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

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(54) **ROTARY CLEANING TOOL FOR HARDENED SURFACES**

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(72) Inventor: **Craig R. Smith**, Chandler, AZ (US)

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

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**Related U.S. Application Data**

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(51) **LOC (10) Cl.** ..... **08-05**

(52) **U.S. Cl.**  
USPC ..... **D8/70**

(58) **Field of Classification Search**  
USPC ..... D8/61, 62, 70, 90; D15/124–126, 138, D15/139; D32/15, 19, 25  
CPC ..... B24B 23/04; B24B 9/08  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

|           |     |         |                |         |
|-----------|-----|---------|----------------|---------|
| 2,427,565 | A   | 9/1947  | Liger          |         |
| 2,775,851 | A   | 1/1957  | Booth          |         |
| 4,218,852 | A   | 8/1980  | Rademacher     |         |
| 4,982,469 | A   | 1/1991  | Nishiwaki      |         |
| 6,139,594 | A   | 10/2000 | Kincaid et al. |         |
| D465,983  | S * | 11/2002 | Yoshida        | D8/70   |
| D467,485  | S * | 12/2002 | Daniels        | D15/140 |
| D474,666  | S * | 5/2003  | Jeong          | D8/70   |
| D503,602  | S * | 4/2005  | Hede           | D8/70   |
| D506,376  | S * | 6/2005  | Hede           | D8/70   |
| D509,121  | S * | 9/2005  | Hede           | D8/70   |
| D529,778  | S * | 10/2006 | Albertson      | D8/70   |
| D541,124  | S * | 4/2007  | Popov          | D8/70   |
| D559,649  | S * | 1/2008  | Ahn            | D8/70   |

(Continued)

**FOREIGN PATENT DOCUMENTS**

|    |             |    |        |
|----|-------------|----|--------|
| GB | 2067935     | A  | 8/1981 |
| JP | 2630791     | B2 | 7/1997 |
| JP | 2002-059369 | A  | 2/2002 |

**OTHER PUBLICATIONS**

Web Page—[http://www.alibaba.com/product-detail/metal-polishing-pad\\_441211691.html?s=p](http://www.alibaba.com/product-detail/metal-polishing-pad_441211691.html?s=p) First Viewed on Feb. 28, 2015.

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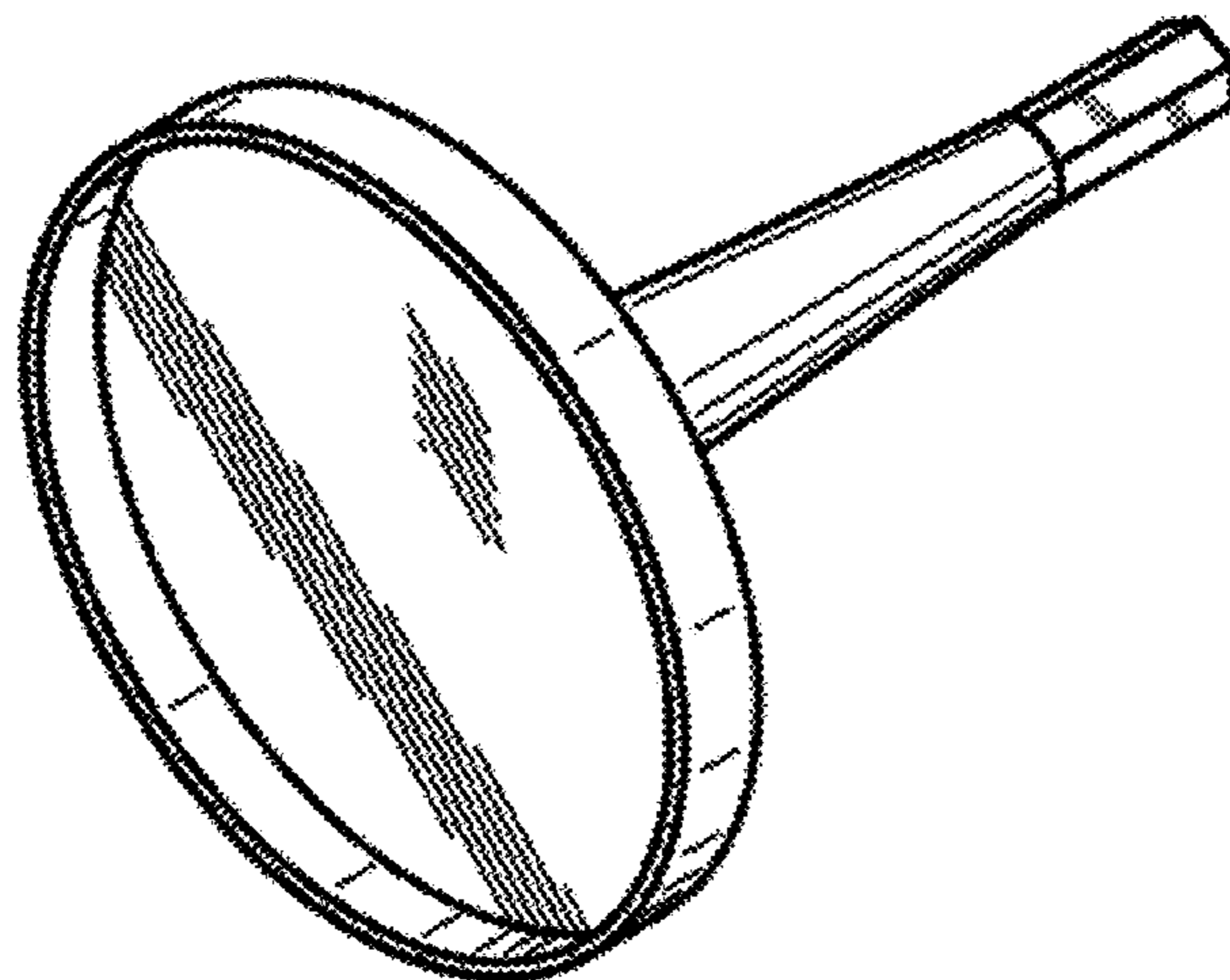
(57) **CLAIM**

The ornamental design for a rotary cleaning tool for hardened surfaces, as shown and described.

**DESCRIPTION**

FIG. 1 is a front view of a rotary cleaning tool for hardened surfaces, the back side being a mirror image;  
 FIG. 2 is a right side view thereof, the left side view being a mirror image;  
 FIG. 3 is a top view thereof;  
 FIG. 4 is a bottom view thereof;  
 FIG. 5 is an isometric view thereof;  
 FIG. 6 is an isometric view thereof with a cleaning pad drawn in broken lines showing the rotary cleaning tool for hardened surfaces in a condition of use; and,  
 FIG. 7 is an isometric view thereof with an electrical drill drawn in broken lines showing the rotary cleaning tool for hardened surfaces in a condition of use.  
 The broken lines shown in FIGS. 6 and 7 are for purposes of illustrating environmental structure associated with the claimed design in condition of use, and which forms no part of the claimed design.

**1 Claim, 3 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

D568,134 S \* 5/2008 Umbrell ..... D8/70  
 D579,296 S \* 10/2008 Popov ..... D8/70  
 D580,728 S \* 11/2008 Umbrell ..... D8/70  
 D581,236 S \* 11/2008 Umbrell ..... D8/70  
 D581,763 S \* 12/2008 Post ..... D8/70  
 D591,133 S \* 4/2009 Umbrell ..... D8/70  
 D633,769 S \* 3/2011 Evatt ..... D8/70  
 8,057,281 B2 \* 11/2011 Annen ..... B24B 1/00  
 451/37  
 D663,185 S \* 7/2012 Denning ..... D8/70  
 D669,754 S \* 10/2012 Wackwitz ..... D8/70  
 D684,834 S \* 6/2013 Chen ..... D8/46  
 D686,053 S \* 7/2013 Denning ..... D8/16  
 8,758,089 B2 \* 6/2014 Annen ..... B24B 23/04  
 451/28  
 D744,799 S \* 12/2015 Rodenhouse ..... D8/70  
 D751,880 S \* 3/2016 Howell ..... D8/70  
 2003/0207659 A1 11/2003 Annen et al.  
 2004/0117931 A1 \* 6/2004 Washington ..... A46B 11/001  
 15/29  
 2005/0172428 A1 8/2005 Thysell  
 2007/0093181 A1 4/2007 Lugg et al.  
 2009/0233528 A1 9/2009 Mansfield

2011/0162287 A1 7/2011 Cai  
 2013/0059505 A1 \* 3/2013 Bailey ..... B24B 19/26  
 451/59  
 2013/0090047 A1 4/2013 Bin  
 2013/0260656 A1 10/2013 Seth et al.  
 2014/0242893 A1 8/2014 Oehler  
 2014/0308884 A1 10/2014 Janssen et al.

OTHER PUBLICATIONS

Web Page—<http://www.amlap.com/alw/page18.html> First Viewed on Feb. 26, 2015.  
 Web Page—[http://www.zoro.com/i/G1670112/?utm\\_source=google\\_shopping&utm\\_medium=cpc&utm\\_campaign=Google\\_Shopping\\_Feed&gclid=COSSidLD-8MCFciBfgodKZQAGQ](http://www.zoro.com/i/G1670112/?utm_source=google_shopping&utm_medium=cpc&utm_campaign=Google_Shopping_Feed&gclid=COSSidLD-8MCFciBfgodKZQAGQ) First Viewed on Feb. 25, 2015.  
 Web Page—[http://www.hitechdiamond.com/Mini\\_Smoothing\\_Disc\\_Kit.html](http://www.hitechdiamond.com/Mini_Smoothing_Disc_Kit.html) First Viewed on Feb. 26, 2015.  
 Web Page—<http://specialtydiamond.com/wvdgrin-secco-wet-dry-dust-free-polisher-grinder-and-shroud-cover-concretegranite-stone-.html> First Viewed on Feb. 26, 2015.  
 Web Page—<http://mkdiamondproducts.shptron.com/p/pro-resin-polishing-disc-4-3000-grit> First Viewed on Feb. 26, 2015.

\* cited by examiner

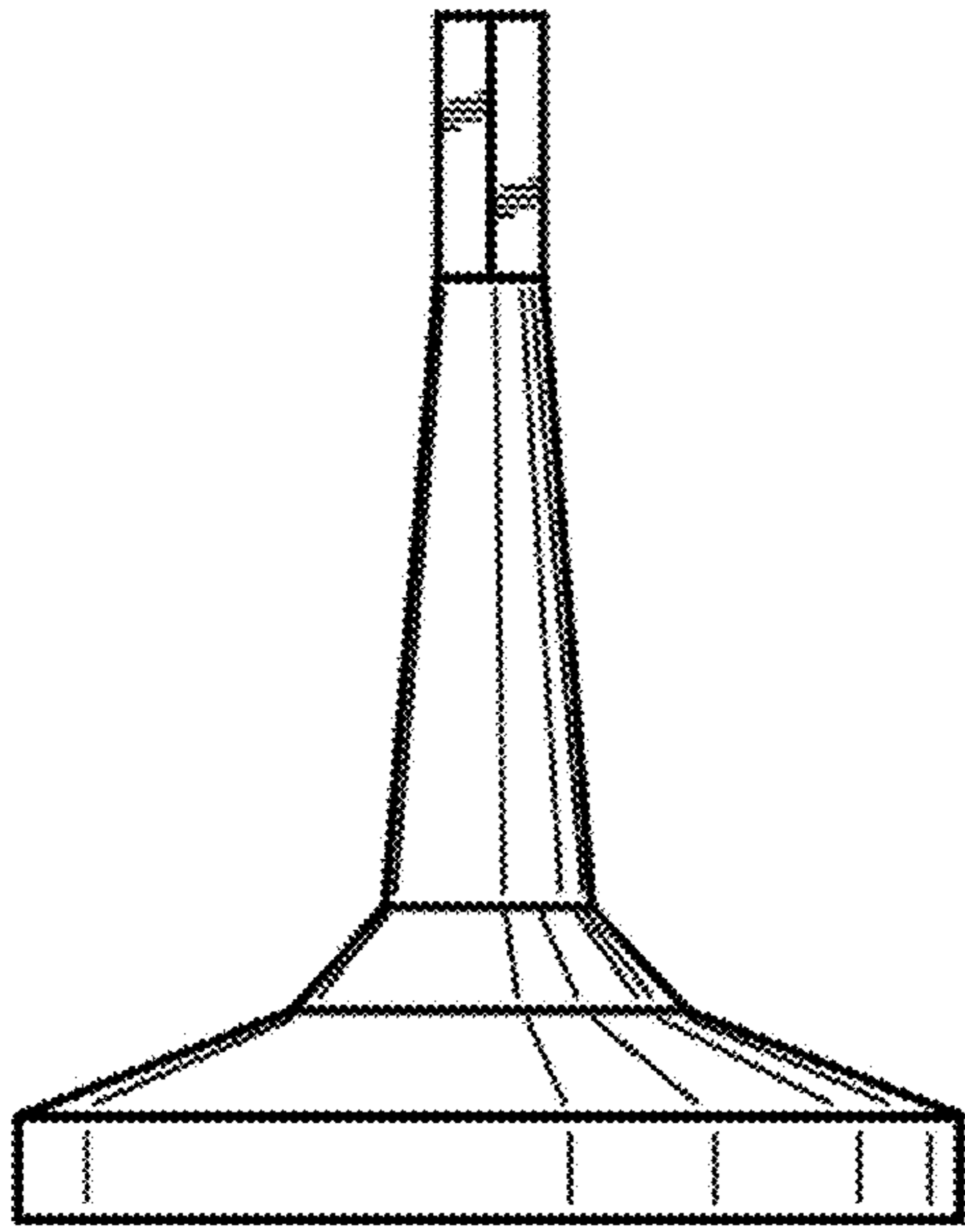


FIG. 1

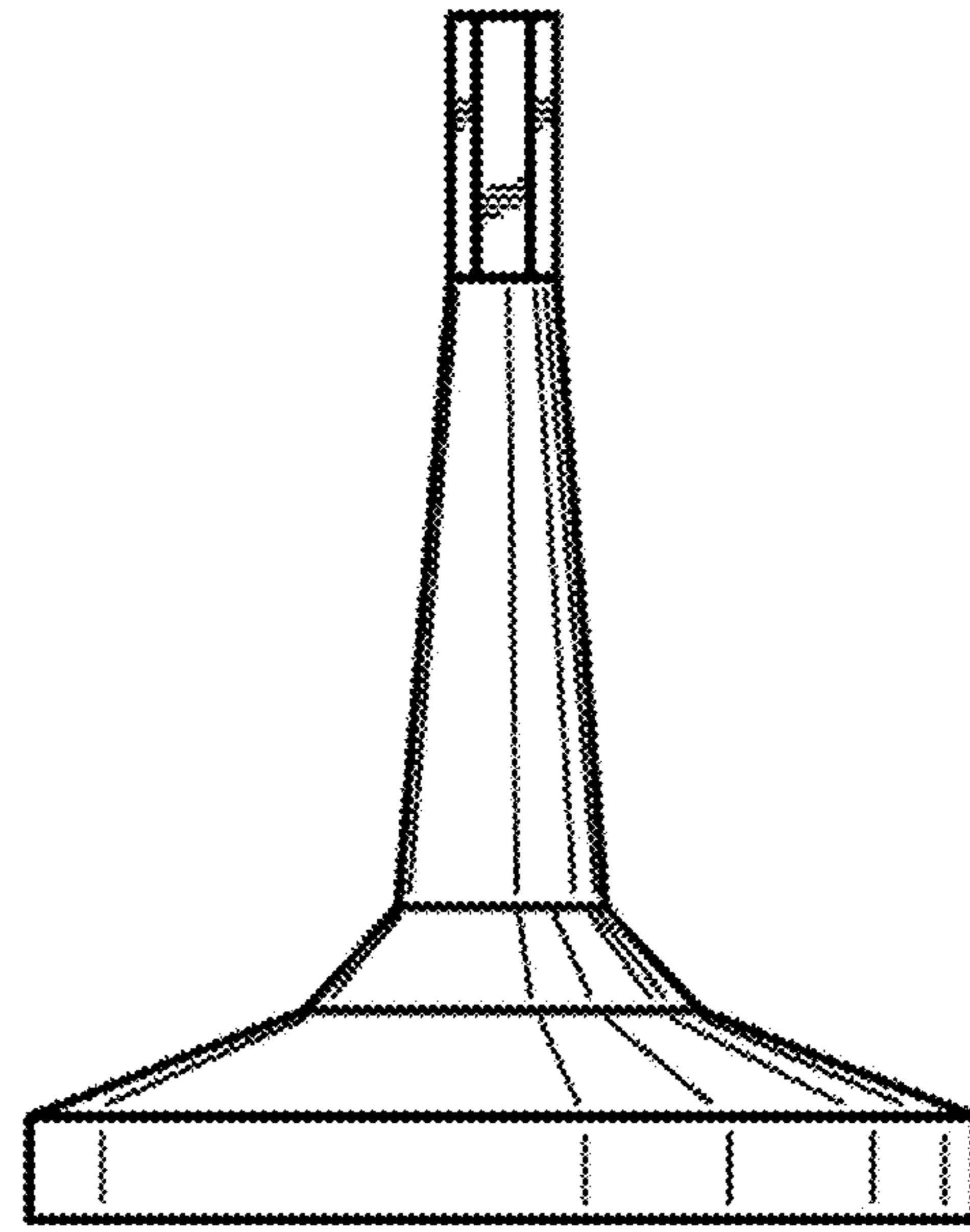


FIG. 2

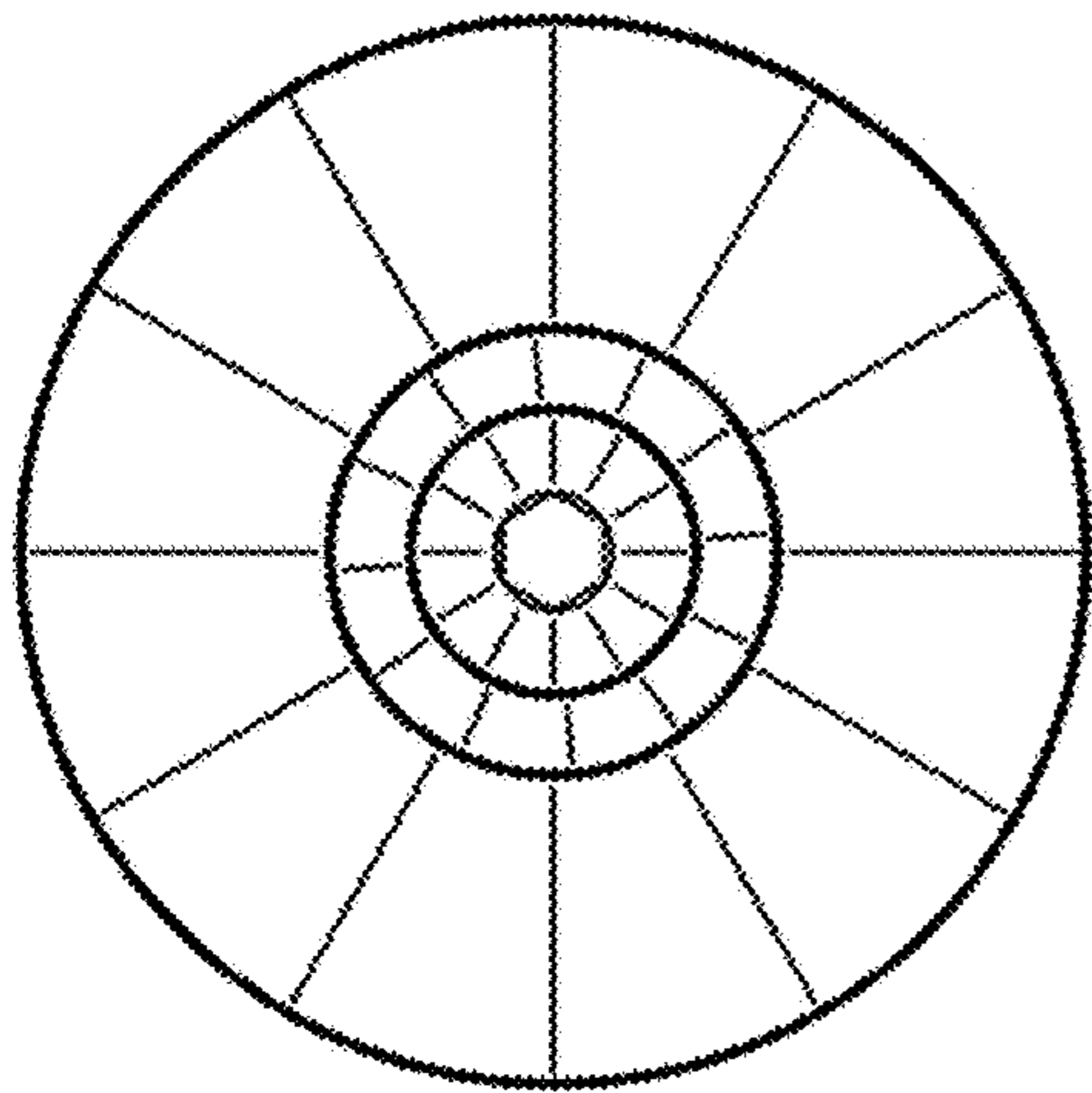


FIG. 3

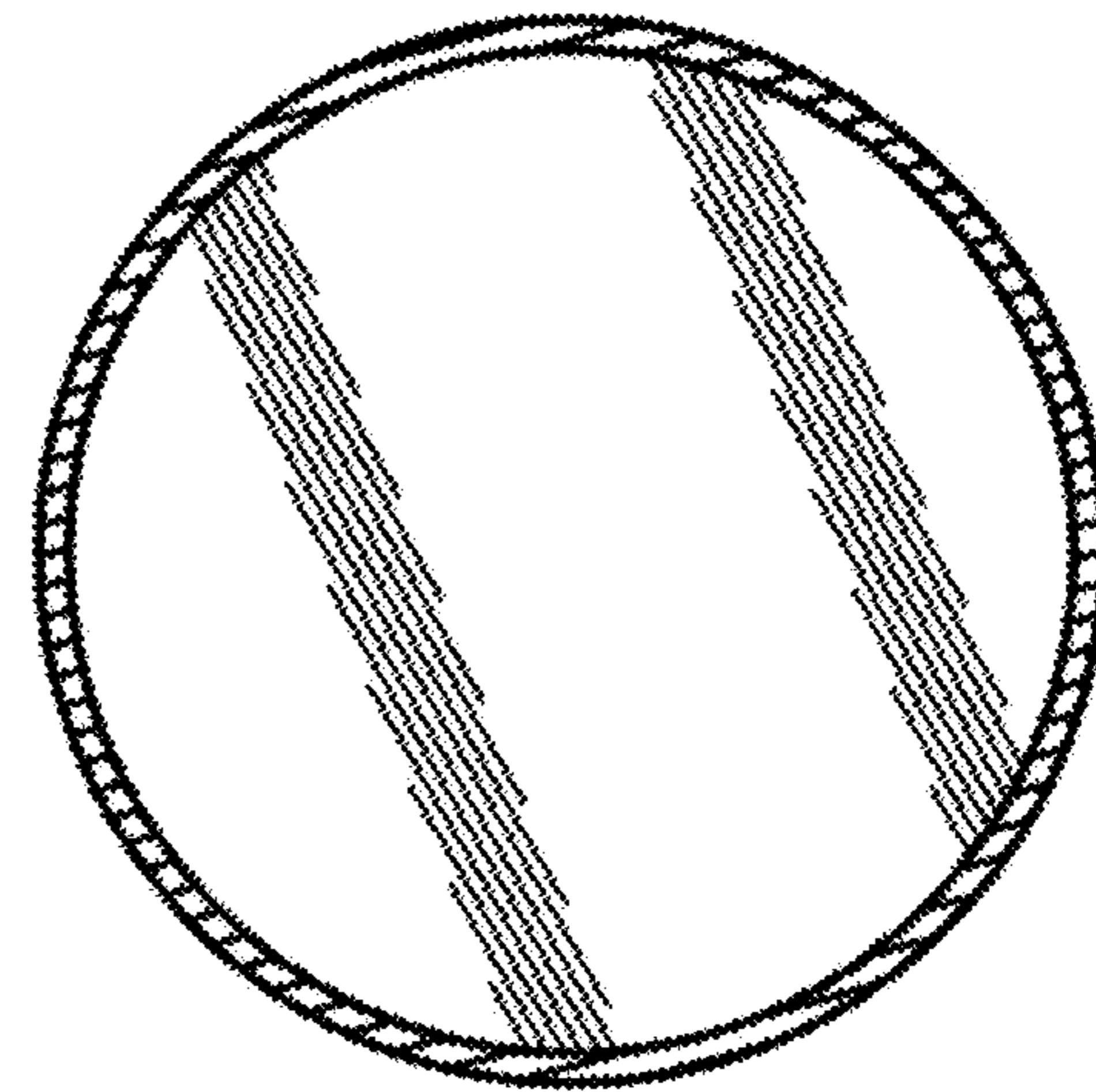


FIG. 4

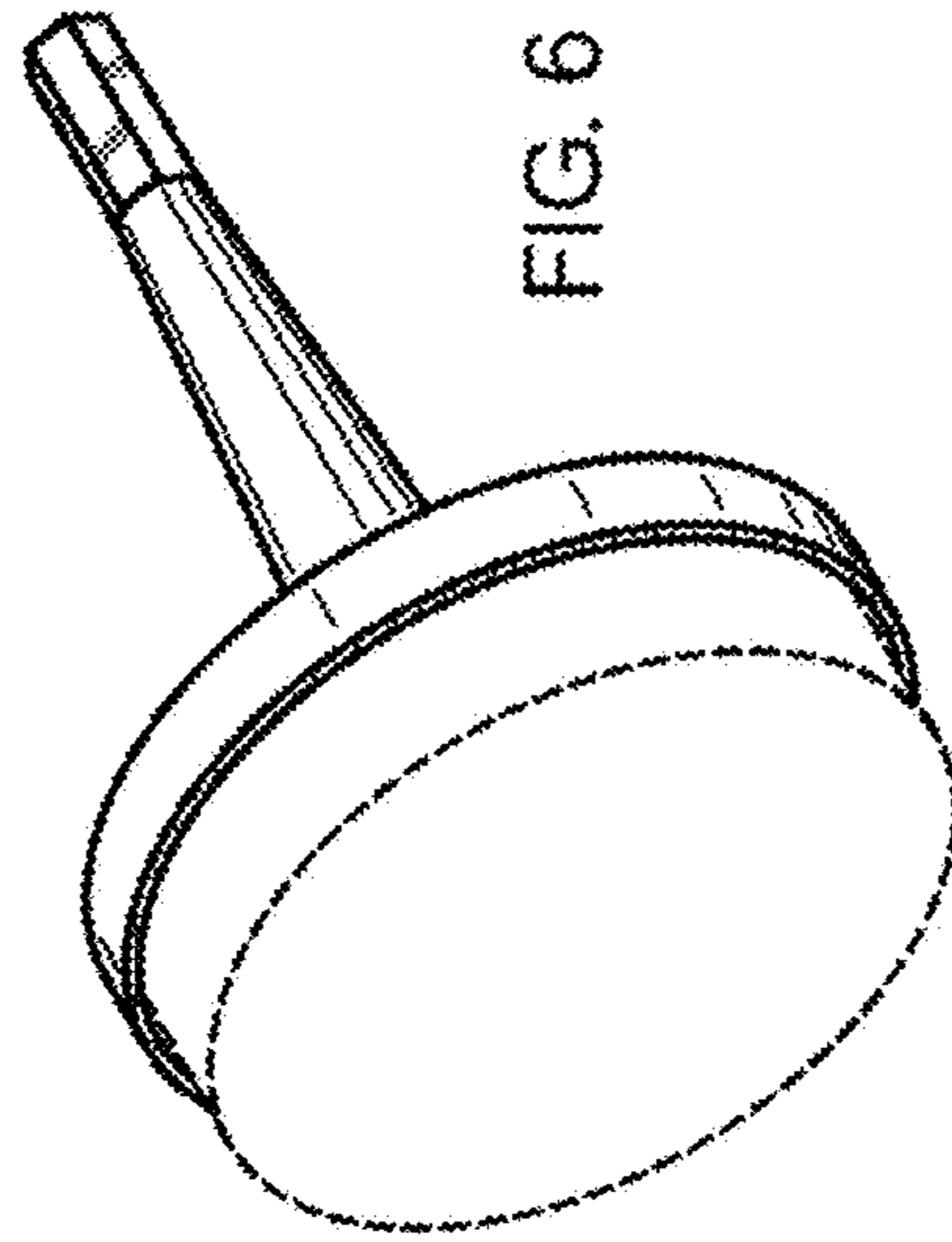


FIG. 6

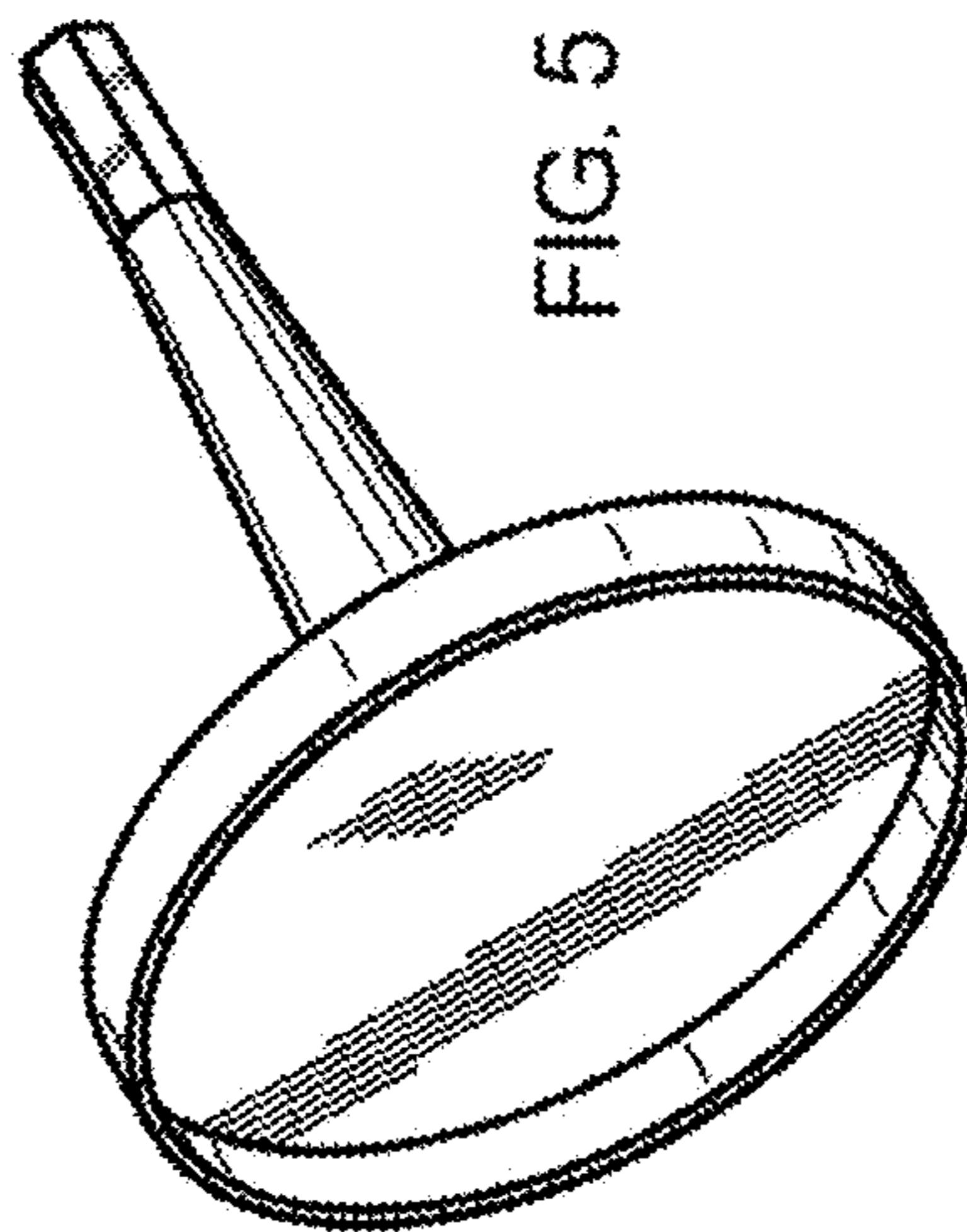


FIG. 5

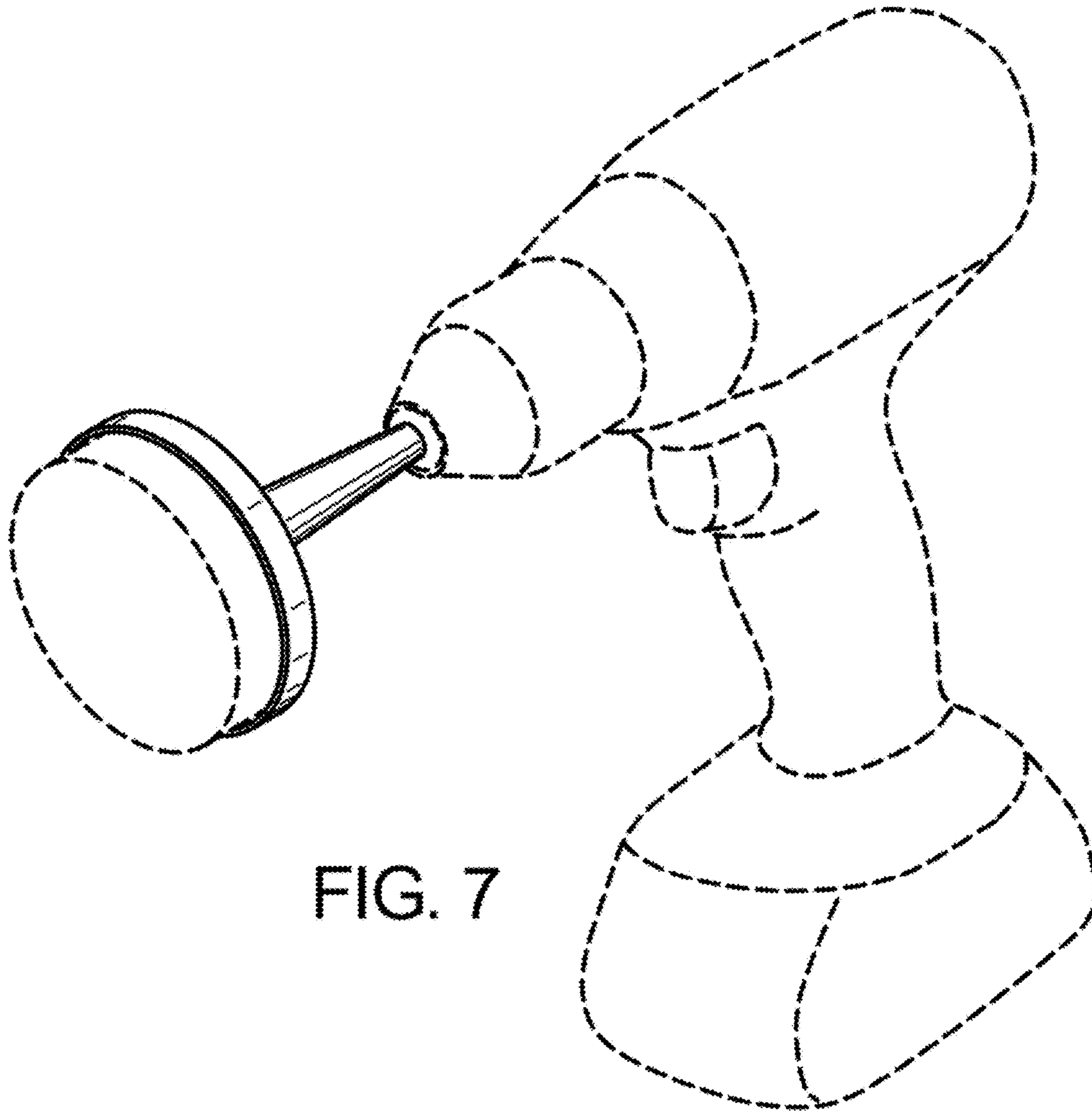


FIG. 7