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# United States Patent [19]

Krebs

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[54] **SPINAL CANNULA WITH HOLLOW NEEDLE MANDREL AND HOLDING GRIP**

[76] Inventor: **Peter Krebs**, Waldstrasse 39, 78048 VS-Villingen, Germany

[\*\*] Term: **14 Years**

[21] Appl. No.: **24,128**

[22] Filed: **Jun. 8, 1994**

### [30] Foreign Application Priority Data

Mar. 29, 1994 [DE] Germany ..... 94 02 578.9

[52] U.S. Cl. .... **D24/112; D24/130**

[58] Field of Search ..... D24/146, 112, D24/130, 147, 114; 128/751, 753, 754, 755; 604/164, 158, 170, 264, 165, 168, 167, 281

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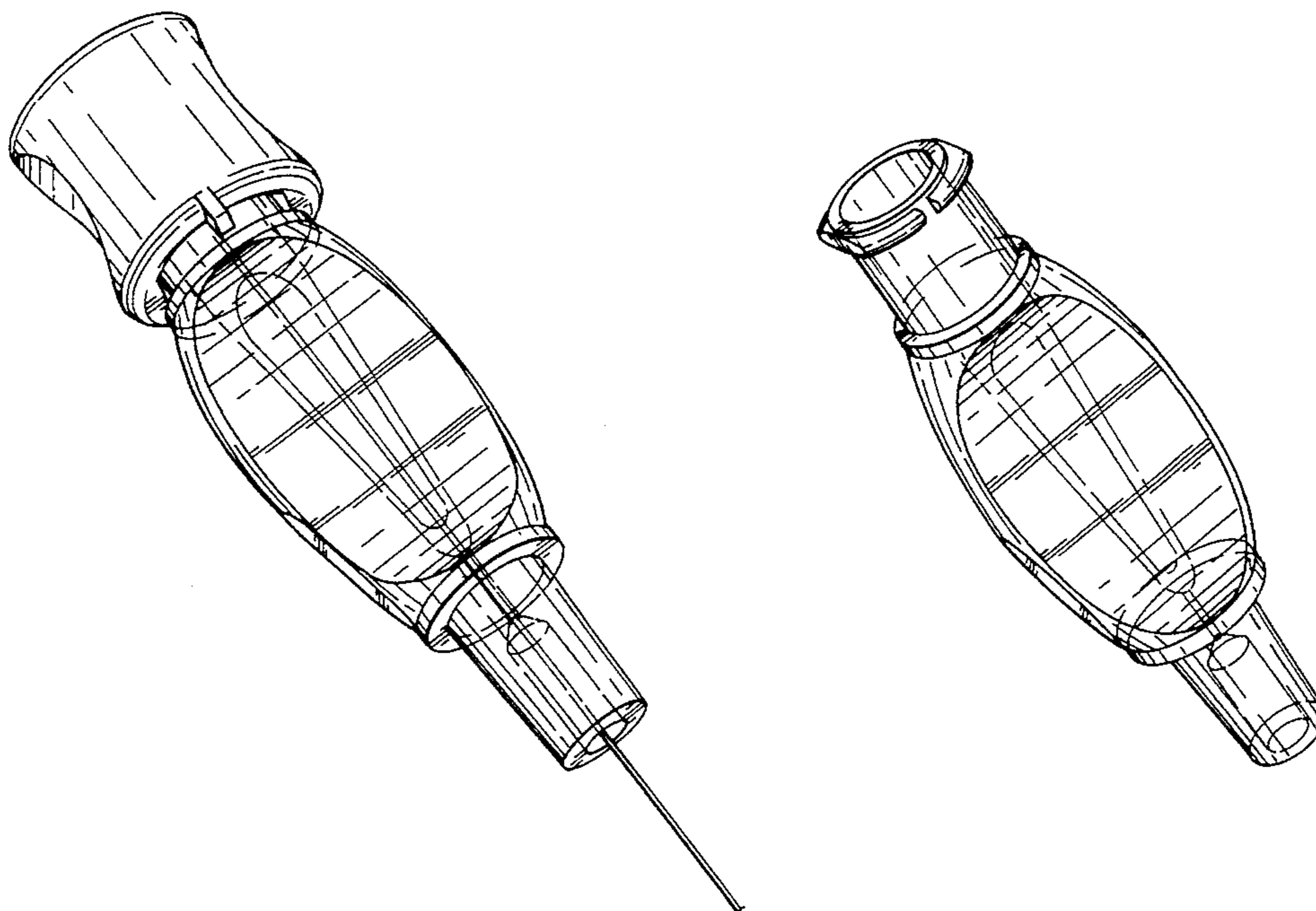
### [57] CLAIM

The ornamental design for a spinal cannula with hollow needle mandrel and holding grip, as shown and described.

### DESCRIPTION

FIG. 1 is a perspective view of my new spinal cannula design with hollow needle, mandrel and holding grip;  
 FIG. 2 is a perspective view of the design of FIG. 1 without the hollow needle, mandrel and holding grip;  
 FIG. 3 is a front view of the design of FIG. 1 showing the mandrel and holding grip in a retracted position;  
 FIG. 4 is a view similar to FIG. 3 showing the mandrel and holding grip in a non-retracted position;  
 FIG. 5 is a front view of the spinal cannula without mandrel, hollow needle and holding grip;  
 FIG. 6 is a right side view of the spinal cannula without mandrel, hollow needle and holding grip, the left side view being identical;  
 FIG. 7 is a bottom view of the spinal cannula without hollow needle, mandrel and holding grip;  
 FIG. 8 is a bottom view of the spinal cannula without hollow needle, mandrel and holding grip;  
 FIG. 9 is a top view of the spinal cannula without hollow needle, mandrel and holding grip;  
 FIG. 10 is a bottom view of the spinal cannula with hollow needle, mandrel and holding grip; and,  
 FIG. 11 is a rear end view of the spinal cannula with hollow needle, mandrel and holding grip.

1 Claim, 4 Drawing Sheets



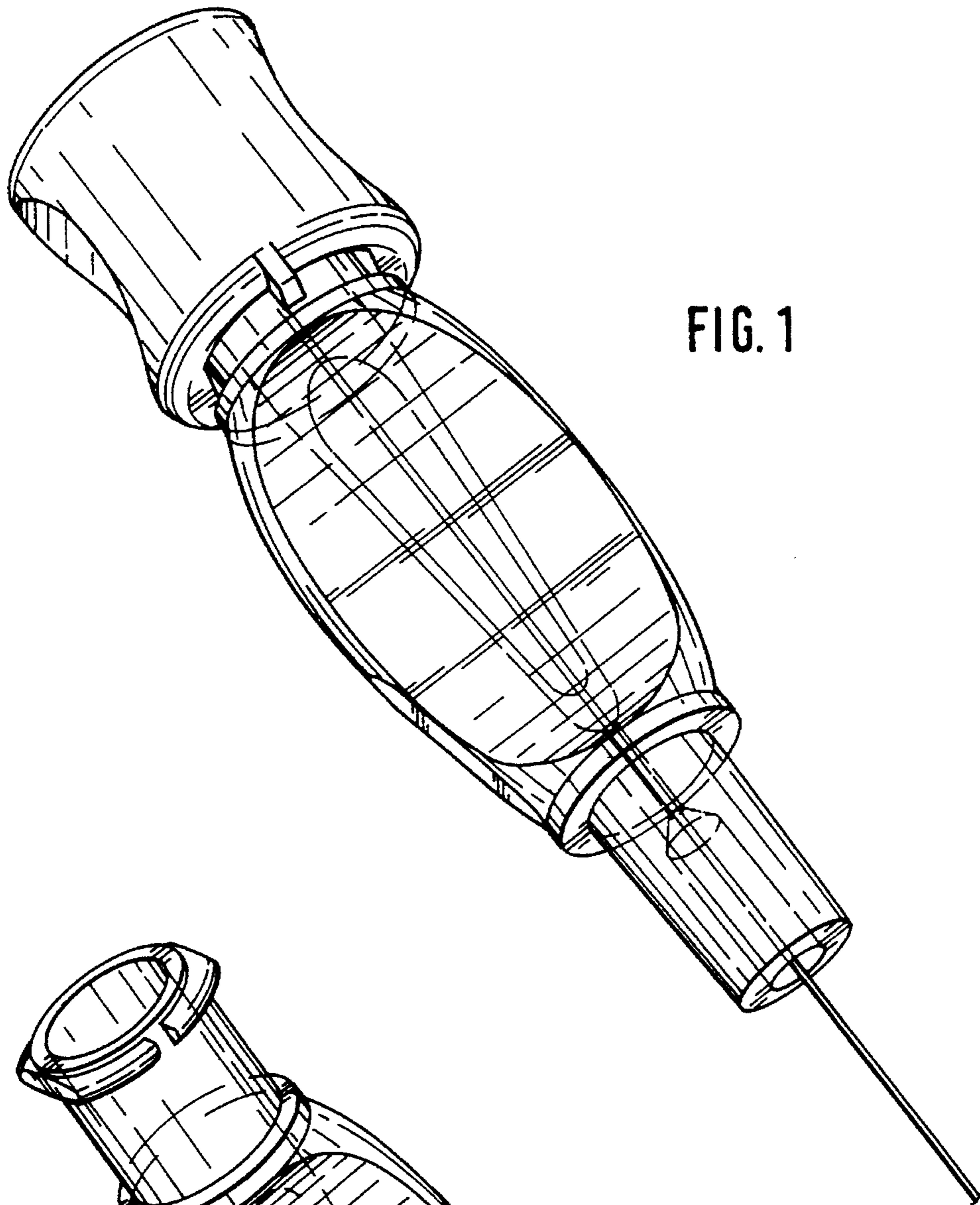


FIG. 1

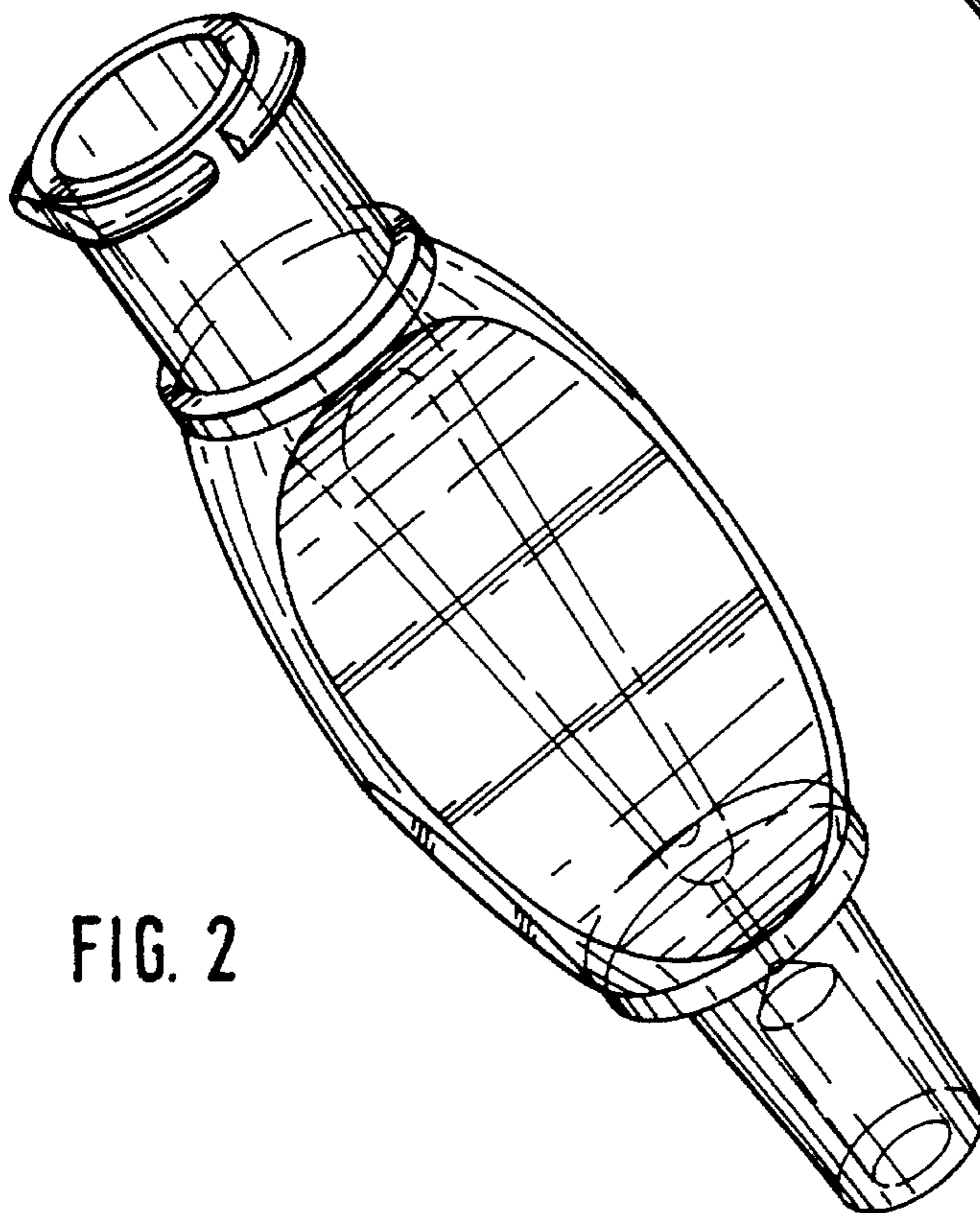


FIG. 2



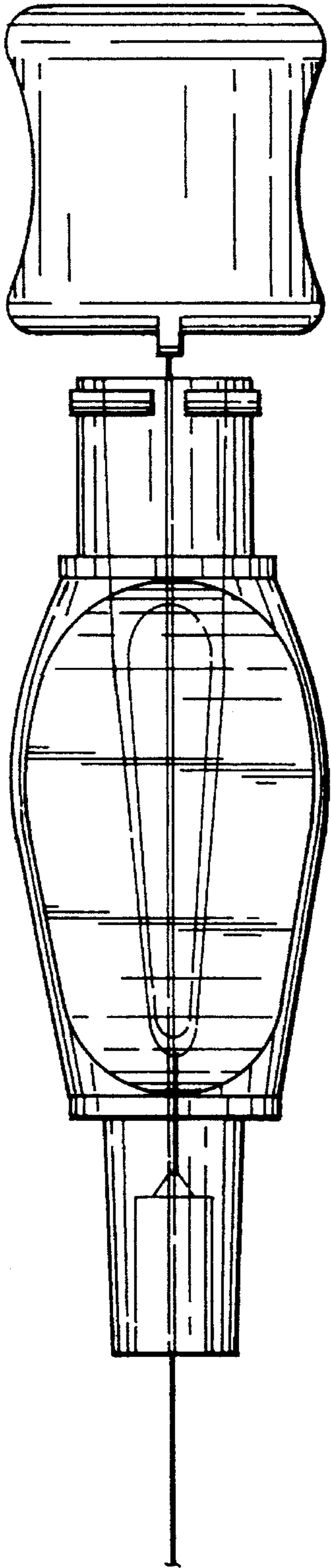


FIG. 3

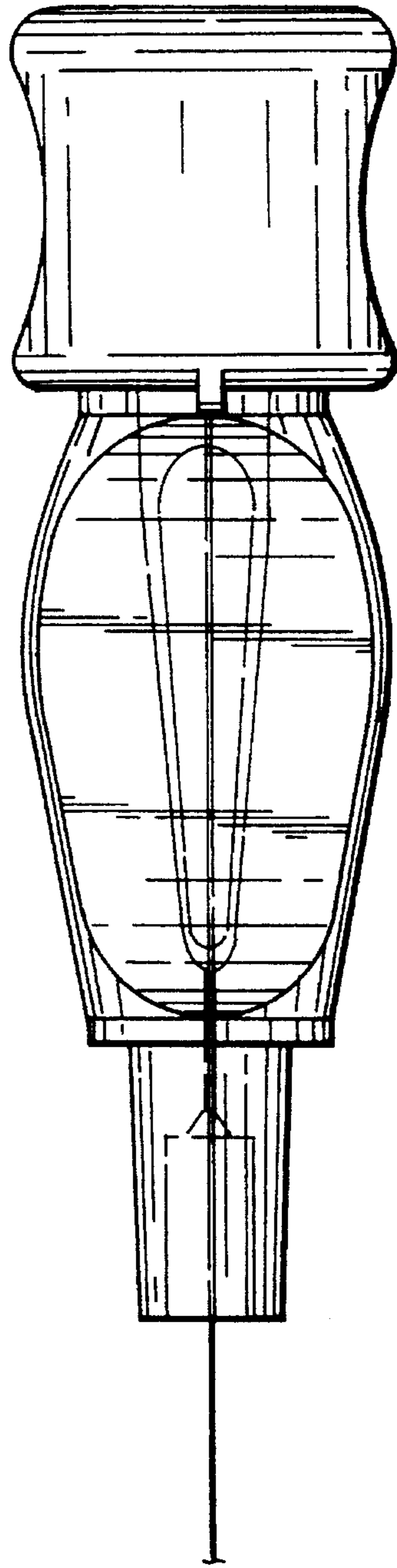


FIG. 4

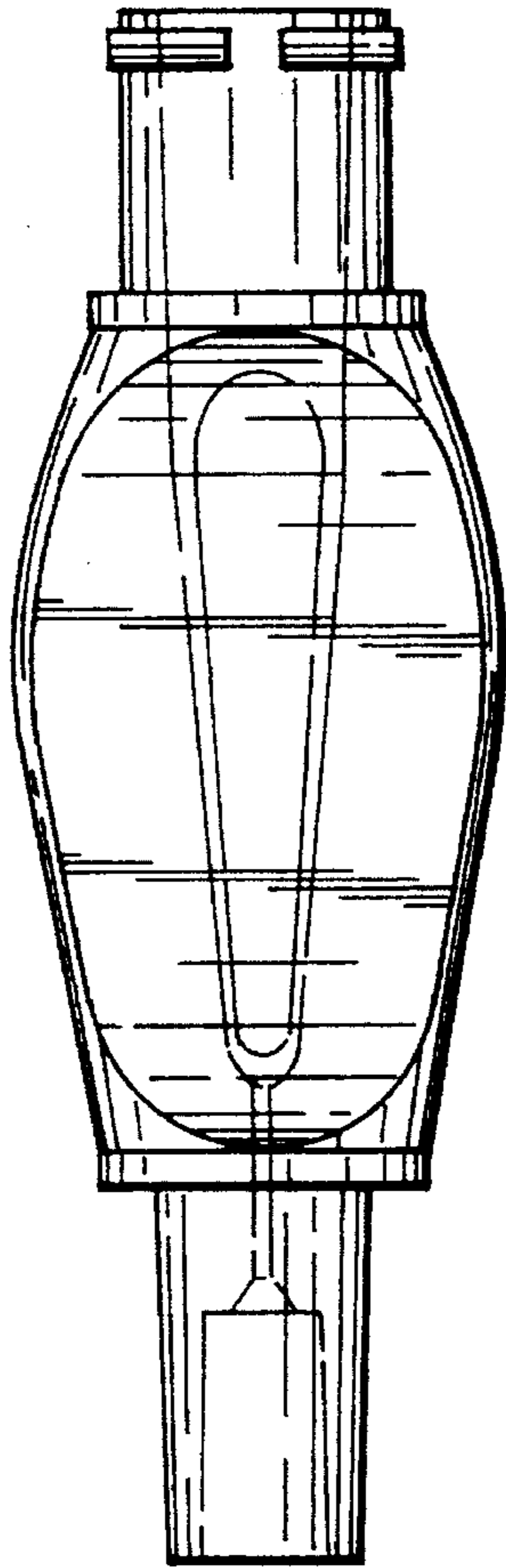


FIG. 5

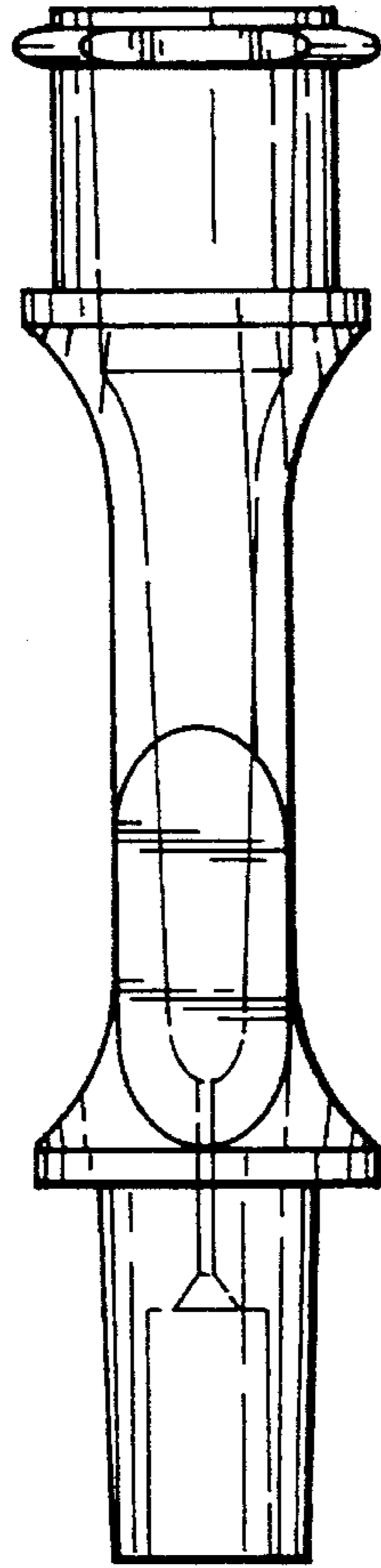


FIG. 6

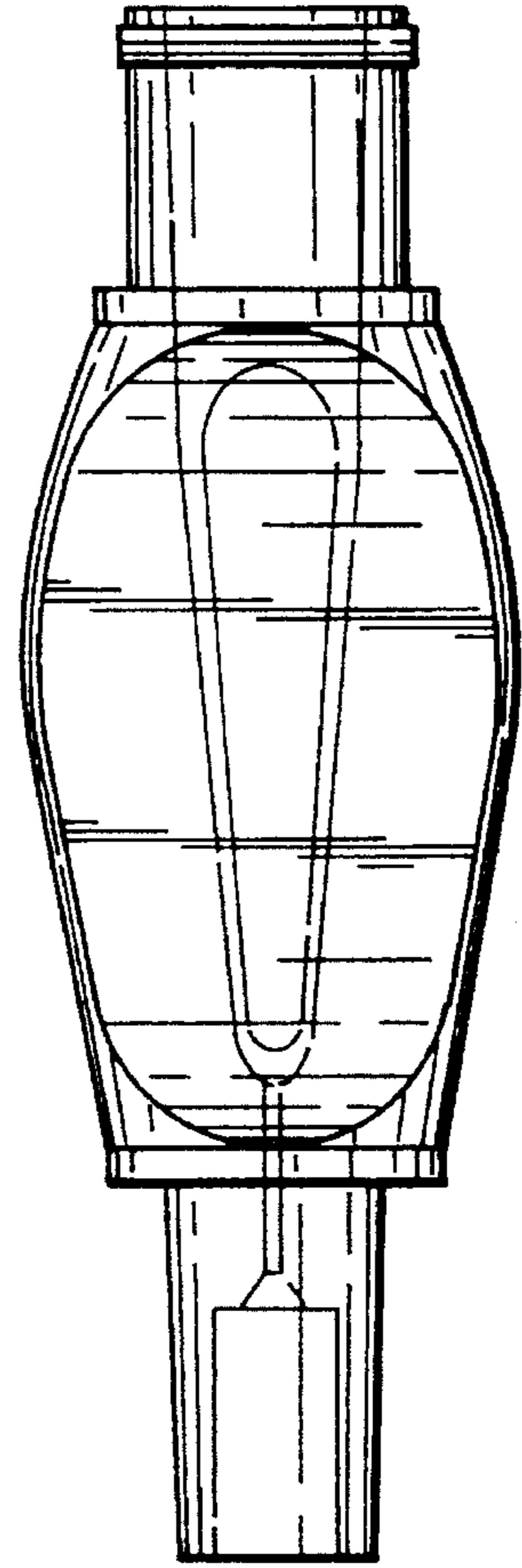


FIG. 7

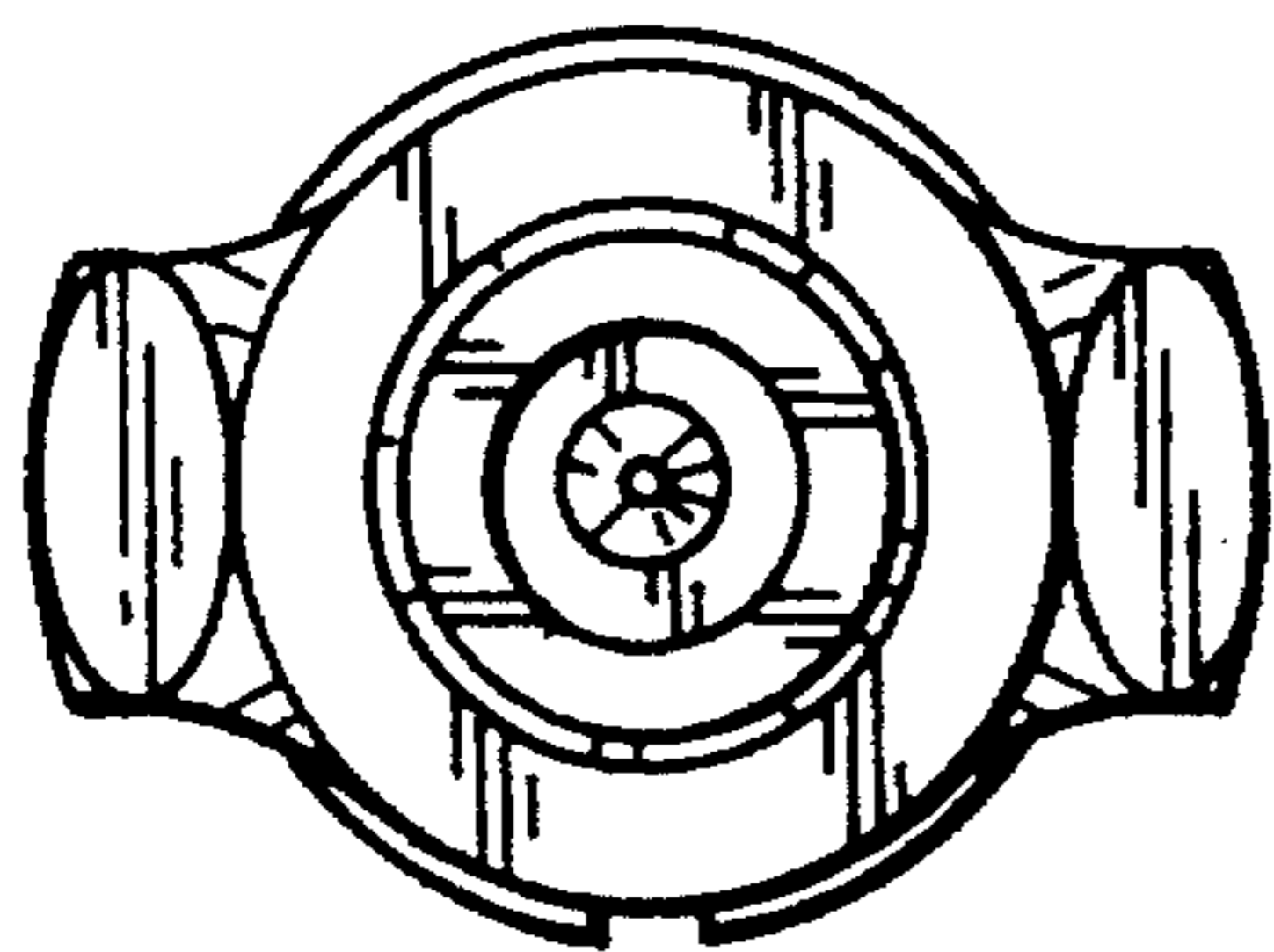


FIG. 8

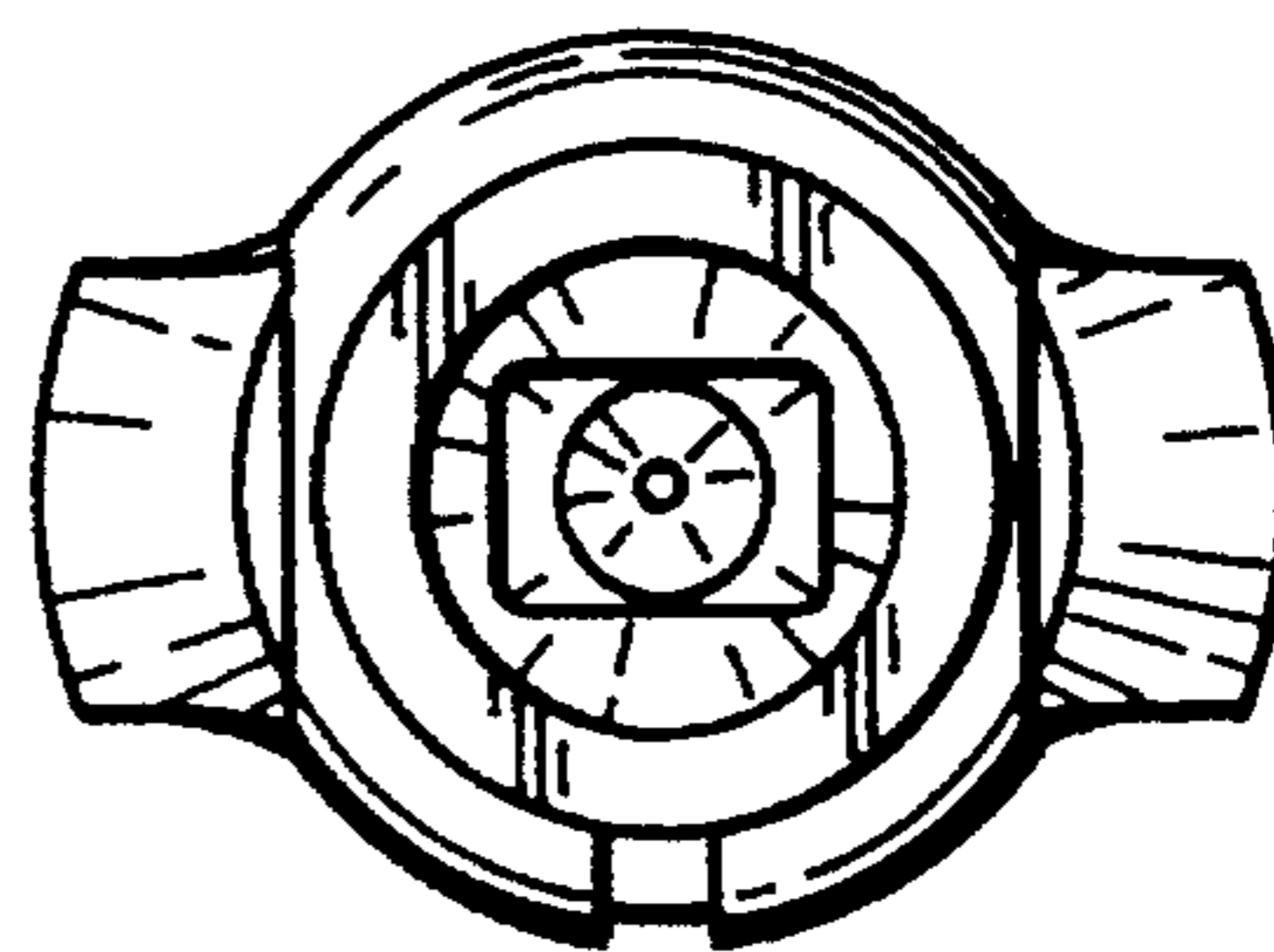


FIG. 9

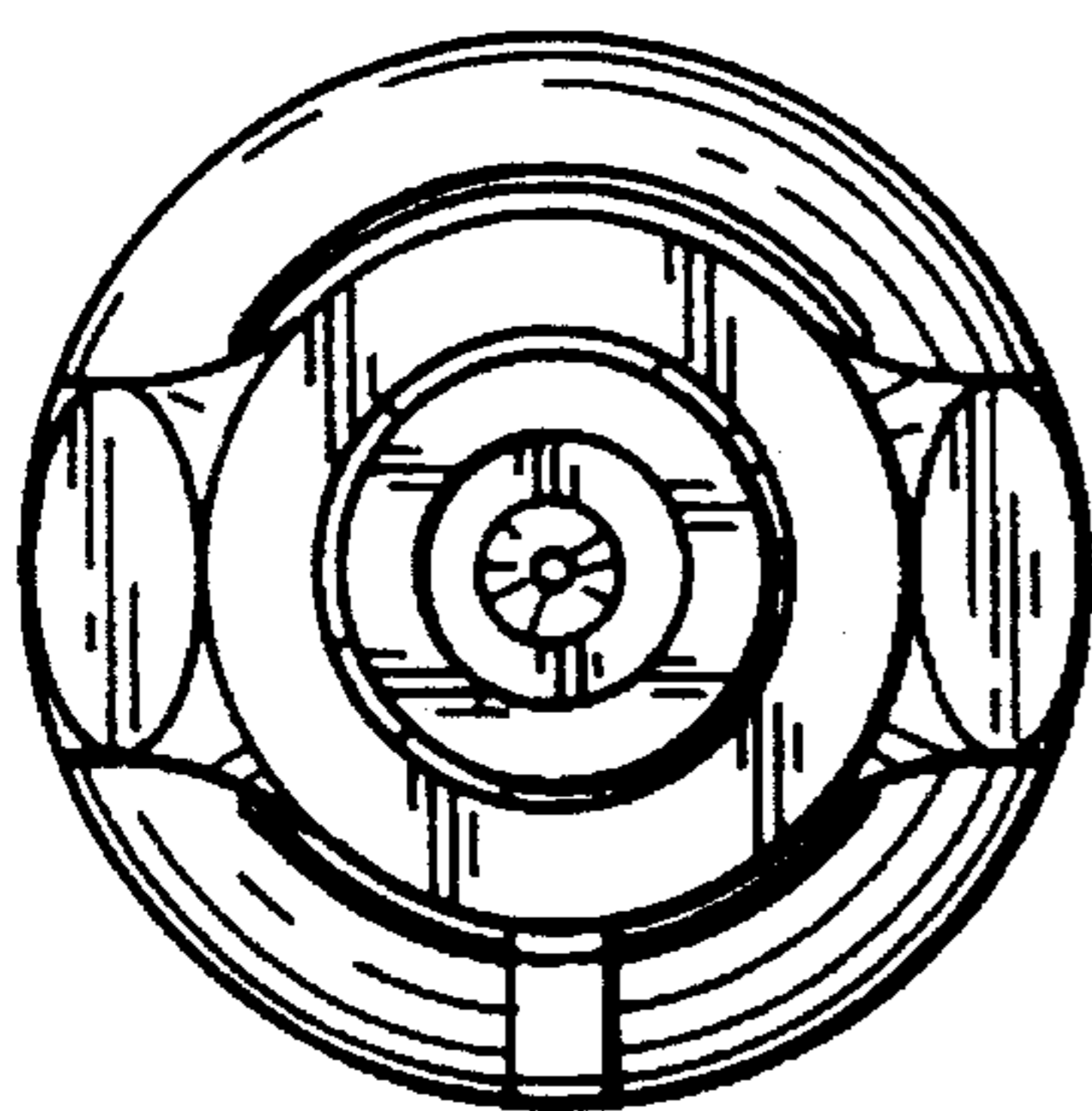


FIG. 10

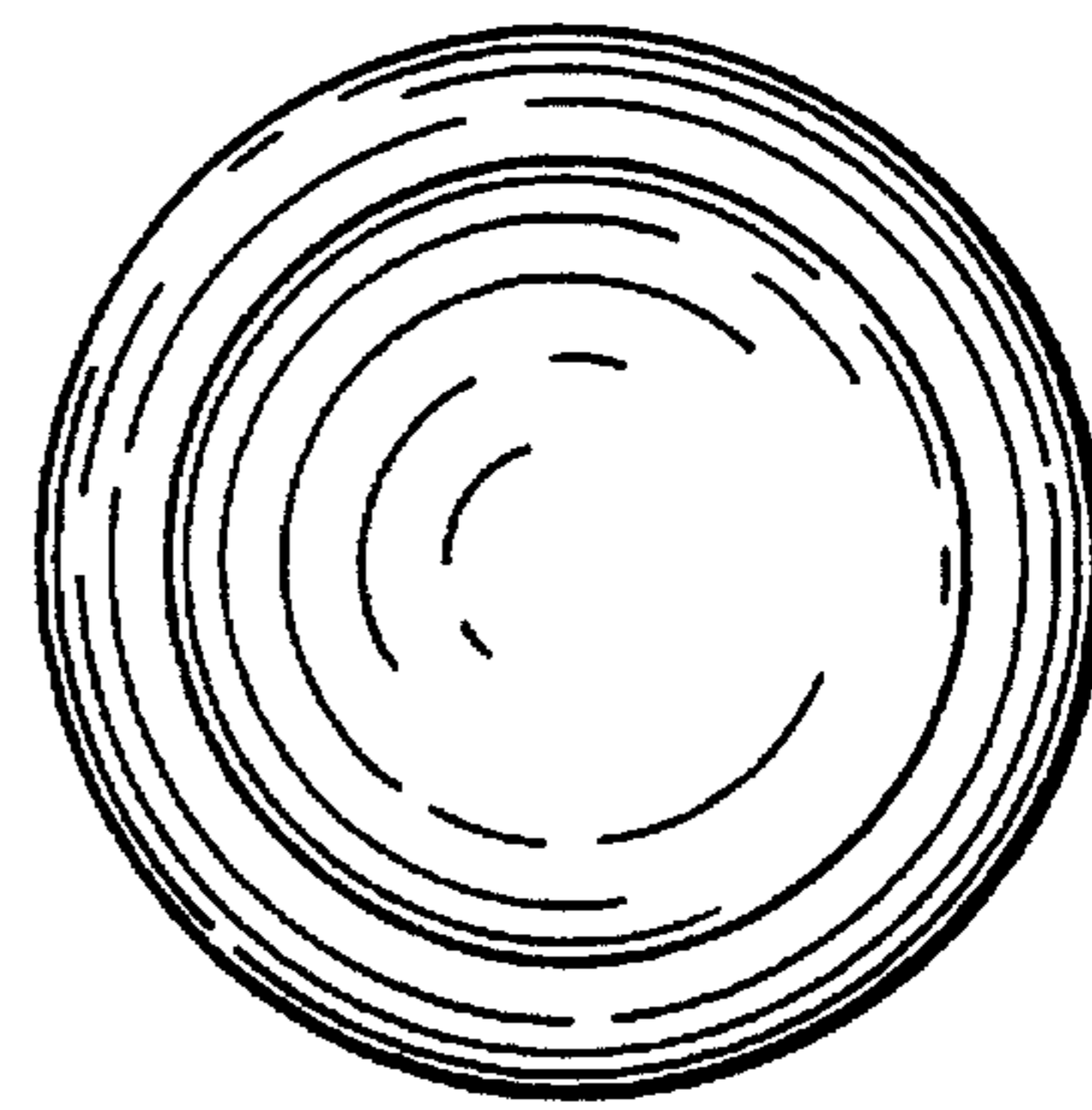


FIG. 11