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

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(45) **Date of Patent:** **\*\* Dec. 27, 2016**

(54) **LIQUID-FREE TRAP FOR TRACE LEVEL ACIDIC AND BASIC AMC AND COMPONENTS THEREOF**

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(\*\*) Term: **14 Years**

(21) Appl. No.: **29/511,388**

(22) Filed: **Dec. 10, 2014**

(51) **LOC (10) Cl.** ..... **24-00**

(52) **U.S. Cl.**  
USPC ..... **D24/162**

(58) **Field of Classification Search**  
USPC ... D24/162, 164, 219, 110.6, 216; D23/209;  
D15/138; 210/335; 385/104; 96/134  
(Continued)

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(57) **CLAIM**

The ornamental design for a liquid-free trap for trace level acidic and basic AMC and components thereof, as shown and described.

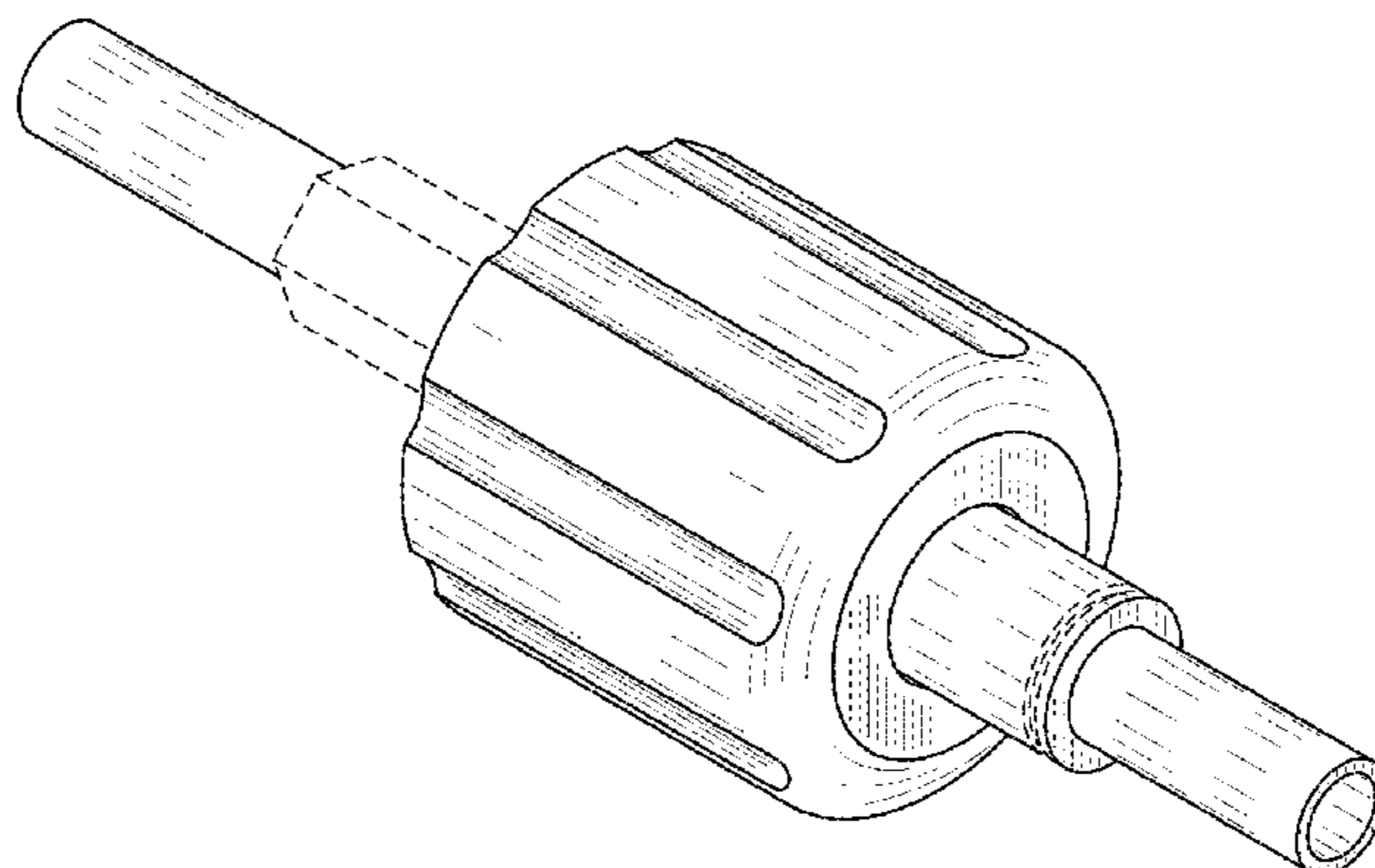
**DESCRIPTION**

FIG. 1 is a front perspective view of the liquid-free trap for trace level acidic and basic AMC and components thereof, according to our new design;  
FIG. 2 is a back perspective view thereof;  
FIG. 3 is a front view thereof;  
FIG. 4 is a back view thereof;  
FIG. 5 is a top view thereof;  
FIG. 6 is a top sectional view taken on line 6-6 of FIG. 5.  
FIG. 7 is an exploded view of FIG. 5.  
FIG. 8 is a front perspective view of locking nut member of the liquid-free trap;  
FIG. 9 is a back perspective view thereof;  
FIG. 10 is a front view thereof;  
FIG. 11 is a back view thereof;  
FIG. 12 is a top view thereof; and,  
FIG. 13 is a top sectional view taken on line 13-13 of FIG. 12.

In the drawings, the broken lines are for the purpose of illustrating environment only and form no part of the claimed design.

The liquid-free trap for trace level acidic and basic AMC and components thereof in the present invention relies on a solid material to trap acidic or basic AMC in a gas stream, for example, from a cleanroom or a semiconductor manufacturing facility. The liquid-free trap for trace level acidic and basic AMC and components thereof can be used in any suitable orientation, including horizontal and vertical orientations. The liquid-free trap for trace level acidic and basic AMC and components thereof can comprise a housing comprising a hollow, elongate upstream component with tubular portions; a hollow, elongate downstream component with tubular portions; and a locking nut member to secure the upstream component to the downstream component, the upstream component and the downstream component together creating a chamber space that is sealed from the

(Continued)



environment and situated in a flow path between the inlet and the outlet. The space created by the upstream and downstream components together can accommodate a rigid sintered hydrophilic material trap member for trapping trace level acidic or basic AMC.

**1 Claim, 5 Drawing Sheets**

(58) **Field of Classification Search**

CPC ..... B01D 27/07; G02B 6/4432; G01D 11/245; B01J 20/18

See application file for complete search history.

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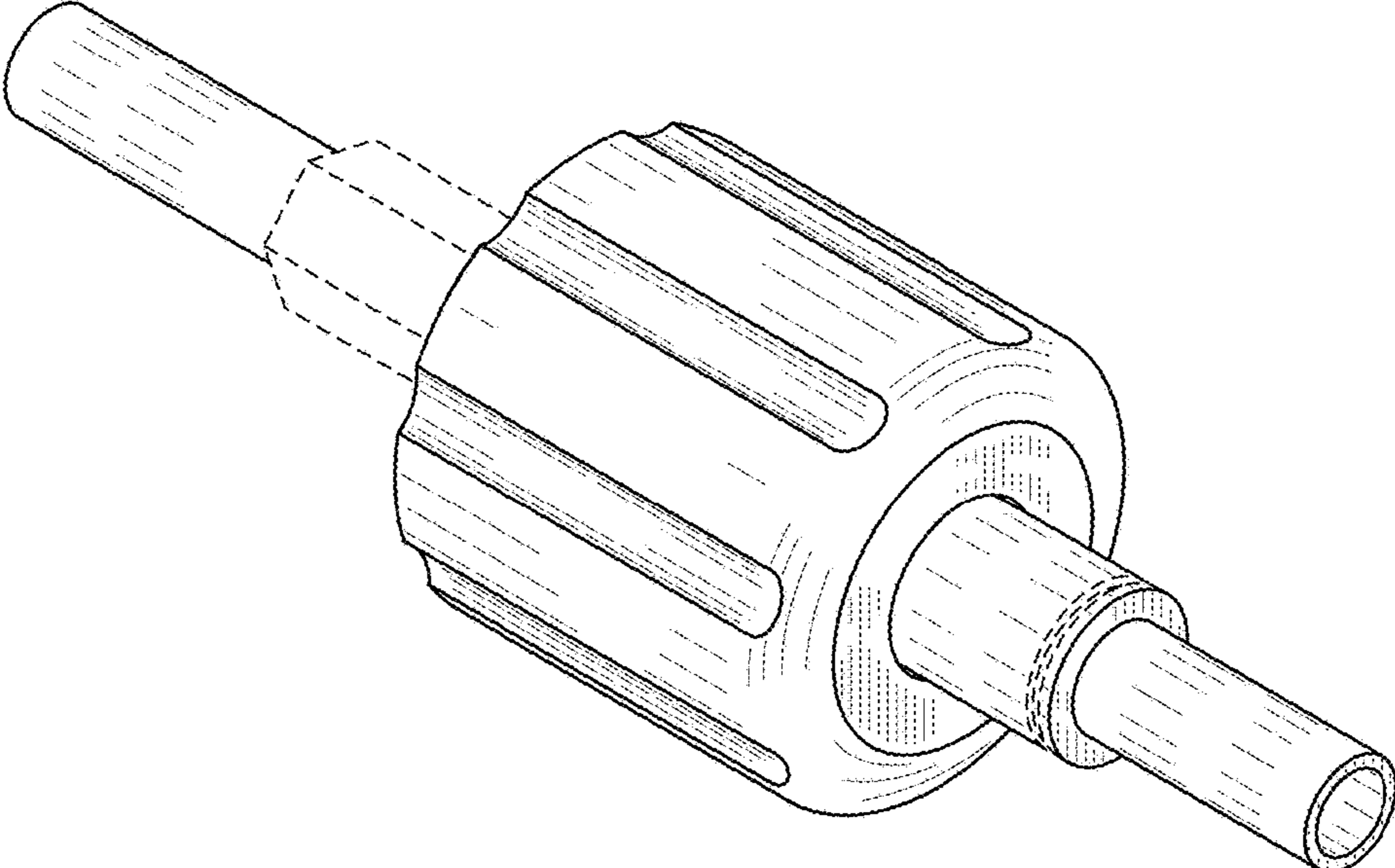


FIG. 1

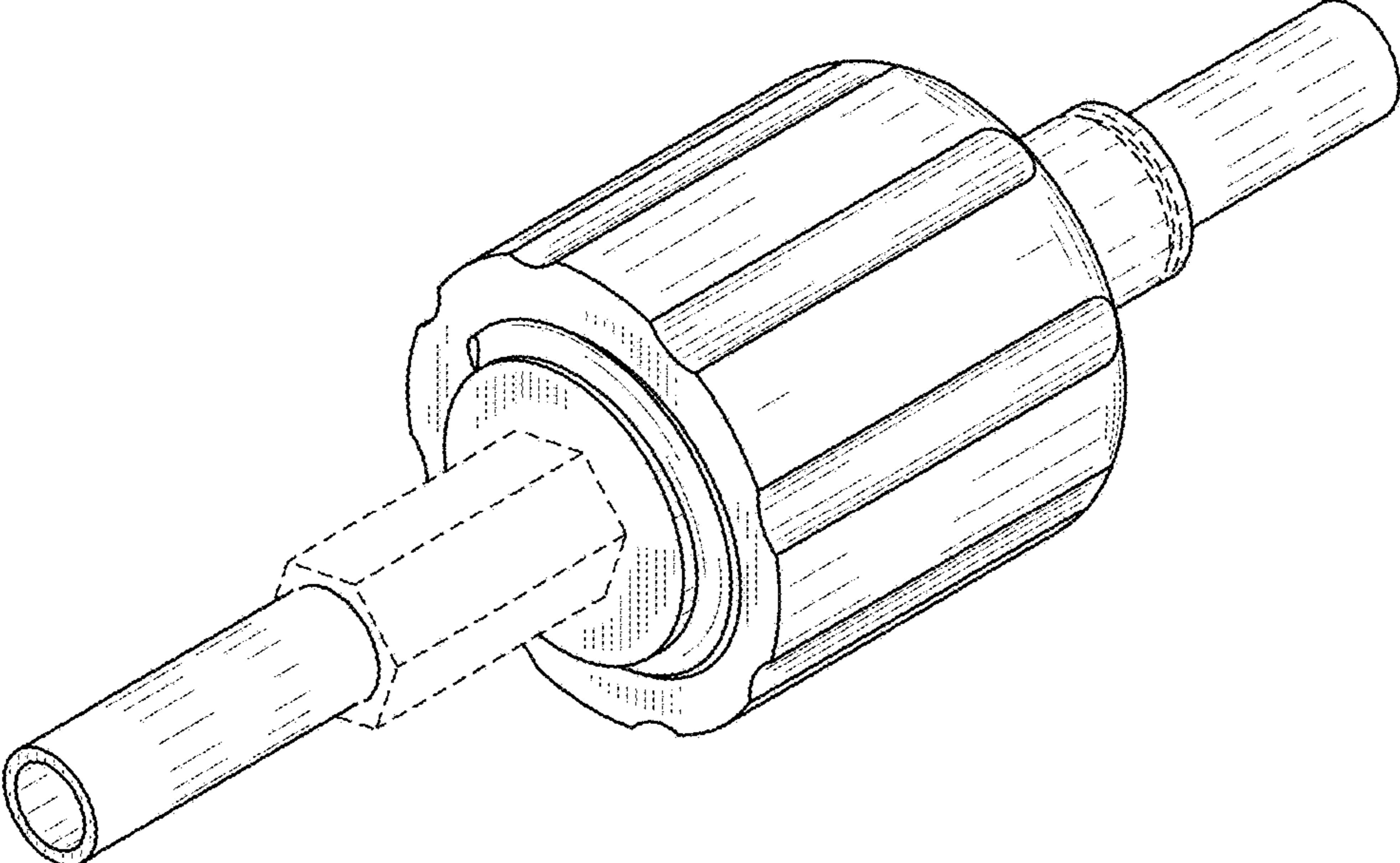


FIG. 2

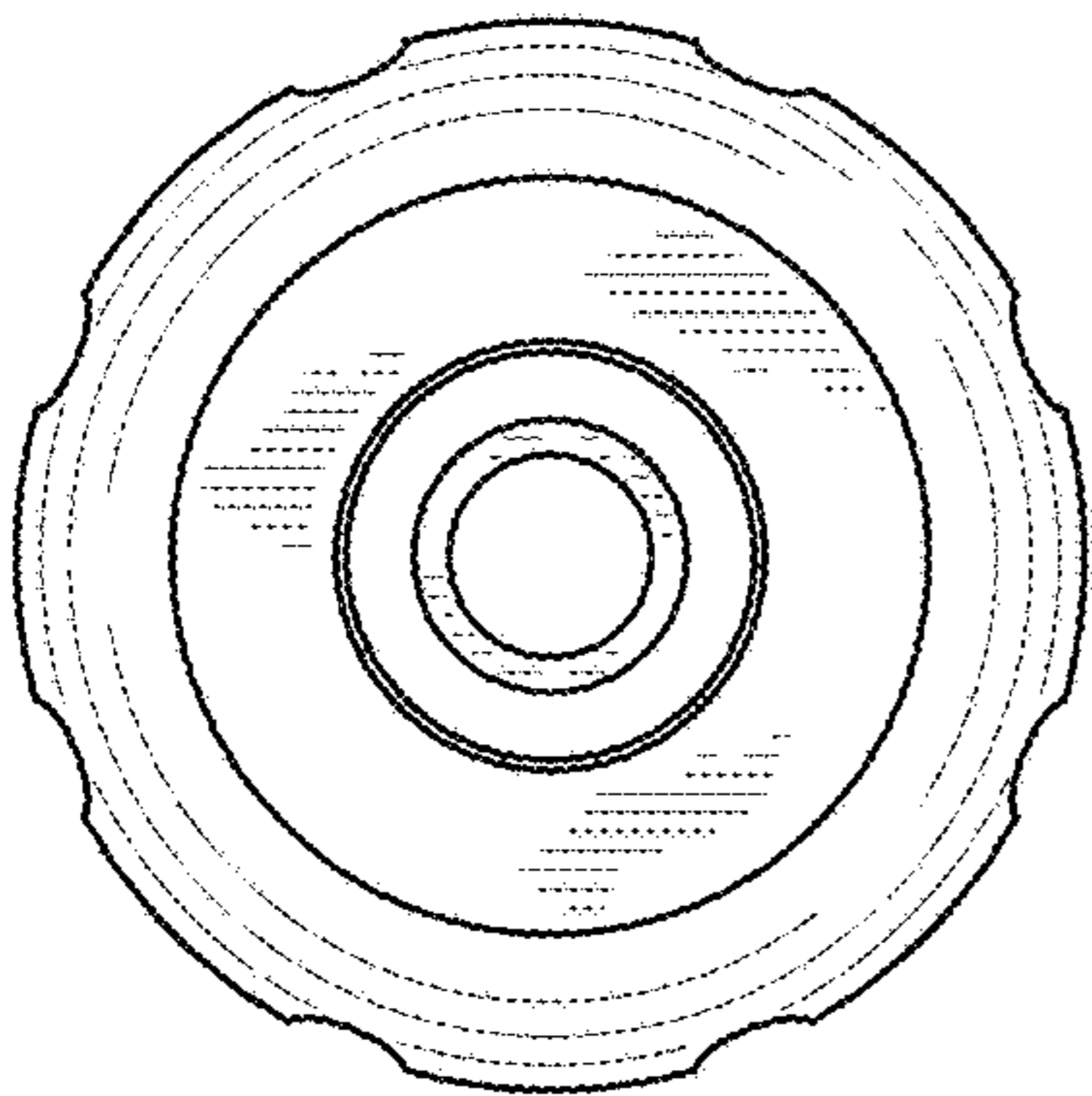


FIG. 3

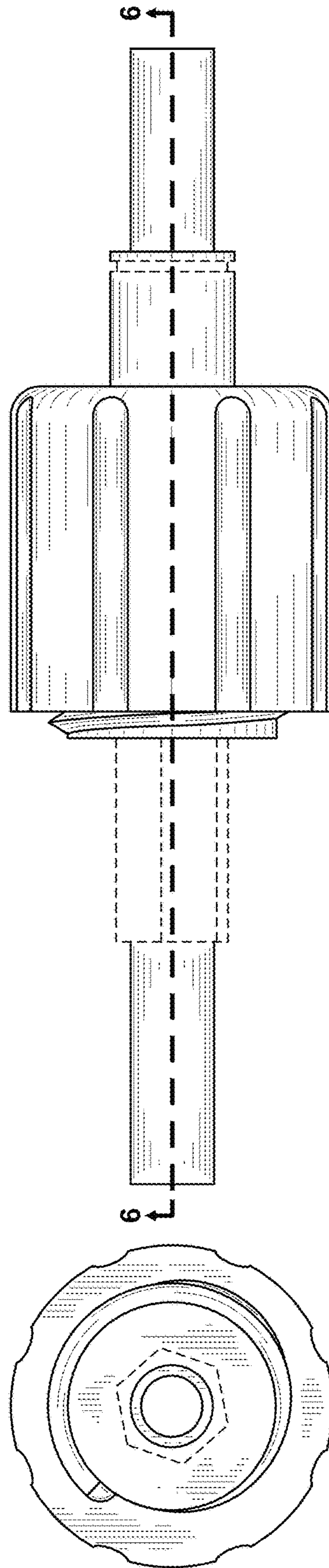


FIG. 5

FIG. 4

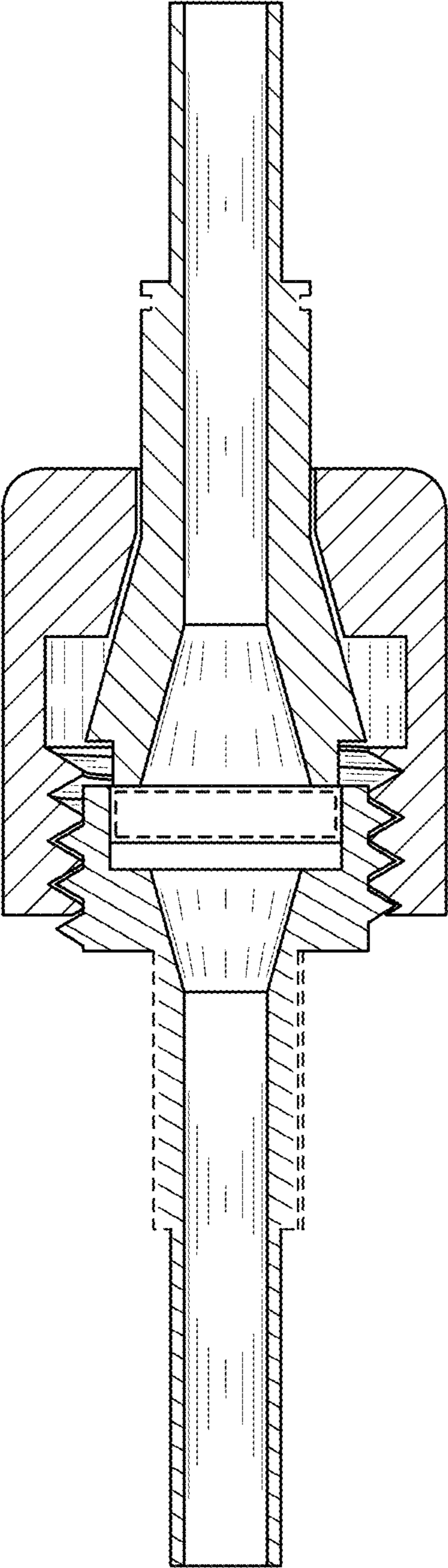


FIG. 6

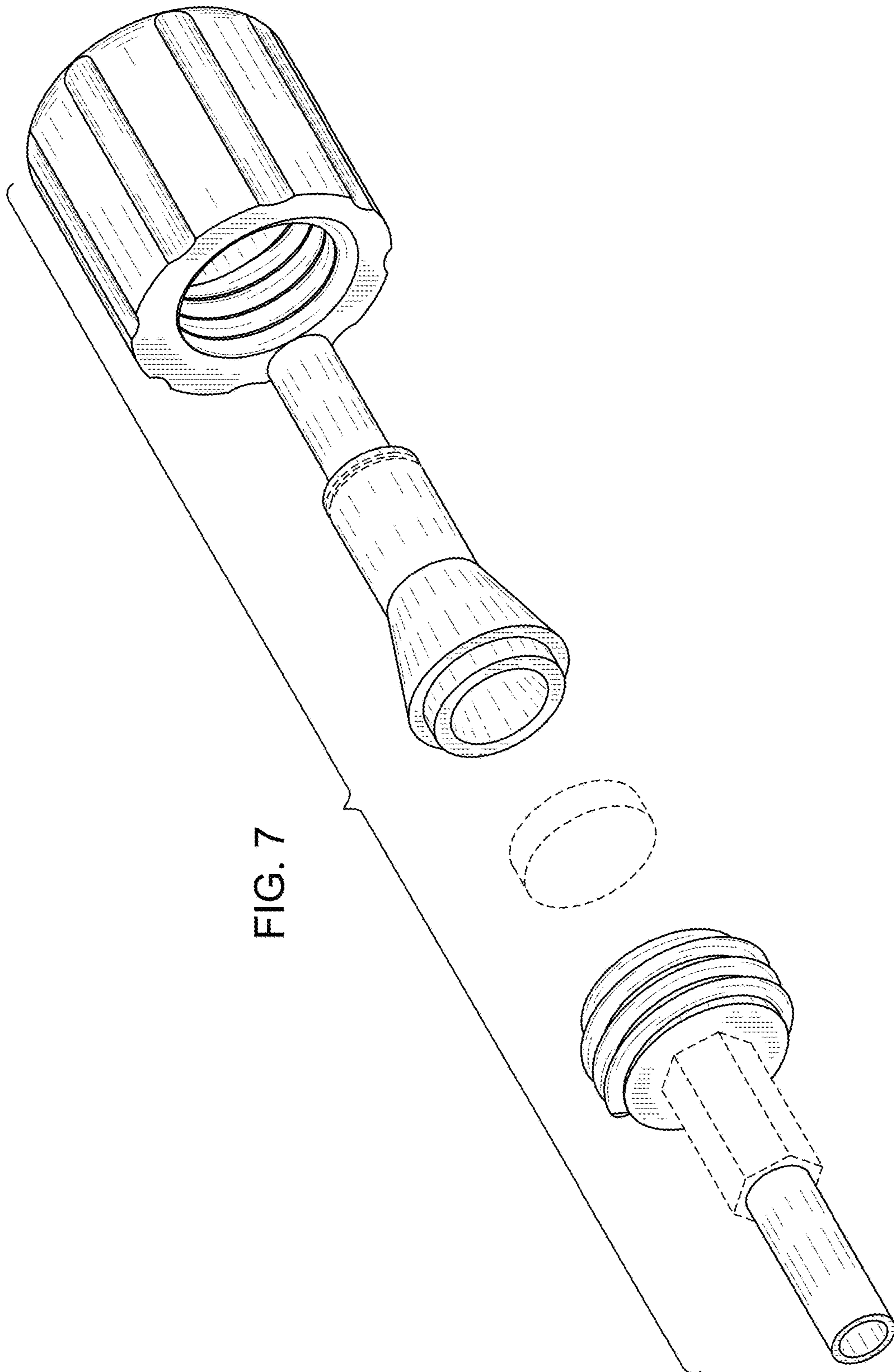


FIG. 7

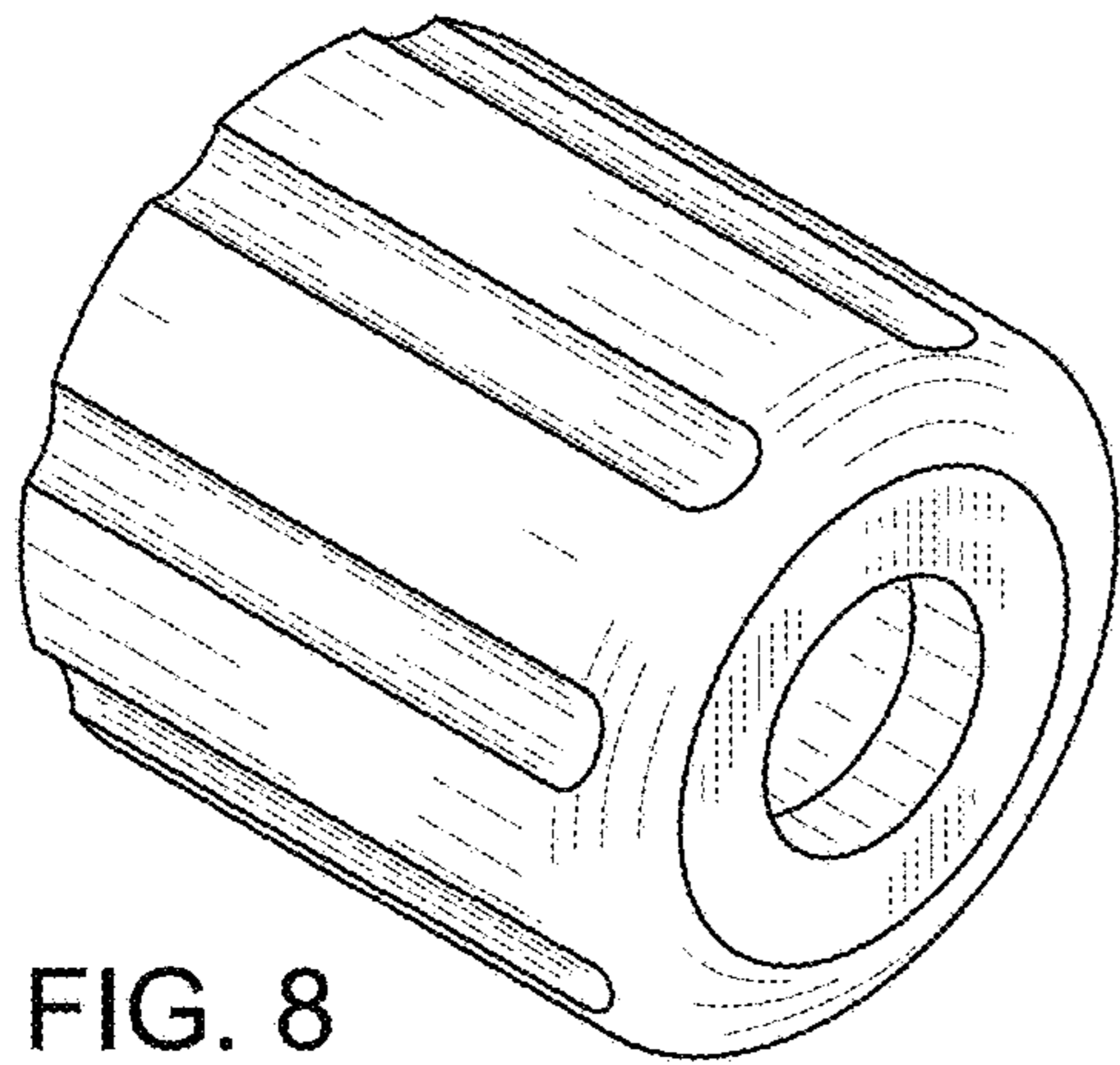


FIG. 8

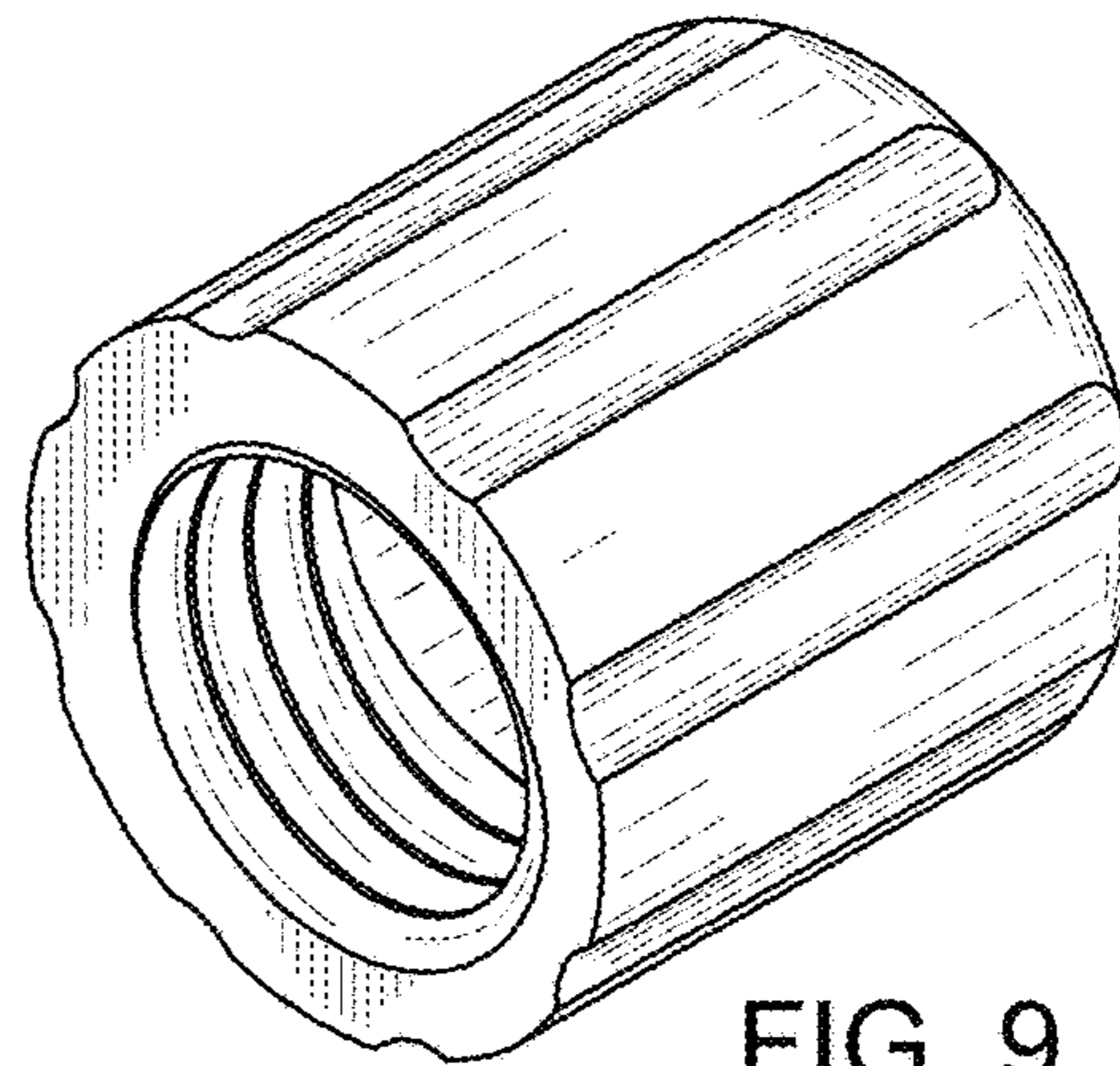


FIG. 9

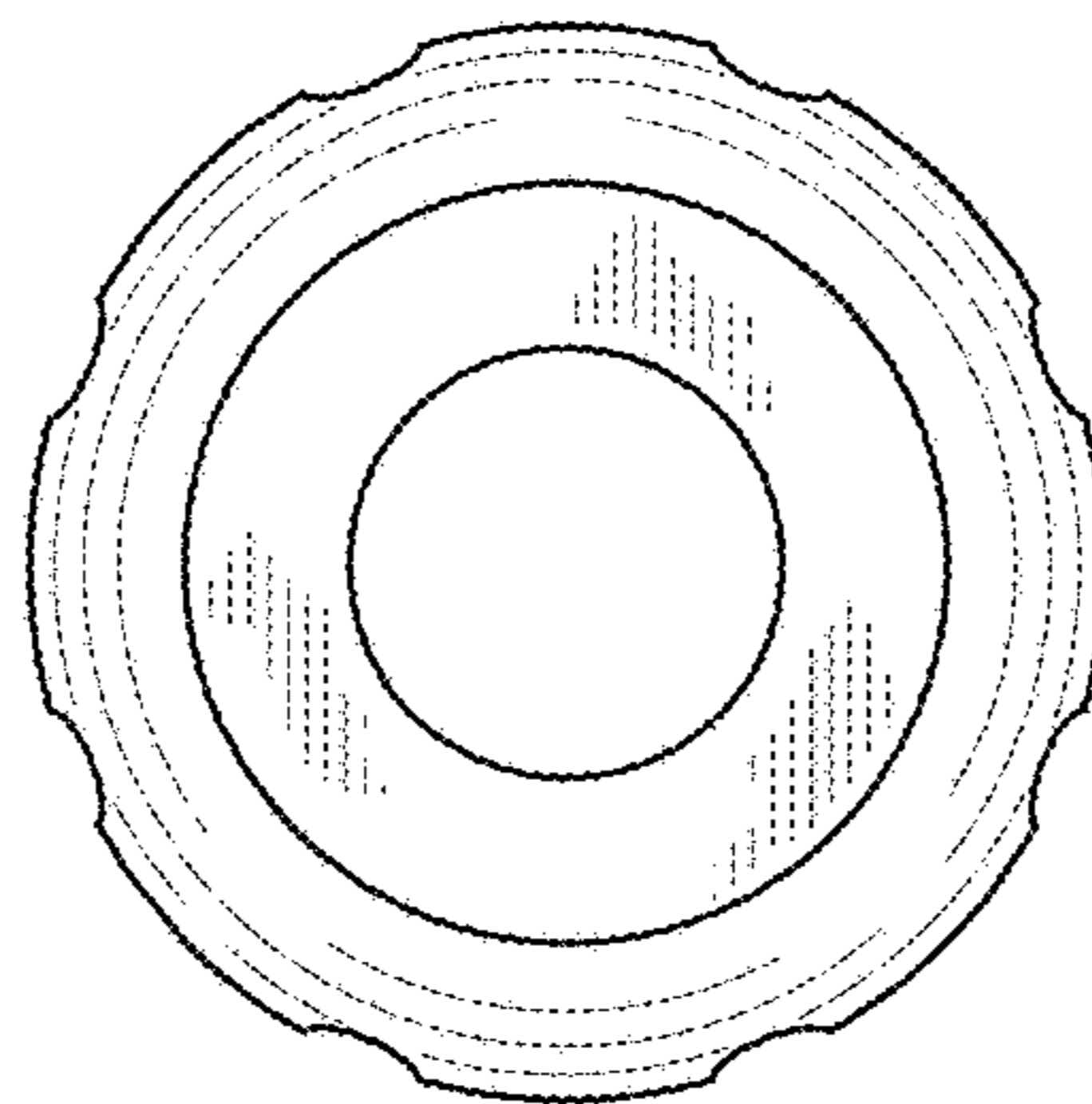


FIG. 10

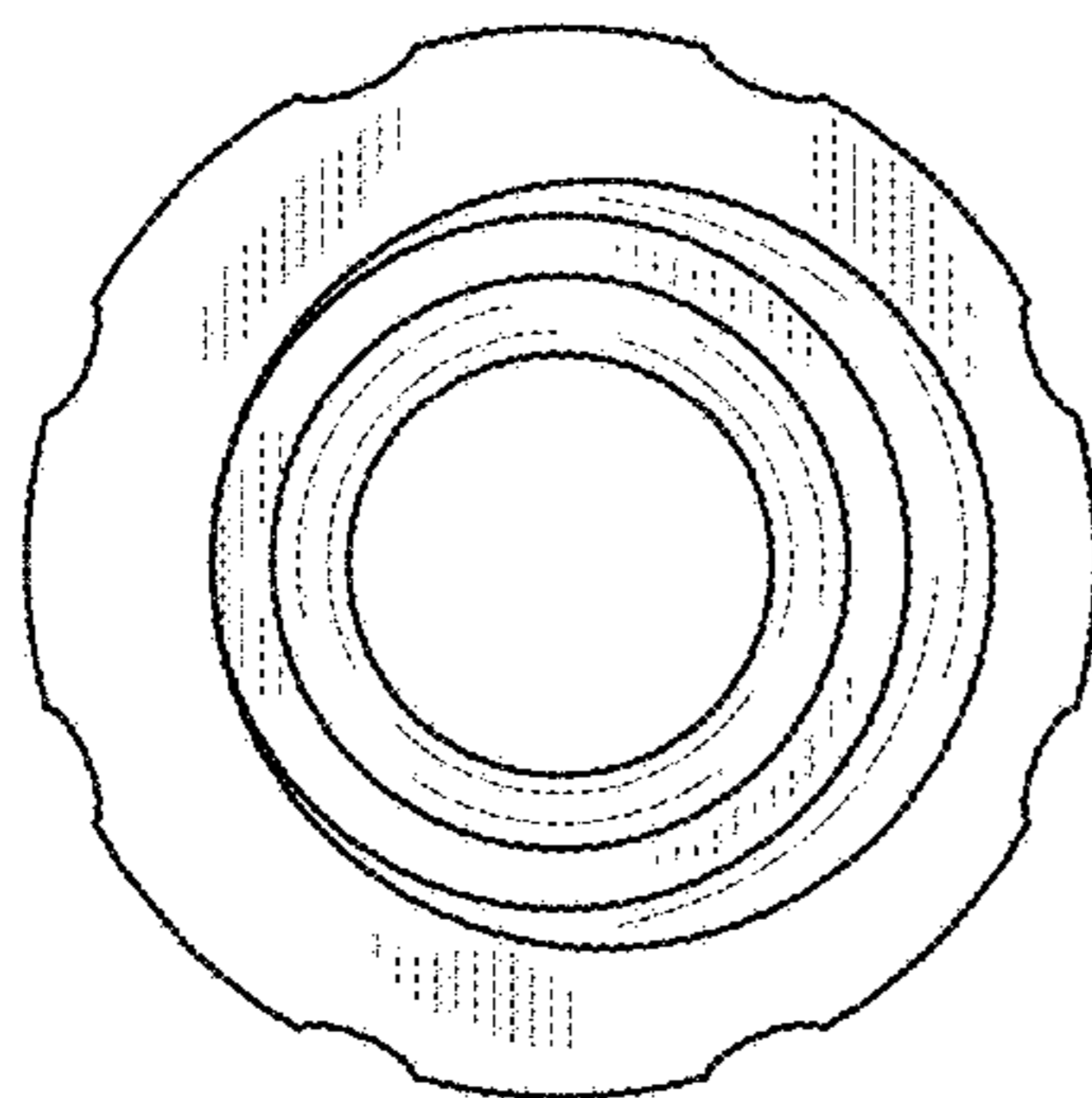


FIG. 11

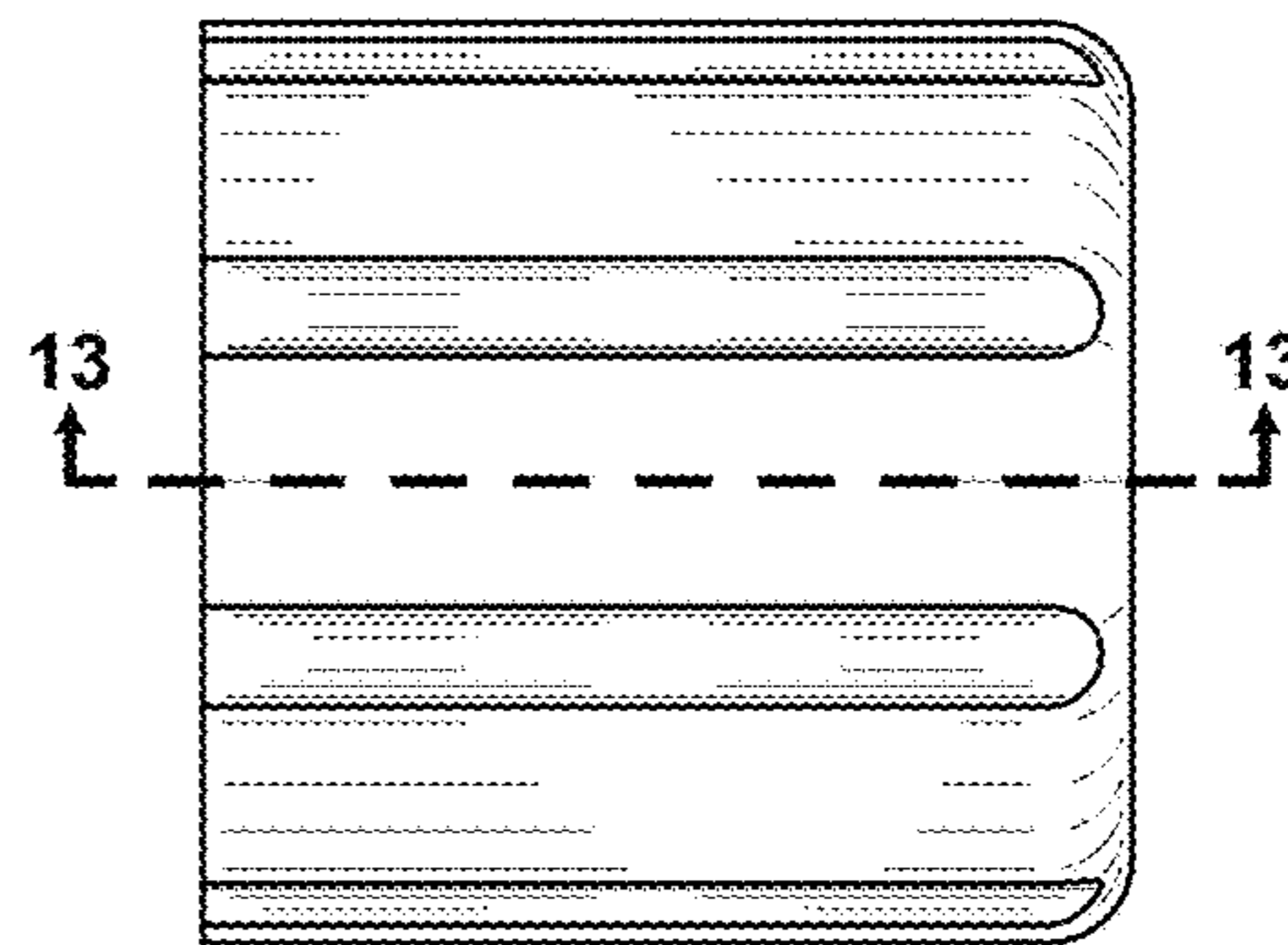


FIG. 12

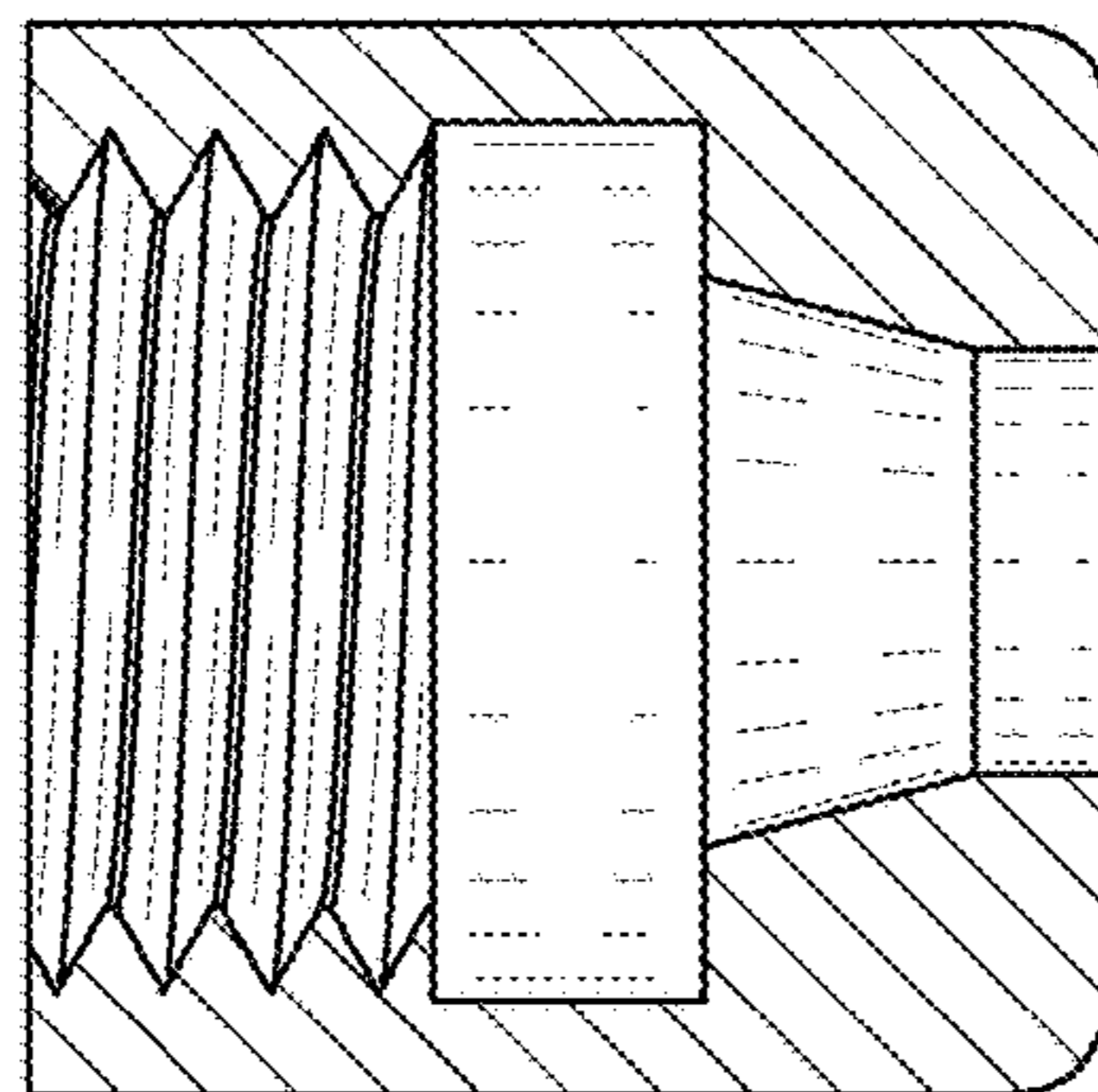


FIG. 13