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(12) **United States Design Patent** (10) **Patent No.:** **US D837,013 S**  
**Sakamaki et al.** (45) **Date of Patent:** **\*\* \*Jan. 1, 2019**

(54) **DRILL CHUCK**

D540,645 S \* 4/2007 Yaksich ..... D15/138  
D542,815 S \* 5/2007 Concari ..... D15/140  
D555,181 S \* 11/2007 Hu ..... D15/140

(Continued)

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FOREIGN PATENT DOCUMENTS

JP 1054222 S 11/1999  
JP D1054222/1 S 5/2000

(Continued)

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OTHER PUBLICATIONS

(\*) Notice: This patent is subject to a terminal disclaimer.

Communication dated Mar. 16, 2017, issued from the Japan Patent Office in corresponding Japanese Patent Application No. 2016-007500.

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

*Primary Examiner* — Darlington Ly

(21) Appl. No.: **29/596,762**

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(57) **CLAIM**

(51) **LOC (11) Cl.** ..... **08-05**

The ornamental design for a drill chuck, as shown and described.

(52) **U.S. Cl.**

USPC ..... **D8/70**; D15/140

(58) **Field of Classification Search**

USPC ..... D8/62, 68-70; D15/138-140  
CPC ..... B23B 31/1215; B23B 31/123; B23B 31/1253

See application file for complete search history.

**DESCRIPTION**

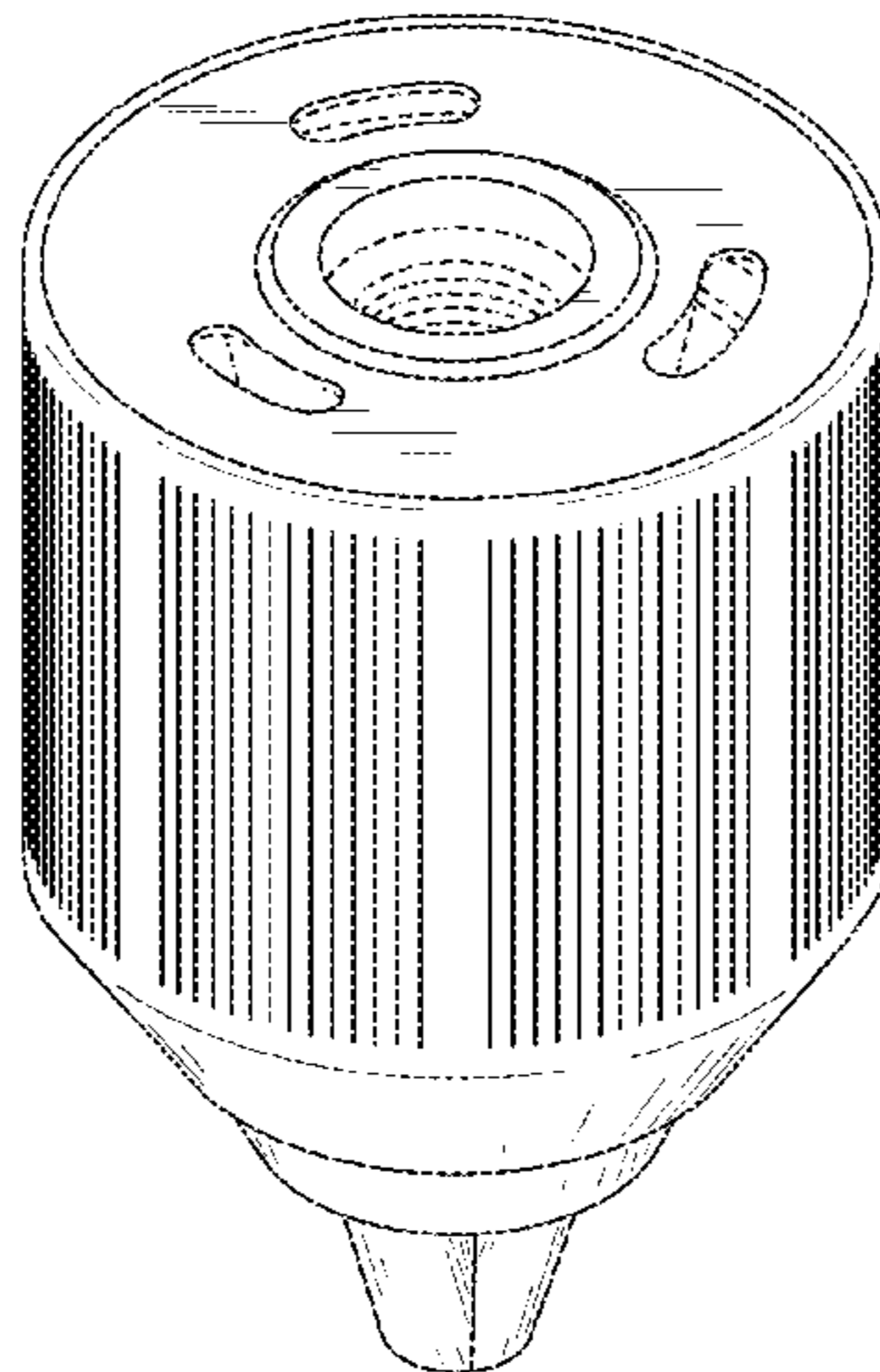
FIG. 1 is a perspective view of a drill chuck showing my new design;  
FIG. 2 is a front elevation view thereof;  
FIG. 3 is a rear elevation view thereof;  
FIG. 4 is a top plan view thereof;  
FIG. 5 is a bottom plan view thereof;  
FIG. 6 is a right side elevation view thereof;  
FIG. 7 is a cross-sectional view thereof taken along line A-A in FIG. 4; and  
FIG. 8 is an enlarged sectional view thereof taken along line C-C in FIG. 2 of portion B-B in FIG. 4; and,  
FIG. 9 is an enlarged cross-sectional view thereof taken along line A-A in FIG. 4 that shows a length and depth of the grooves shown in FIGS. 1-3, 6, and 8.  
Portions shown with broken lines form no part of the claimed design.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D259,855 S \* 7/1981 Derbyshire ..... D8/68  
D423,527 S \* 4/2000 Sakamaki ..... D15/140  
D426,840 S \* 6/2000 Sakamaki ..... D15/140  
D433,909 S \* 11/2000 Long ..... D15/140  
D434,629 S \* 12/2000 Long ..... D15/140  
D461,696 S \* 8/2002 Chunn ..... D15/140  
D461,697 S \* 8/2002 Chunn ..... D15/140  
D462,249 S \* 9/2002 Chunn ..... D15/140  
D472,443 S \* 4/2003 Chunn ..... D8/70  
D474,387 S \* 5/2003 Chunn ..... D15/140  
D514,416 S \* 2/2006 Watson ..... D15/140  
D540,137 S 4/2007 Yaksich

**1 Claim, 9 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

D562,099 S \* 2/2008 Hu ..... D8/70  
D565,376 S \* 4/2008 Hu ..... D8/70  
D565,377 S \* 4/2008 Hu ..... D8/70  
D567,268 S \* 4/2008 Mack ..... D15/140  
D580,727 S \* 11/2008 Mack ..... D8/70  
D590,228 S \* 4/2009 Aglassinger ..... D8/70  
D593,390 S \* 6/2009 Sakamaki ..... D15/140  
7,845,650 B2 \* 12/2010 Mack ..... B23B 31/1215  
279/152  
8,678,400 B2 3/2014 Bordeianu et al.  
D735,007 S \* 7/2015 Schenk ..... D15/140  
D735,549 S \* 8/2015 Schenk ..... D15/140  
2008/0143062 A1 \* 6/2008 Mack ..... B23B 31/1215  
279/62  
2010/0127463 A1 \* 5/2010 Zhou ..... B23B 31/123  
279/61

FOREIGN PATENT DOCUMENTS

JP D1105454 S 4/2001  
JP D1357494 S 4/2009  
JP D1524919 S 6/2015

\* cited by examiner

FIG. 1

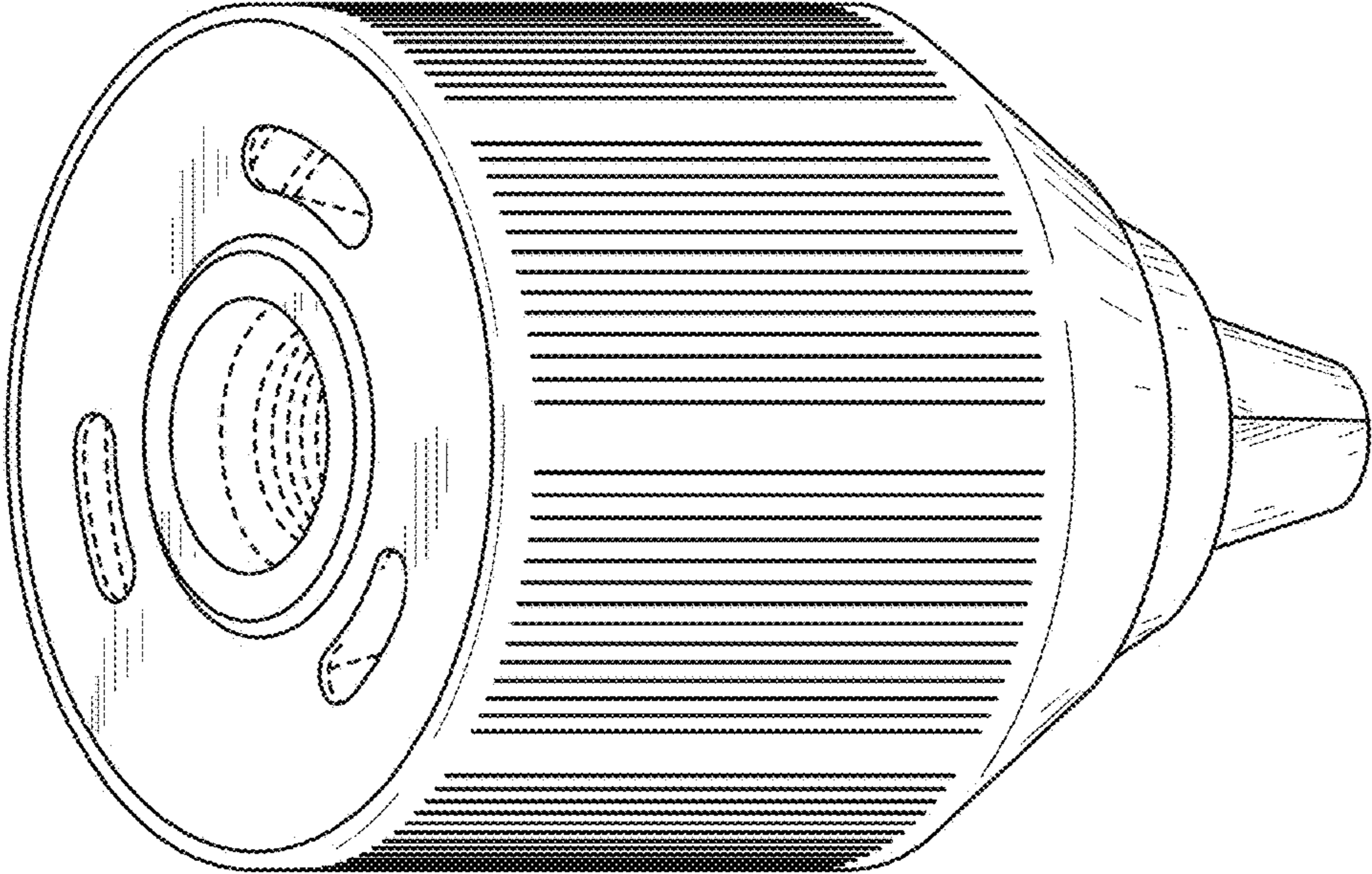


FIG. 2

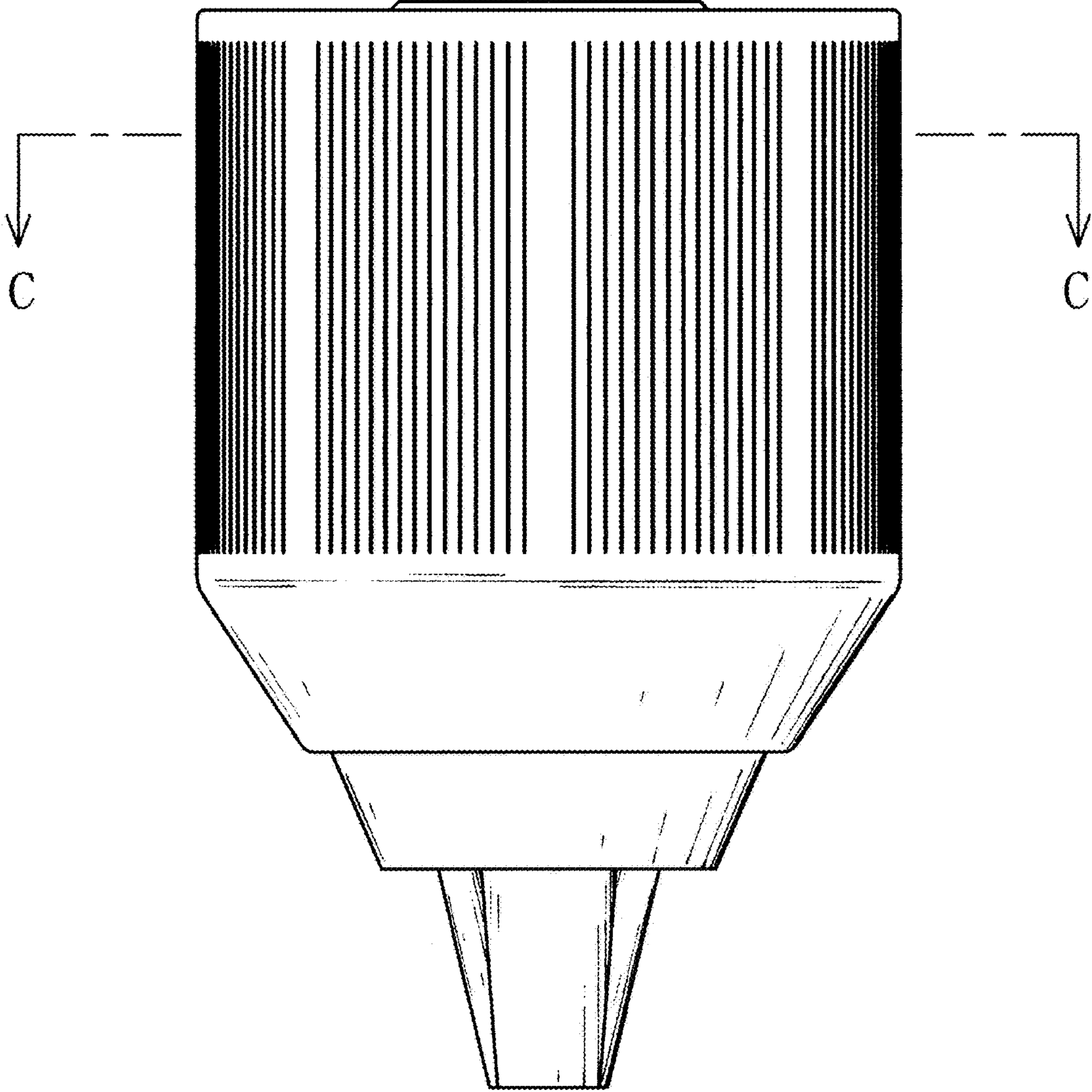
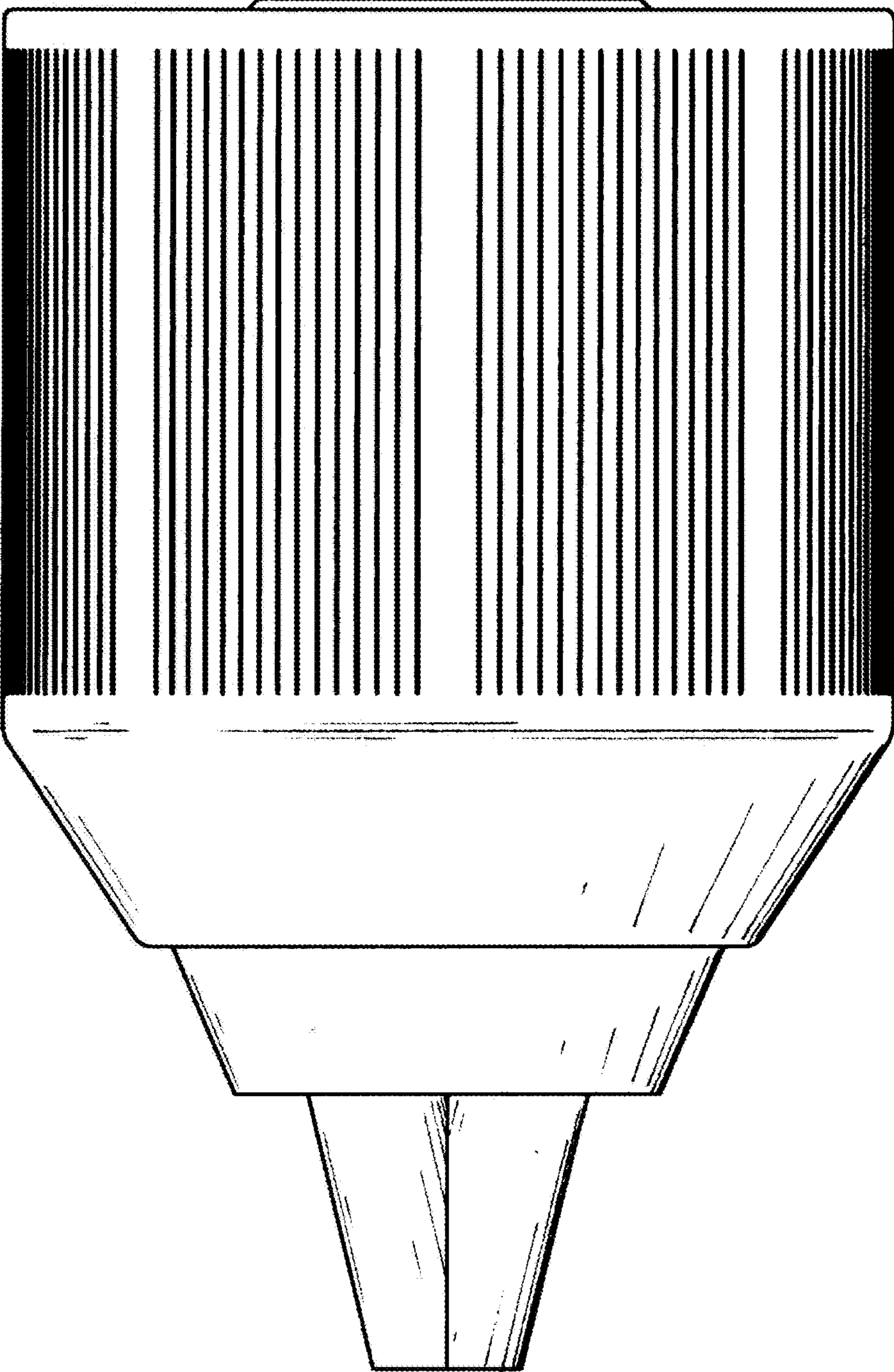


FIG. 3



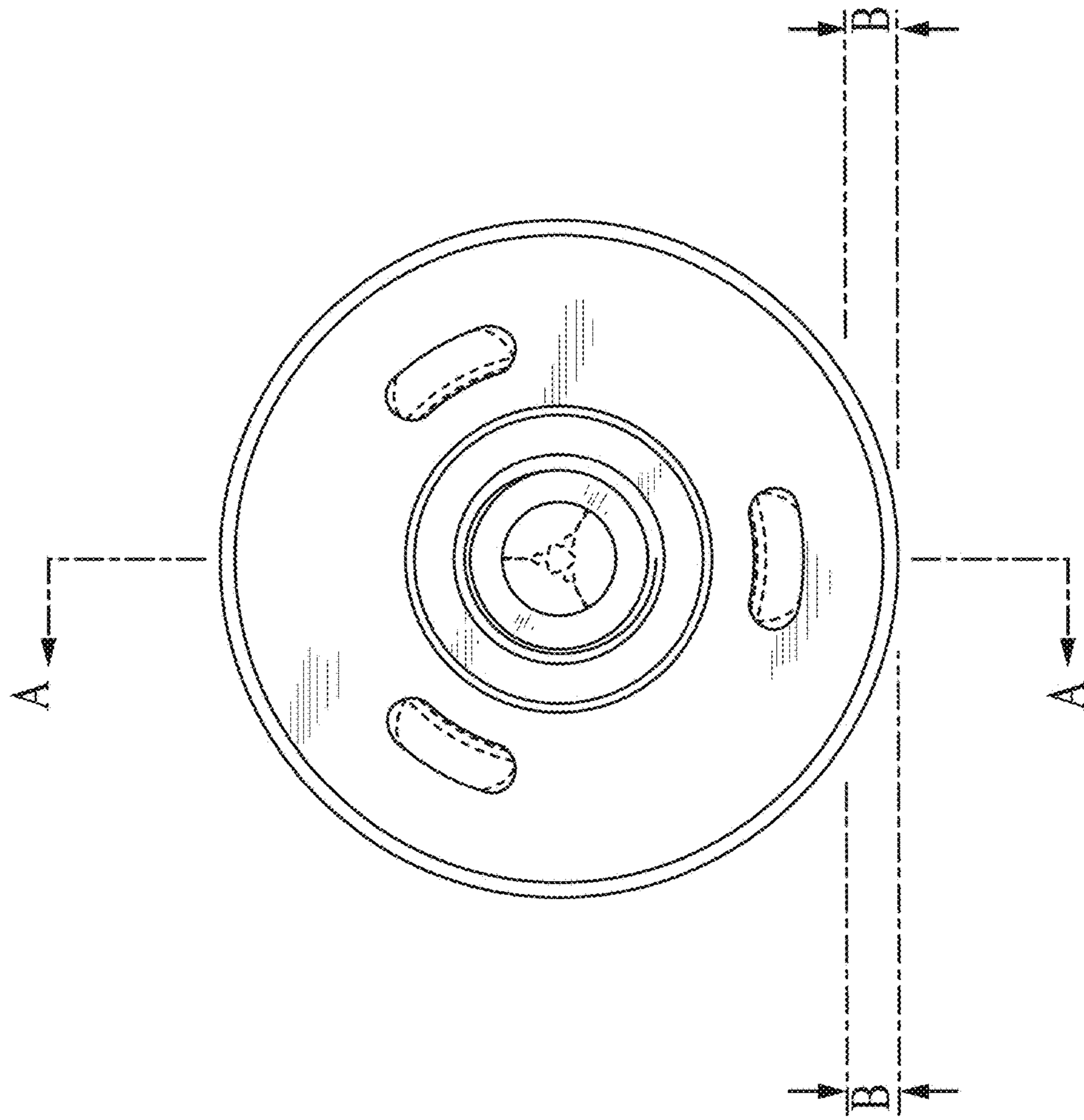


FIG. 4

FIG. 5

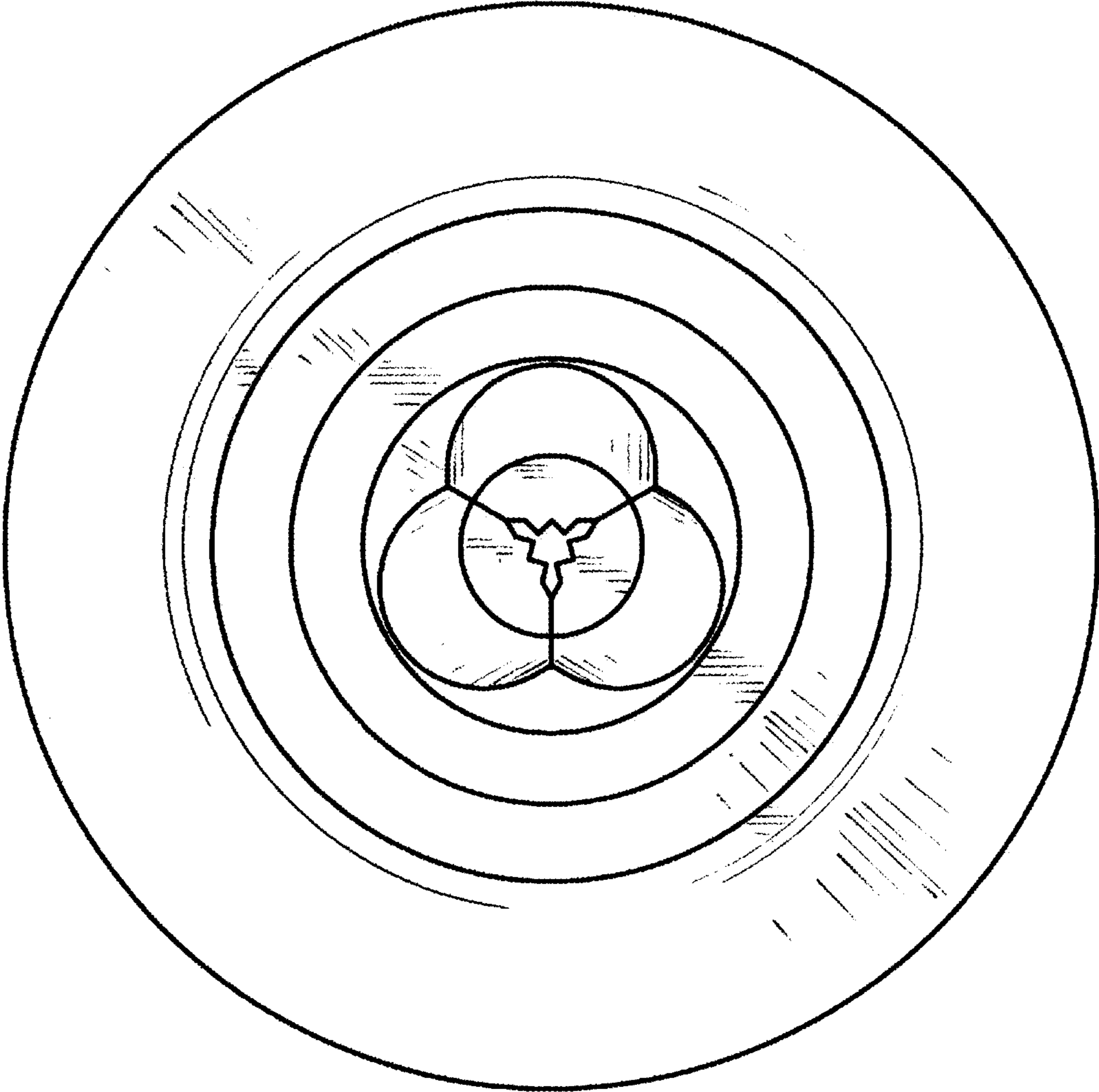


FIG. 6

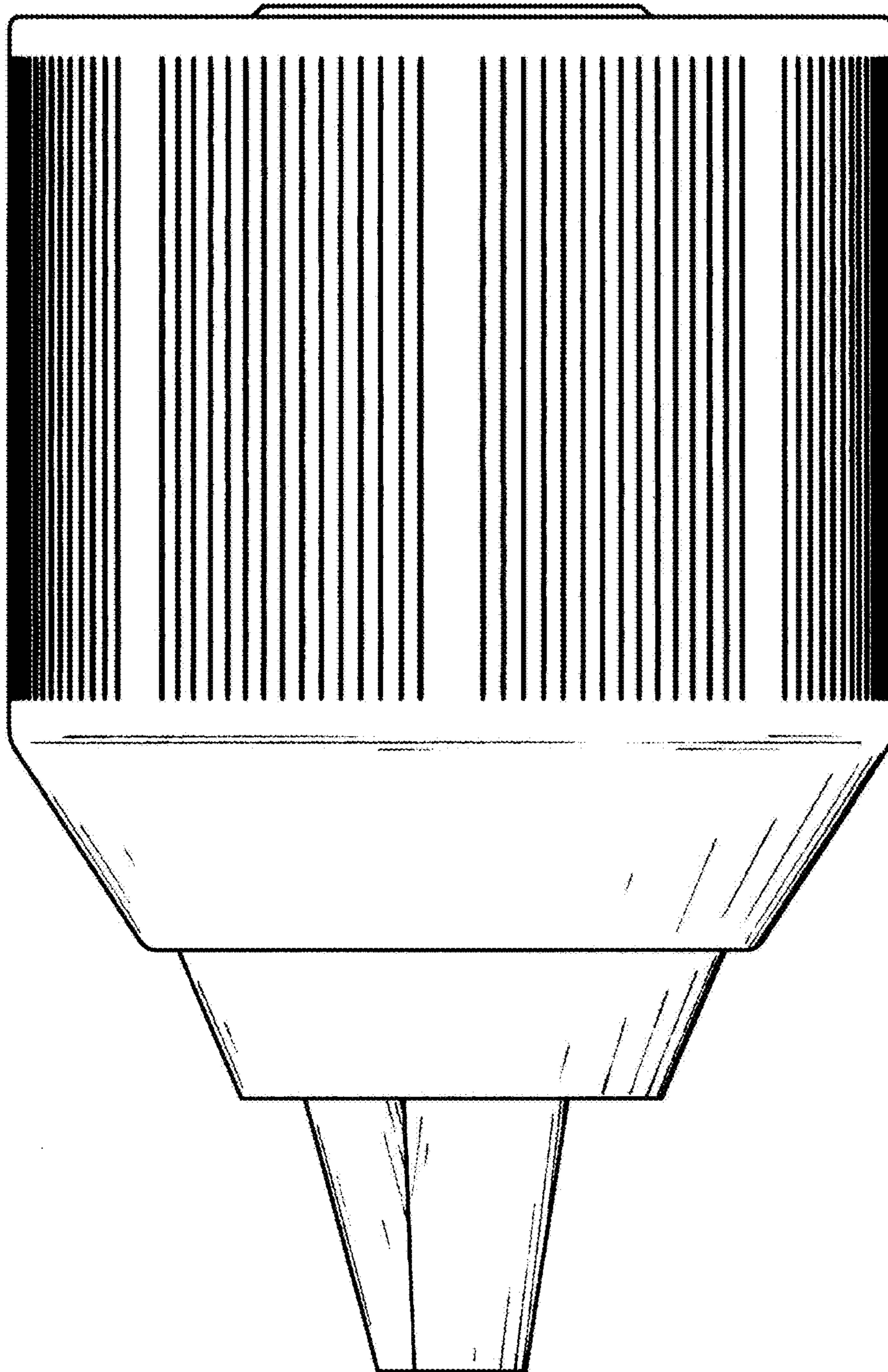




FIG. 7

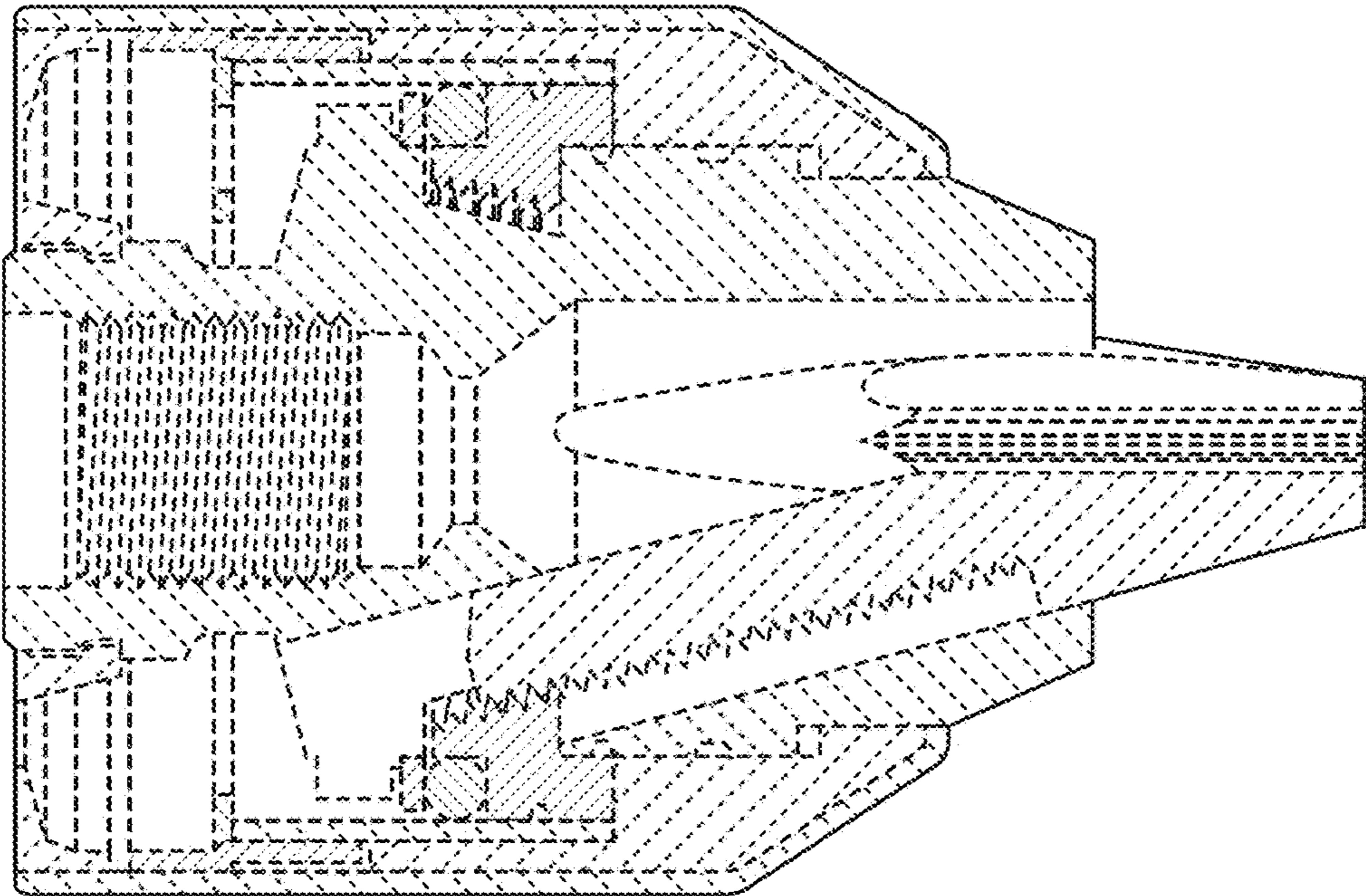
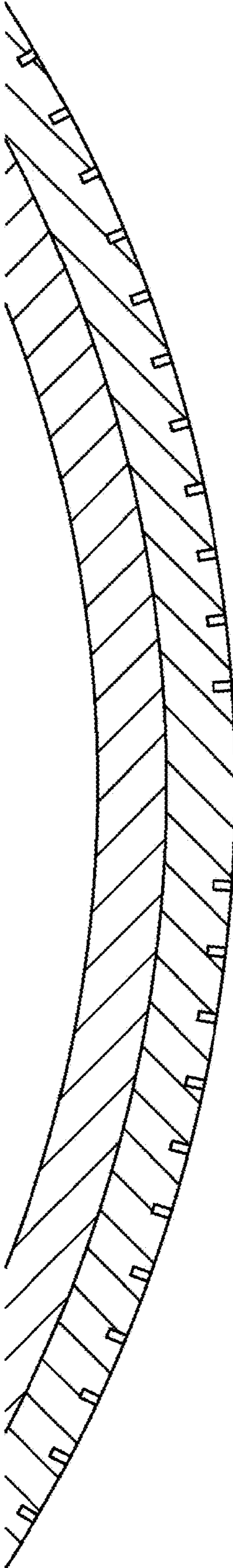


FIG. 8



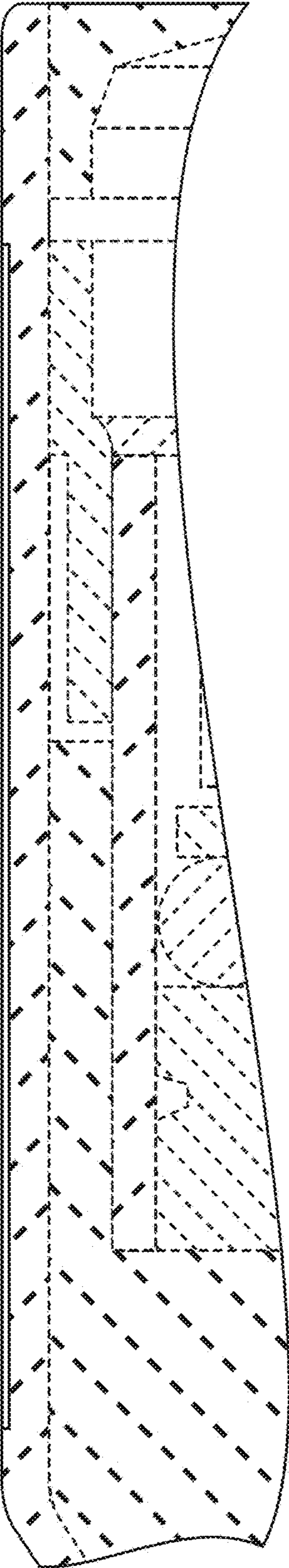


FIG. 9