



US00D589143S

(12) **United States Design Patent**  
**Mauch**

(10) **Patent No.:** **US D589,143 S**  
(45) **Date of Patent:** **\*\* Mar. 24, 2009**

(54) **DILATOR APPARATUS**

(75) Inventor: **Grant A Mauch**, Delano, MN (US)

(73) Assignee: **Enpath Medical, Inc.**, Plymouth, MN (US)

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

(21) Appl. No.: **29/278,566**

(22) Filed: **Apr. 2, 2007**

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

(52) **U.S. Cl.** ..... **D24/130**

(58) **Field of Classification Search** ..... D24/130,  
D24/112, 133; 604/164.01, 164.05, 165.3,  
604/167, 160, 161, 523, 264  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

4,424,833	A	1/1984	Spector et al.	
4,741,732	A *	5/1988	Crankshaw et al.	604/503
5,098,392	A *	3/1992	Fleischhacker et al.	604/164.05
5,201,756	A *	4/1993	Horzewski et al.	606/198
5,211,644	A *	5/1993	VanBeek et al.	606/1
5,300,033	A	4/1994	Miller	
5,397,311	A	3/1995	Walker et al.	
D363,543	S *	10/1995	Van Funderburk et al.	D24/130
5,755,693	A	5/1998	Walker et al.	
6,013,057	A *	1/2000	Danby et al.	604/131
6,024,729	A	2/2000	Dehdashtian et al.	
D430,290	S *	8/2000	Cindrich et al.	D24/112
6,096,022	A *	8/2000	Laymon et al.	604/523
6,142,981	A	11/2000	Heck et al.	
6,171,281	B1 *	1/2001	Zhang	604/164.01
6,273,871	B1 *	8/2001	Davis et al.	604/164.05
D450,839	S *	11/2001	Junker	D24/130
6,336,914	B1 *	1/2002	Gillespie, III	604/164.01
6,623,460	B1	9/2003	Heck	
6,692,464	B2 *	2/2004	Graf	604/160
6,712,791	B2	3/2004	Lui et al.	
6,796,991	B2 *	9/2004	Nardeo	606/191
2001/0005783	A1 *	6/2001	Hassett	604/523
2001/0049499	A1	12/2001	Lui et al.	

2002/0065487 A1 5/2002 Wollschlager  
2003/0050604 A1 3/2003 Lui et al.  
2003/0120258 A1\* 6/2003 Ashby et al. .... 604/523

(Continued)

**FOREIGN PATENT DOCUMENTS**

WO WO-2006017770 A3 2/2006

*Primary Examiner*—T. Chase Nelson  
*Assistant Examiner*—Eric L Goodman  
(74) *Attorney, Agent, or Firm*—Schwegman, Lundberg & Woessner, P.A.

(57) **CLAIM**

The ornamental design for a dilator apparatus, as shown and described.

**DESCRIPTION**

FIG. 1 is a front isometric view of a dilator apparatus in accordance with one embodiment.

FIG. 2 is a front elevational view of the dilator apparatus of FIG. 1.

FIG. 3 is a rear elevational view of the dilator apparatus of FIG. 1.

FIG. 4 is a first side elevational view of the dilator apparatus of FIG. 1.

FIG. 5 is a second side elevational view of the dilator apparatus of FIG. 1; and,

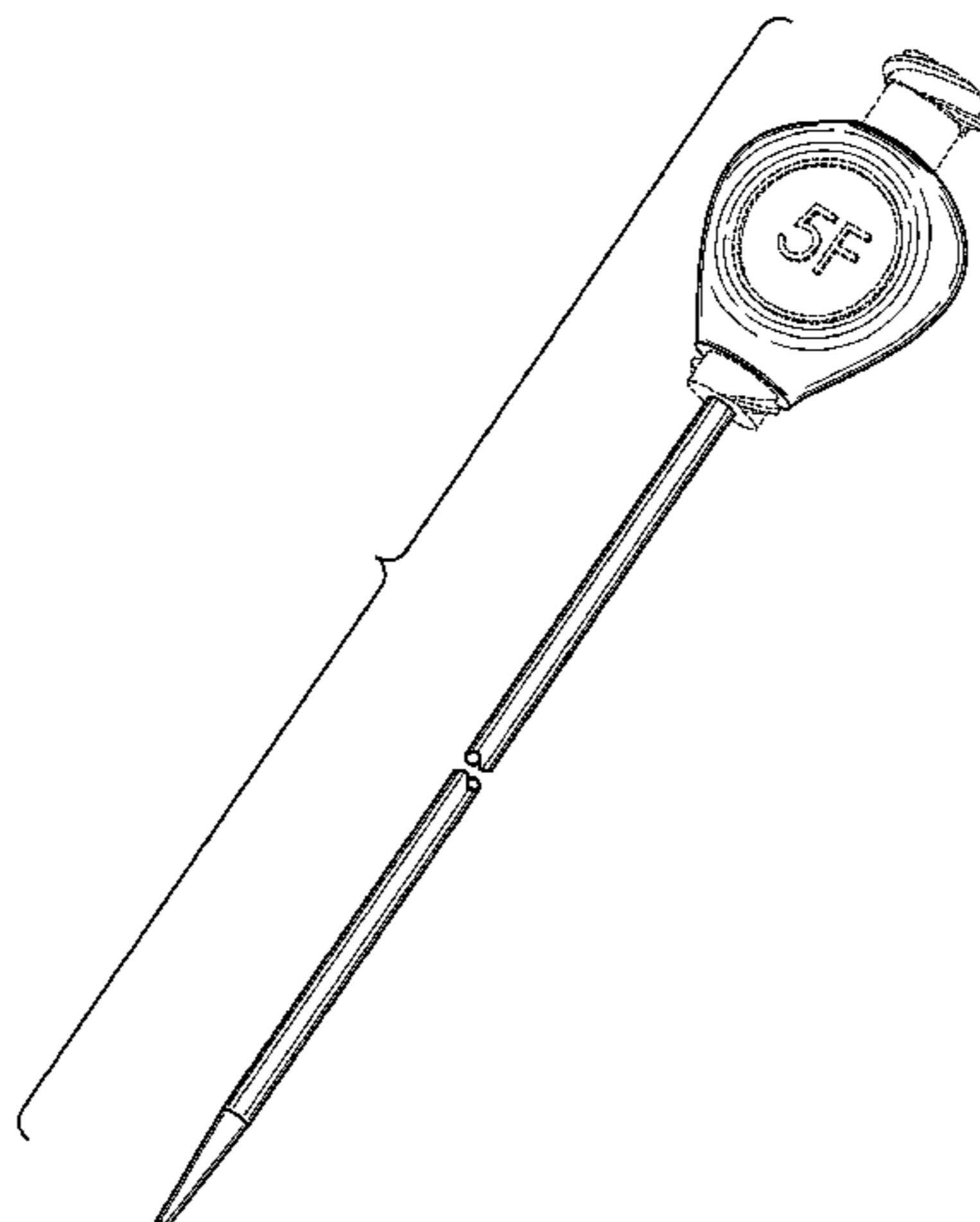
FIG. 6 is a top plan view of the dilator apparatus of FIG. 1.

The bottom view does not form a part of the design.

The broken line showing is included for the purpose of illustrating portions of the article and forms no part of the claimed design.

The design is shown broken away and embraced by a bracket in order to indicate that a specific length of dilator apparatus forms no part of the claimed design.

**1 Claim, 5 Drawing Sheets**



# US D589,143 S

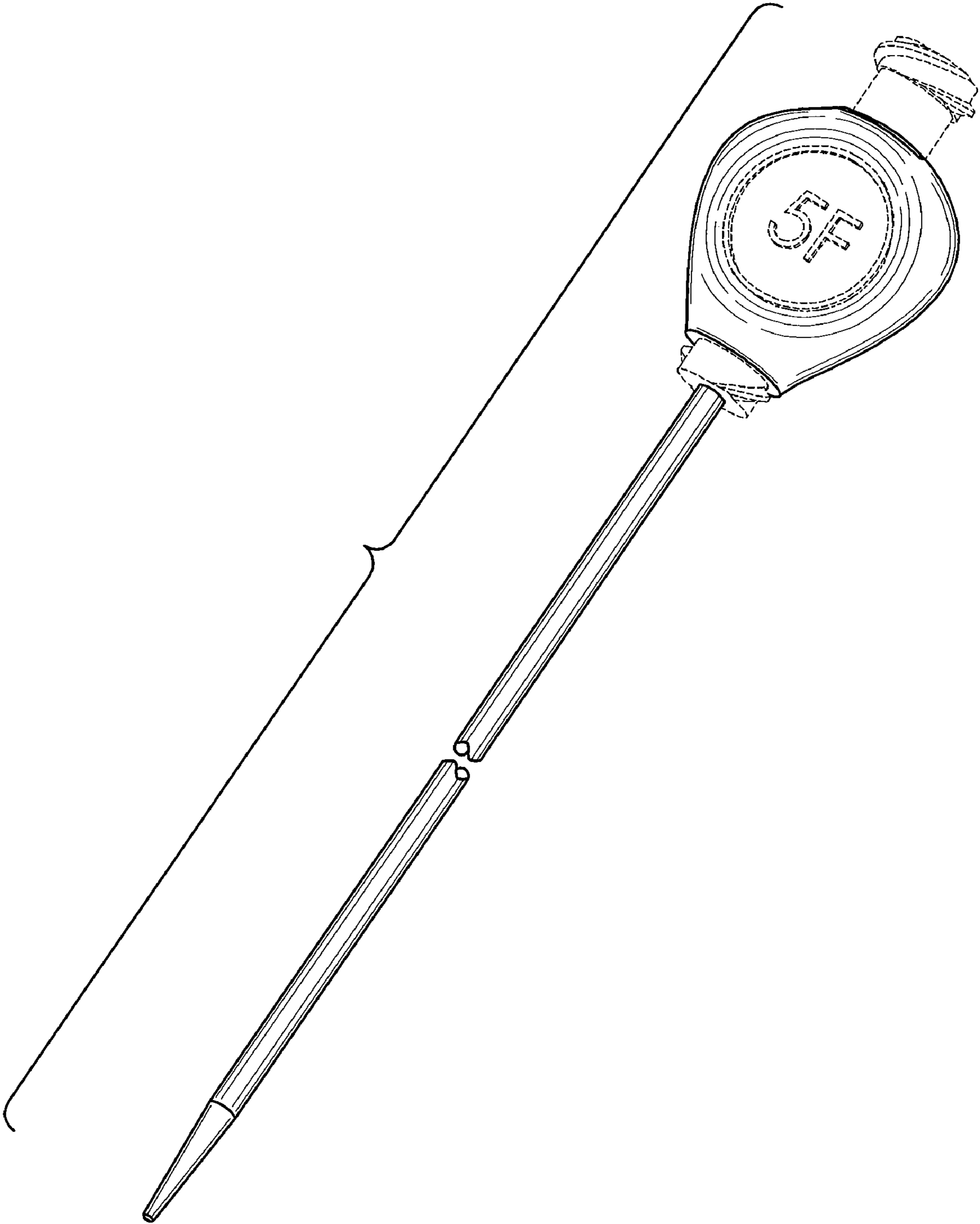
Page 2

---

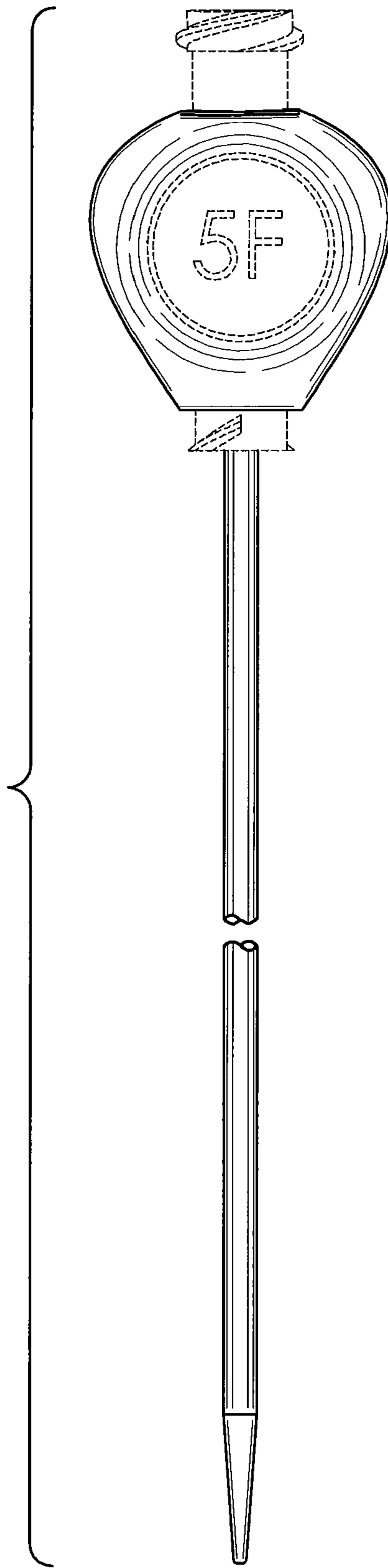
## U.S. PATENT DOCUMENTS

2004/0030319	A1*	2/2004	Korkor et al. ....	604/506	2006/0079835	A1*	4/2006	Frassica .....	604/93.01
2004/0059298	A1*	3/2004	Sanderson .....	604/171	2006/0135973	A1*	6/2006	Hawkins et al. ....	606/167
2005/0010238	A1*	1/2005	Potter et al. ....	606/129	2006/0149293	A1*	7/2006	King et al. ....	606/108
2005/0090779	A1*	4/2005	Osypka .....	604/160	2007/0100299	A1*	5/2007	Magnusson .....	604/264
2005/0251246	A1*	11/2005	Dubrul et al. ....	623/1.42	2007/0123825	A1*	5/2007	King et al. ....	604/160
2006/0030817	A1	2/2006	Kraus et al.		2007/0260196	A1*	11/2007	Belsley .....	604/264
2006/0041230	A1*	2/2006	Davis .....	604/160	2007/0260219	A1*	11/2007	Root et al. ....	604/523

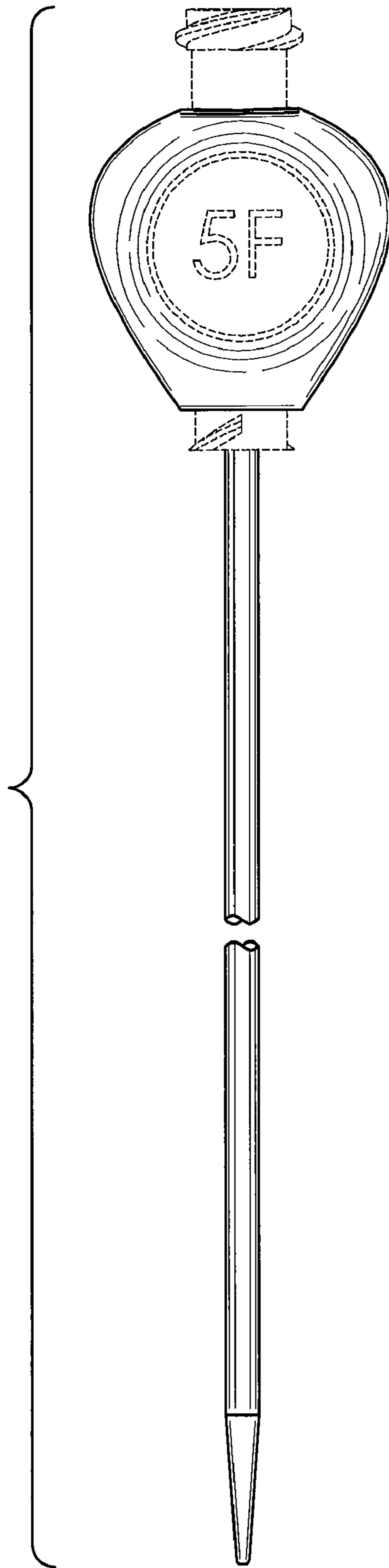
\* cited by examiner



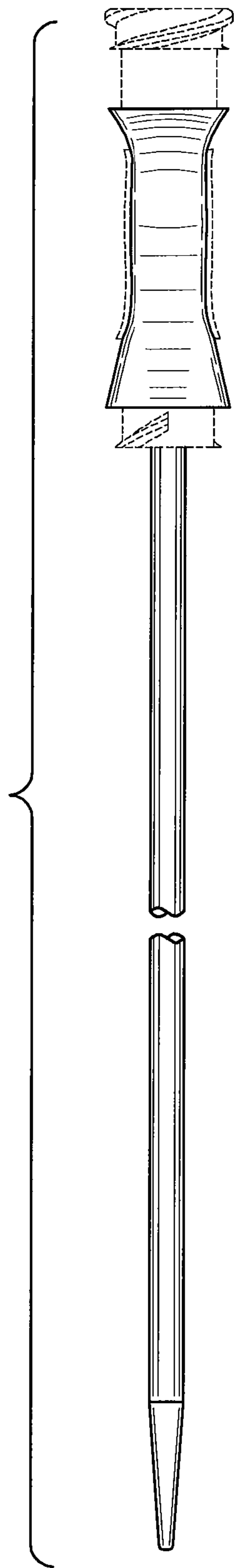
*FIG. 1*



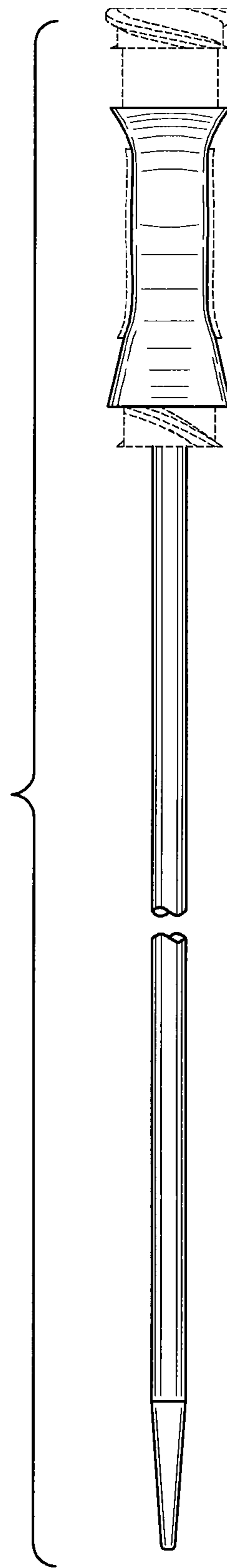
*FIG. 2*



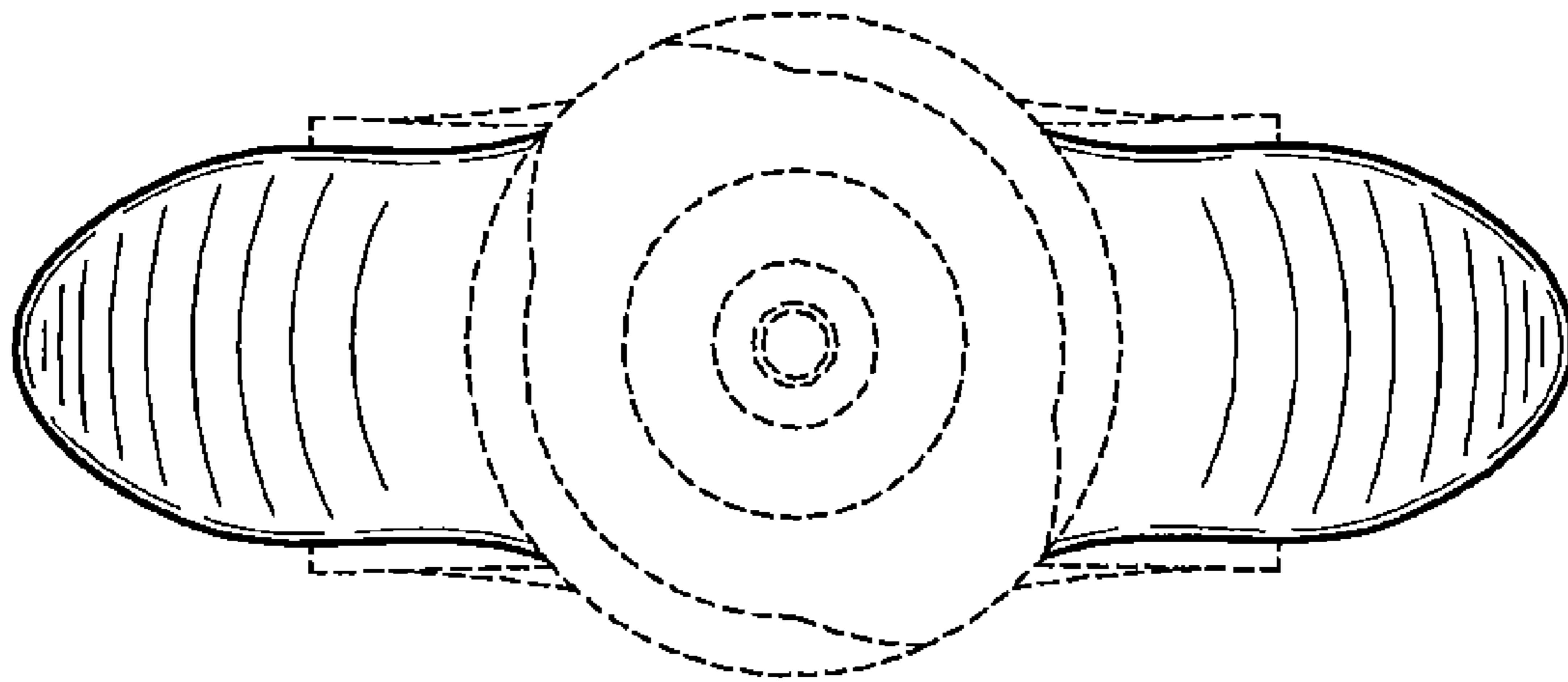
*FIG. 3*



*FIG. 4*



*FIG. 5*



*FIG. 6*