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(12) **United States Design Patent** (10) **Patent No.:** **US D803,910 S**  
**Franzino et al.** (45) **Date of Patent:** **\*\* Nov. 28, 2017**

- (54) **TUBE SCRAPER PROJECTILE**
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- (\*\*) Term: **15 Years**
- (21) Appl. No.: **29/544,770**
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2,734,208 A	2/1956	Griffin	
2,958,884 A	11/1960	Hill et al.	
3,939,519 A	2/1976	Muirhead	
4,231,437 A *	11/1980	Swersky .....	E21B 10/30 175/325.3
4,244,072 A	1/1981	Dunham et al.	
4,281,432 A	8/1981	Saxon	
4,937,907 A	7/1990	Antal	
D322,017 S *	12/1991	Van Allman .....	D8/70
5,153,963 A	10/1992	Saxon et al.	
5,335,388 A	8/1994	Salecker	
5,560,394 A	10/1996	Jorgensen	
5,600,863 A	2/1997	Curran	
5,617,604 A	4/1997	Erich	
5,784,745 A *	7/1998	Saxon .....	B08B 9/0553 15/104.061
5,797,993 A	8/1998	Woehleke	
5,802,667 A	9/1998	Williams	
5,809,603 A	9/1998	White	

(Continued)

**Related U.S. Application Data**

- (63) Continuation of application No. 14/879,198, filed on  
Oct. 9, 2015, now Pat. No. 9,375,765.
- (51) **LOC (10) Cl.** ..... **15-09**
- (52) **U.S. Cl.**  
USPC ..... **D15/138**
- (58) **Field of Classification Search**  
USPC ..... D15/28, 123, 138, 139; D32/14  
CPC ..... B08B 9/055; B08B 9/057; B08B 9/0557;  
F16L 55/26; F16L 55/38; F16L 55/40;  
F16L 2101/12  
See application file for complete search history.

**References Cited**

**U.S. PATENT DOCUMENTS**

904,122 A	11/1908	Fletcher
1,424,336 A	8/1922	Bowman
1,732,277 A	10/1929	Owens
2,146,644 A	2/1939	Nelson
2,170,997 A	8/1939	Griffin
2,599,077 A	6/1952	Sturgis
2,653,334 A	9/1953	Bay

**FOREIGN PATENT DOCUMENTS**

EP	0698423	2/1996
GB	622874	5/1949

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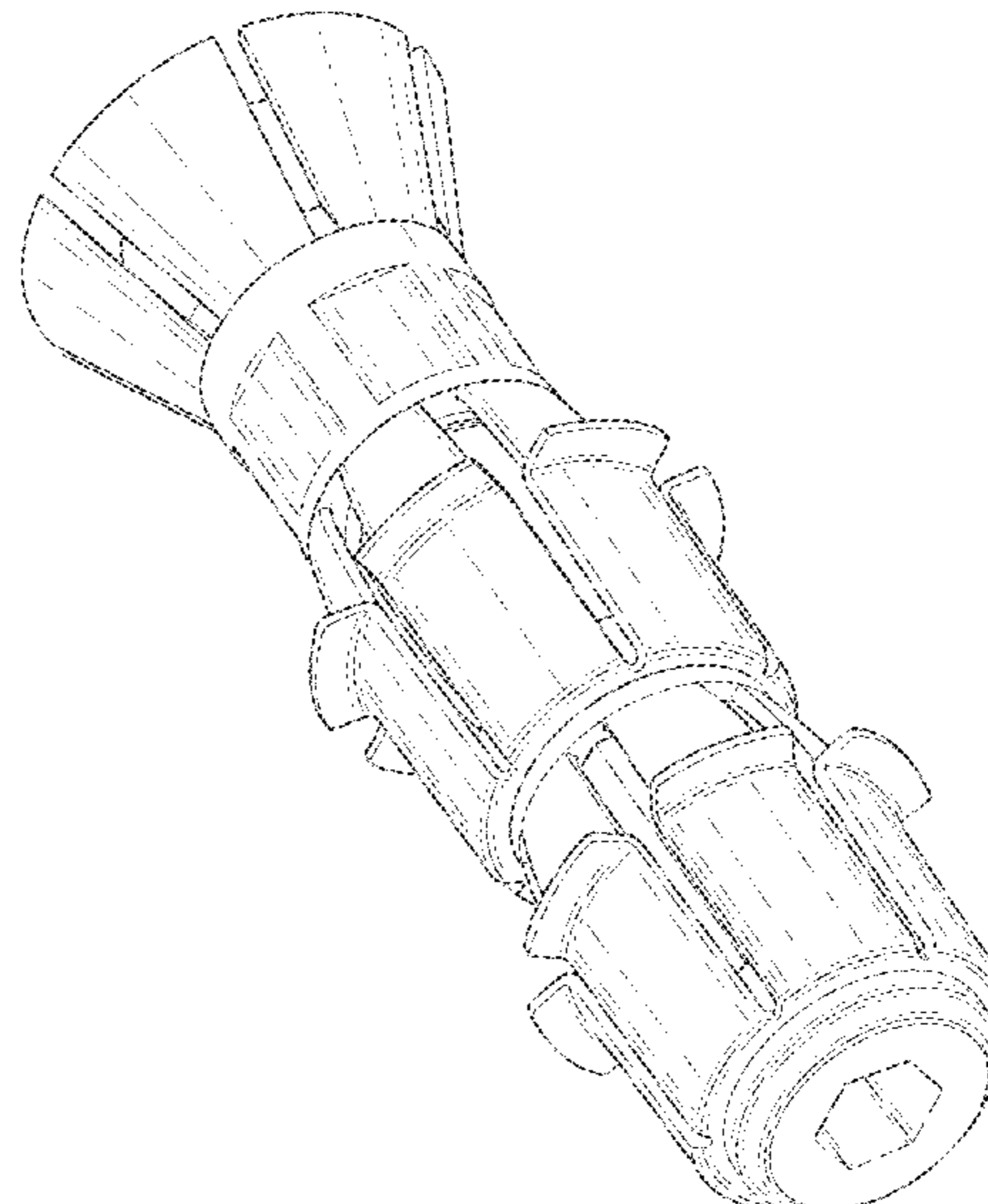
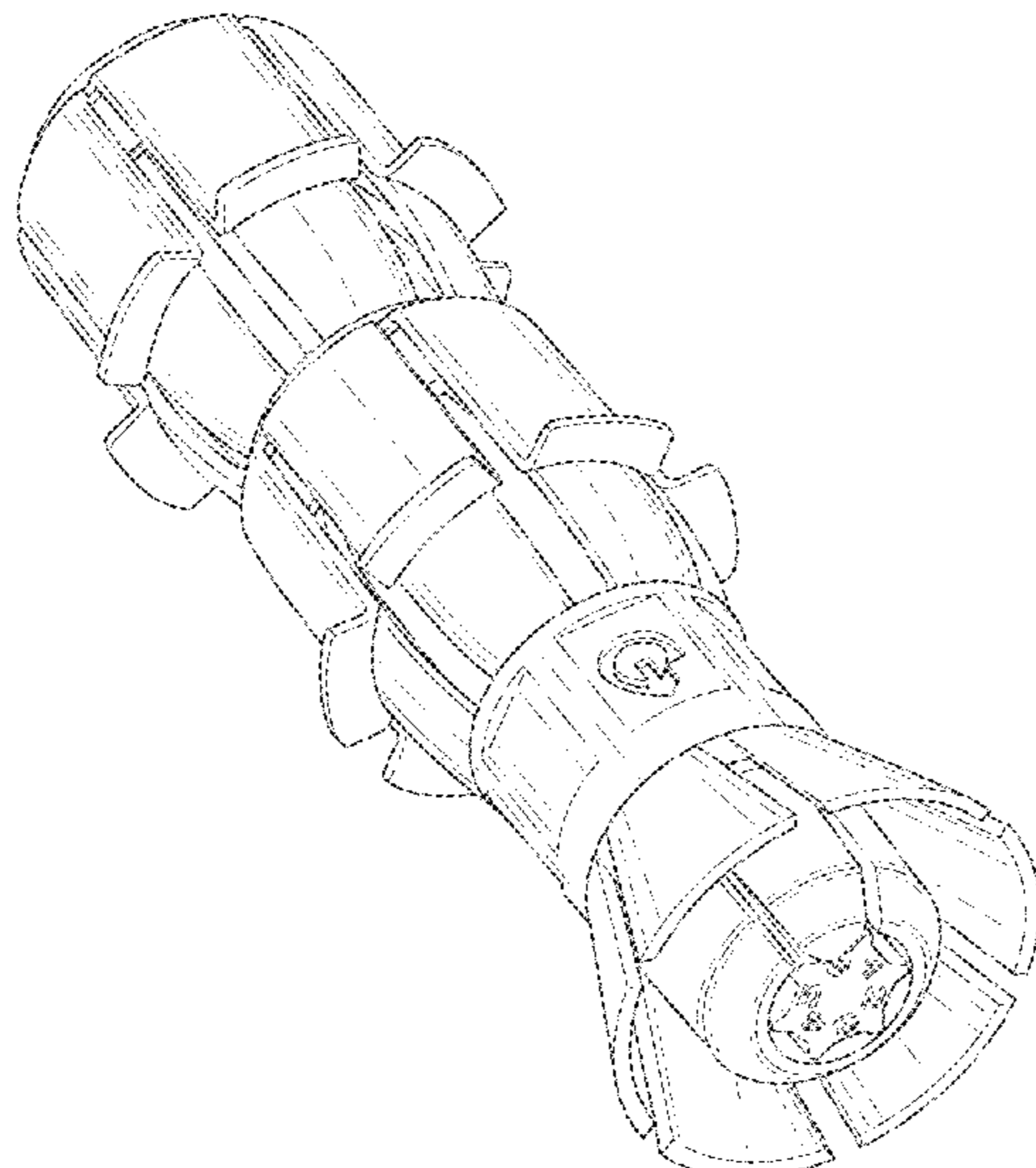
(57) **CLAIM**

The ornamental design for a tube scraper projectile, as  
shown and described.

**DESCRIPTION**

FIG. 1 is a top-rear, left side perspective view of a tube  
scraper projectile assembly according to the new design;  
FIG. 2 is a top-front, right side perspective view thereof;  
FIG. 3 is a rear view thereof;  
FIG. 4 is a front view thereof;  
FIG. 5 is a left side/bottom view thereof; and,  
FIG. 6 is a right side/top view thereof.

**1 Claim, 5 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

5,819,354 A	10/1998	Alonso et al.	8,256,057 B2	9/2012	Galantai et al.
5,940,922 A	8/1999	Saxon et al.	8,316,500 B2	11/2012	Freeman et al.
5,960,505 A *	10/1999	Sanghoon ..... B08B 9/0557 15/104.061	8,371,057 B2	2/2013	Coffield, III
5,964,004 A	10/1999	Bean	8,719,989 B1	5/2014	Qanaei
5,966,768 A	10/1999	Hahn	8,844,622 B2	9/2014	Telfer
5,991,955 A	11/1999	Lanasa, Sr.	D756,429 S *	5/2016	Myren, Jr. .... D15/138
6,070,285 A	6/2000	Geppert	9,375,765 B1 *	6/2016	Franzino ..... B08B 9/055
6,085,376 A	7/2000	Antal et al.	D786,645 S *	5/2017	Svendsen ..... D15/139
6,152,221 A	11/2000	Carmichael et al.	2003/0075364 A1 *	4/2003	Wardley ..... E21B 10/26 175/406
6,276,017 B1	8/2001	Lino et al.	2006/0144623 A1 *	7/2006	Ollerensaw ..... E21B 7/062 175/269
6,308,363 B1	10/2001	Lino et al.	2006/0219410 A1 *	10/2006	Booth ..... E21B 37/04 166/311
6,368,418 B1	4/2002	Rowe	2006/0220640 A1 *	10/2006	Thompson ..... G01N 27/902 324/220
6,378,236 B1	4/2002	Solberg et al.	2007/0119007 A1	5/2007	Minshall
6,467,121 B1	10/2002	Franzino et al.	2007/0161339 A1	7/2007	Wentworth et al.
6,792,641 B1	9/2004	Laker	2007/0214590 A1 *	9/2007	Boe ..... B08B 9/049 15/104.061
6,857,158 B1	2/2005	Hunter et al.	2008/0141474 A1 *	6/2008	Kapustin ..... B08B 9/0436 15/104.066
D504,749 S *	5/2005	Habib ..... D32/14	2009/0072533 A1 *	3/2009	Syse ..... F16L 55/40 285/263
D505,525 S *	5/2005	Tash ..... D32/14	2012/0017386 A1 *	1/2012	Rankin ..... B08B 9/0557 15/104.061
D523,596 S *	6/2006	Holmes ..... D32/14	2012/0042461 A1	2/2012	Antal et al.
7,121,343 B2	10/2006	Telfer	2012/0313326 A1 *	12/2012	Urakami ..... B08B 9/0436 277/500
7,454,812 B1	11/2008	Lyle	2013/0213658 A1	8/2013	Makowiecki et al.
7,490,381 B1	2/2009	Franzino	2014/0262277 A1	9/2014	Meeks
7,526,827 B1	5/2009	Bitterman			
7,685,674 B2	3/2010	Clements et al.			
7,865,995 B2	1/2011	Mayer			
7,971,307 B2	7/2011	Chow			
8,051,523 B1	11/2011	Franzino			
D651,773 S *	1/2012	Antal ..... D32/14			

\* cited by examiner

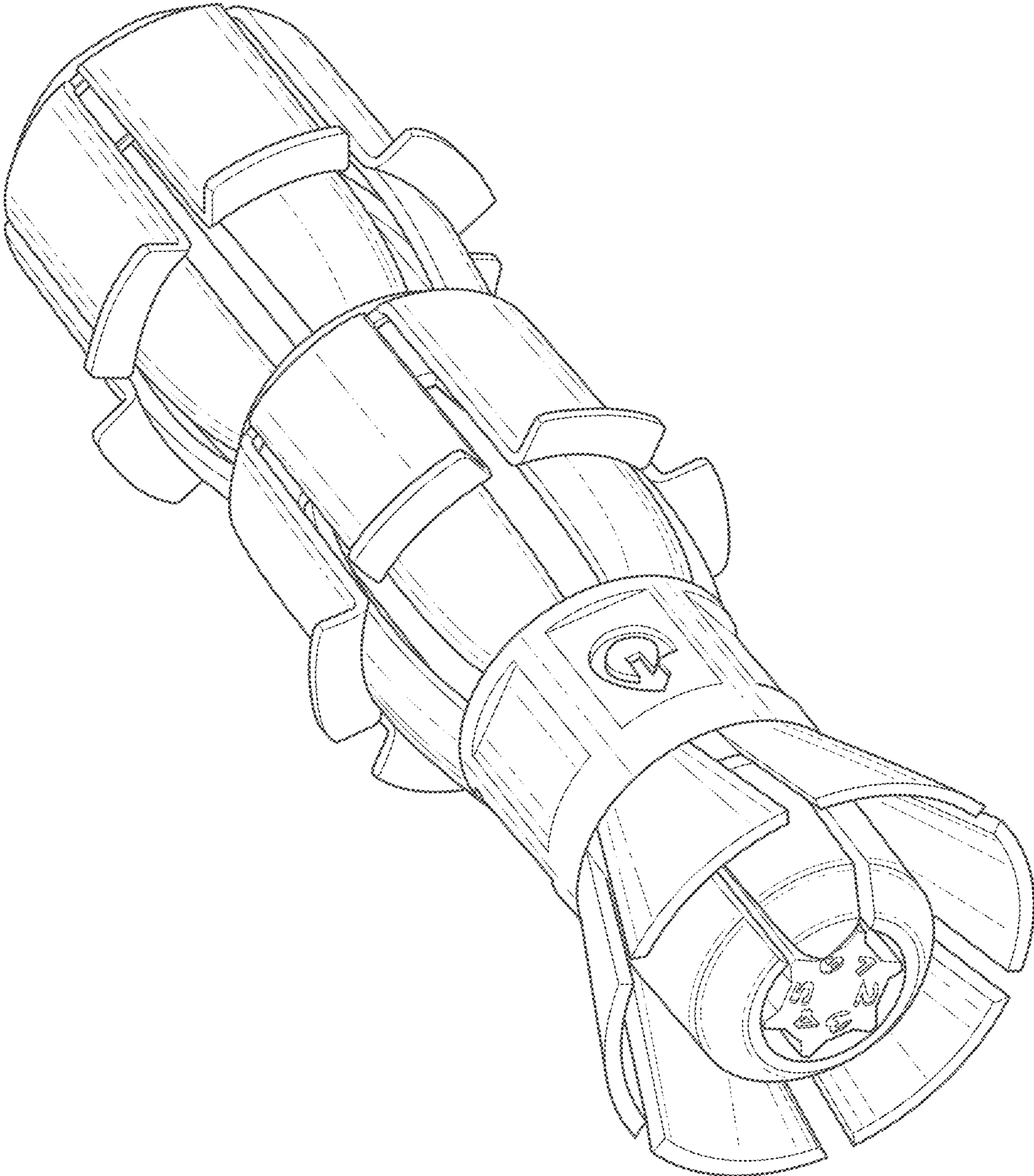


FIG. 1

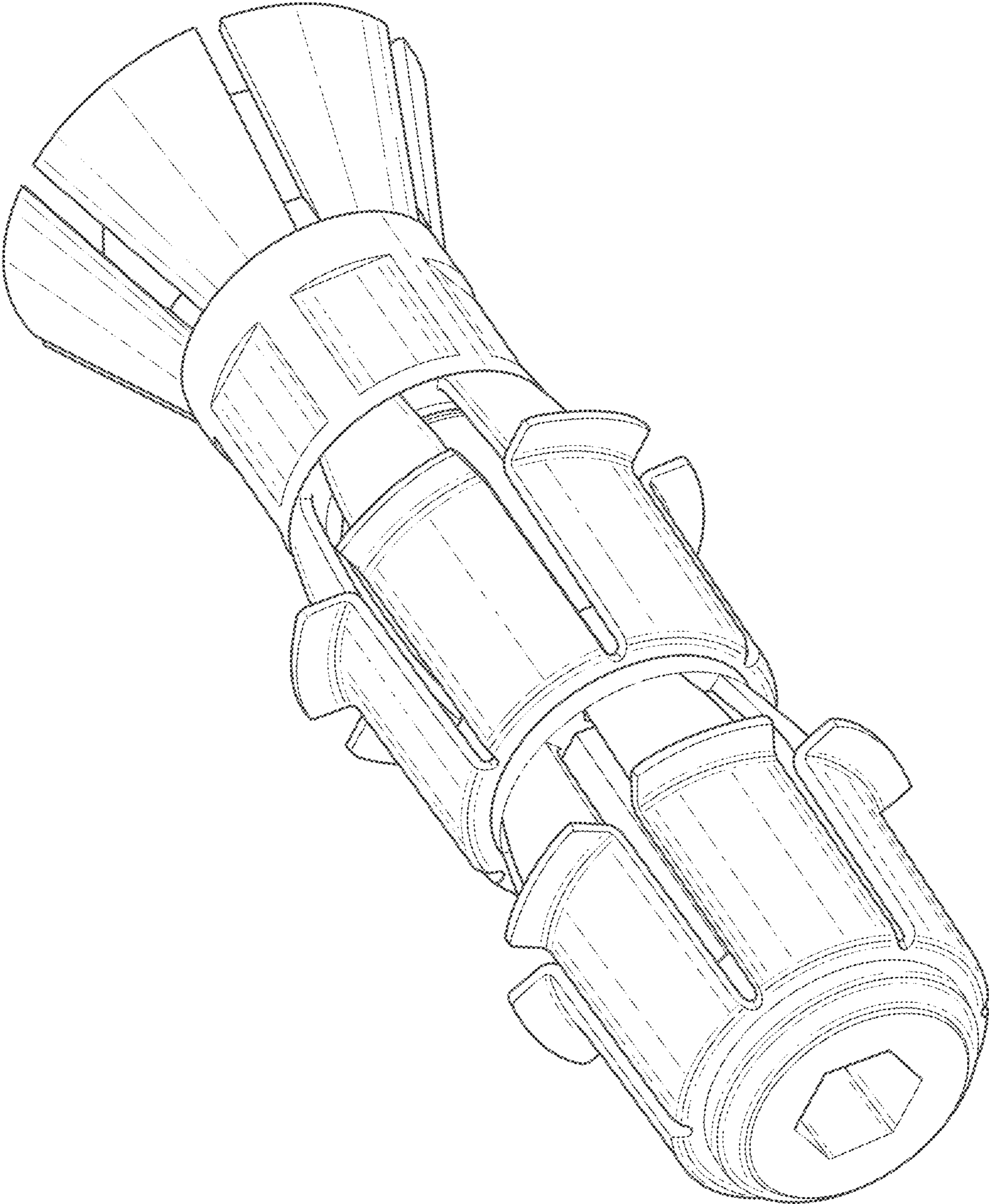


FIG. 2

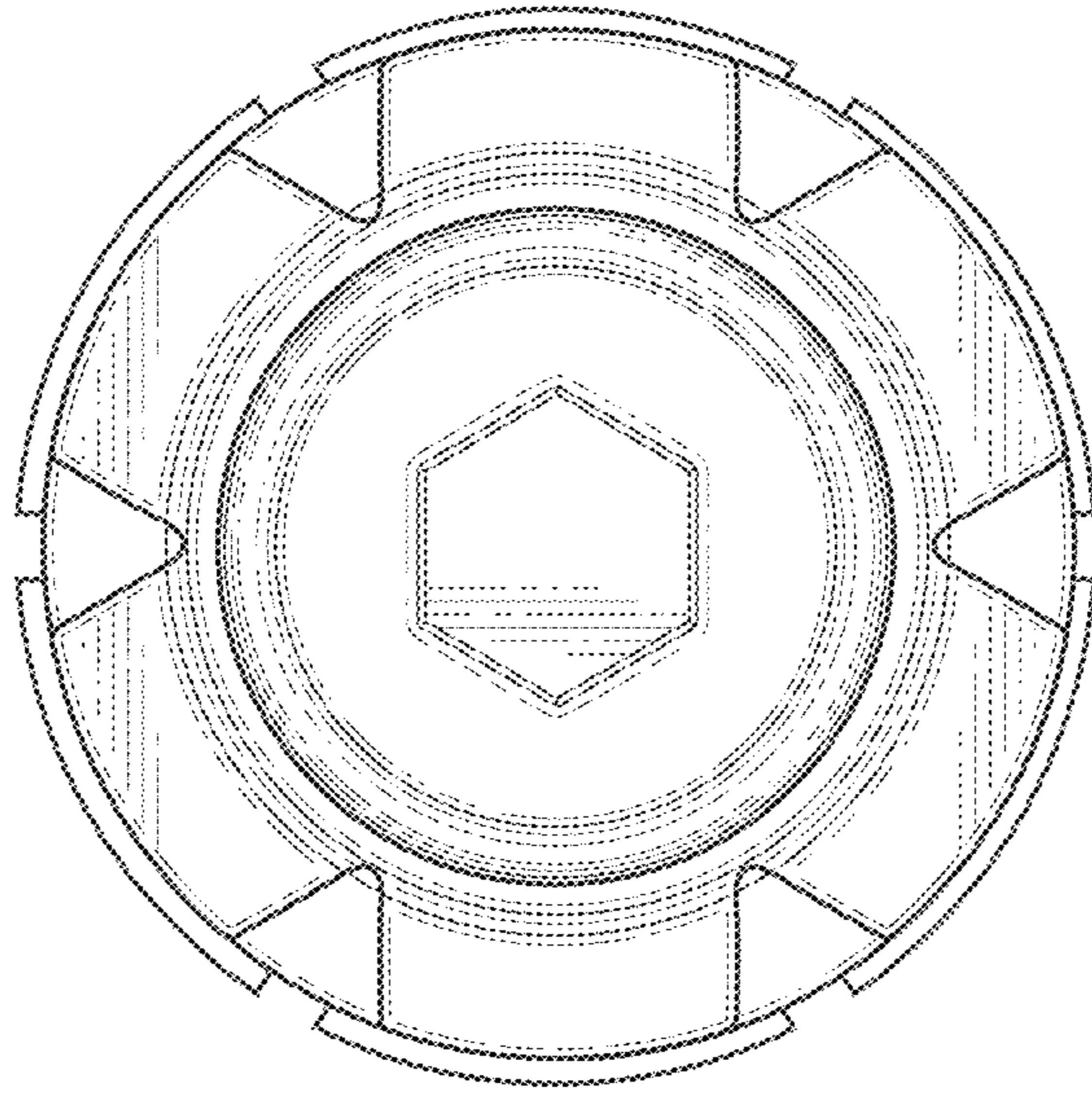


FIG. 4

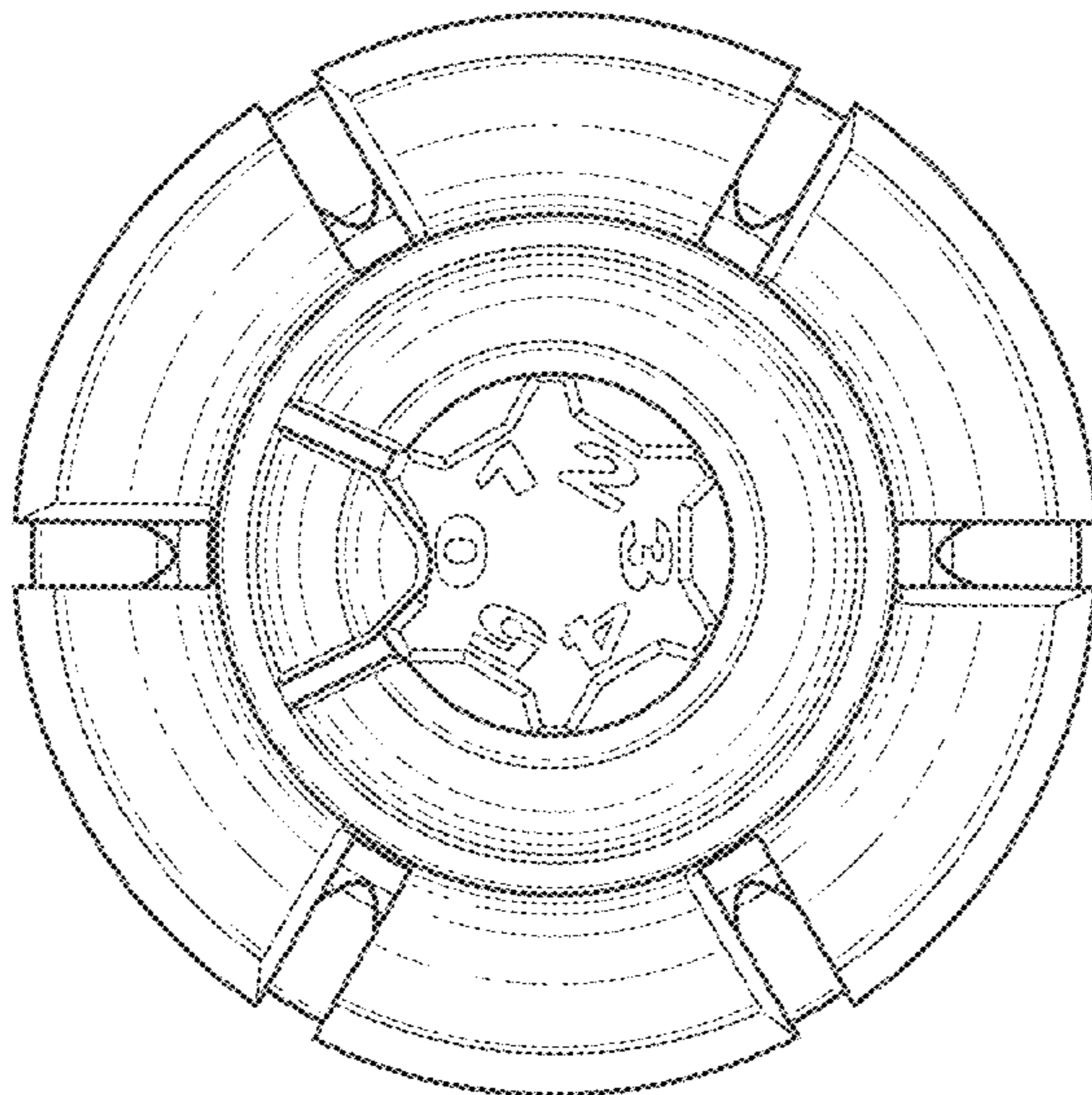


FIG. 3

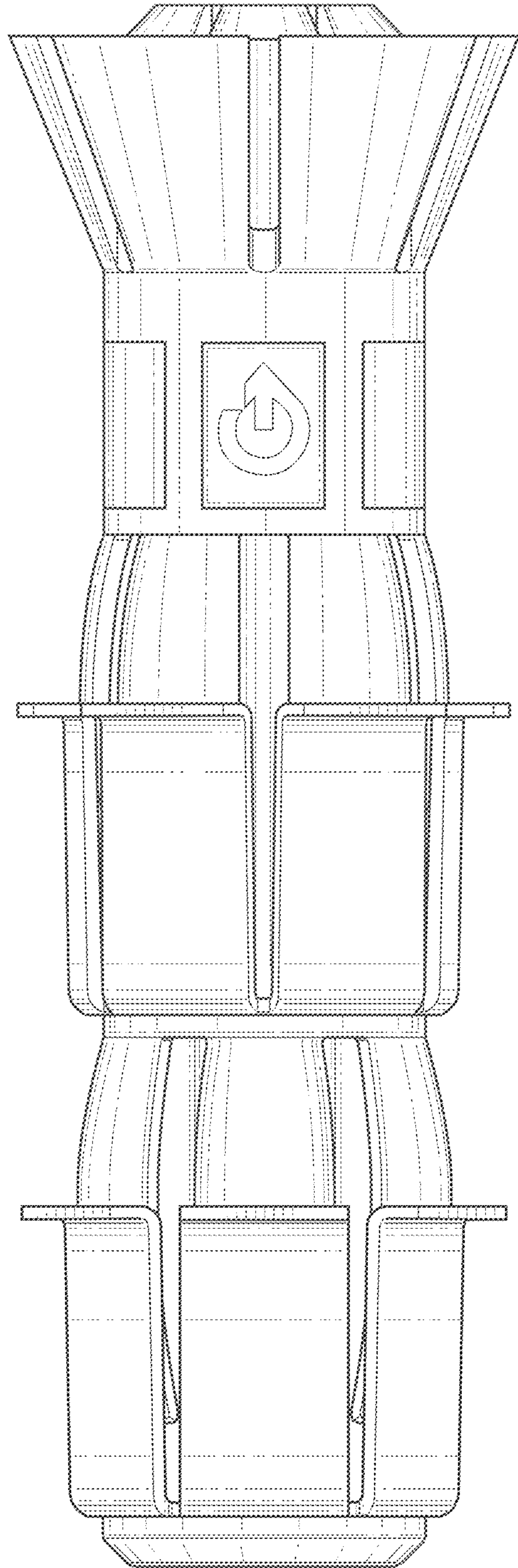


FIG. 5

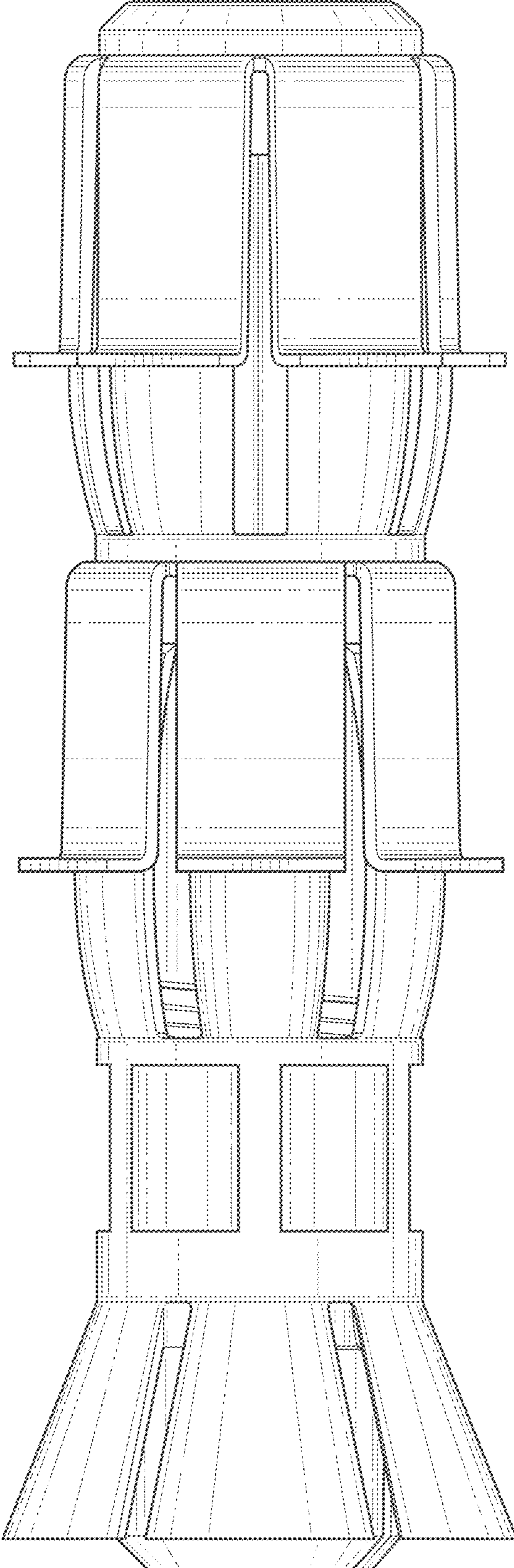


FIG. 6