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

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(54) **GAS SUPPLY PIPE FOR MANUFACTURING SEMICONDUCTOR WAFERS**

2009/0291566 A1* 11/2009 Ueno et al. 438/758
* cited by examiner

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

(57) **CLAIM**

(21) Appl. No.: **29/290,252**

The ornamental design for a gas supply pipe for manufacturing semiconductor wafers, as shown and described.

(22) Filed: **Nov. 8, 2007**

(30) **Foreign Application Priority Data**

DESCRIPTION

May 8, 2007 (JP) 2007-011995

FIG. 1 is a perspective view of the design for a gas supply pipe for manufacturing semiconductor wafers in accordance with the invention;

(51) **LOC (9) Cl.** **23-01**

FIG. 2 is a front view thereof;

(52) **U.S. Cl.** **D23/266**

FIG. 3 is a right side view thereof;

(58) **Field of Classification Search** D23/259–269;
285/231–232, 95, 205, 197, 370; 277/910,
277/602, 630

FIG. 4 is a left side view thereof;

See application file for complete search history.

FIG. 5 is a top view thereof;

FIG. 6 is a bottom view thereof;

FIG. 7 is a sectional view through line 7—7 of FIG. 2;

FIG. 8 is a sectional view through line 8—8 of FIG. 2; and,

FIG. 9 is a sectional view through line 9—9 of FIG. 2.

(56) **References Cited**

The rear view of the gas supply pipe for manufacturing semiconductor wafers appears the same as its front view shown in FIG. 1. It supplies reactive gas in a process tube for semiconductor manufacture.

U.S. PATENT DOCUMENTS

D379,404 S * 5/1997 Spelts D23/266

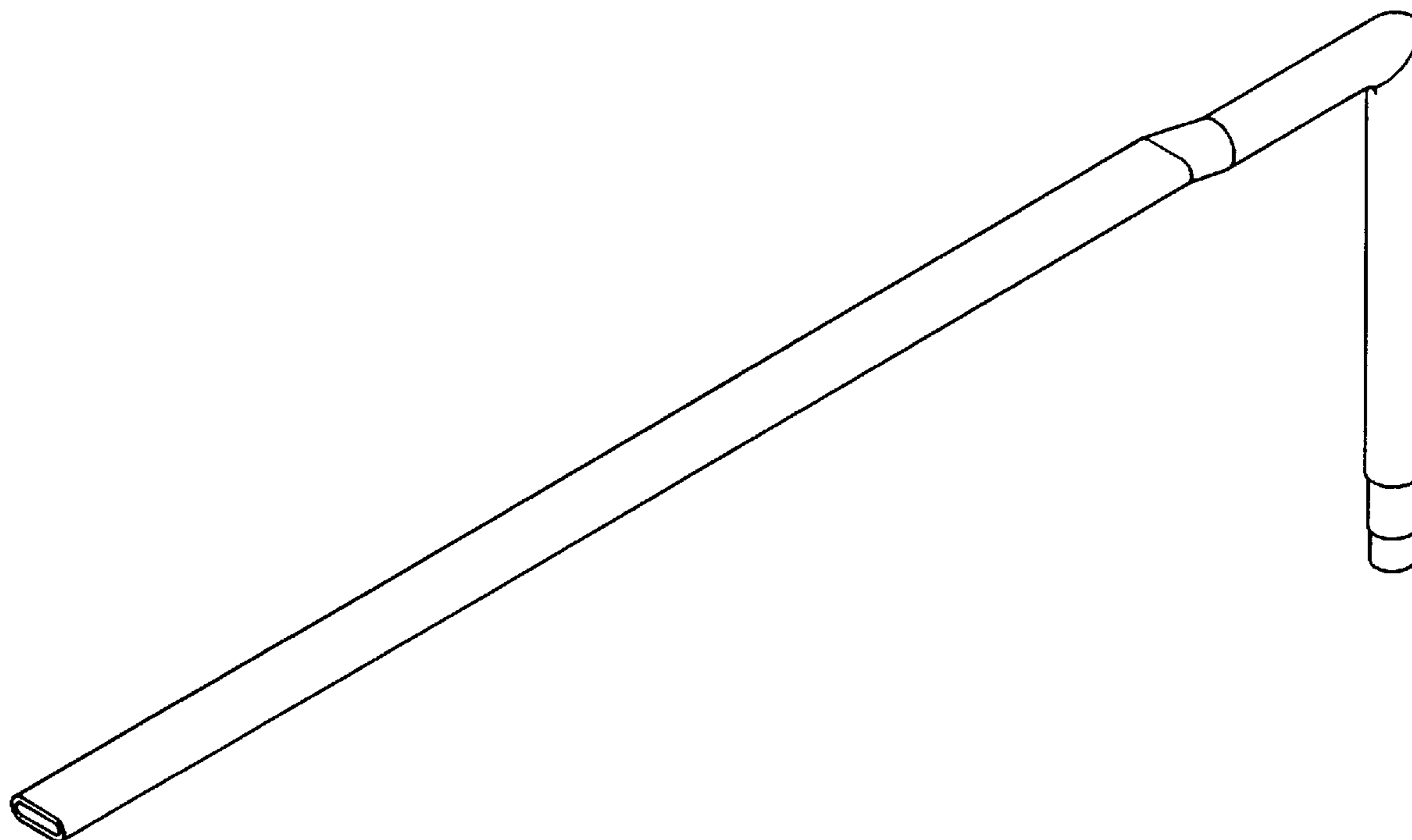
6,139,642 A * 10/2000 Shimahara et al. 118/724

D434,478 S * 11/2000 Sanders D23/266

6,187,102 B1 * 2/2001 Yamamoto 118/725

2009/0017638 A1* 1/2009 Yoshino et al. 438/758

1 Claim, 9 Drawing Sheets



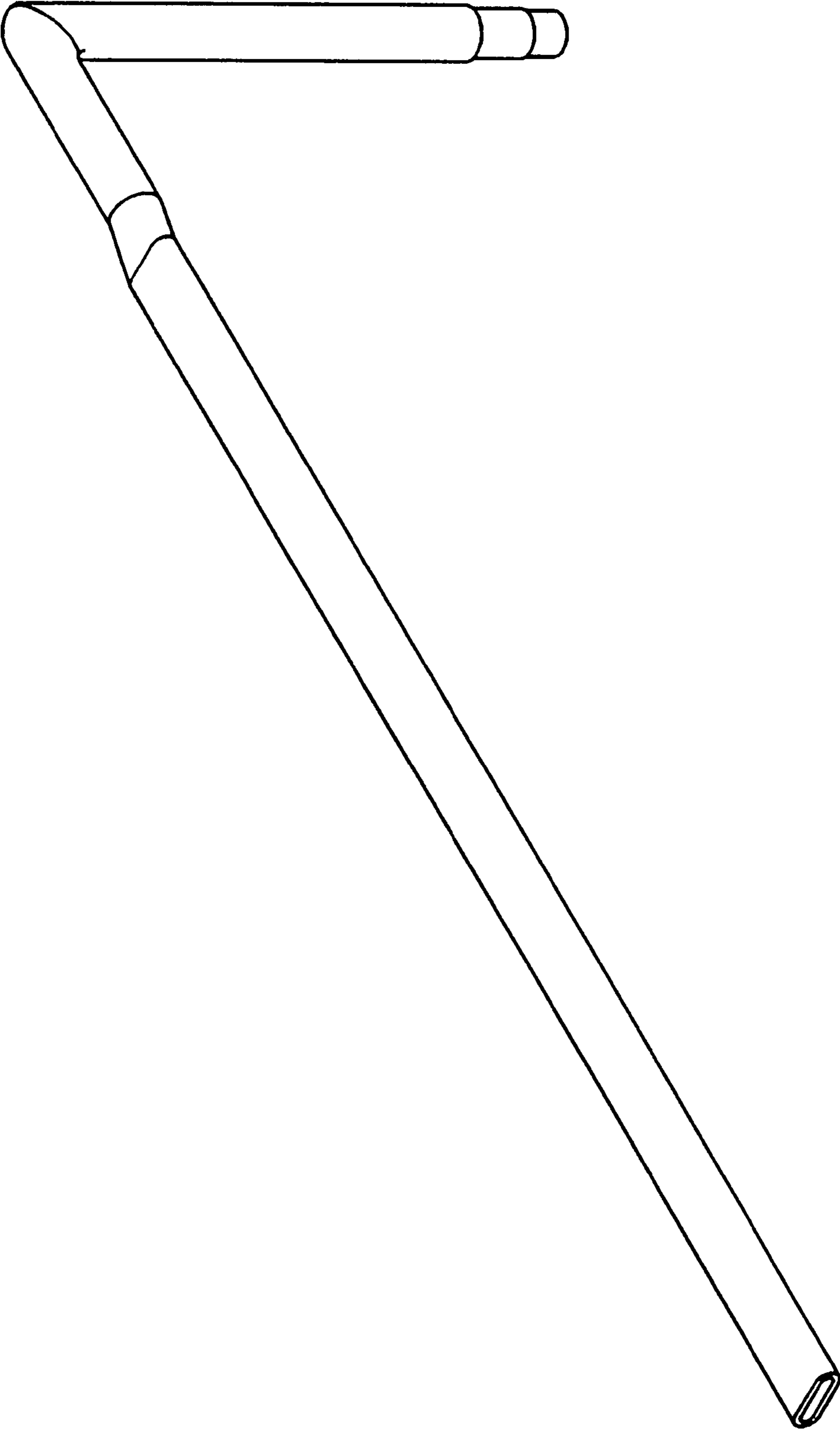


FIG. 1

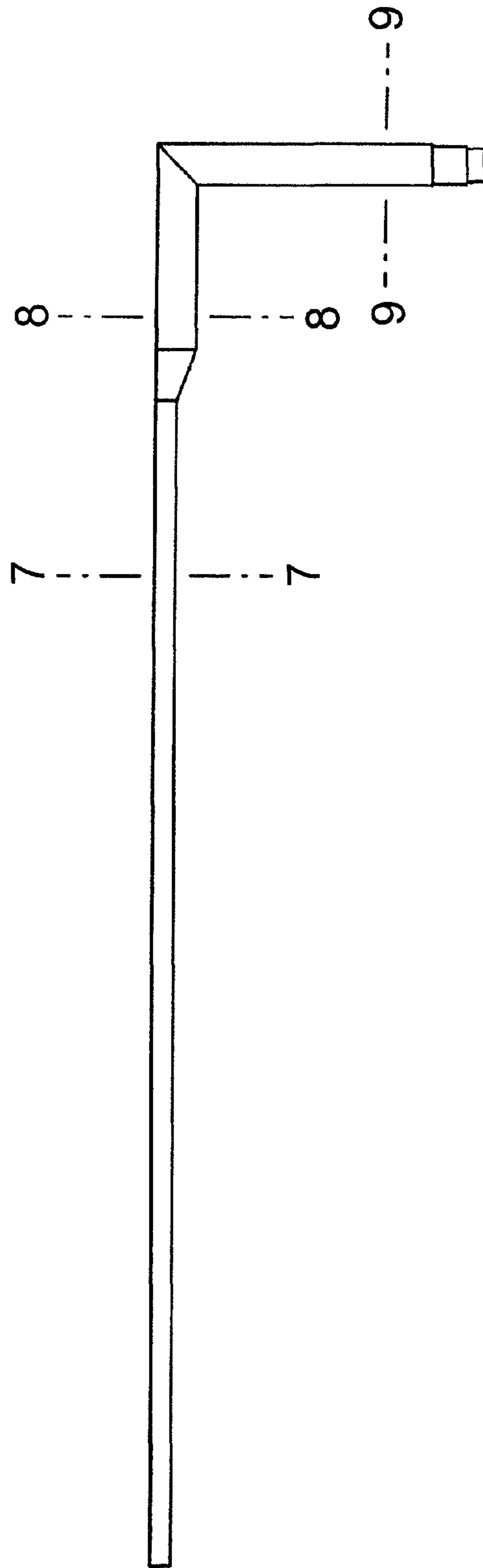


FIG. 2

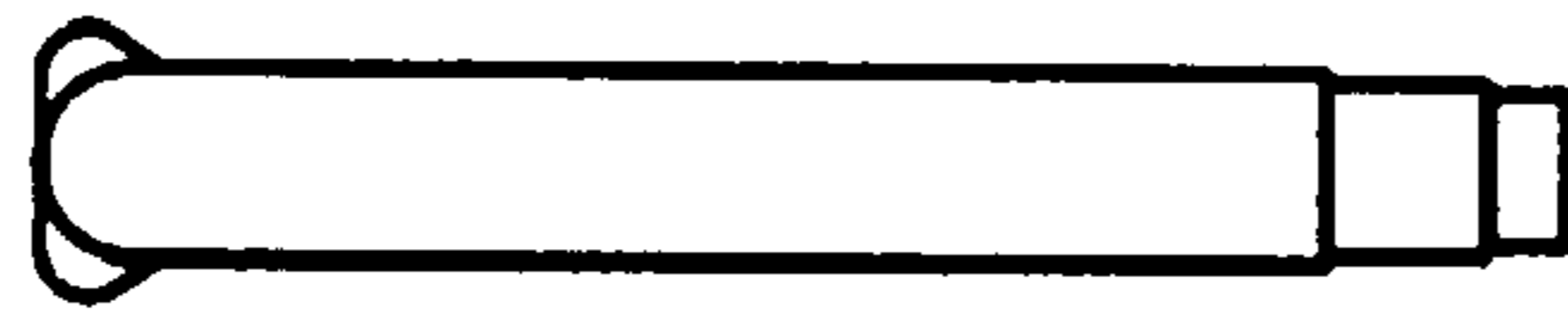


FIG. 3



FIG. 4



FIG. 5



FIG. 6

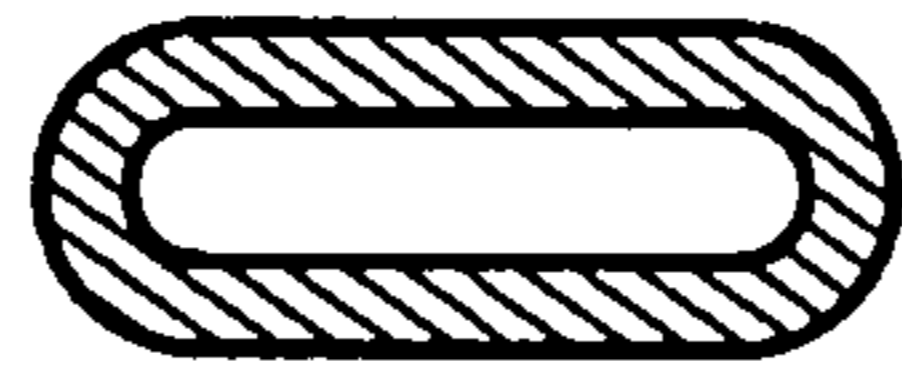


FIG. 7

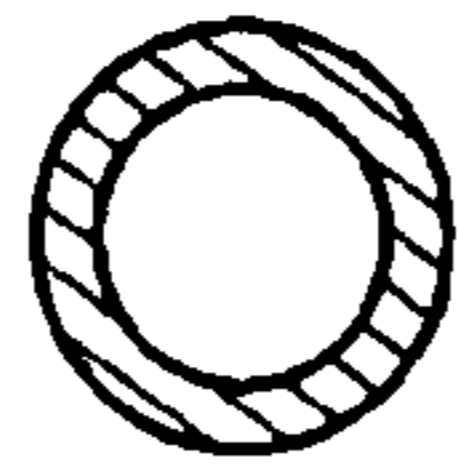


FIG. 8

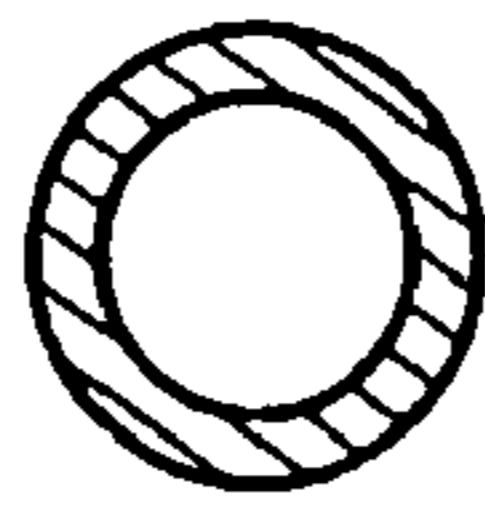


FIG. 9