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

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(54) **EXHAUST RING FOR SEMICONDUCTOR EQUIPMENT**

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

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(30) **Foreign Application Priority Data**

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(51) **LOC (7) Cl.** **15-99**

(52) **U.S. Cl.** **D15/199; D15/122; D15/138; D15/140**

(58) **Field of Search** **D15/122, 138, D15/199; 118/723 R, 52; 204/279, 298.07, 298.08, 242, 298.11, 298.31, 275.1, DIG. 7; 216/67, 70; 427/240, 385.5; 438/707, 710, 9; 451/285, 288**

(56) **References Cited**

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(57) **CLAIM**

The ornamental design for exhaust ring for semiconductor equipment, as shown and described.

DESCRIPTION

FIG. 1 is a top/front perspective view of an exhaust ring for semiconductor equipment showing our new design;

FIG. 2 is a front elevational view thereof, the rear, right- and left-side elevational views being mirror images and, therefore, not shown;

FIG. 3 is a top plan view thereof;

FIG. 4 is a bottom plan view thereof; and,

FIG. 5 is an enlarged sectional view thereof along line 5—5 in FIG. 3.

The exhaust ring for semiconductor equipment is preferably of anodized aluminum and installed around a semiconductor wafer on a lower electrode of a vacuum vessel of semiconductor manufacturing equipment. The through holes in the middle annulus thereof become gas ways and effectively continue a plasma between an upper and the lower electrode. There are additional through holes in the inner and outer annuli. In other embodiments (not shown) one or more of the through holes and the annular grooves in the inner and outer annuli are disclaimed.

1 Claim, 2 Drawing Sheets

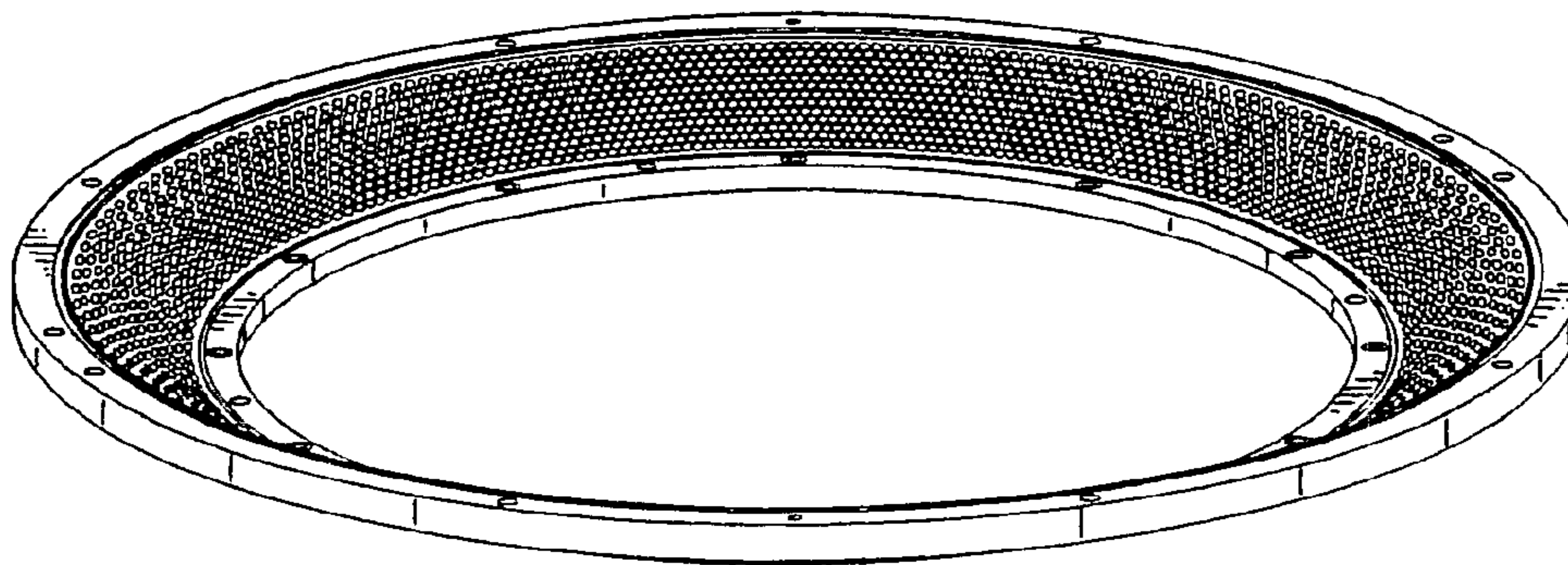


FIG. 1

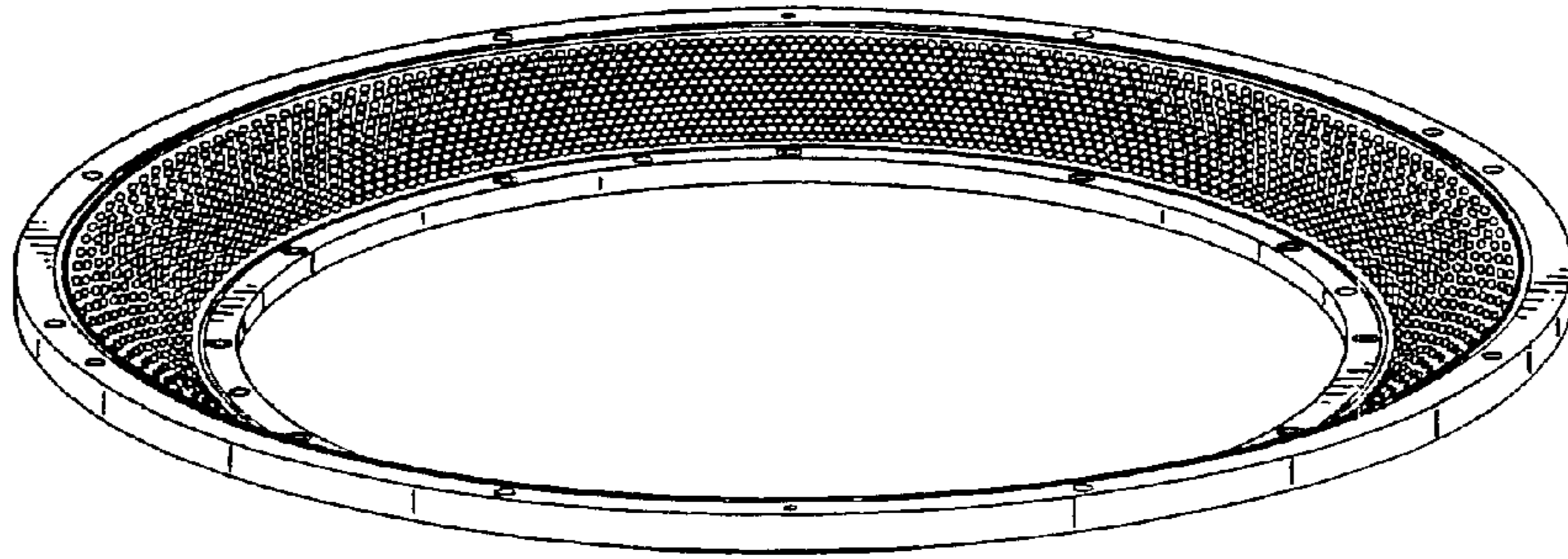


FIG. 2



FIG. 5

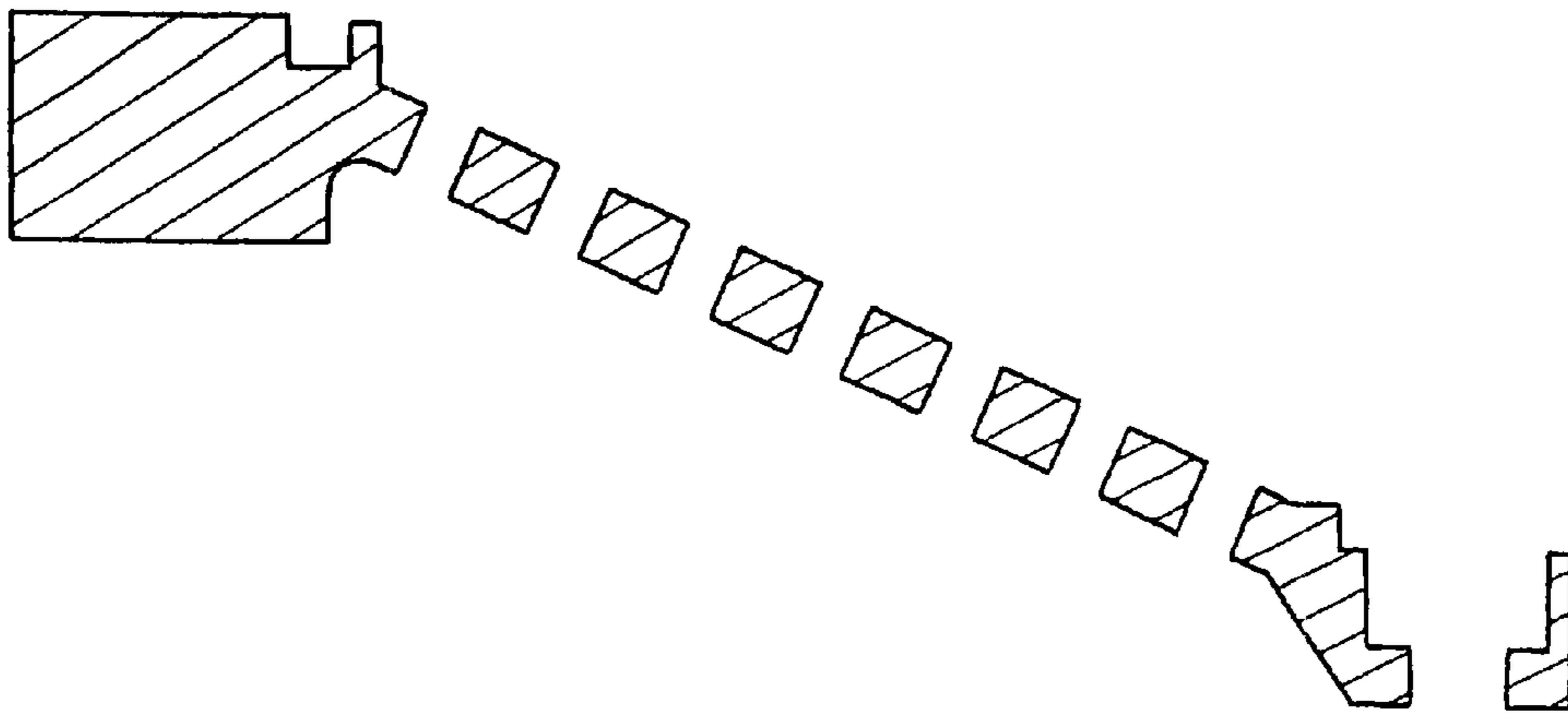


FIG. 3

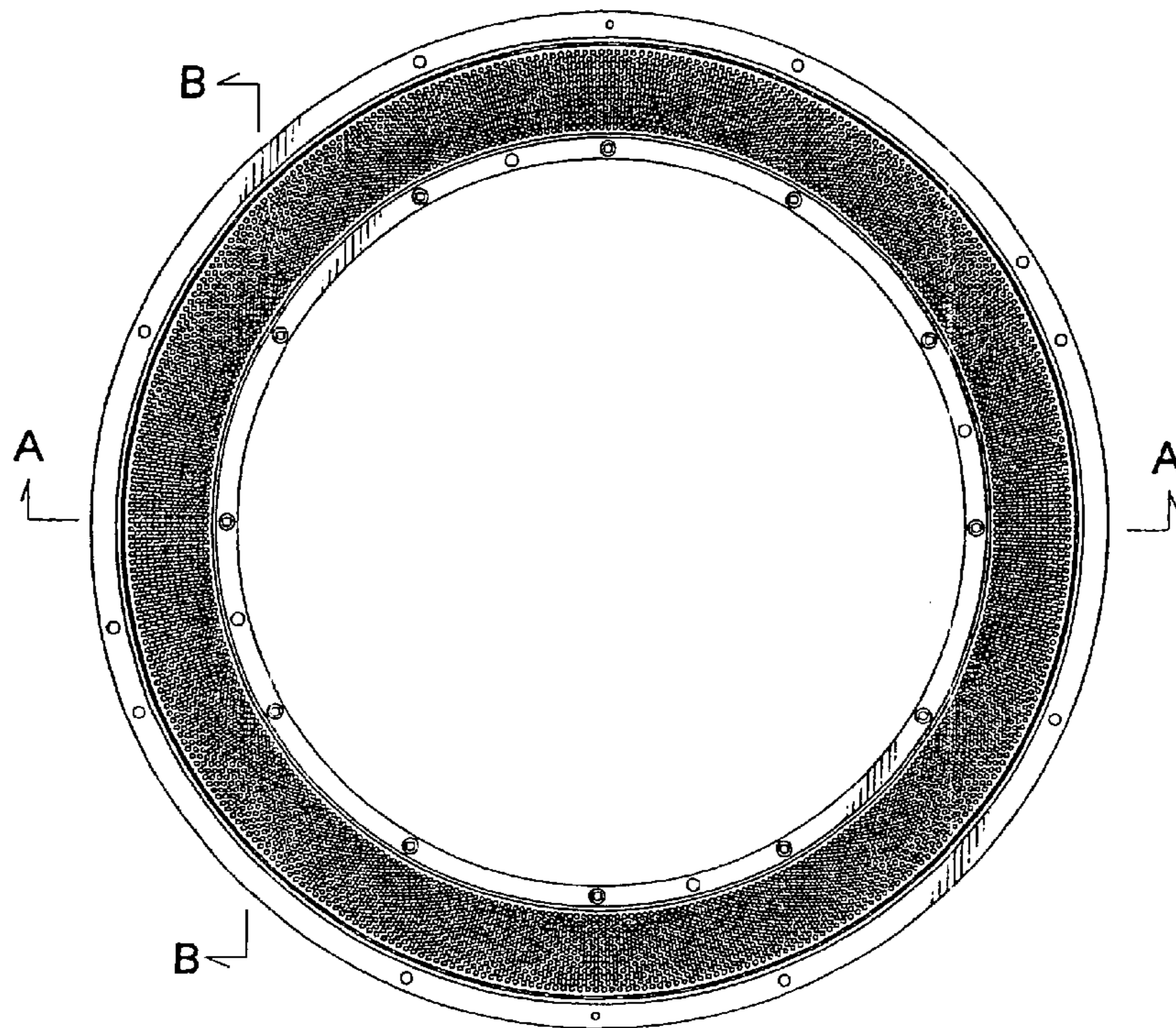


FIG. 4

