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Bruggeman et al.

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(54) **TRACHEAL CANNULA**

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

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(51) **LOC (9) Cl.** **29-02**

(52) **U.S. Cl.**
USPC **D24/110.5**

(58) **Field of Classification Search**
USPC D24/110, 110.5; 128/200.26, 207.14, 128/911; 604/264
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

316,529 A	4/1885	Dion	
322,567 A	7/1885	Stonesifer	
3,948,273 A	4/1976	Sanders	
4,315,505 A *	2/1982	Crandall et al.	128/200.26
4,817,598 A *	4/1989	LaBombard	128/207.14
4,909,248 A	3/1990	McLennan	
5,386,826 A	2/1995	Inglis et al.	
5,471,980 A *	12/1995	Varner	128/207.17
5,762,638 A *	6/1998	Shikani et al.	604/265
5,864,938 A	2/1999	Gansel et al.	
5,996,582 A	12/1999	Turnbull	
6,019,753 A	2/2000	Pagan	
6,024,730 A	2/2000	Pagan	
6,105,577 A *	8/2000	Varner	128/207.17
6,135,110 A	10/2000	Roy	
6,248,099 B1	6/2001	Bell	
D479,876 S *	9/2003	Gradon et al.	D24/110.5

6,679,871 B2	1/2004	Hahnen	
6,722,367 B1	4/2004	Blom	
6,725,862 B2	4/2004	Klinberg et al.	
6,739,339 B2	5/2004	Bergamaschi	
6,796,309 B2	9/2004	Nash et al.	
6,840,242 B1	1/2005	McCoy	
7,086,402 B2 *	8/2006	Peterson	128/207.14
7,156,090 B2	1/2007	Nomori	

(Continued)

FOREIGN PATENT DOCUMENTS

WO WO2008046418 A1 4/2008

OTHER PUBLICATIONS

U.S. Appl. No. 29/428,719, filed Aug. 2, 2012, Bruggemann et al.

(Continued)

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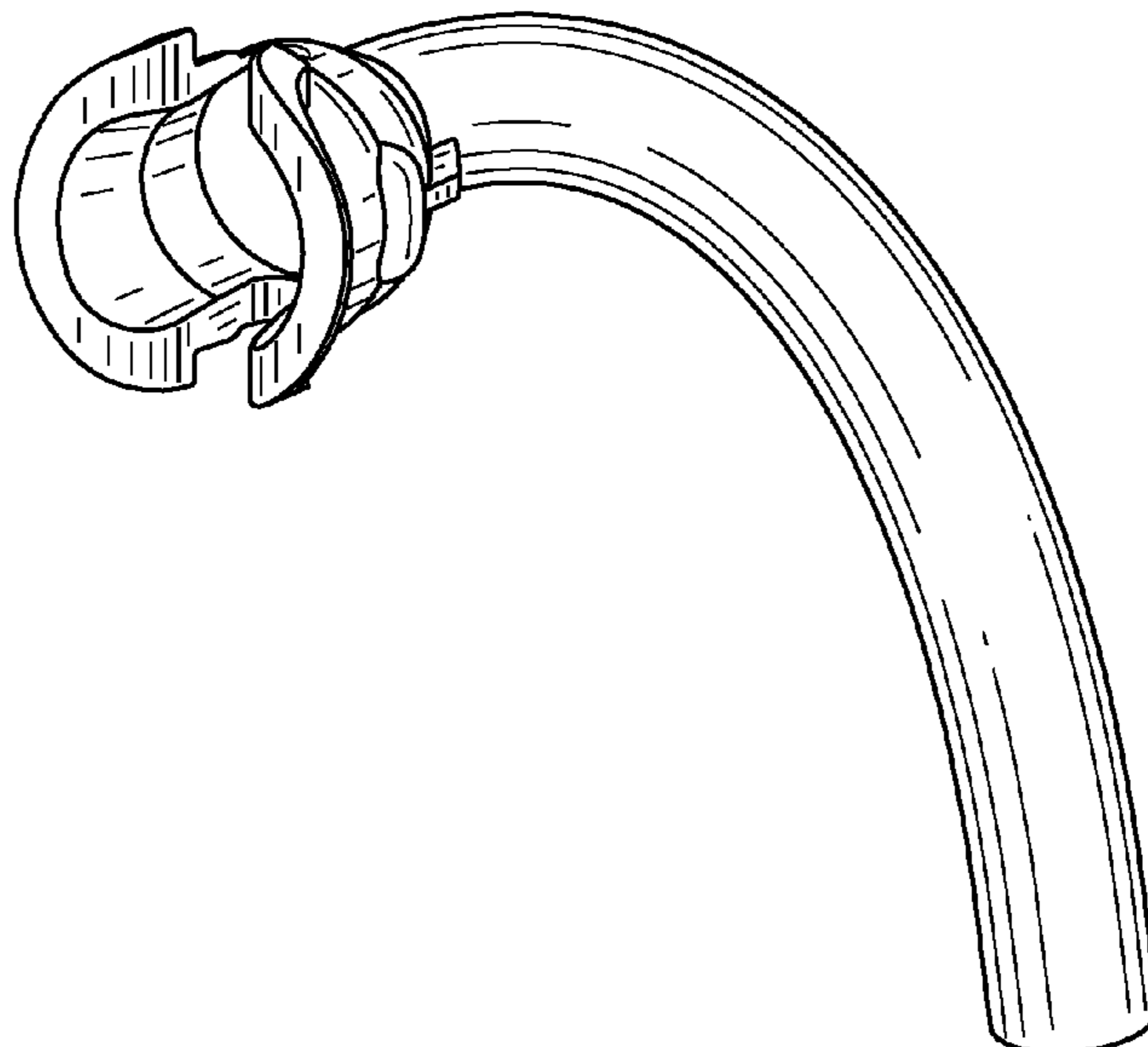
(57) **CLAIM**

We claim the ornamental design for a tracheal cannula, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of the tracheal cannula of the present invention; FIG. 2 is a right side view of the tracheal cannula of FIG. 1; FIG. 3 is a left side view of the tracheal cannula of FIG. 1; FIG. 4 is a front view of the tracheal cannula of FIG. 1; FIG. 5 is a rear view of the tracheal cannula of FIG. 1; FIG. 6 is a top view of the tracheal cannula of FIG. 1; and, FIG. 7 is a bottom view of the tracheal cannula of FIG. 1. Any subject matter shown in broken lines in the drawings constitutes the environment only and forms no part of the protection sought.

1 Claim, 5 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

7,305,989	B2	12/2007	Gostelow	
7,341,061	B2	3/2008	Wood	
D585,980	S *	2/2009	Cabrera	D24/110.1
7,681,576	B2 *	3/2010	Thomas et al.	128/207.29
8,127,766	B2 *	3/2012	Chang	128/207.17
2004/0068278	A1	4/2004	Fleischman et al.	
2004/0154623	A1	8/2004	Schaeffer et al.	
2004/0177851	A1	9/2004	Acosta	
2005/0066816	A1	3/2005	Wright	
2005/0166924	A1	8/2005	Thomas et al.	
2005/0241643	A1	11/2005	Webber	
2006/0070628	A1	4/2006	Byatt et al.	
2006/0081254	A1	4/2006	Gostelow	
2006/0124134	A1	6/2006	Wood	
2007/0012317	A1	1/2007	Flagler et al.	
2007/0246051	A1	10/2007	Newman	
2007/0255258	A1	11/2007	Matlock et al.	
2008/0072911	A1	3/2008	Flagler et al.	
2008/0142001	A1	6/2008	Wright	
2008/0142003	A1	6/2008	Depel	
2008/0149108	A1	6/2008	Neame	
2008/0216839	A1	9/2008	Rutter	
2008/0257353	A1	10/2008	Yamamoto et al.	
2009/0025717	A1	1/2009	Pinel	
2009/0145440	A1	6/2009	Bierman et al.	
2010/0089403	A1 *	4/2010	Solly	128/207.14
2010/0244432	A1	9/2010	Neame et al.	
2010/0307488	A1 *	12/2010	Poulsen et al.	128/200.26
2010/0319705	A1	12/2010	Thomas et al.	
2011/0083672	A1 *	4/2011	Webster et al.	128/207.15

OTHER PUBLICATIONS

U.S. Appl. No. 13/565,273, filed Aug. 12, 2013, Bruggemann et al.
 U.S. Appl. No. 13/776,194, filed Feb. 25, 2013, Bruggemann et al.

Rusch Crystal (2010) http://www.teleflexmedical.com/prod_rusch.php.
 Percutan (2010) <http://www.tracoe.com/products.html>.
 Pure (2010) <http://www.tracoe.com/products.html>.
 Twist (2010) <http://www.tracoe.com/products.html>.
 Mini (2010) <http://www.tracoe.com/products.html>.
 Comfort (2010) <http://www.tracoe.com/products.html>.
 Rusch Tracheoflex (2010) http://www.teleflexmedical.com/prod_rusch.php.
 Silicone Air Cuff Tracheostomy Tubes, Pediatric & Neonatal TT, Adjustable Neck Flange Tt; (2010) <http://www.arcadiamedical.com/arcadia/main.asp?cid=4&pid=2>.
 Silicone Cuffless Adult Tracheostomy Tubes; (2010) <http://www.arcadiamedical.com/arcadia/main.asp?cid=4&pid=2>.
 Bivona Adult Fome-Cuf (2013) <http://www.smiths-medical.com/catalog/endotracheal-tubes>.
 Bivona Aire-Cuf Neonatal and Pediatric (2013) <http://www.smiths-medical.com/catalog/endotracheal-tubes>.
 Portex Blue Line Cuffed (2013) <http://www.smiths-medical.com/catalog/endotracheal-tubes>.
 Portex Blue Line Uncuffed (2013) <http://www.smiths-medical.com/catalog/endotracheal-tubes>.
 Bjorling et al., "Clinical Use and Material Wear of Polymeric Tracheostomy Tubes", Laryngoscope 117: Sep. 2007.
 Liu, et al., "Extra-long Montgomery T Tube in Major Airway Stenosis", the Journal of Laryngology & Otology (2008), 123, 772-777.
 U.S. Appl. No. 29/428,719 file history.
 U.S. Appl. No. 13/565,273 file history.
 U.S. Appl. No. 13/776,194 file history.

* cited by examiner

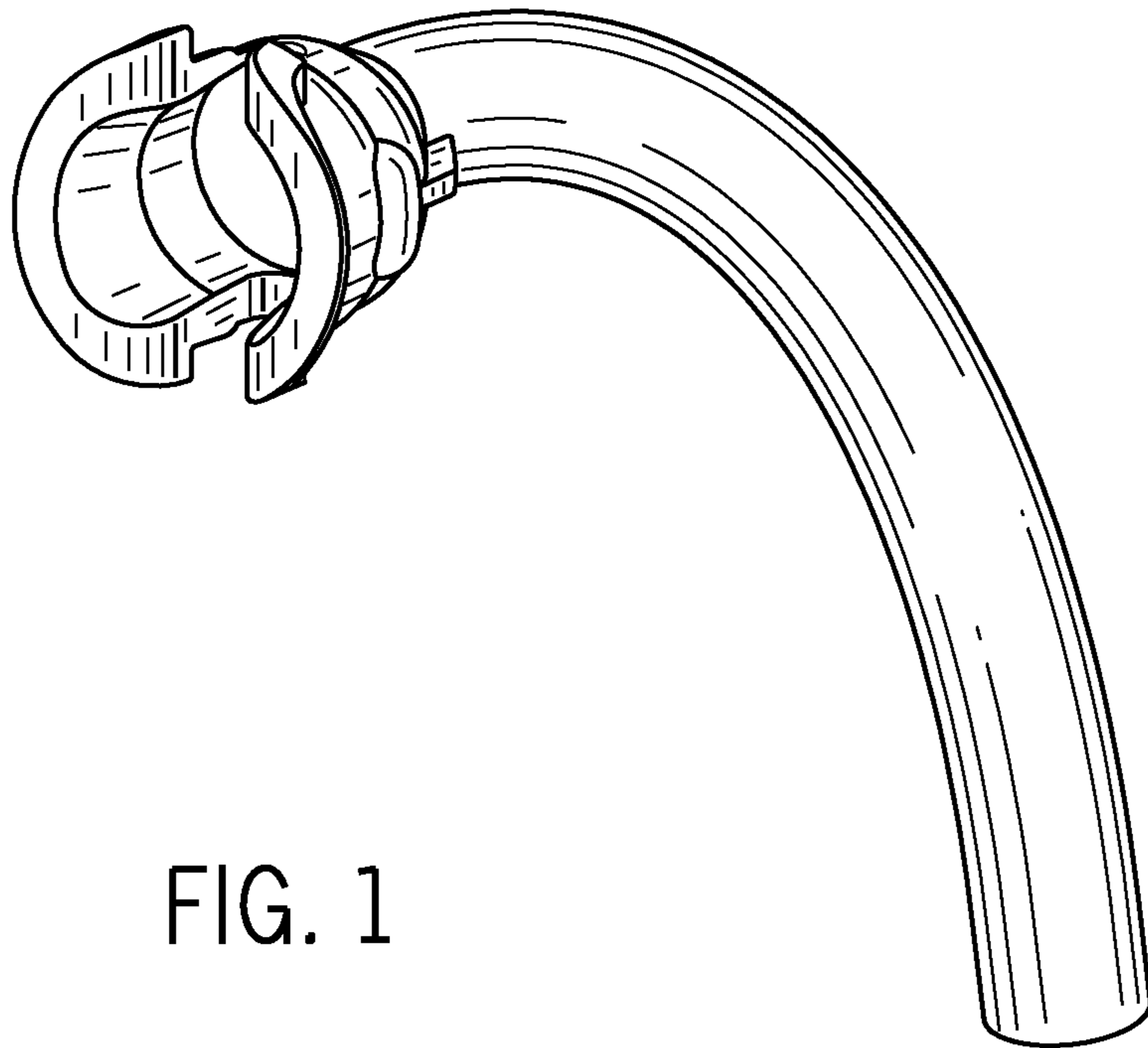


FIG. 1

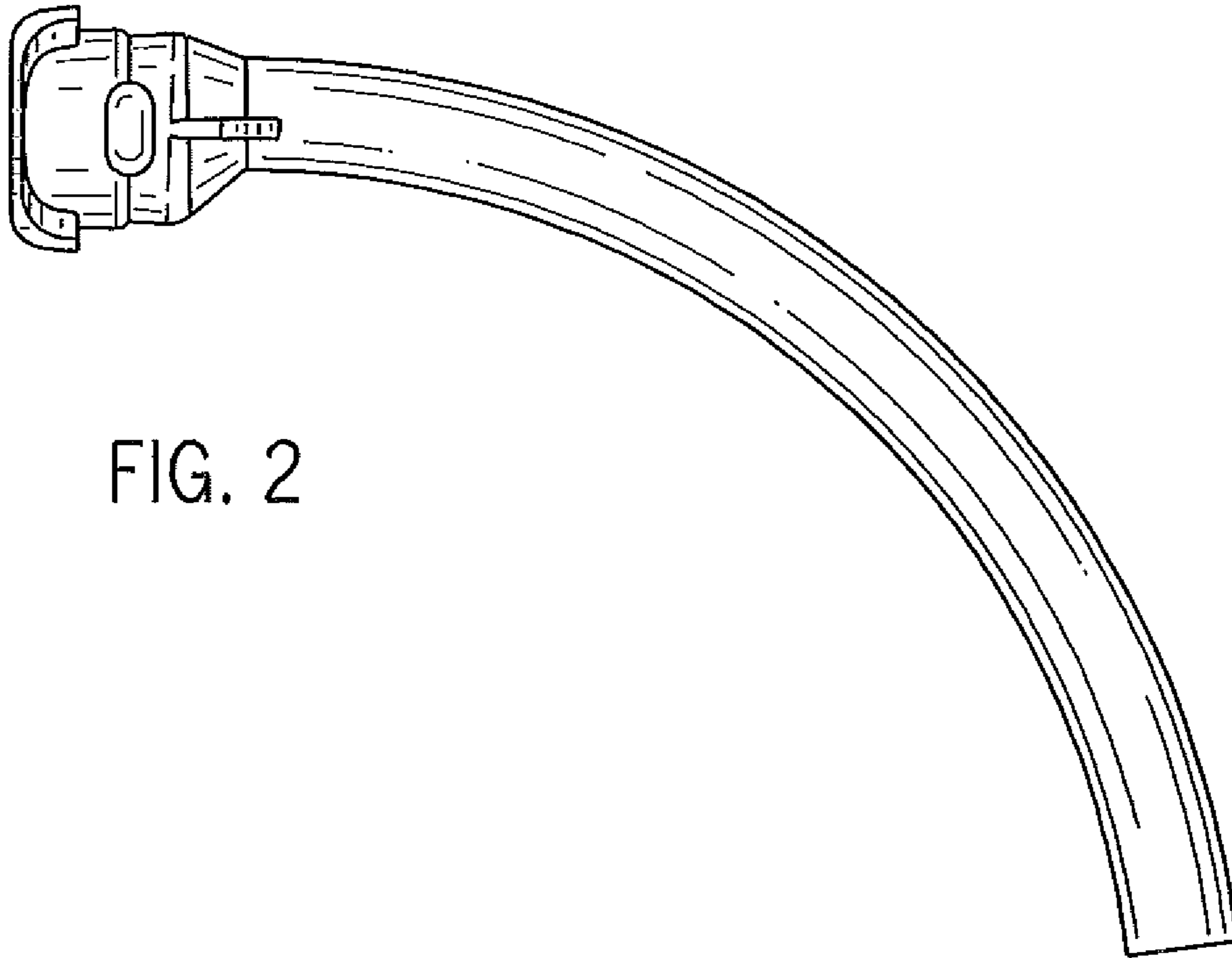


FIG. 2

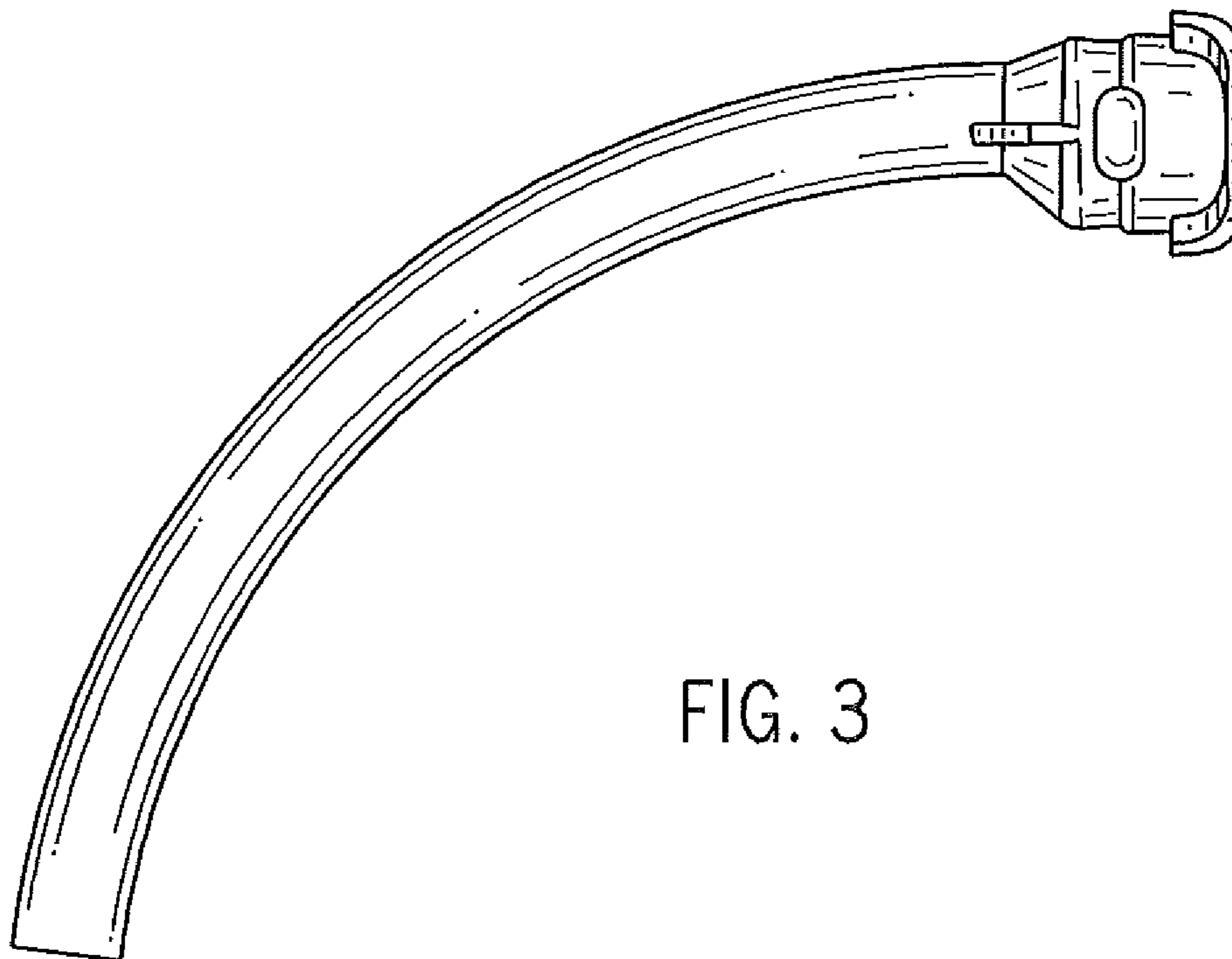


FIG. 3

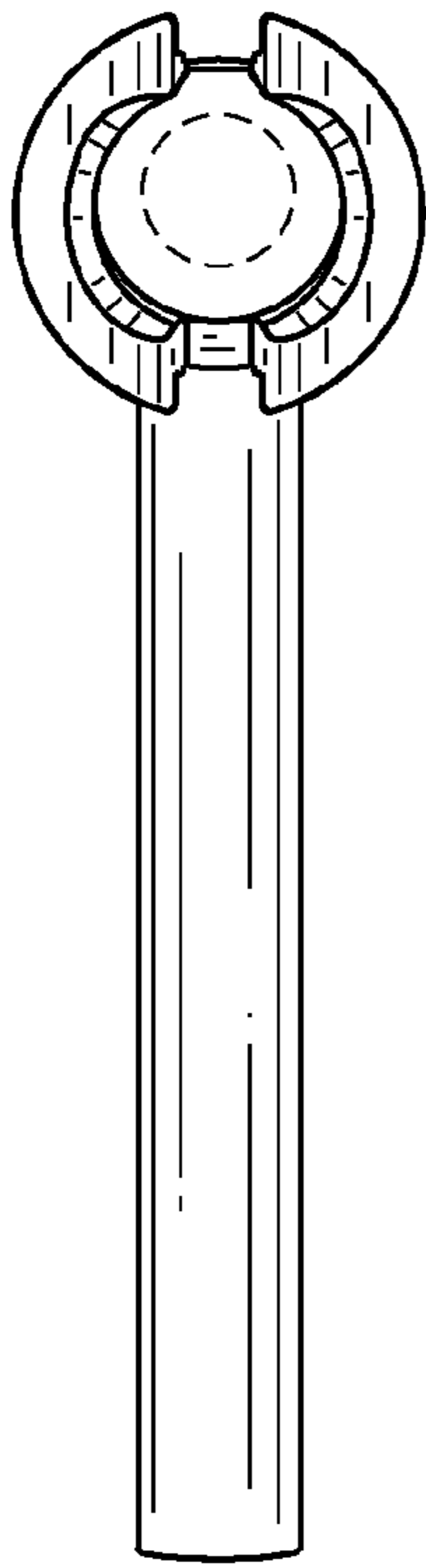


FIG. 4

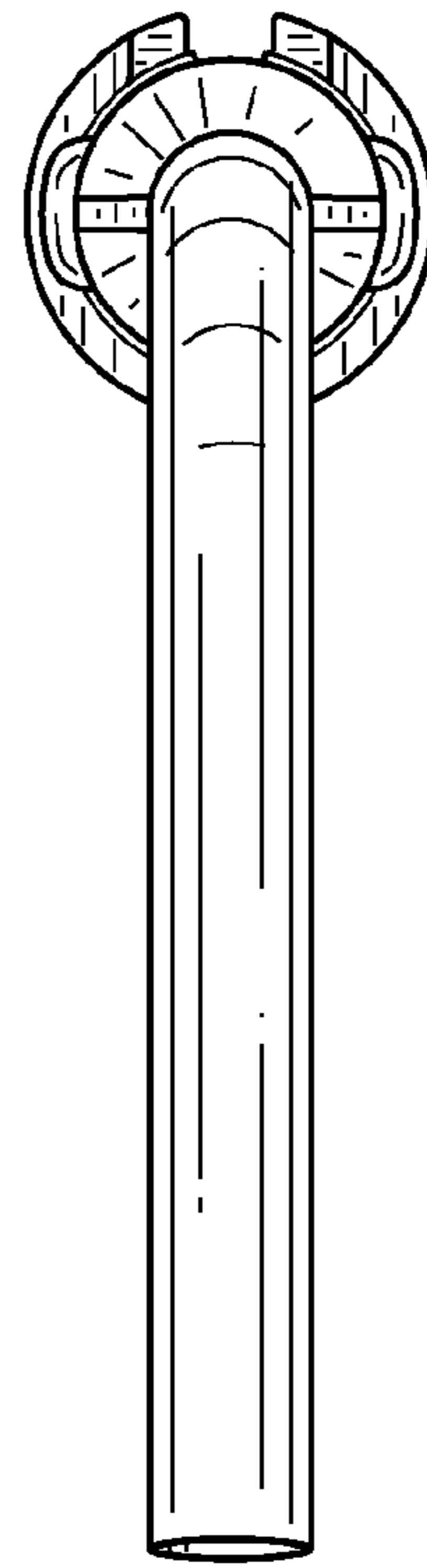


FIG. 5

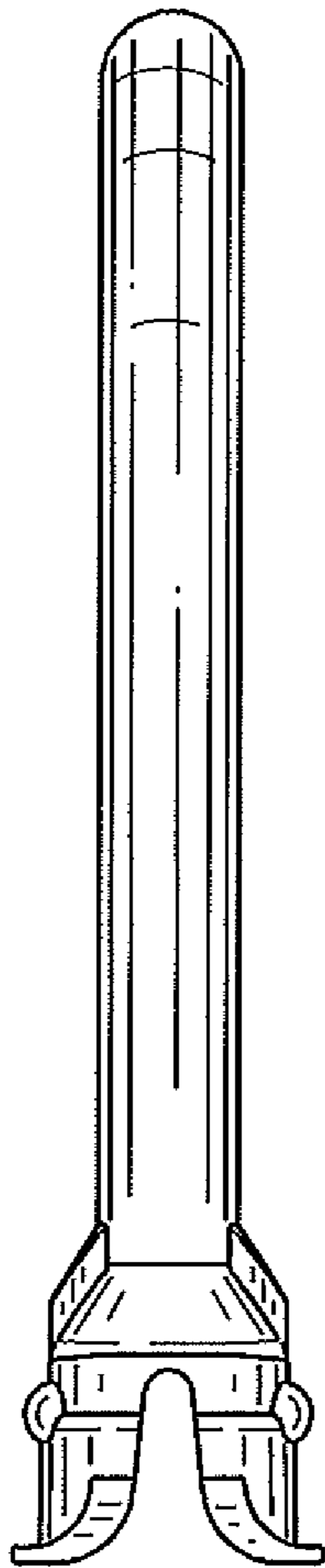


FIG. 6

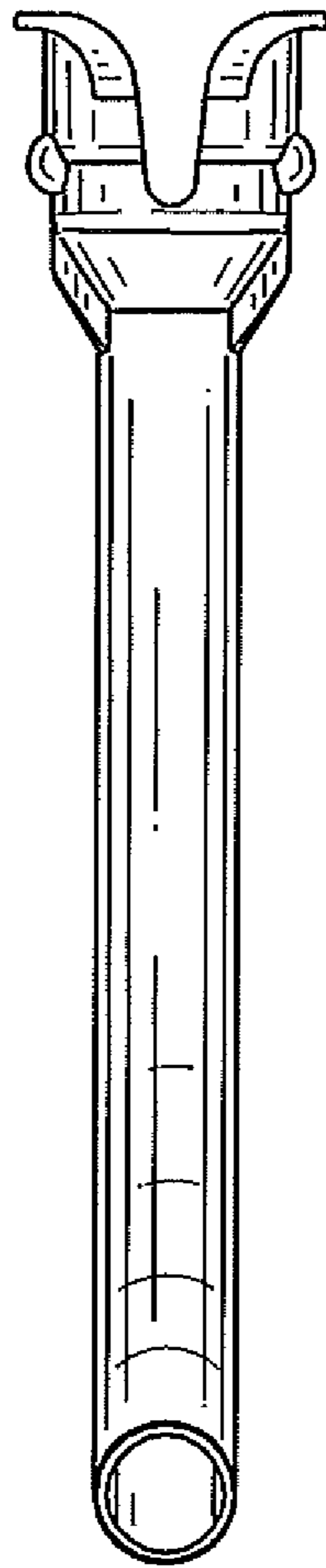


FIG. 7