



US00D772960S

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

(10) **Patent No.:** **US D772,960 S**

(45) **Date of Patent:** **\*\* Nov. 29, 2016**

(54) **MOLDING DIE FOR PIPE BENDING**

(71) Applicant: **Sango Co., Ltd.**, Miyoshi-shi,  
Aichi-ken (JP)

(72) Inventor: **Kentaro Nodu**, Nagakute (JP)

(73) Assignee: **SANGO CO., LTD.**, Aichi-Ken (JP)

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

(21) Appl. No.: **29/526,960**

(22) Filed: **May 14, 2015**

(30) **Foreign Application Priority Data**

Nov. 26, 2014 (JP) ..... 2014-026380

(51) **LOC (10) Cl.** ..... **15-09**

(52) **U.S. Cl.**  
USPC ..... **D15/136**

(58) **Field of Classification Search**  
USPC ..... D15/135, 136, 137, 138; D23/266  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

- 1,837,060 A \* 12/1931 Offutt ..... B21D 7/024  
72/157
- 3,780,591 A \* 12/1973 Clavin ..... B21D 9/05  
72/318
- 3,834,210 A \* 9/1974 Clavin ..... B21D 9/05  
72/308
- 4,043,167 A \* 8/1977 Koser ..... B21C 37/28  
29/890.15
- 4,313,330 A \* 2/1982 Cummings ..... B21D 11/00  
72/307
- 4,362,044 A \* 12/1982 Green ..... B21D 11/00  
72/292
- 4,563,891 A \* 1/1986 Schwarze ..... B21D 9/073  
72/149

- 4,981,030 A \* 1/1991 Caporusso ..... B21D 7/024  
72/149
- D317,927 S \* 7/1991 Kern ..... D15/135
- 5,105,646 A \* 4/1992 Koskinen ..... B21D 7/063  
72/390.2
- 5,127,248 A \* 7/1992 Sanseau ..... B21D 7/14  
72/149
- 5,263,350 A \* 11/1993 Crippa ..... B21D 7/021  
72/155
- 5,327,758 A \* 7/1994 Galan ..... B21D 7/024  
72/149
- 5,564,303 A \* 10/1996 Buchanan ..... B21D 11/00  
72/466
- 5,694,800 A \* 12/1997 Lopez ..... B21D 7/024  
72/149
- 5,765,426 A \* 6/1998 Saegusa ..... B21D 7/08  
72/217
- 6,128,941 A \* 10/2000 Russell ..... B21D 7/066  
72/383

(Continued)

**FOREIGN PATENT DOCUMENTS**

JP 2011235351 A 11/2011

*Primary Examiner* — Patricia Palasik

(74) *Attorney, Agent, or Firm* — Buchanan Ingersoll &  
Rooney PC

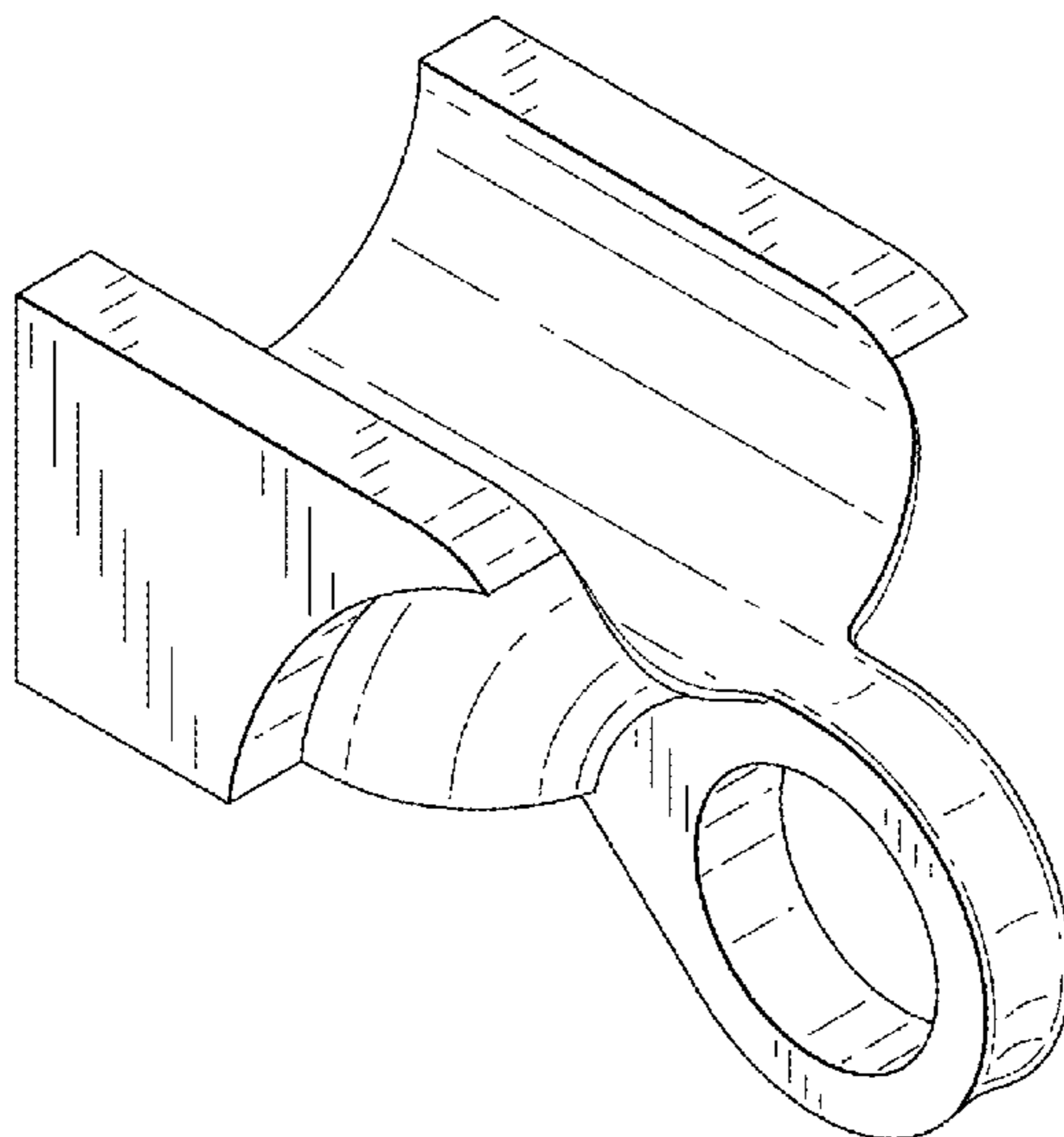
(57) **CLAIM**

The ornamental design for a molding die for pipe bending,  
as shown and described.

**DESCRIPTION**

FIG. 1 is a left side, front and top perspective view of a  
molding die for pipe bending showing my new design.  
FIG. 2 is a front elevational view thereof.  
FIG. 3 is a rear elevational view thereof.  
FIG. 4 is a left side elevational view thereof.  
FIG. 5 is a right side elevational view thereof.  
FIG. 6 is a top plan view thereof; and,  
FIG. 7 is a bottom plan view thereof.

**1 Claim, 5 Drawing Sheets**



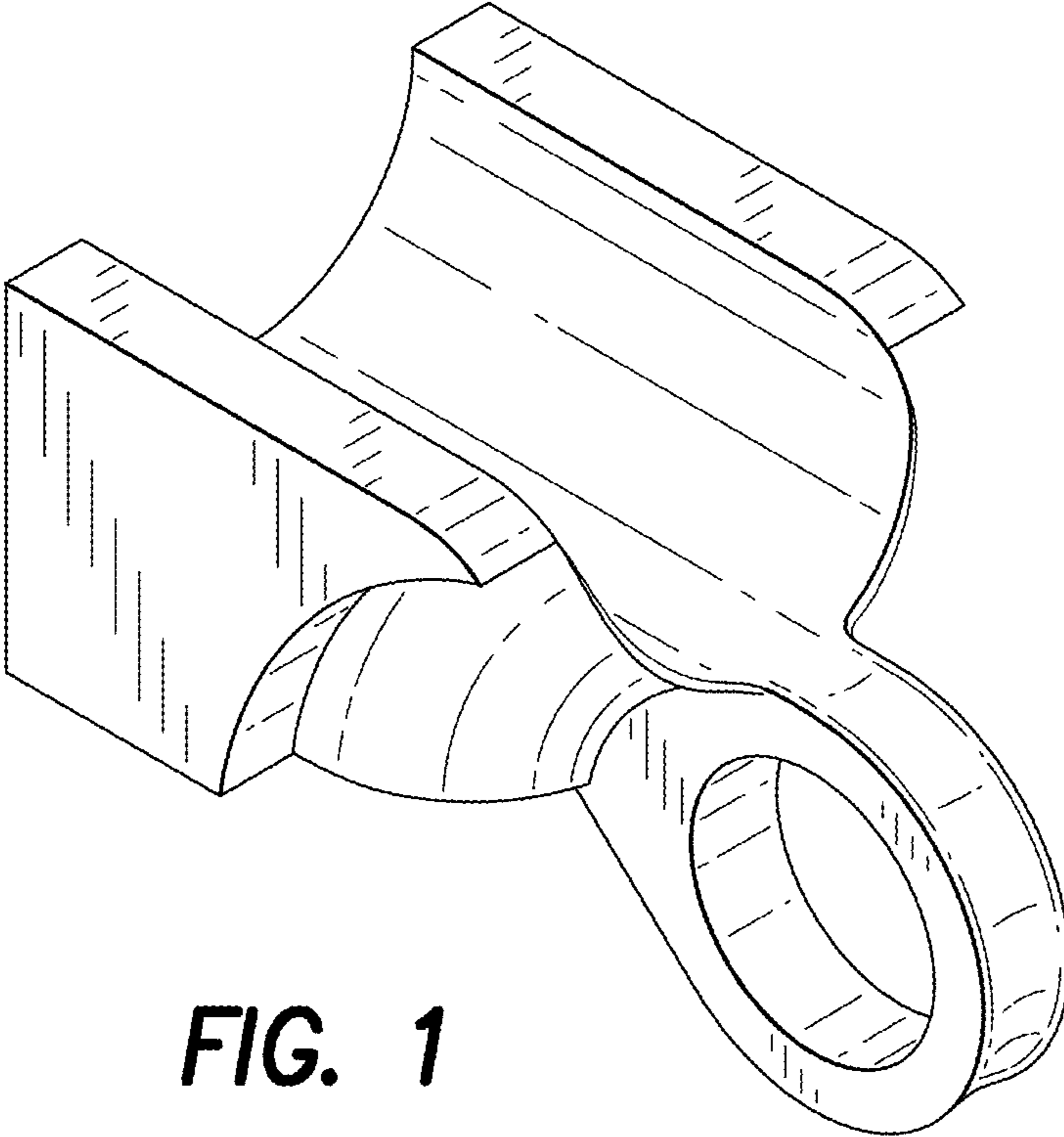
(56)

**References Cited**

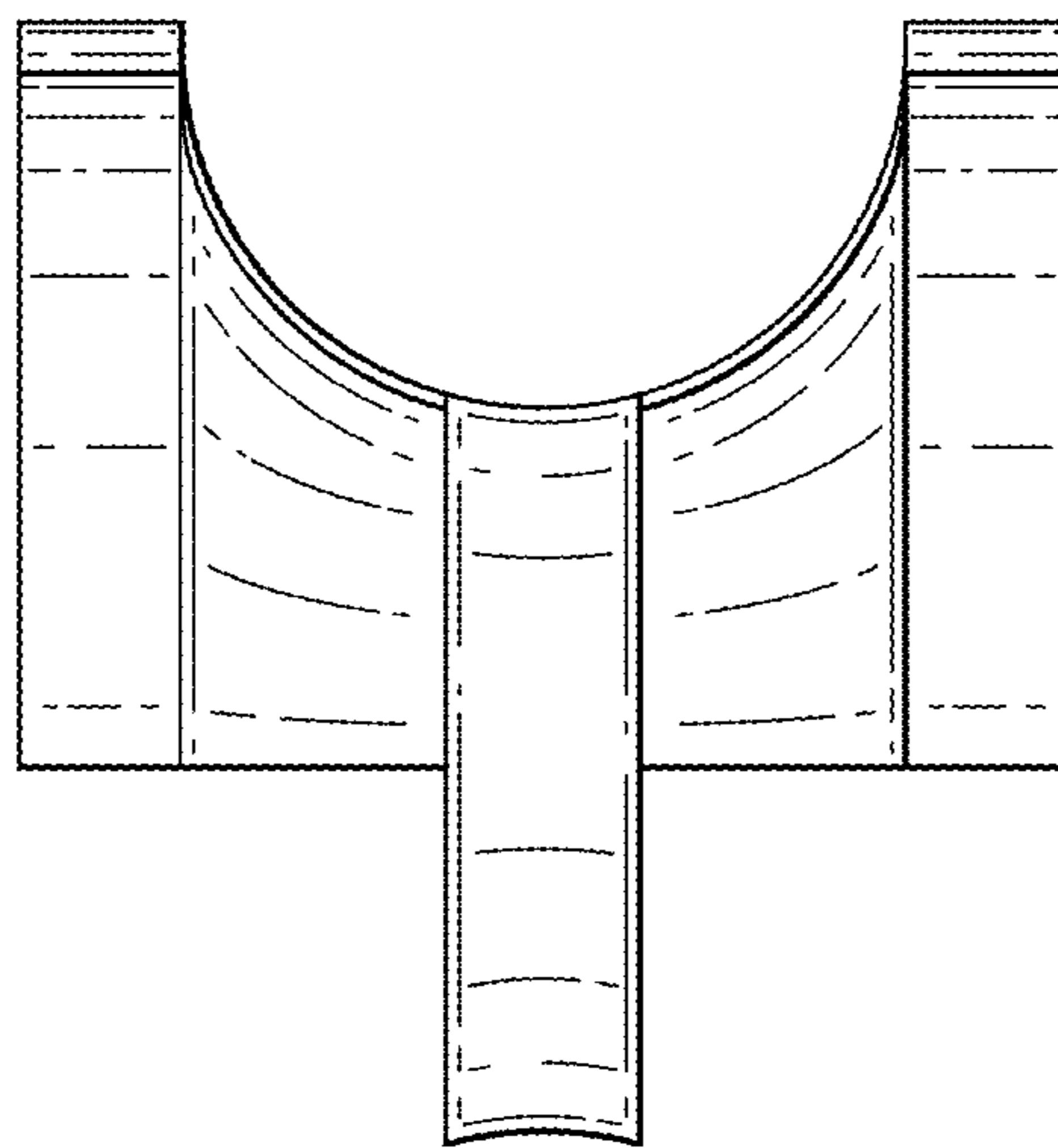
U.S. PATENT DOCUMENTS

6,164,113	A *	12/2000	Parker .....	B21D 11/00 72/307	
6,279,369	B1 *	8/2001	Kasuya .....	B21D 9/01 72/369	
6,298,706	B1 *	10/2001	Dunn .....	B21D 11/00 72/369	
6,931,908	B1 *	8/2005	Mitson .....	B21D 7/04 72/213	
7,047,789	B1 *	5/2006	Theener .....	B21D 9/08 72/382	
7,100,414	B1 *	9/2006	Briggs .....	B21D 7/02 72/149	
7,162,905	B1 *	1/2007	Briggs .....	B21D 7/04 72/149	
					D580,461 S * 11/2008 Schreck ..... D15/136
					D596,004 S * 7/2009 Picaza Ibarrodo ..... D8/32
					D597,026 S * 7/2009 Burger ..... D13/102
					D601,176 S * 9/2009 Wiltsie ..... D15/136
					7,721,583 B1 * 5/2010 Anderson ..... B21D 7/06 72/382
					9,144,835 B2 * 9/2015 Houle ..... B21D 7/063
					2004/0241266 A1 * 12/2004 Neubauer ..... B29C 33/306 425/192 R
					2010/0206036 A1 * 8/2010 Caporusso ..... B21D 9/073 72/319
					2011/0042877 A1 * 2/2011 Caporusso ..... B21D 7/024 269/87.1
					2015/0027193 A1 * 1/2015 Pace ..... B21D 7/04 72/369

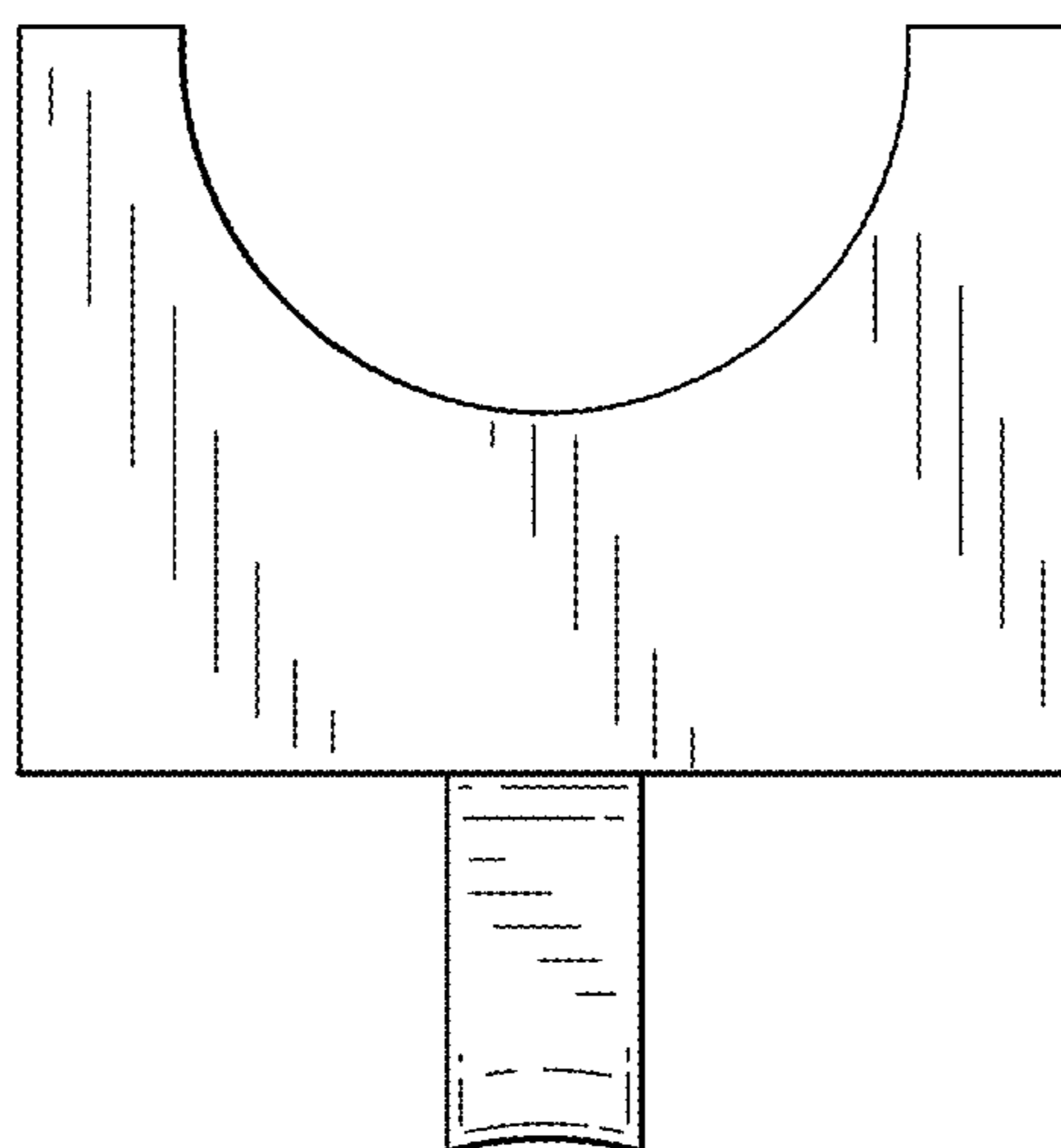
\* cited by examiner



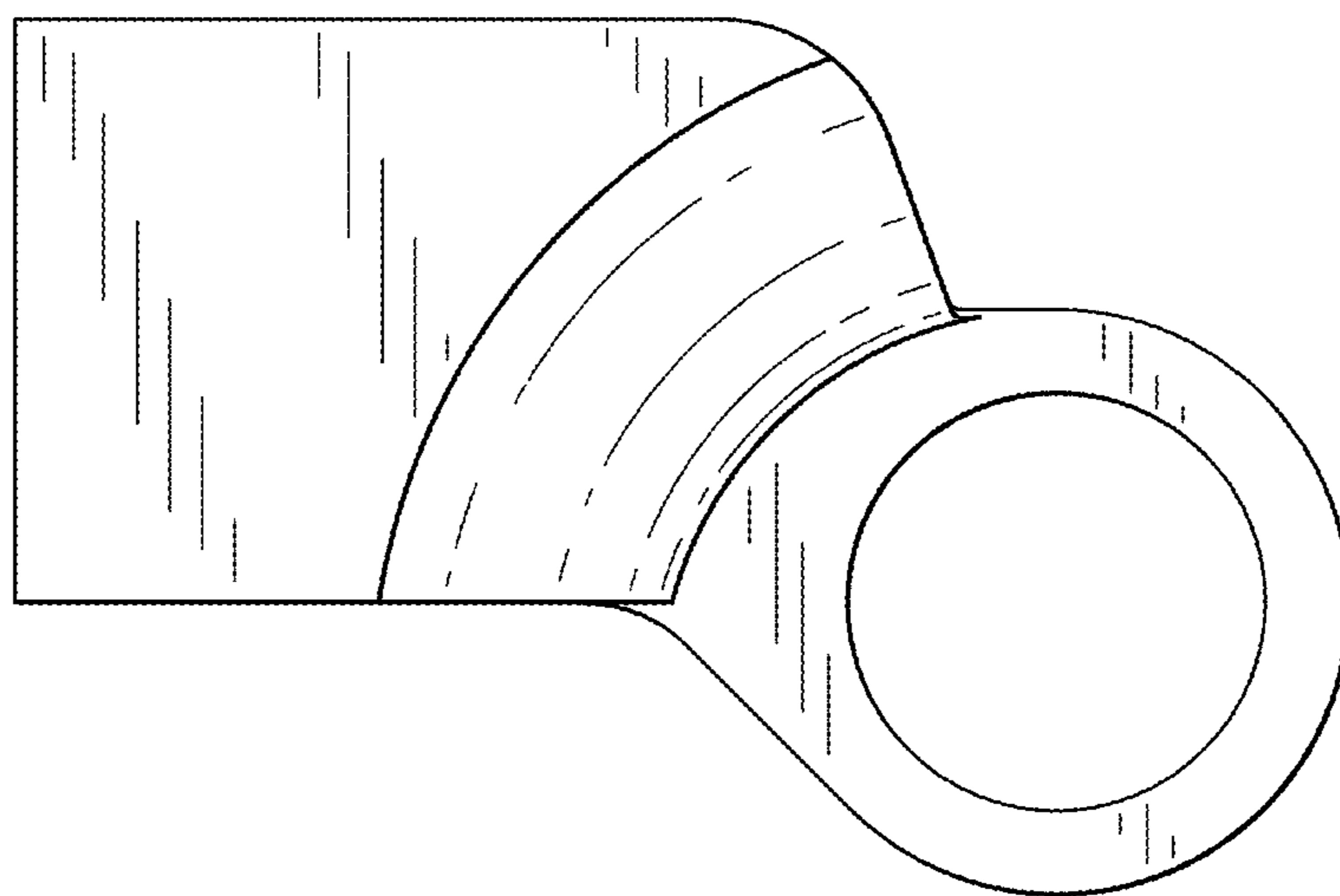
**FIG. 1**



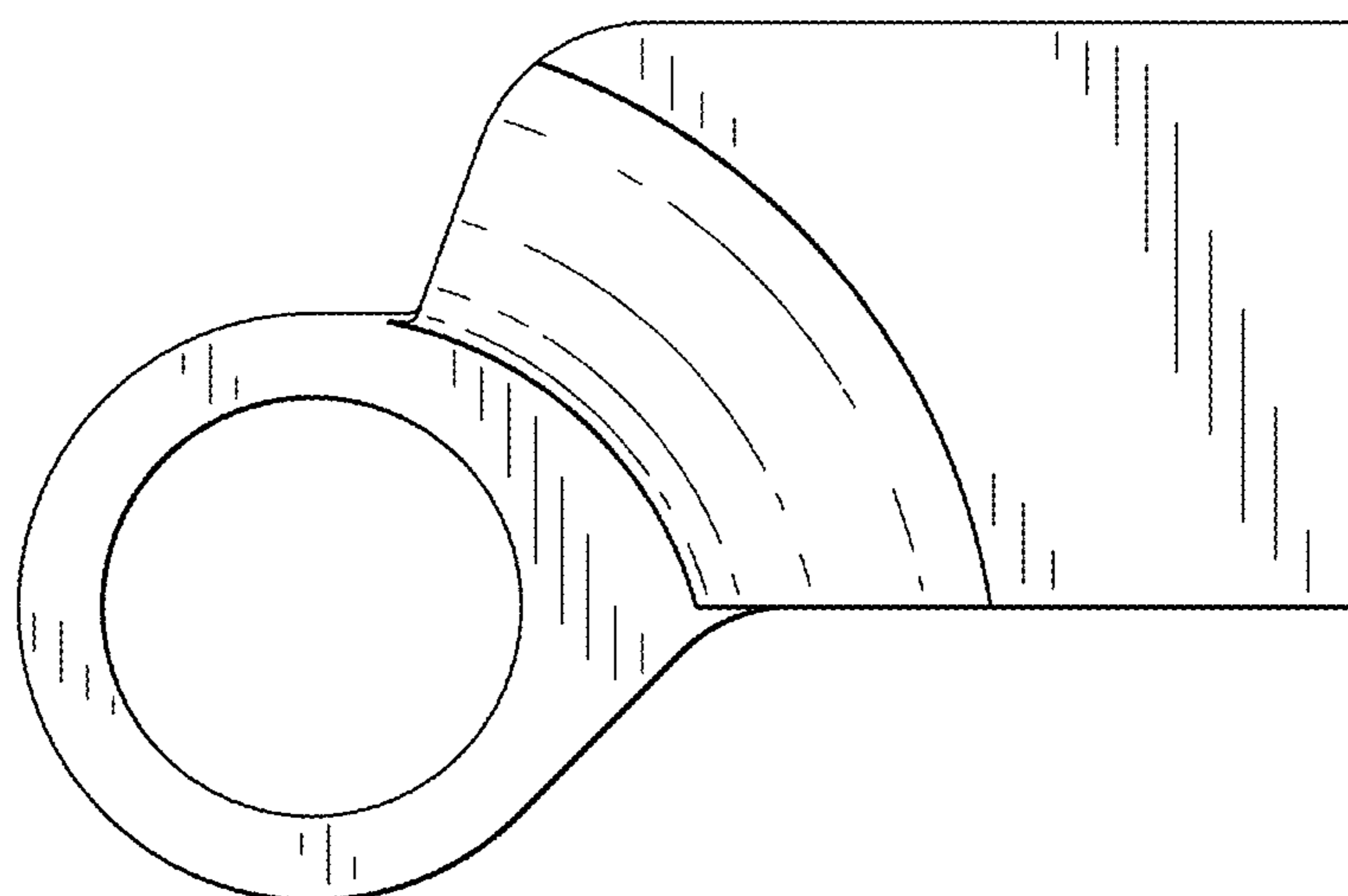
**FIG. 2**



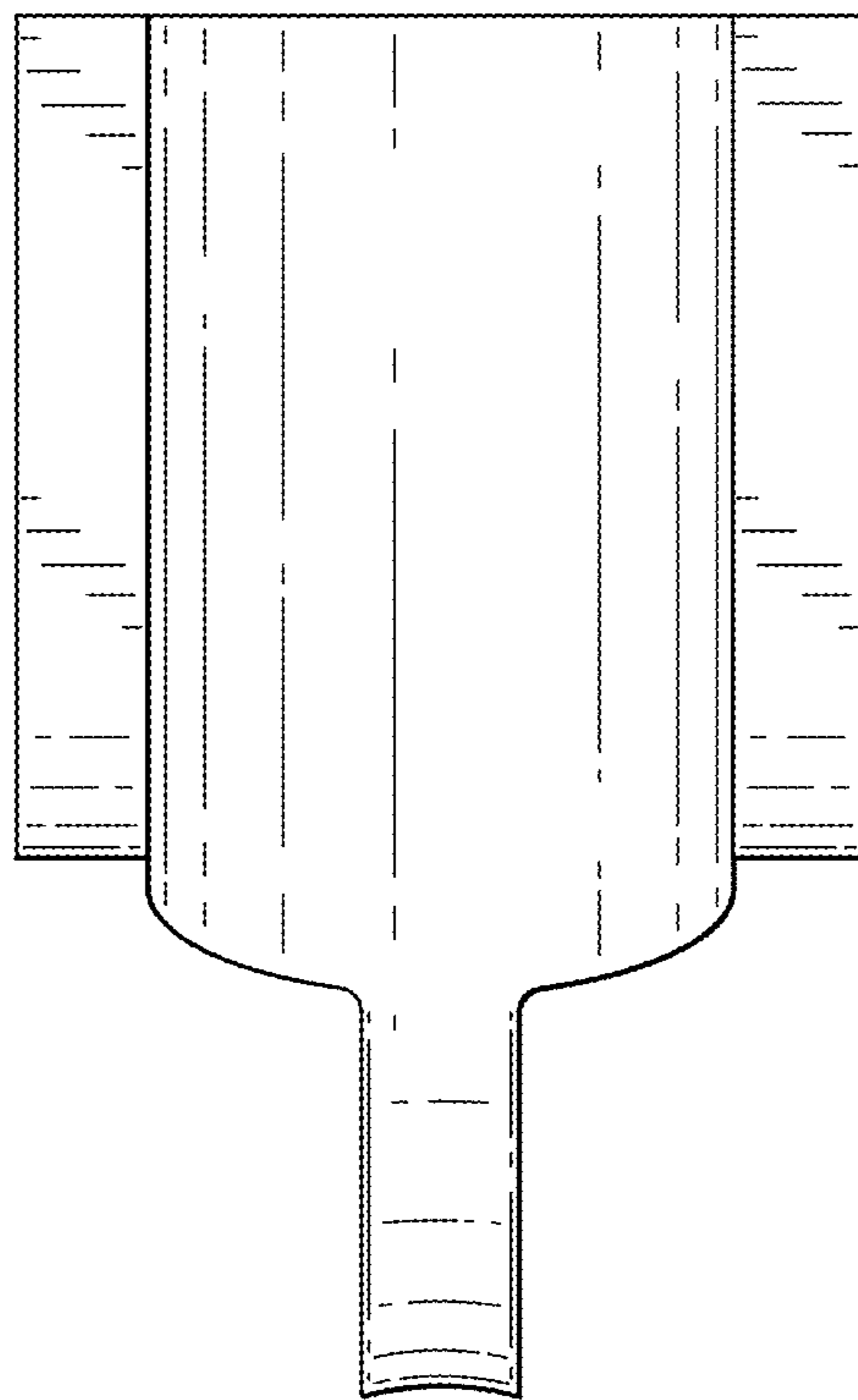
**FIG. 3**



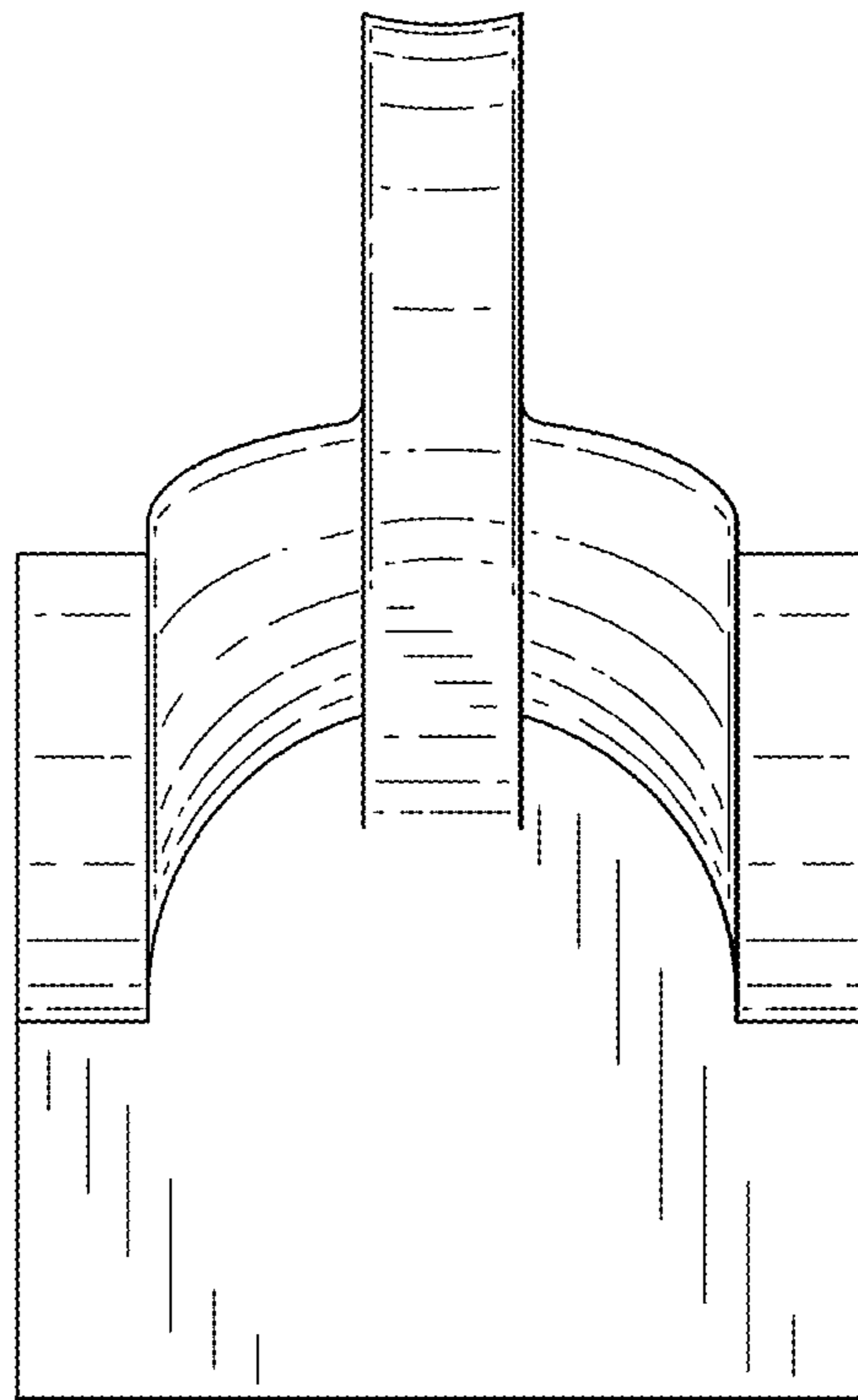
**FIG. 4**



**FIG. 5**



**FIG. 6**



**FIG. 7**