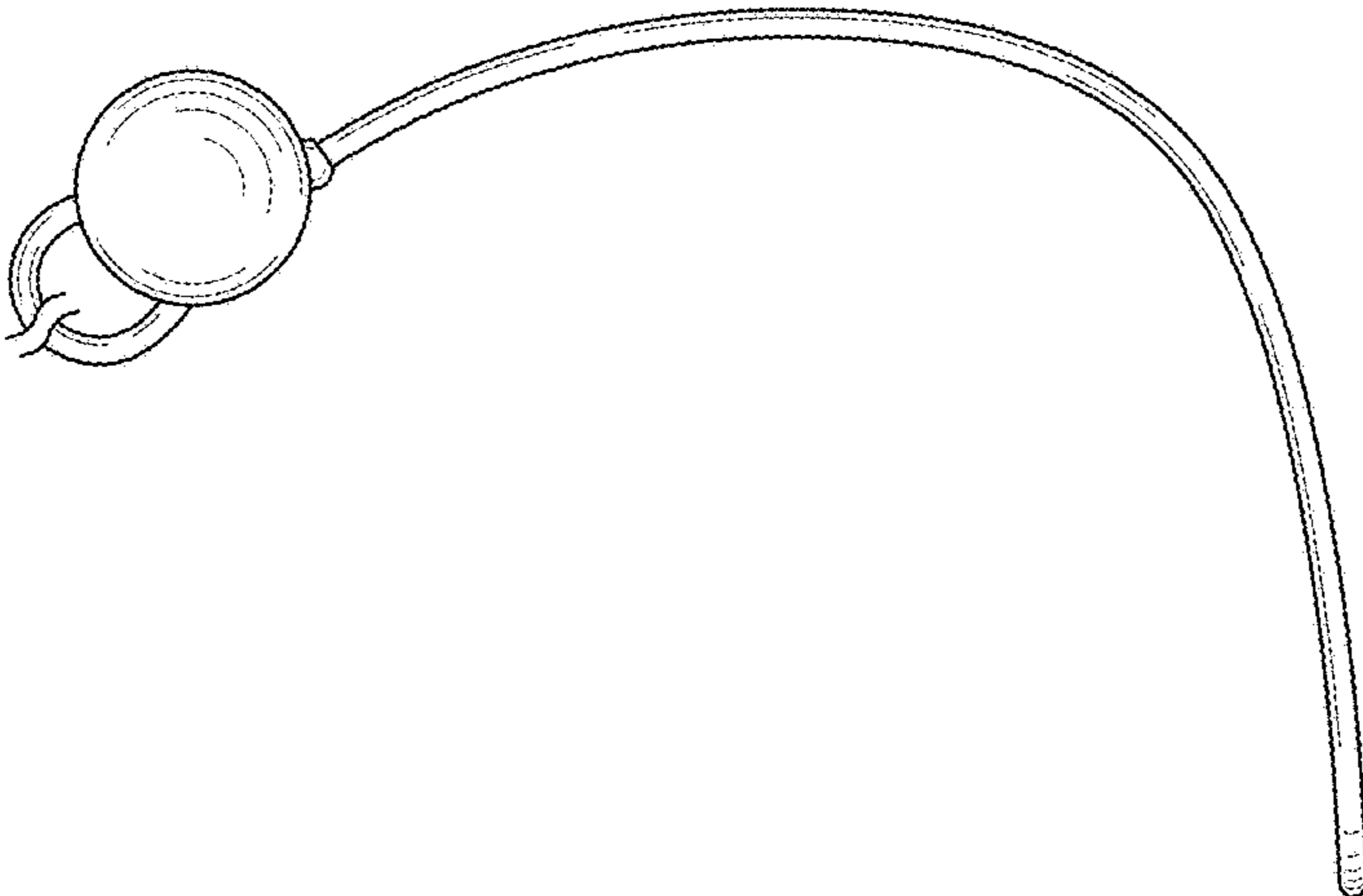


FIG. 40

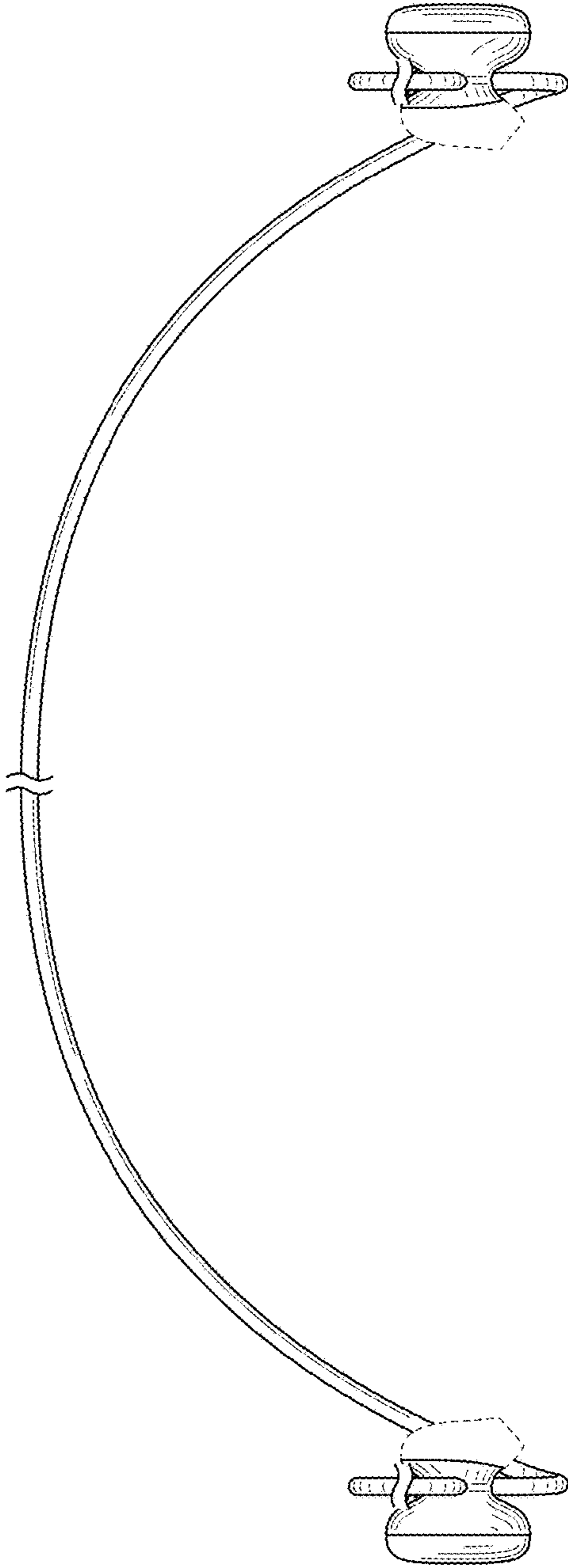


FIG. 41

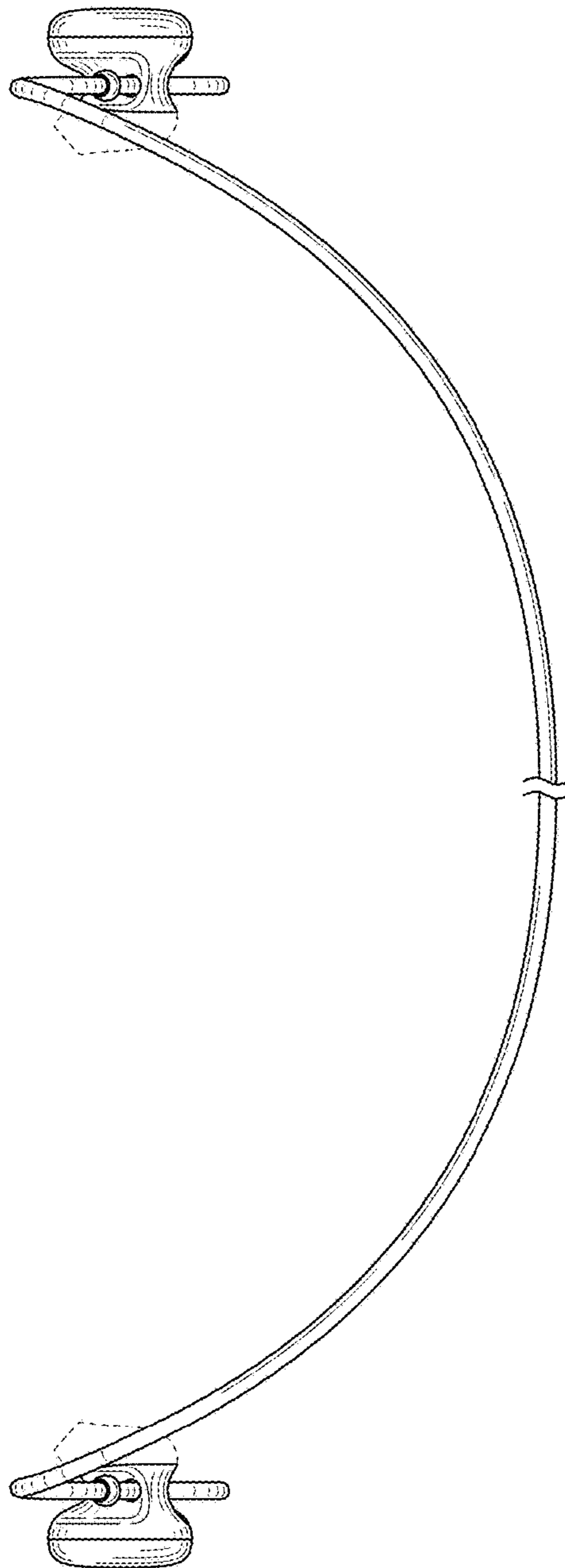


FIG. 42