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

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(45) **Date of Patent:** **** Apr. 28, 2015**

(54) **ROLLER SHAFT FOR SUBSTRATE
CLEANING**

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(73) Assignee: **Ebara Corporation**, Tokyo (JP)

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

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(51) **LOC (10) Cl.** **08-99**

(52) **U.S. Cl.**
USPC **D32/25; D32/35; D8/399**

(58) **Field of Classification Search**
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D32/27, 29, 32, 33, 35; 15/77, 102, 230,
15/230.12, 230.14, 230.16; 134/6;
451/194; D8/349, 354, 356, 363, 379,
D8/382, 383, 385, 386, 387, 394, 397,
D8/399; D15/14, 16, 28, 29, 72, 89, 130,
D15/142; D18/10, 40, 46, 58, 34.2, 34.8
See application file for complete search history.

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(57) **CLAIM**

The ornamental design for a roller shaft for substrate cleaning, as shown and described.

DESCRIPTION

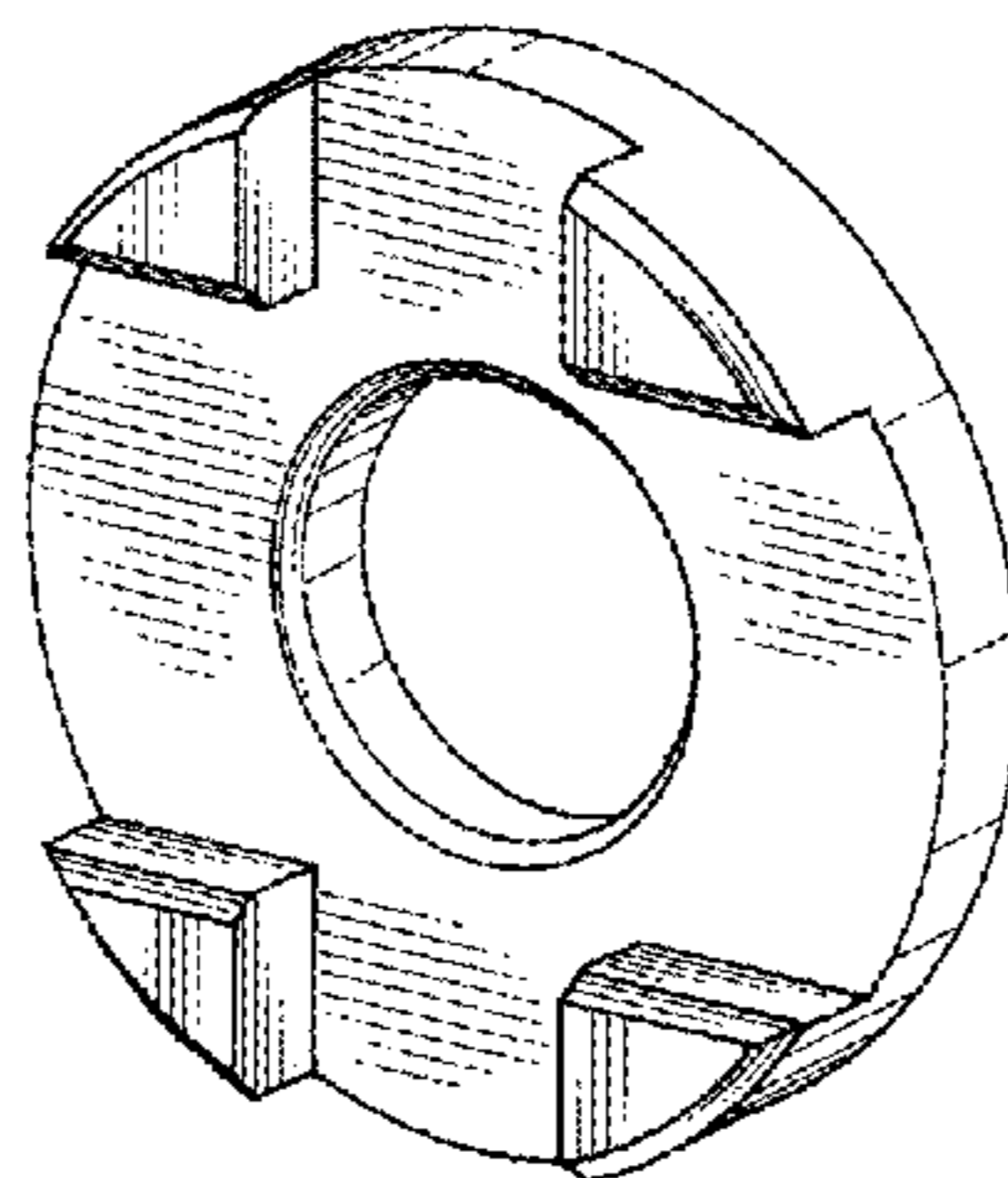
FIG. 1 is a front view of a roller shaft for substrate cleaning showing our new design;
FIG. 2 is a rear view thereof;
FIG. 3 is a plane view thereof;
FIG. 4 is a right side view thereof;
FIG. 5 is an enlarged front view thereof;
FIG. 6 is an enlarged perspective view thereof;
FIG. 7 is another front view, showing the cross-sectional cut line thereof;
FIG. 8 is a cross-section view taken along the line 8-8 of FIG. 1 thereof;
FIG. 9 is an enlarged plane view of portion 9 of FIG. 3 thereof;
FIG. 10 is an enlarged right side view of portion 10 of FIG. 4 thereof; and,
FIG. 11 is a cross-section view taken along the line 11-11 of FIG. 7 thereof.

The internal material revealed by the cross-sectional slice, illustrated in FIGS. 8 and 11, forms no part of the claimed design.

The particular cross-hatching patterns in FIGS. 8 and 11 do not represent any particular materials.

The broken lines in the drawings illustrate portions of the roller shaft for substrate cleaning. the broken lines form no part of the claimed design.

1 Claim, 3 Drawing Sheets



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FIG. 1

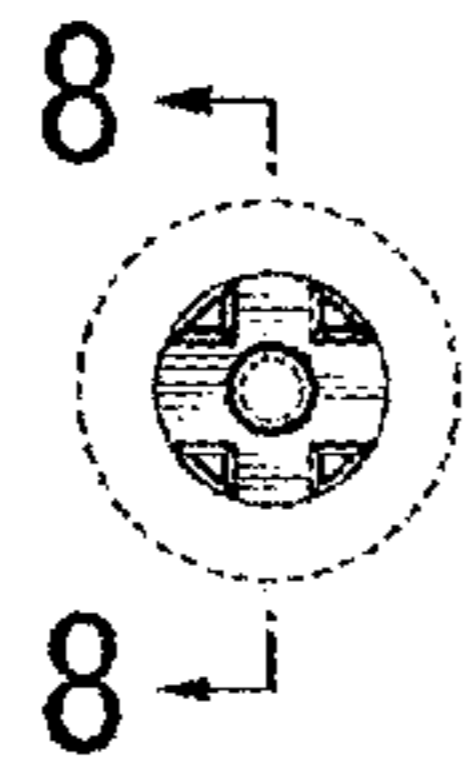


FIG. 2

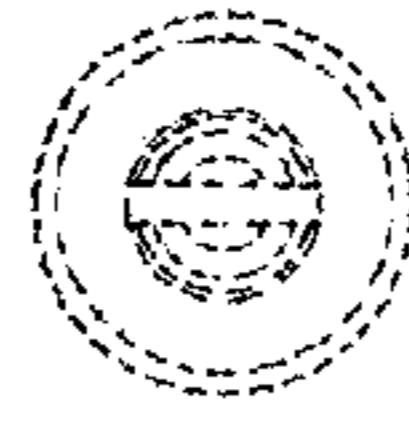


FIG. 3

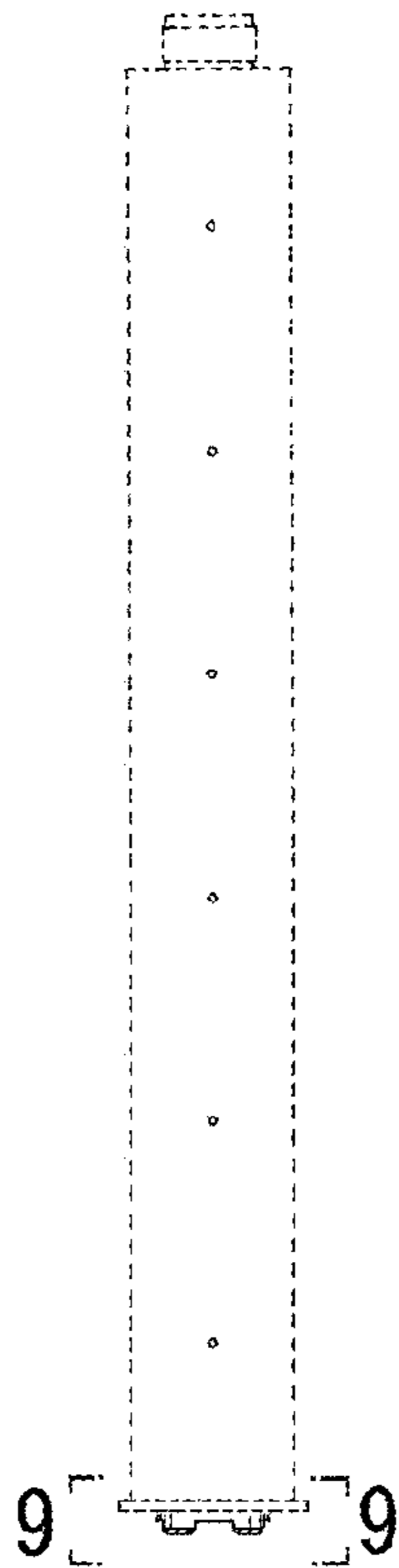


FIG. 4

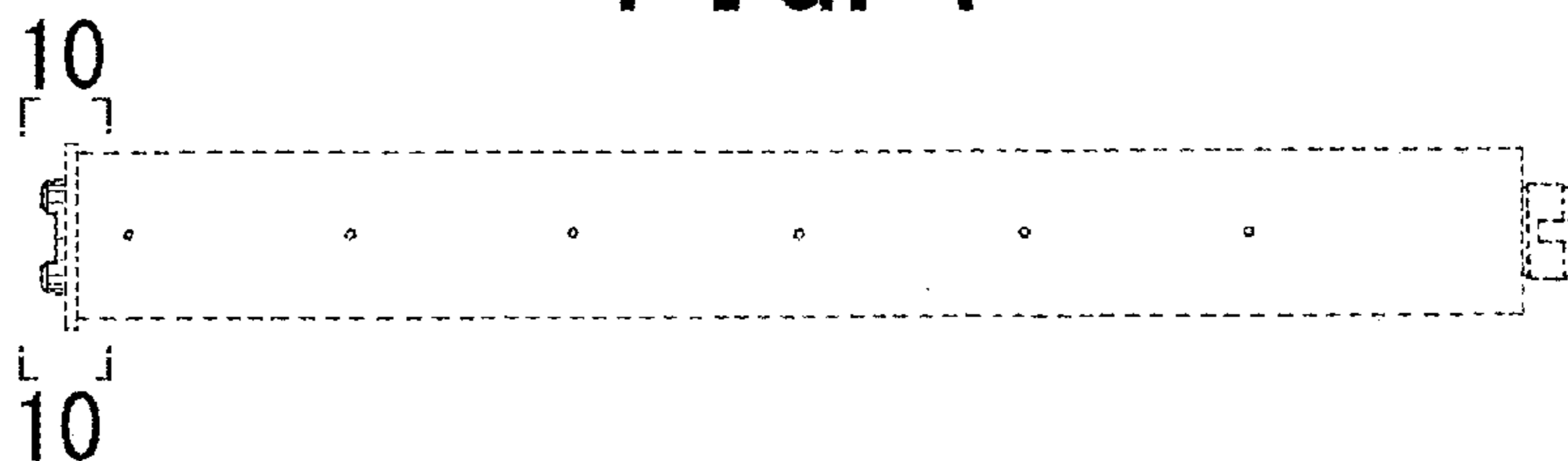


FIG. 5

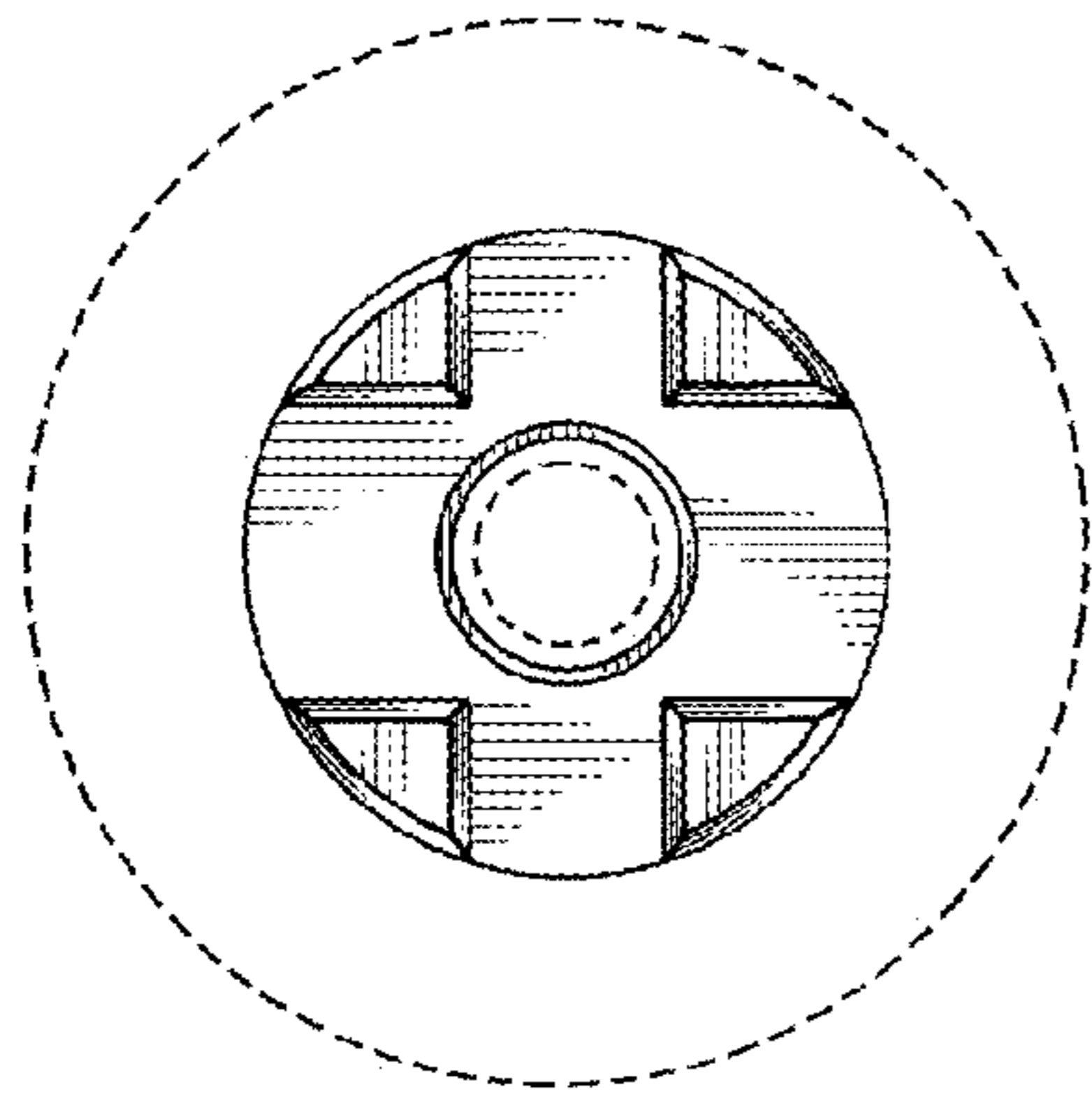


FIG. 6

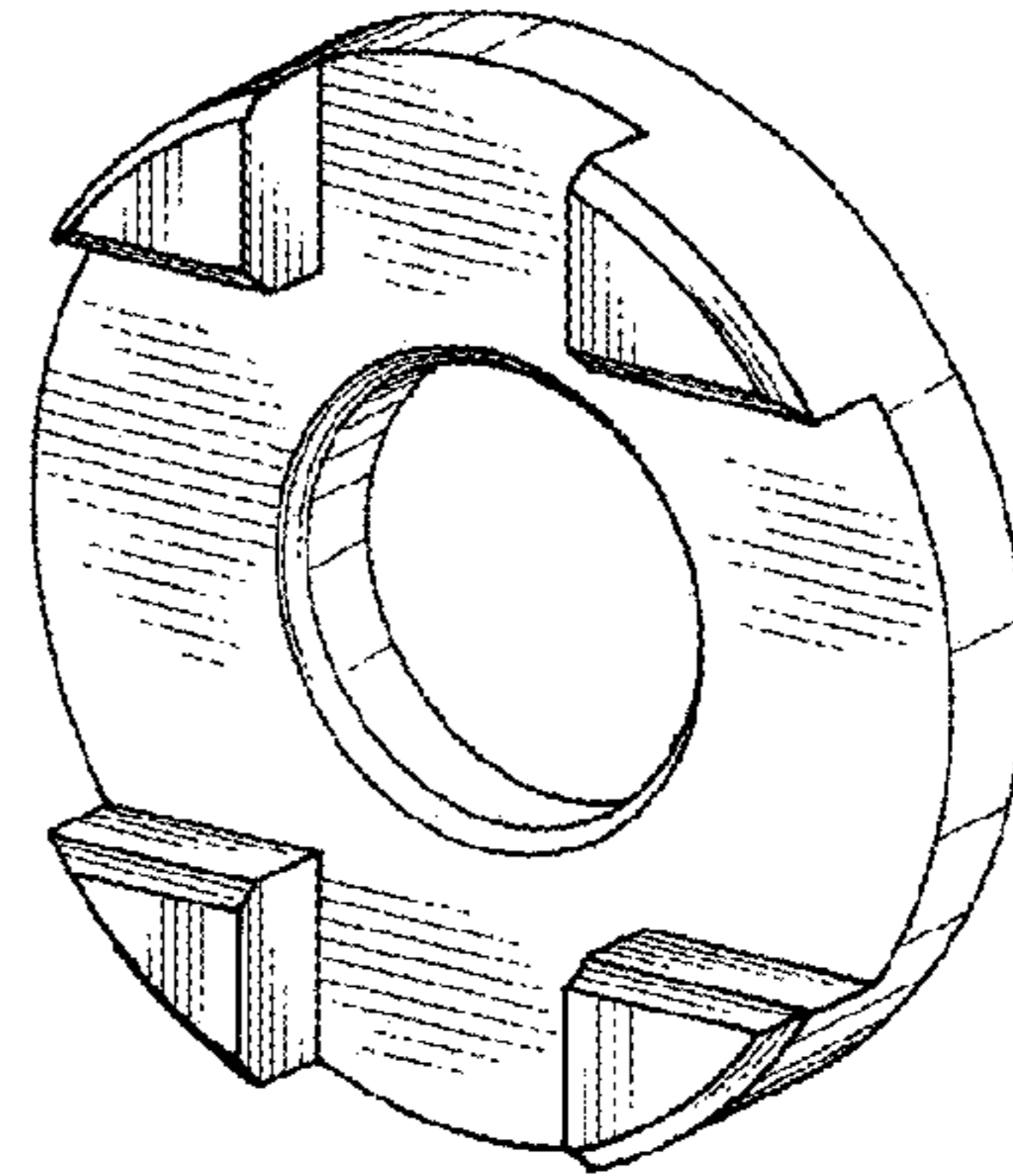


FIG. 7

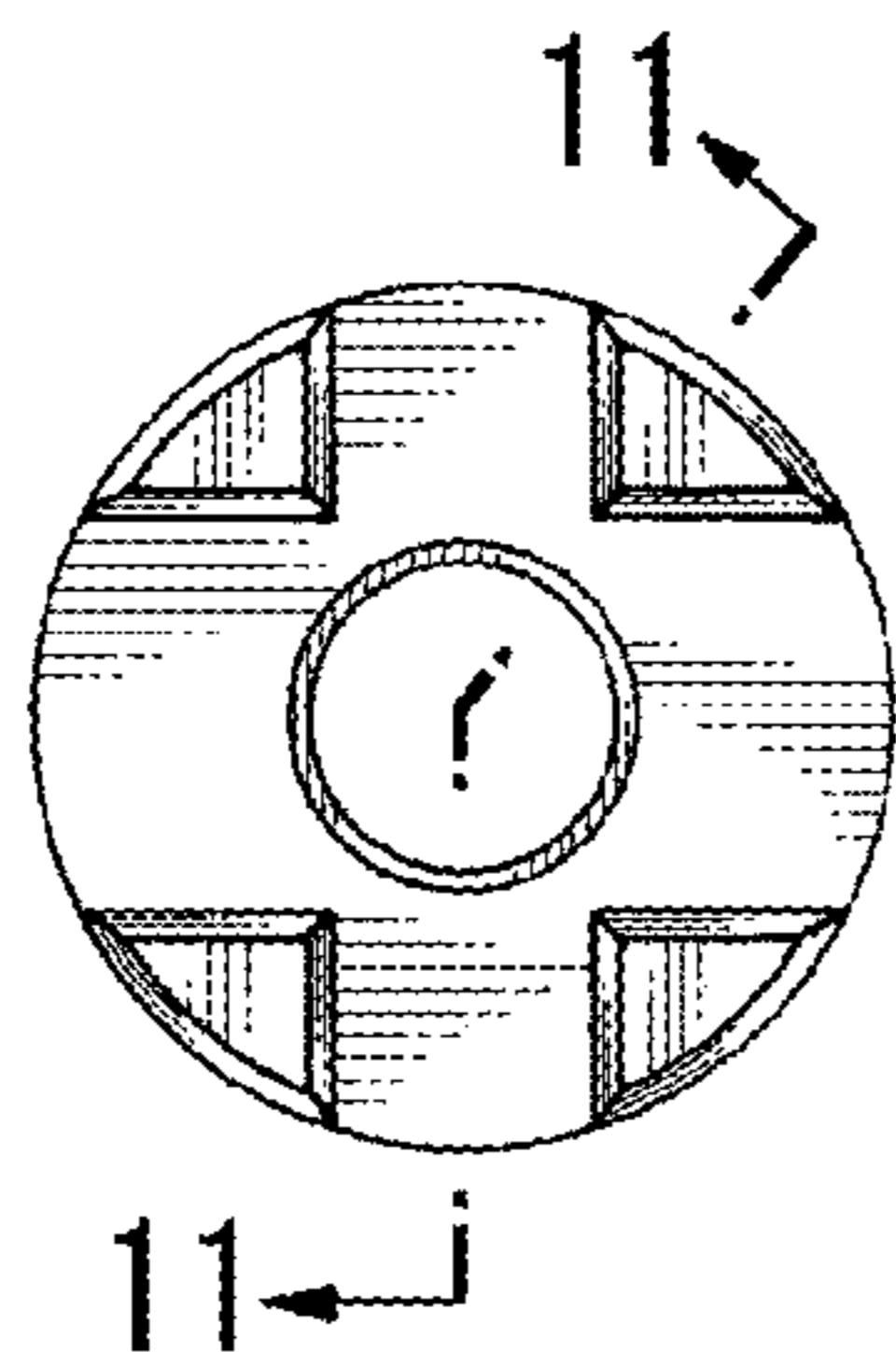


FIG. 8

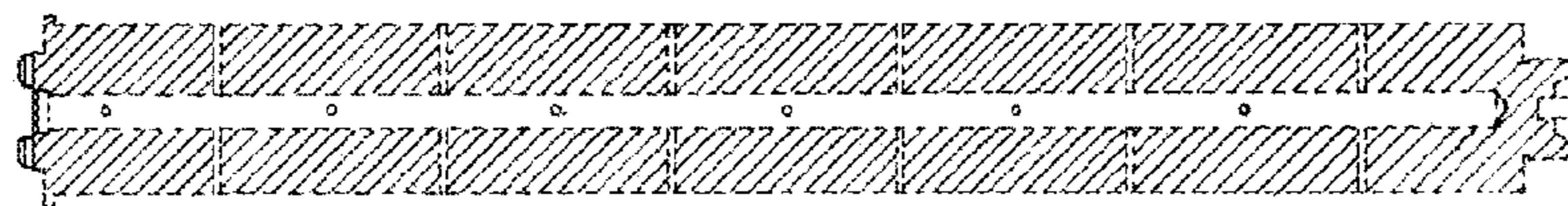


FIG. 9

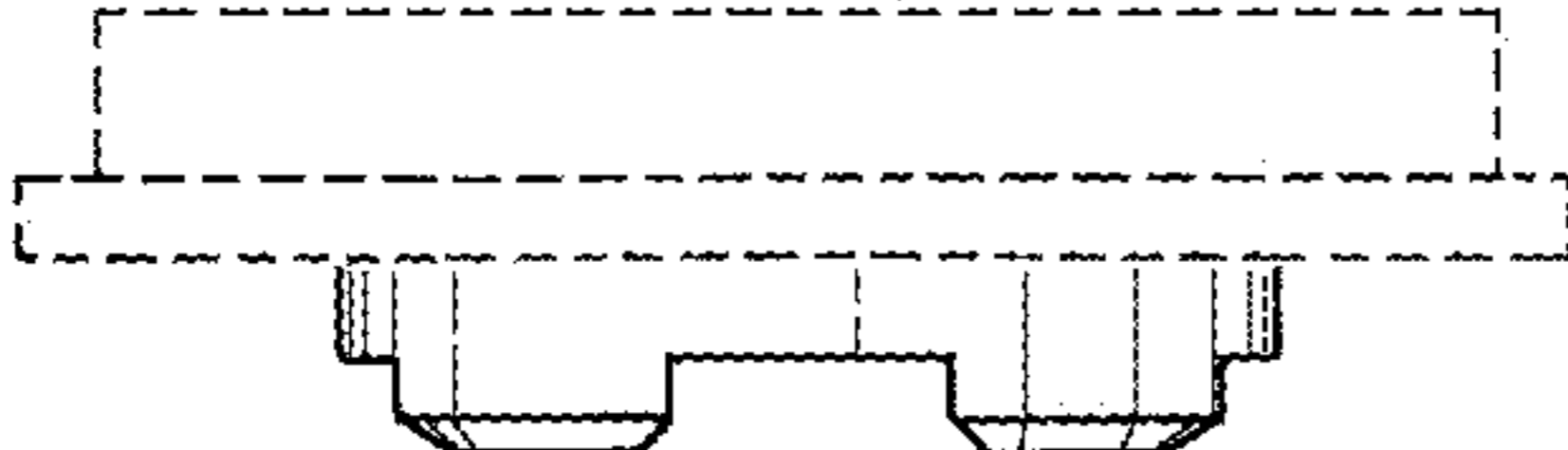


FIG. 10

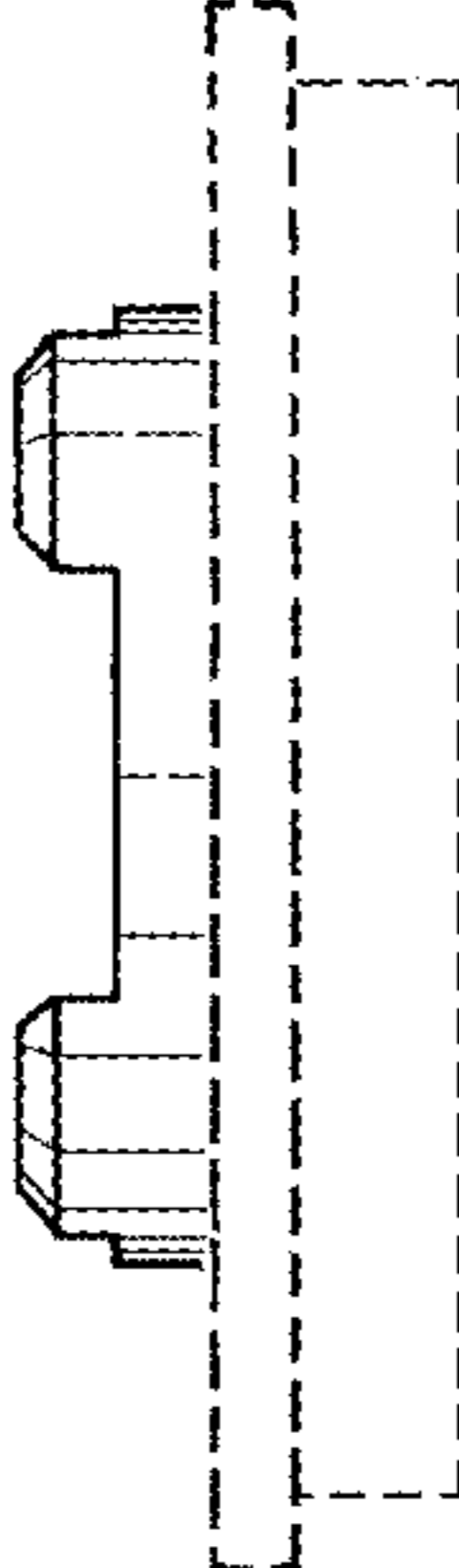


FIG. 11

