



US00D446239S

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

(10) **Patent No.:** **US D446,239 S**

(45) **Date of Patent:** **** Aug. 7, 2001**

(54) **CARTRIDGE WITH INK RIBBON**

DESCRIPTION

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(73) Assignee: **Alps Electric Co., Ltd.**, Tokyo (JP)

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

(21) Appl. No.: **29/132,750**

(22) Filed: **Nov. 13, 2000**

(51) **LOC (7) Cl.** **18-01**

(52) **U.S. Cl.** **D18/12**

(58) **Field of Search** D18/12, 56, 40,
D18/43; D14/474, 475, 476; 400/207, 208

(56) **References Cited**

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(57) **CLAIM**

The ornamental design for a cartridge with ink ribbon, as shown and described.

The present article relates to a cartridge with an ink ribbon used in a line-type thermal transfer printer in which both ends of the ink ribbon are wound around a supply reel and a take-up reel rotatably accommodated in a case body, and a part of the ink ribbon is led to the outside at an opening formed in the case body. In addition, the opening faces to a platen and a thermal head of a thermal transfer printer, and the ink ribbon led to the outside at the opening is used for printing.

FIG. 1 is a top view of a cartridge with ink ribbon.

FIG. 2 is a front view of the cartridge with ink ribbon.

FIG. 3 is a left side view of the cartridge with ink ribbon.

FIG. 4 is a right side view of the cartridge with ink ribbon.

FIG. 5 is a bottom view of the cartridge with ink ribbon.

FIG. 6 is a rear view of the cartridge with ink ribbon.

FIG. 7 is a sectional view taken along the line 7—7 in FIG. 2.

FIG. 8 is a sectional view taken along the line 8—8 in FIG. 2.

FIGS. 9 and 10 are reference perspective views of the cartridge with ink ribbon, as viewed from the top; and,

FIGS. 11 and 12 are reference perspective views of the cartridge with ink ribbon, as viewed from the bottom.

The shaded sections in the reference perspective views shown an ink ribbon led to the outside of the case body.

1 Claim, 5 Drawing Sheets

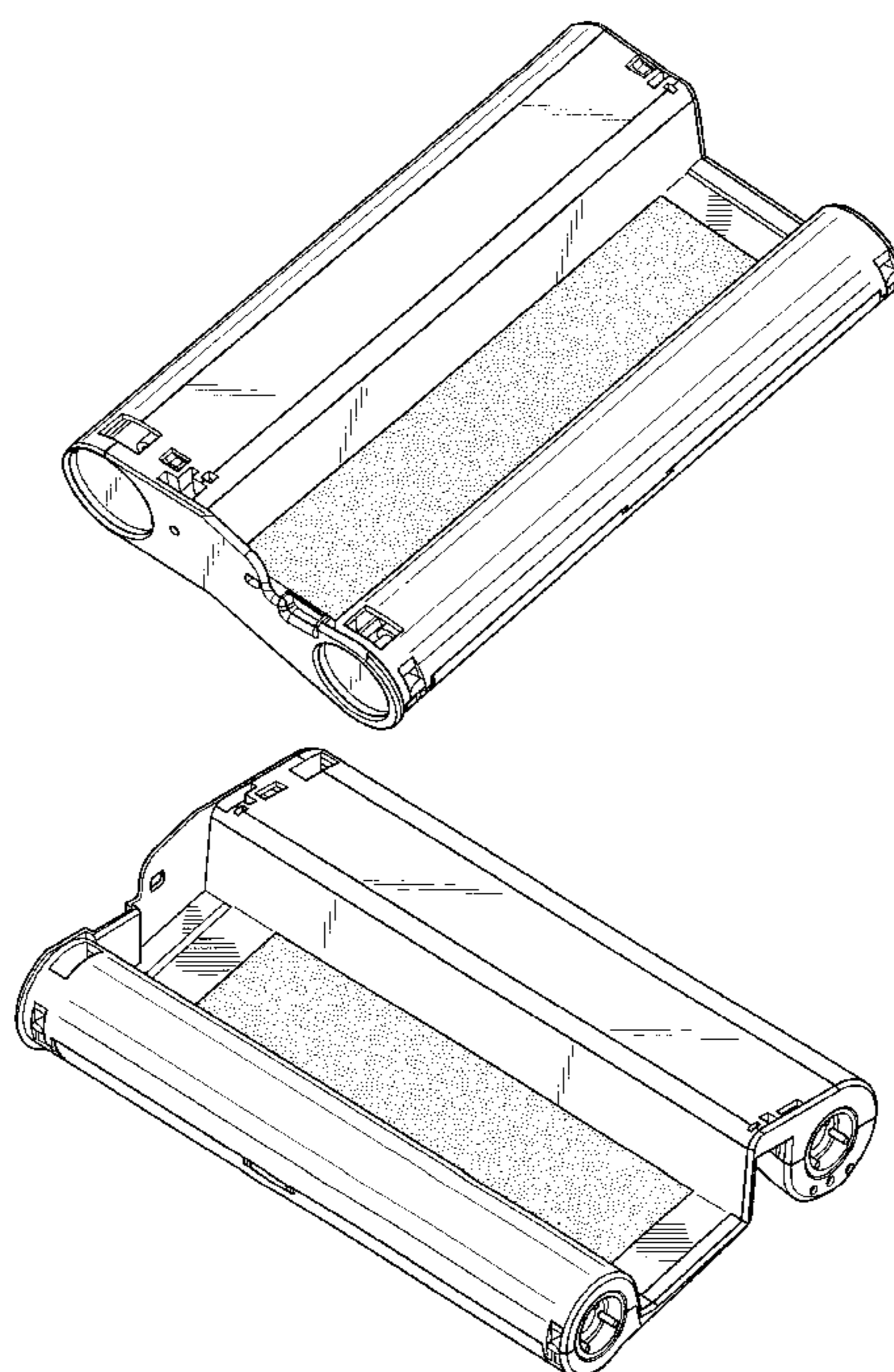


FIG. 1

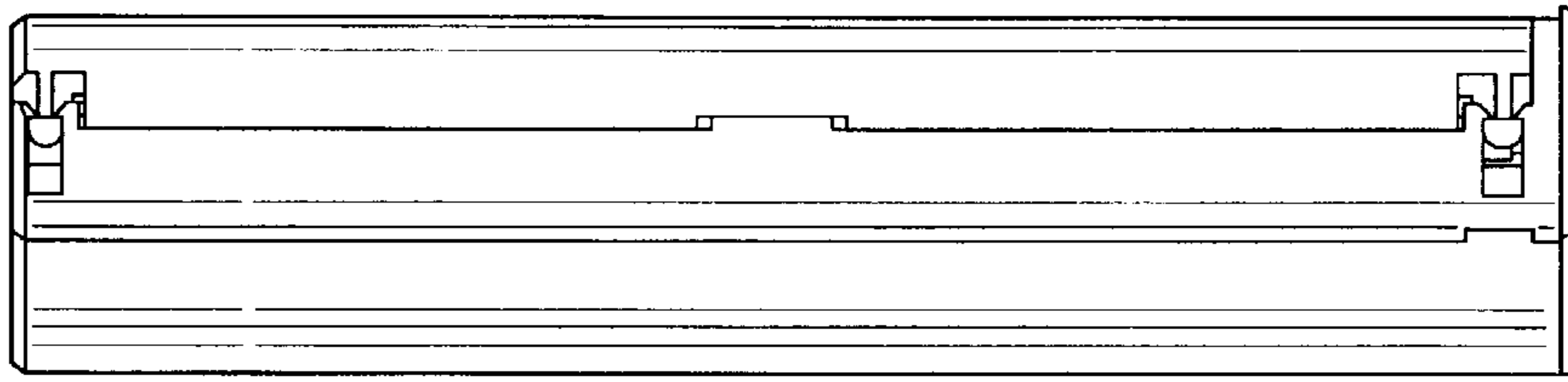


FIG. 2

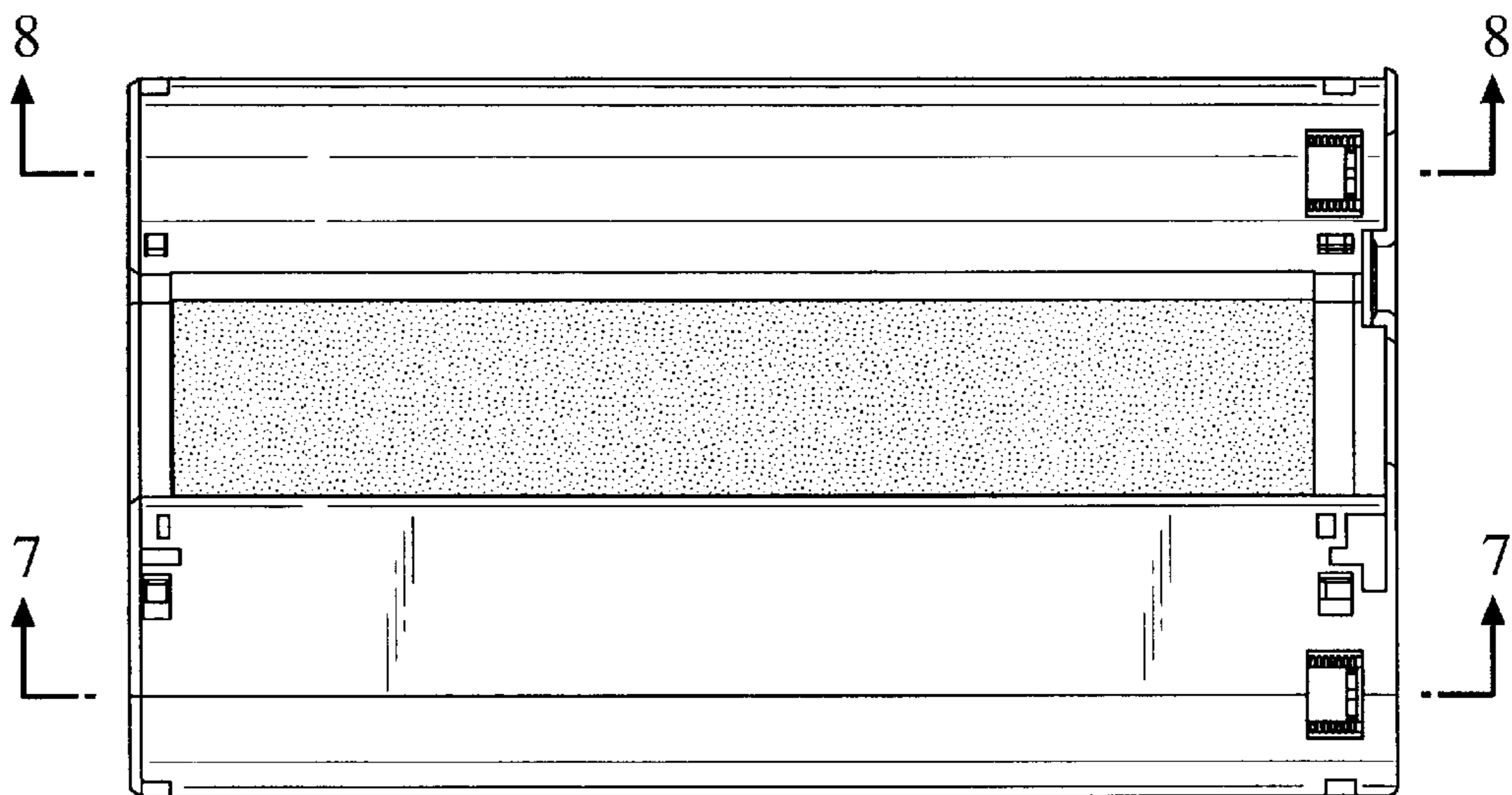


FIG. 3

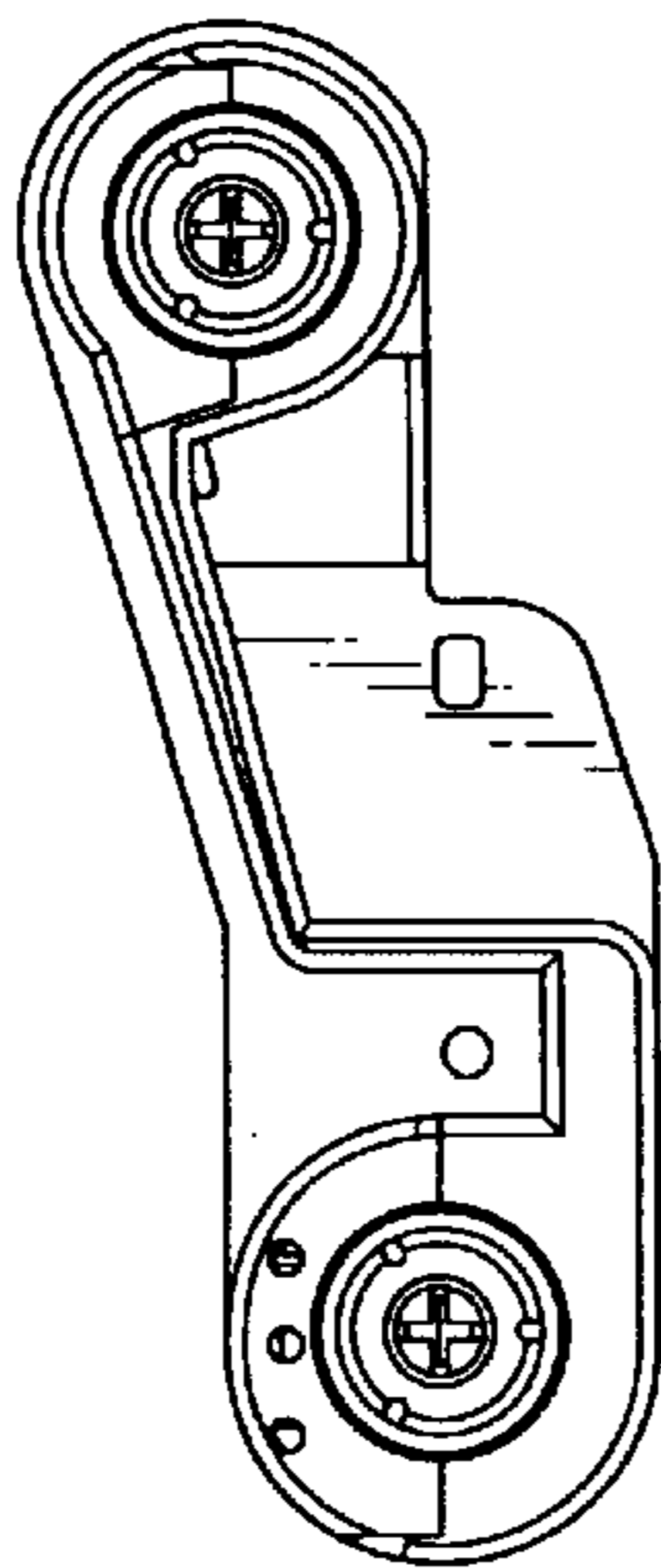


FIG. 4

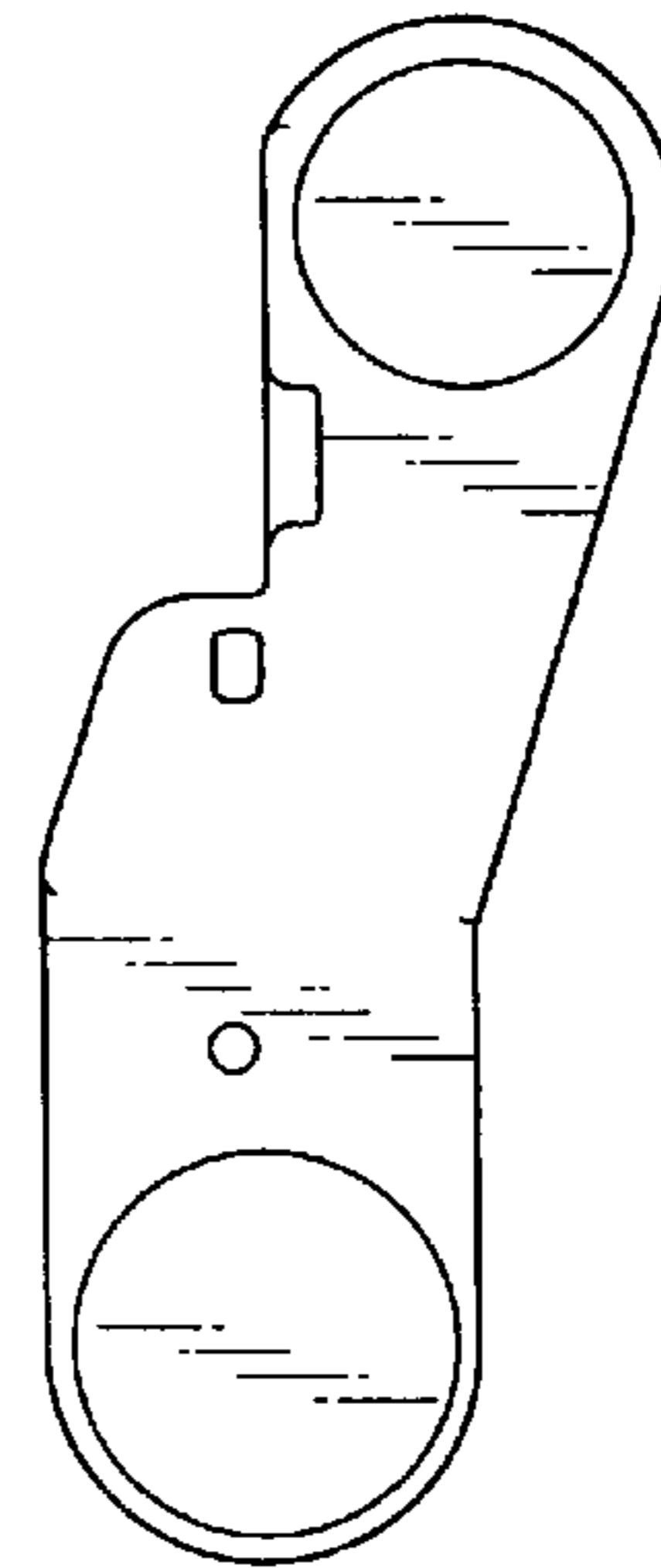


FIG. 5

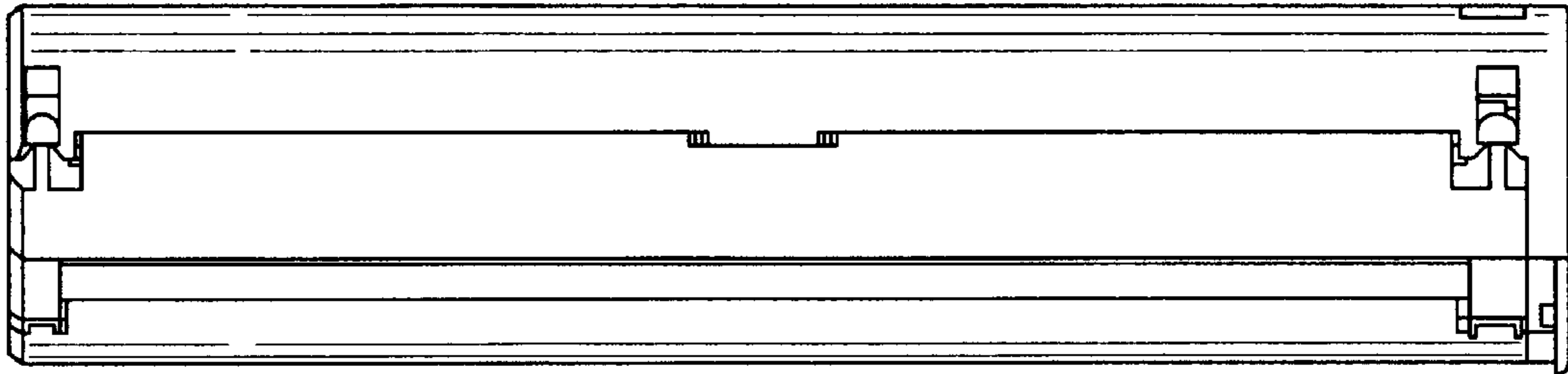


FIG. 6

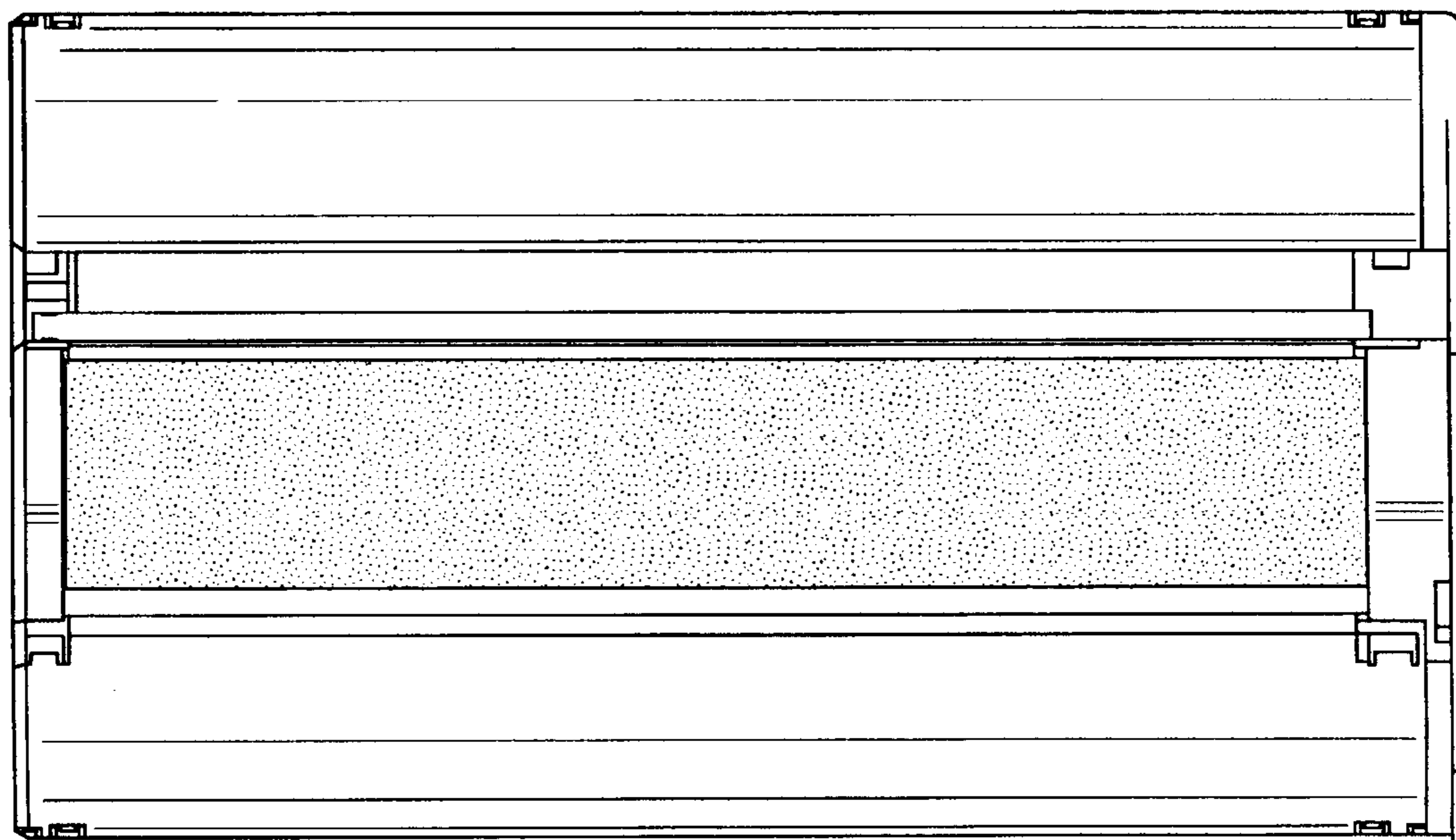


FIG. 7

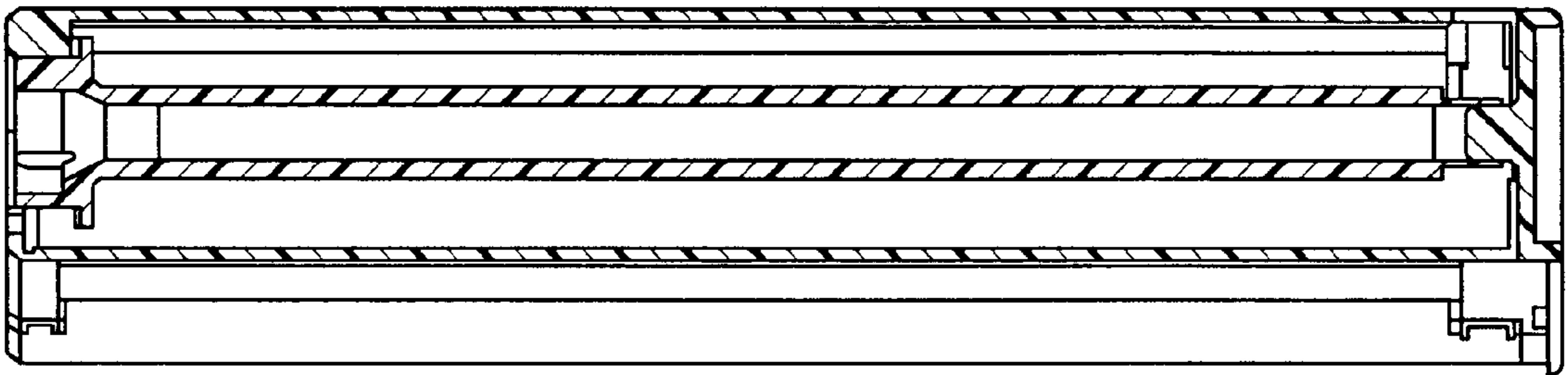


FIG. 8

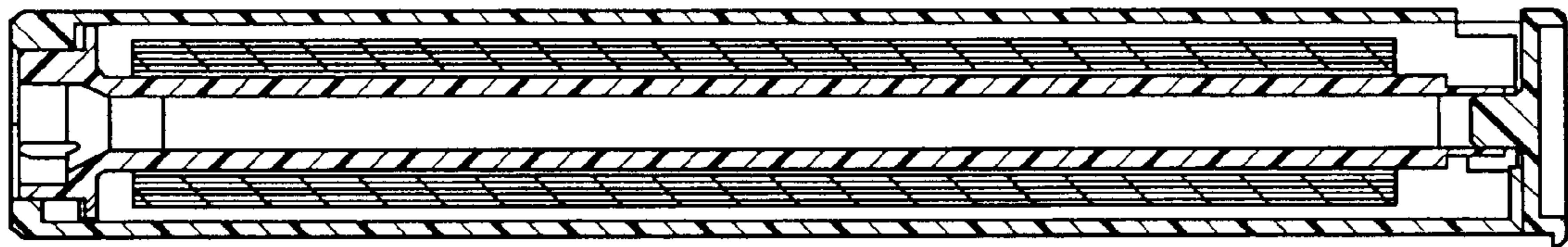


FIG. 9

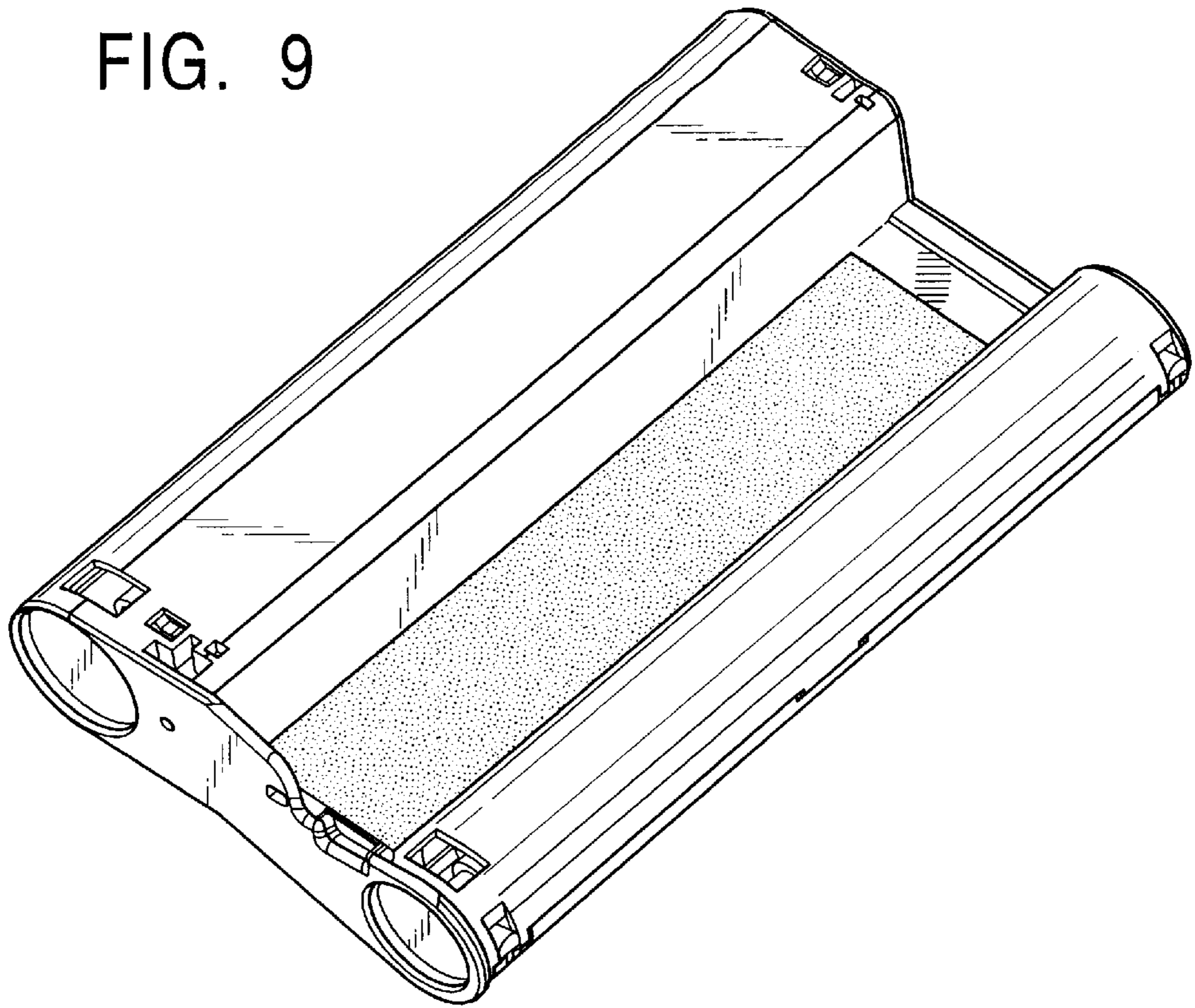


FIG. 10

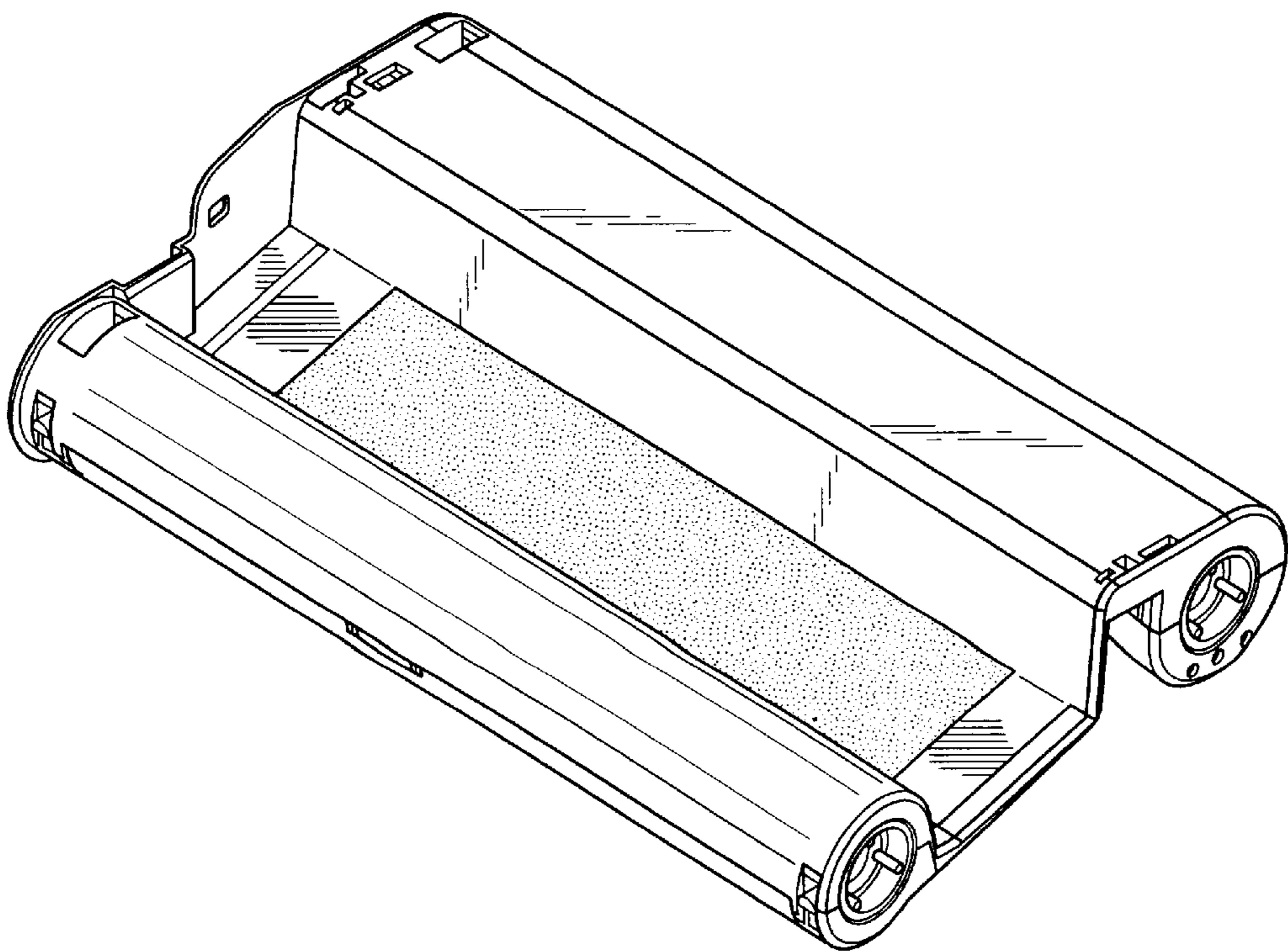


FIG. 11

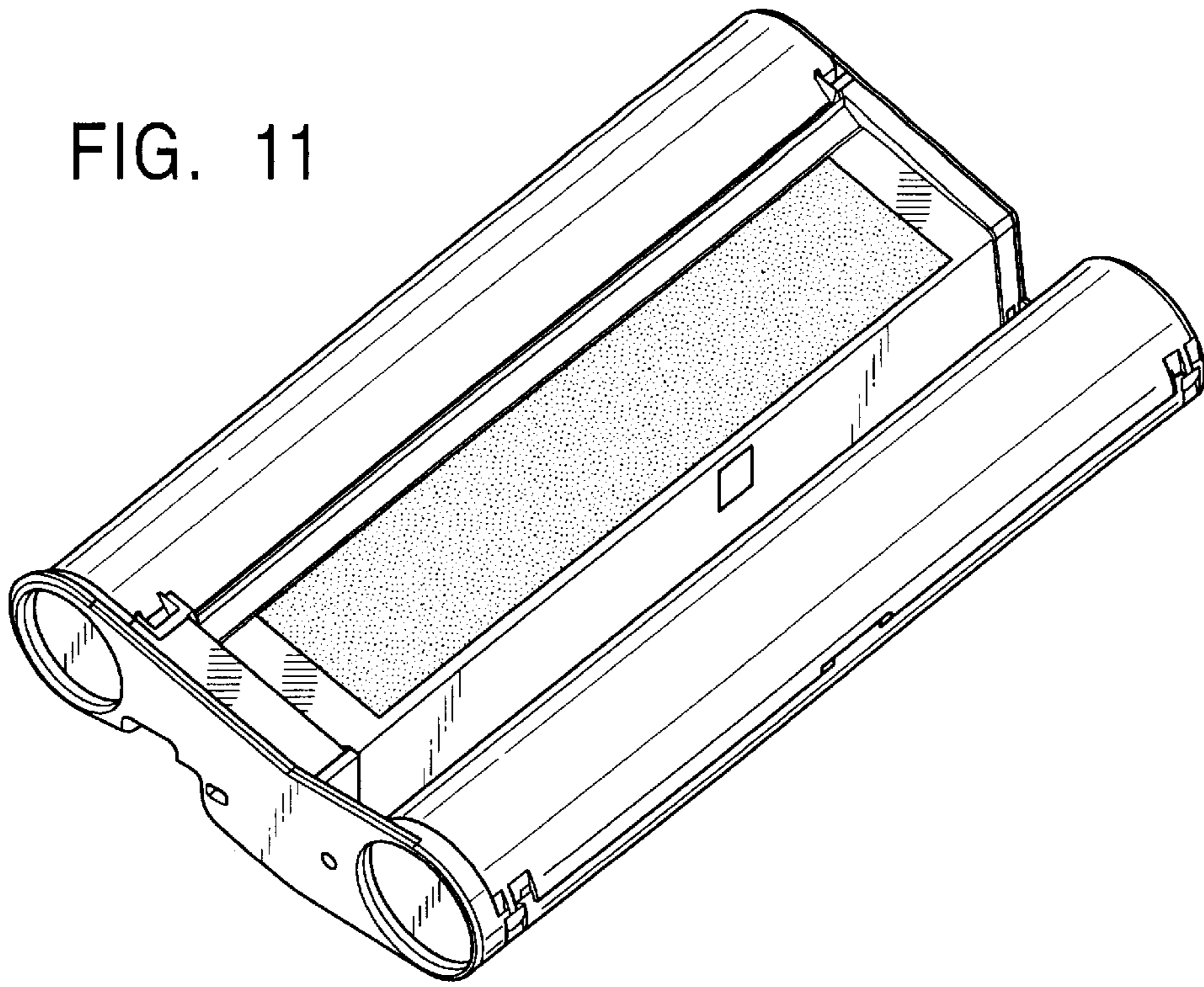


FIG. 12

