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(12) **United States Design Patent**
Krishnan et al.

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(54) **KEYED SPINDLE**
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(**) Term: **14 Years**

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(51) **LOC (10) Cl.** **13-03**

(52) **U.S. Cl.**
USPC **D13/182**

(58) **Field of Classification Search**
USPC D13/133, 154, 182; 174/3; 439/378,
439/379, 380, 381, 892, 894; 310/37;
D15/138, 140, 144.1; 438/667
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,795,230 A	3/1931	Ott
1,844,791 A	2/1932	Ott et al.
3,101,573 A	8/1963	Thiel
3,418,758 A	12/1968	McEwan
3,731,435 A	5/1973	Boettcher et al.
3,845,738 A	11/1974	Berkman et al.
3,930,341 A	1/1976	Neuman
4,165,584 A	8/1979	Scherrer
4,206,572 A	6/1980	Delehonte
4,512,113 A	4/1985	Budinger
4,551,947 A	11/1985	Grimm et al.
4,679,357 A	7/1987	Richter et al.
4,739,589 A	4/1988	Brehm et al.
4,821,457 A	4/1989	Ianuzzi

4,928,434 A	5/1990	Gianfranco
5,191,738 A	3/1993	Nakazato et al.
5,193,316 A	3/1993	Olmstead
5,335,560 A	8/1994	Wang
5,361,543 A	11/1994	Bory
5,371,978 A	12/1994	Higashikawa
5,377,451 A	1/1995	Leoni et al.
5,402,604 A	4/1995	Hashii et al.
5,422,316 A	6/1995	Desai et al.
5,482,498 A	1/1996	Higashikawa
5,573,448 A	11/1996	Nakazima et al.
5,624,302 A	4/1997	Hashii et al.
5,647,789 A	7/1997	Kitta et al.
5,674,107 A	10/1997	Graebner et al.
5,683,518 A	11/1997	Moore et al.
5,788,777 A	8/1998	Burk, Jr.
5,840,124 A	11/1998	Gurary et al.

(Continued)

FOREIGN PATENT DOCUMENTS

CN 202492576 U 10/2012

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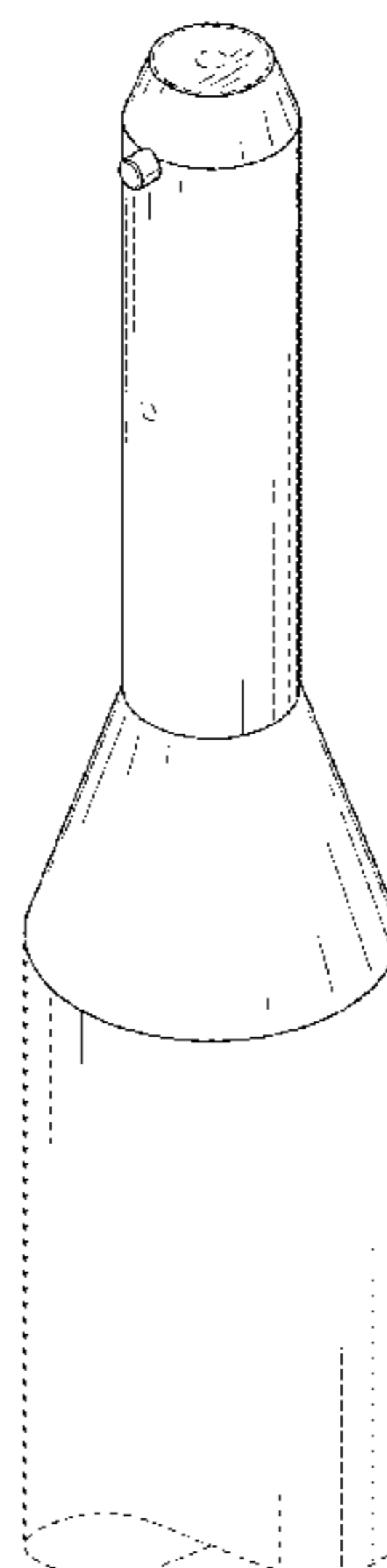
(57) **CLAIM**

The ornamental design for a keyed spindle, as shown and described.

DESCRIPTION

FIG. 1 is a top perspective view of a keyed spindle showing our new design;
FIG. 2 is a right side view thereof; the left side view being a mirror image thereto;
FIG. 3 is a front view thereof;
FIG. 4 is a rear view thereof;
FIG. 5 is a top plan view thereof; and,
FIG. 6 is a bottom plan view thereof.
The broken lines in the drawings show unclaimed subject matter only and form no part of the claimed design.

1 Claim, 3 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D405,430 S *	2/1999	Matsushima	D13/182	7,235,139 B2	6/2007	Boguslavskiy et al.
5,865,666 A	2/1999	Nagahara			7,252,737 B2	8/2007	Brown et al.
6,080,042 A	6/2000	McGregor et al.			D564,462 S *	3/2008	Ishii et al. D13/182
6,241,825 B1	6/2001	Wytman			D574,792 S	8/2008	Sato
6,375,749 B1	4/2002	Boydston et al.			D579,885 S	11/2008	Sato
6,454,635 B1	9/2002	Zhang et al.			7,520,800 B2	4/2009	Duescher
6,500,059 B2	12/2002	Chang et al.			D601,979 S	10/2009	Sato
6,514,424 B2	2/2003	Wenski et al.			D616,394 S	5/2010	Sato
6,666,948 B2	12/2003	Nguyen			D616,395 S	5/2010	Sato
6,709,981 B2	3/2004	Grabbe et al.			D633,452 S	3/2011	Namiki et al.
6,733,367 B1	5/2004	Nguyen			8,177,993 B2	5/2012	Seah et al.
6,786,807 B2	9/2004	Becksvooort et al.			8,182,315 B2	5/2012	Nguyen
6,824,451 B2	11/2004	Hollatz et al.			8,328,600 B2	12/2012	Duescher
D503,385 S *	3/2005	Hosokawa	D13/147	D674,759 S	1/2013	Chang et al.
7,008,308 B2	3/2006	Bjelopavlic et al.			D675,567 S *	2/2013	Hyakutake D13/133
7,125,313 B2	10/2006	Zelenski et al.			8,448,289 B2 *	5/2013	Reith et al. 15/250.31
7,169,234 B2	1/2007	Weeks et al.			2002/0011204 A1	1/2002	Gujer et al.
					2003/0057089 A1	3/2003	Nguyen
					2006/0090915 A1 *	5/2006	Kim 174/3
					2009/0194026 A1	8/2009	Burrows et al.

* cited by examiner

FIG. 1

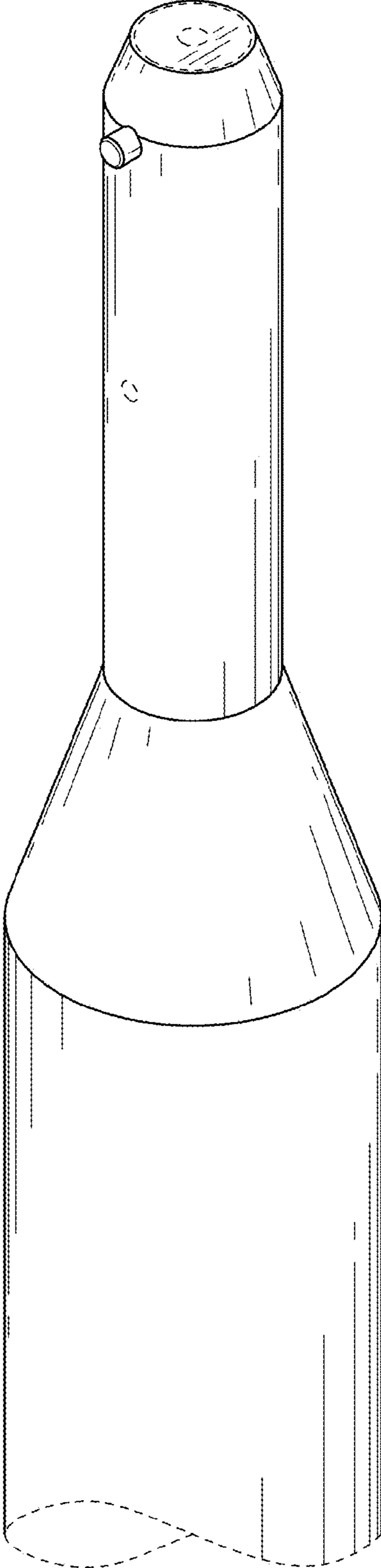


FIG. 2

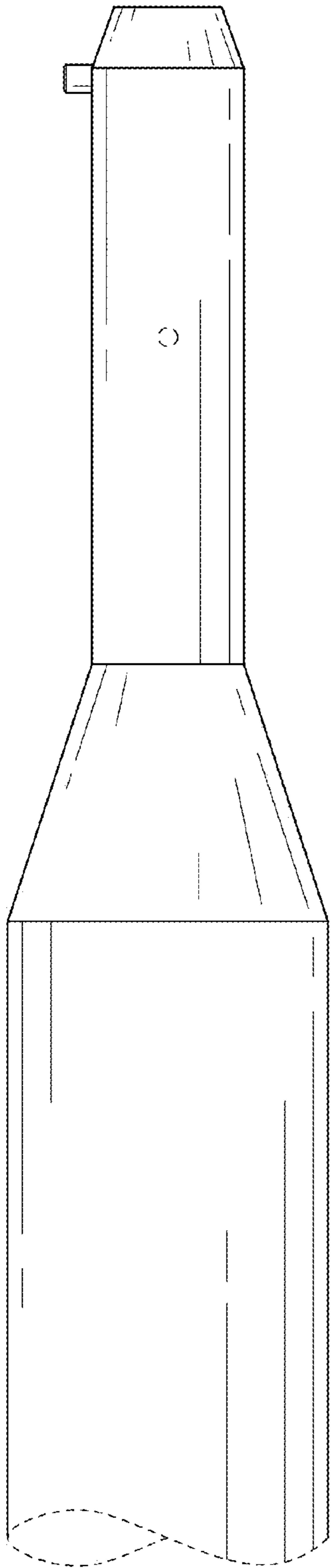


FIG. 3

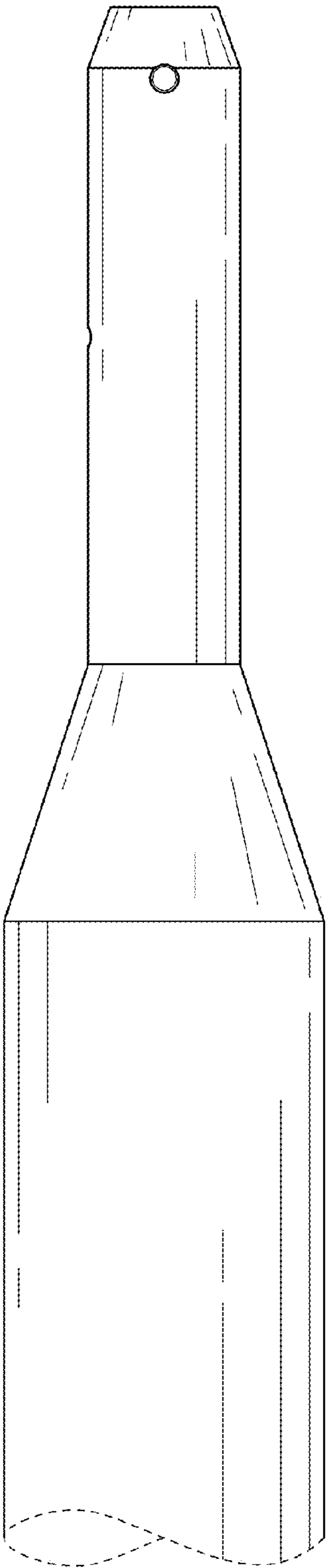


FIG. 4

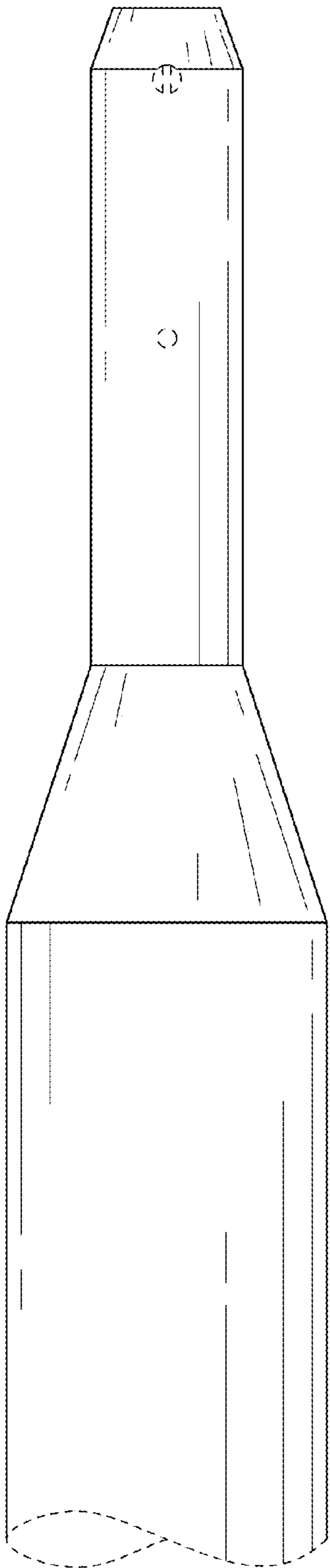


FIG. 5

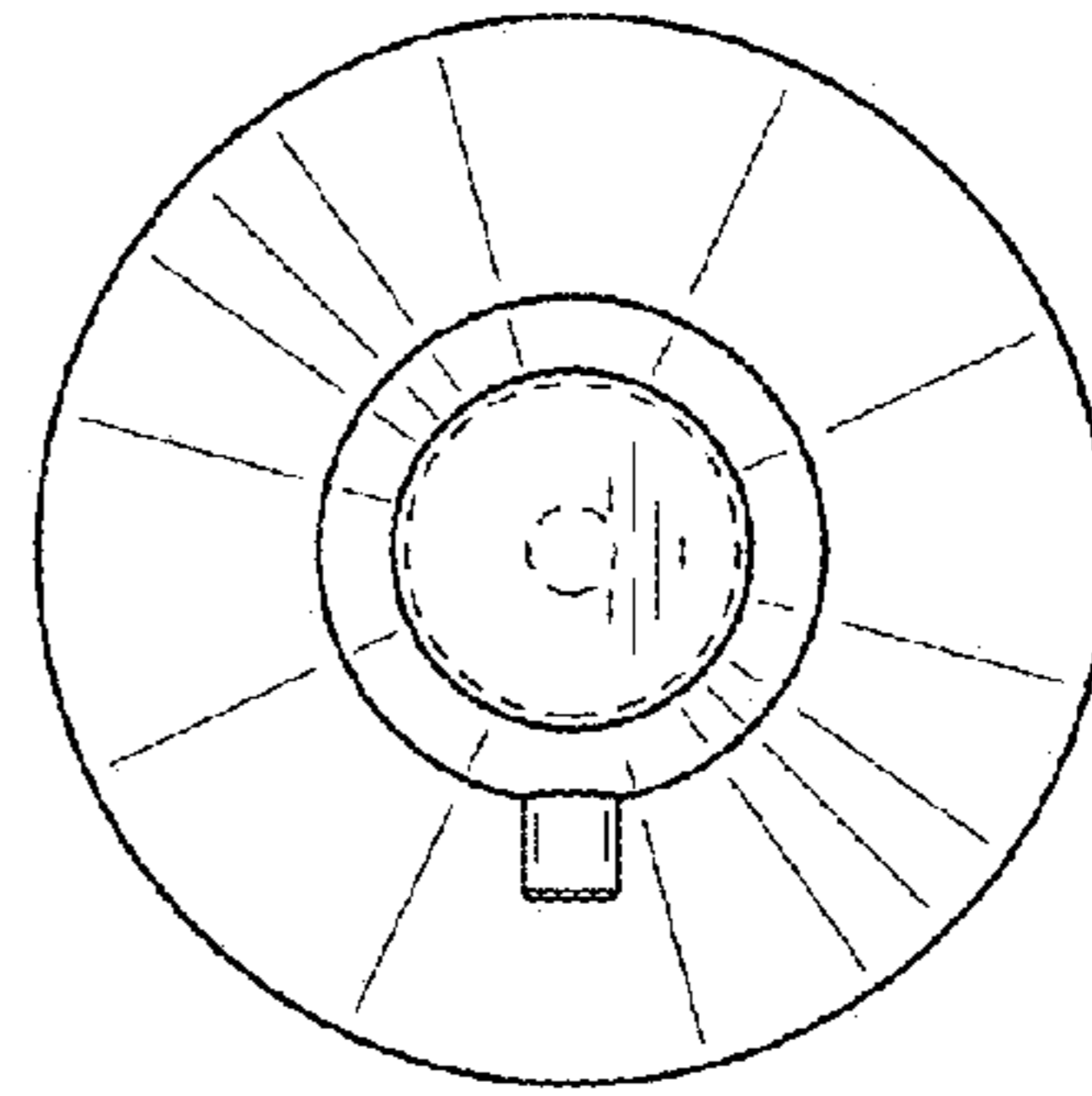


FIG. 6

