



US00D615182S

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

(10) **Patent No.:** **US D615,182 S**

(45) **Date of Patent:** **\*\* May 4, 2010**

(54) **PLUG FOR THE END OF A TUBE**

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(73) Assignee: **Sumitomo Metal Industries, Ltd.**, Osaka (JP)

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

(21) Appl. No.: **29/332,814**

(22) Filed: **Feb. 26, 2009**

(30) **Foreign Application Priority Data**

Sep. 3, 2008 (JP) ..... 2008-022690

(51) **LOC (9) Cl.** ..... **23-04**

(52) **U.S. Cl.** ..... **D23/386**

(58) **Field of Classification Search** ..... D23/386,  
D23/260, 266; 138/89.1, 89.3, 89.4; 15/104.03,  
15/104.05, 104.61; D22/108, 199, 117; 102/442,  
102/529; 42/95; 299/111, 113; D15/21;  
D24/130; 264/250; 428/543; 175/434  
See application file for complete search history.

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(57) **CLAIM**

The ornamental design for a plug for the end of a tube, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of the plug for the end of a tube showing the design;

FIG. 2 is a front view thereof;

FIG. 3 is a top plan view thereof;

FIG. 4 is a right side view thereof;

FIG. 5 is a left side view thereof;

FIG. 6 is an enlarged cross-sectional view along the line 6, 6 in FIG. 2; thereof;

FIG. 7 is an enlarged cross-sectional view along the line 7, 7 in FIG. 2 thereof;

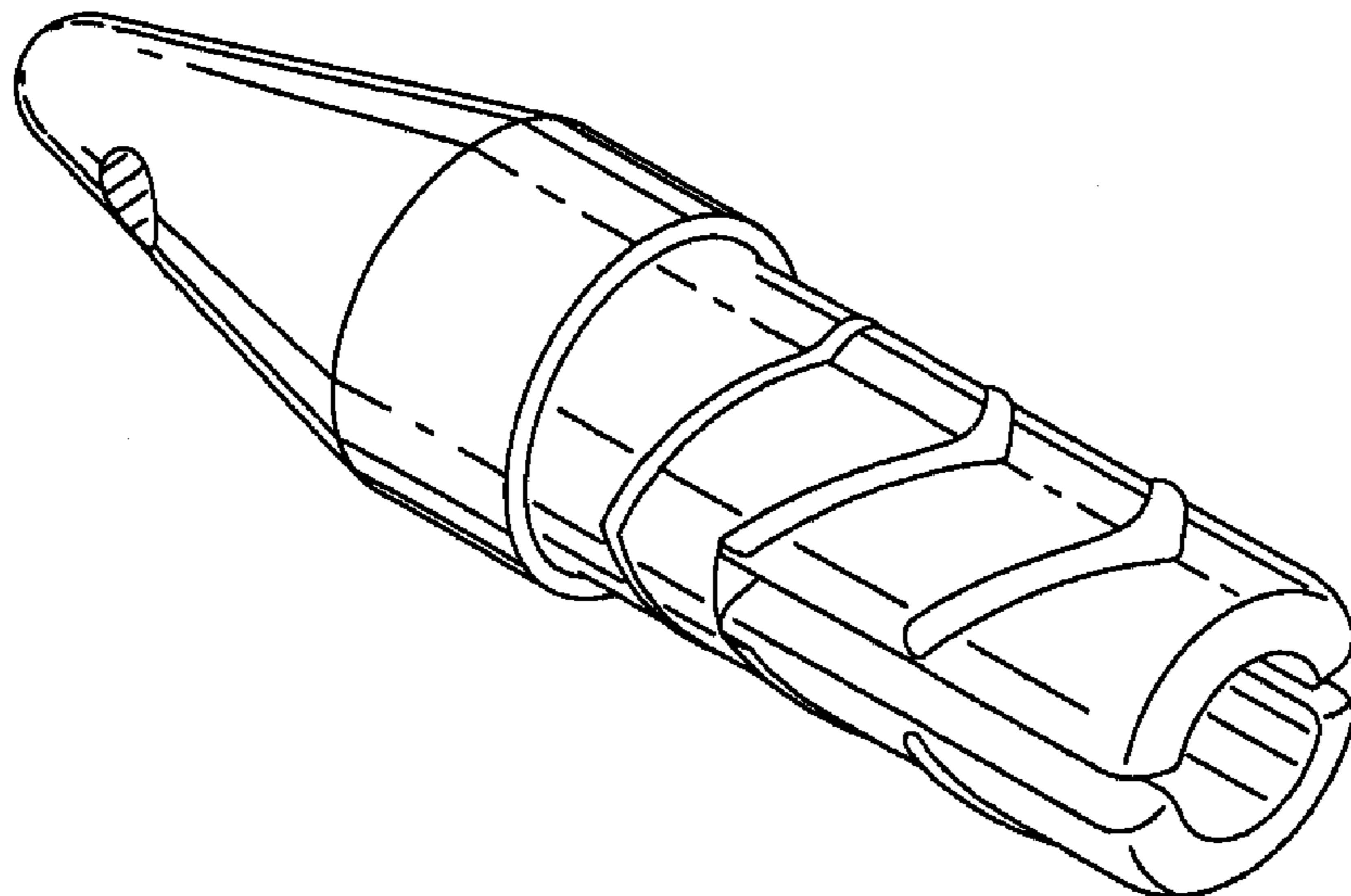
FIG. 8 is an enlarged cross-sectional view along the line 8-9, 8-9 in FIG. 3;

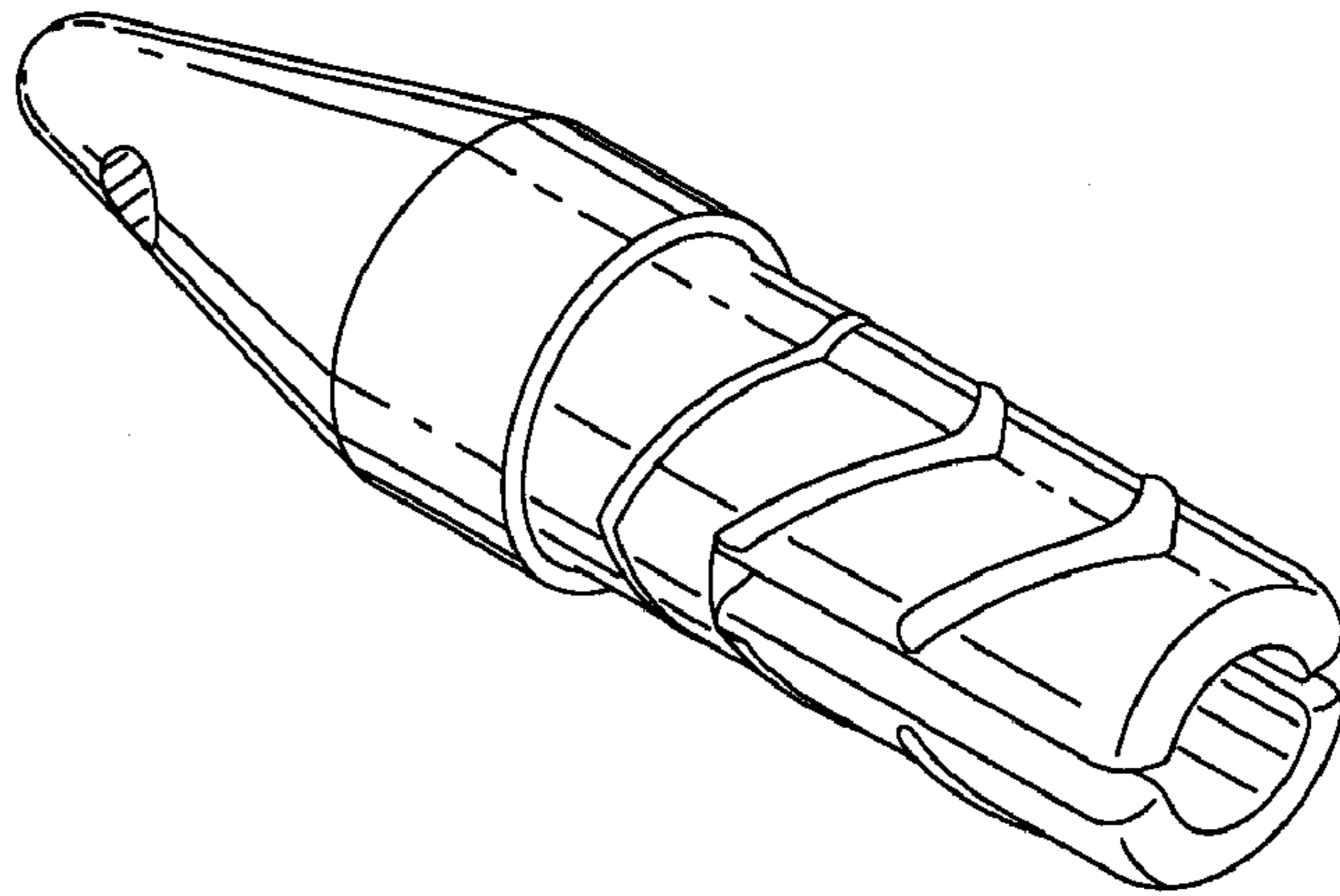
FIG. 9 a further cross-sectional view, along the line 8-9, 8-9 in FIG. 3, showing the plug located in an end of a tube; and,

FIG. 10 is a further perspective view, showing plugs each located in an end of a tube of a heat exchanger for a steam generator.

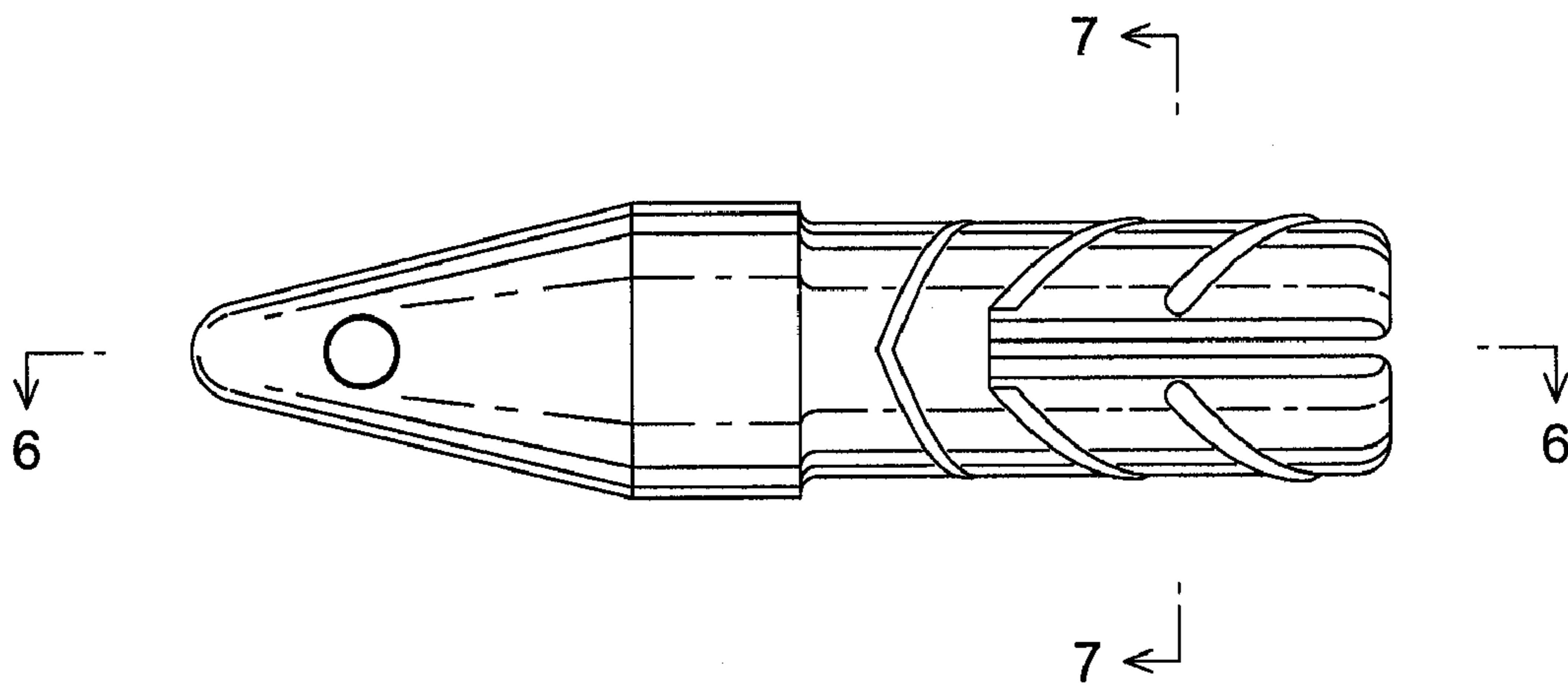
The broken lines showing parts of the drawings is included for the purpose of illustrating use and environment and forms no part of the claimed design.

**1 Claim, 5 Drawing Sheets**

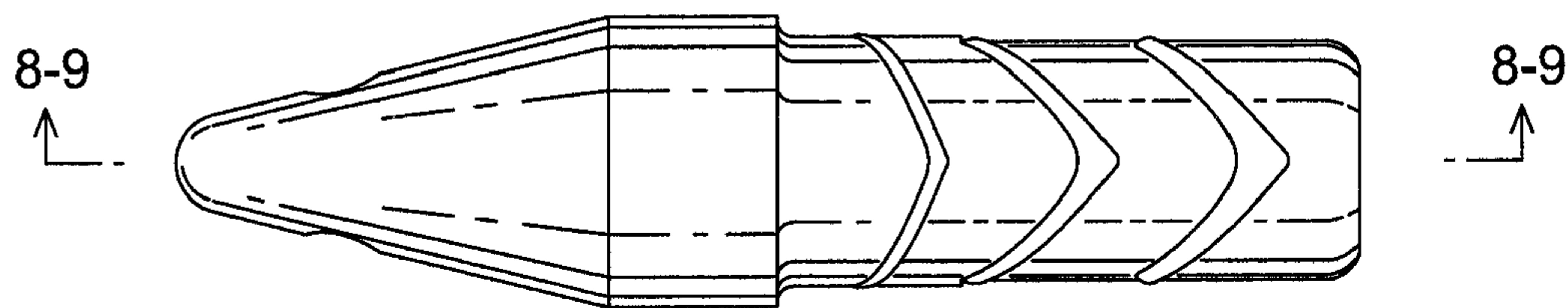




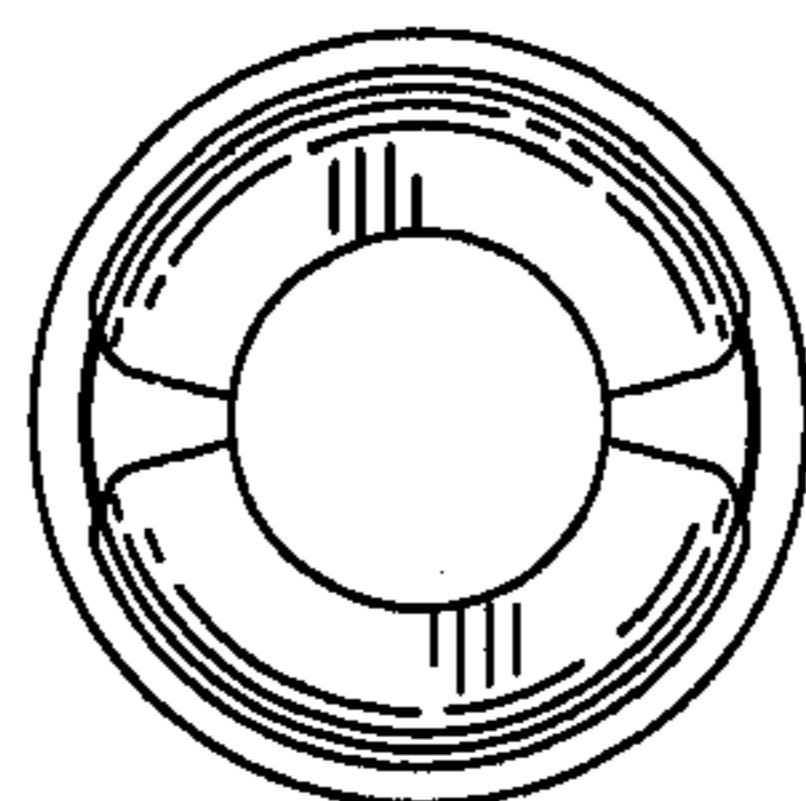
**FIG. 1**



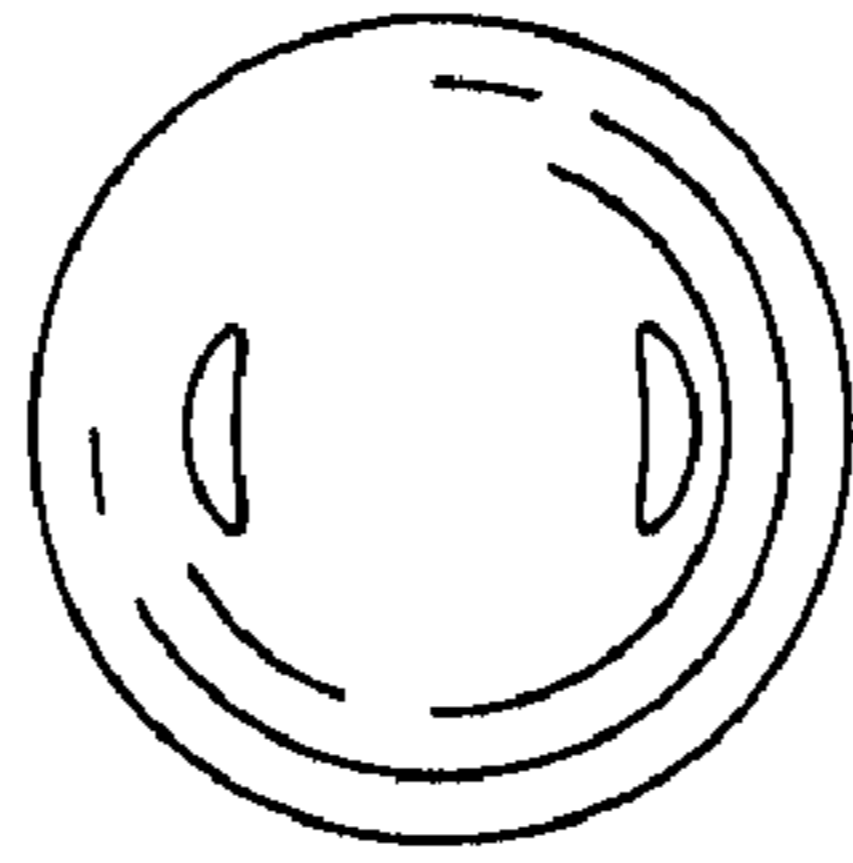
**FIG. 2**



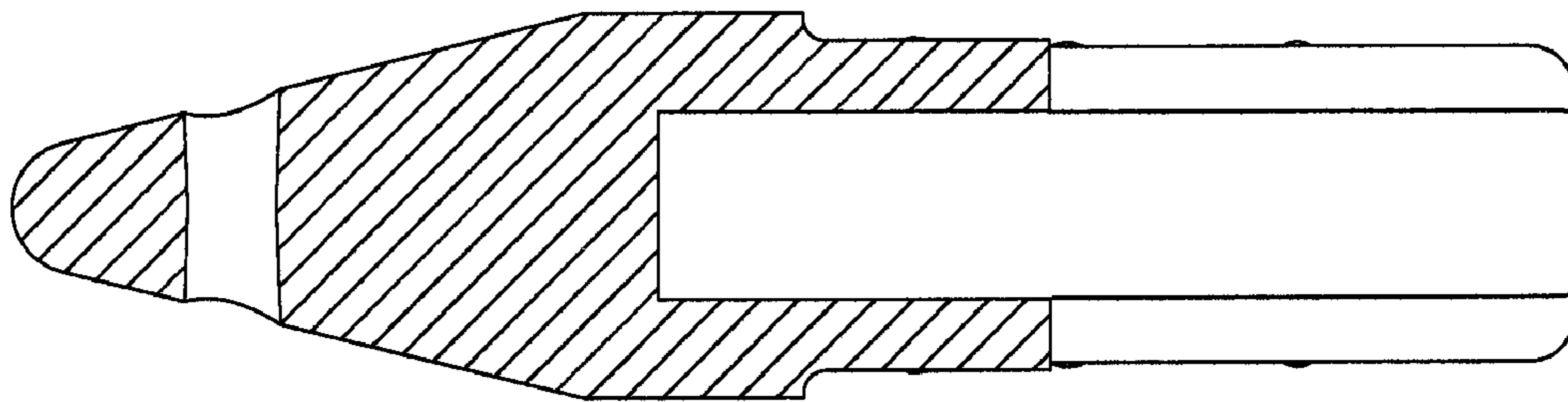
**FIG. 3**



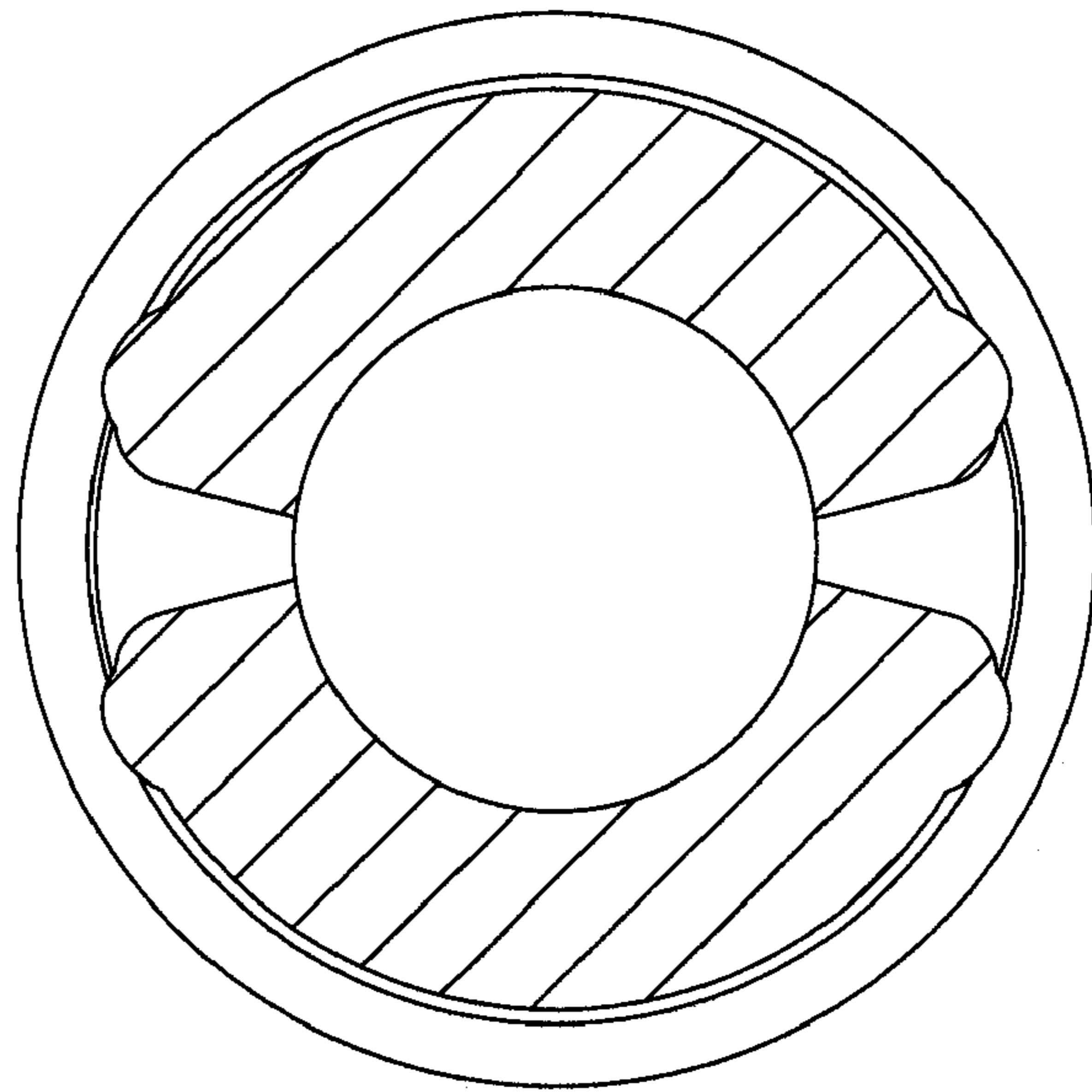
**FIG. 4**



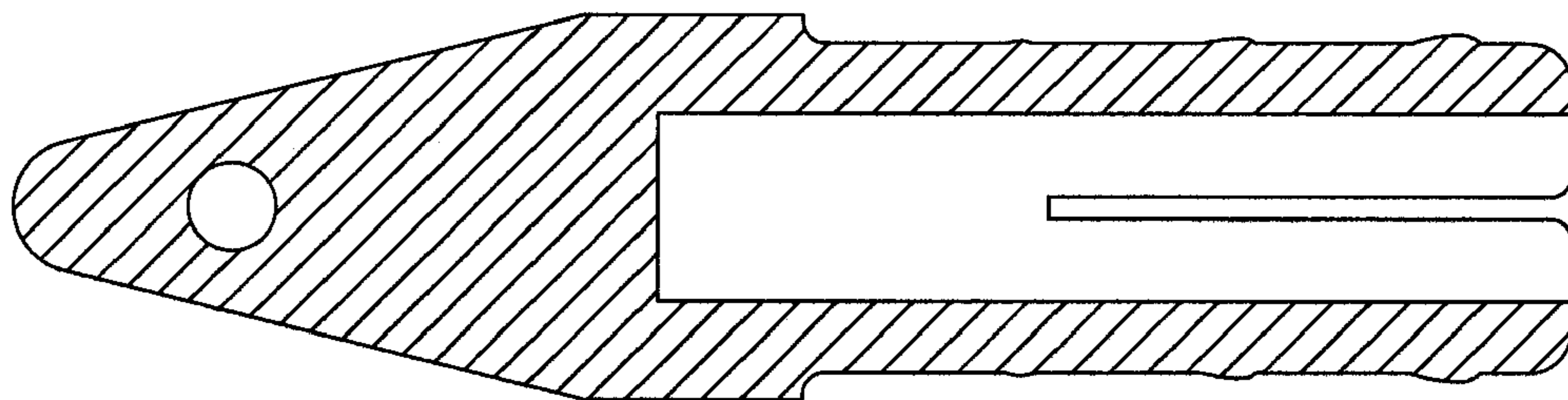
**FIG. 5**



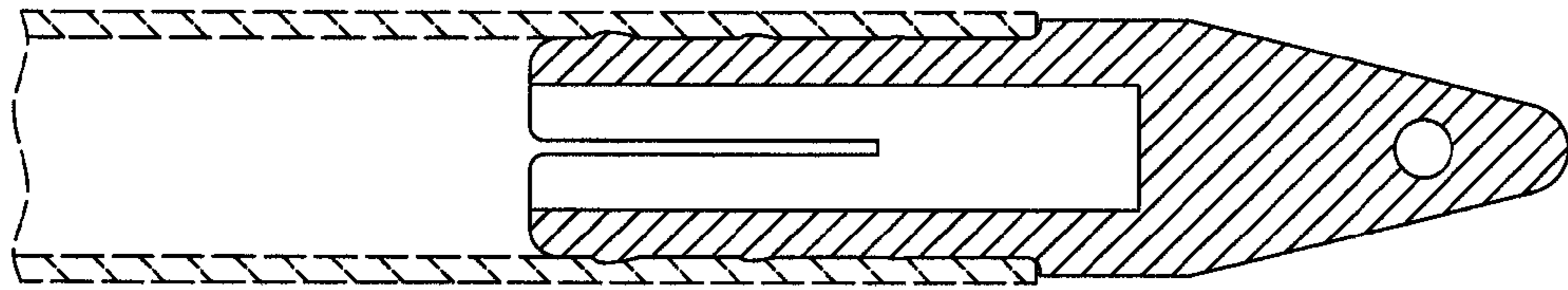
**FIG. 6**



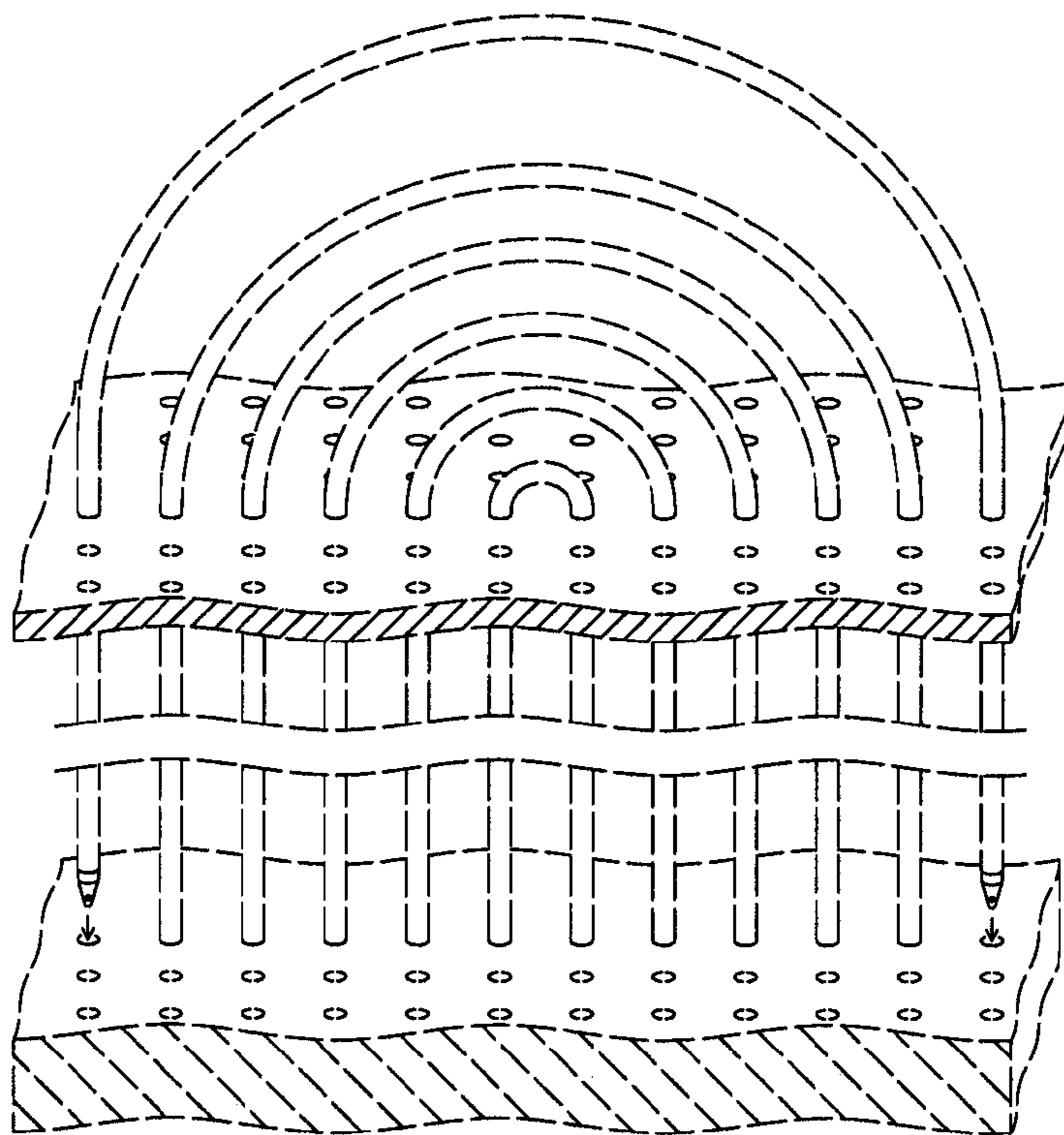
**FIG. 7**



**FIG. 8**



**FIG. 9**



**FIG. 10**