



US00D733599S

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

(10) **Patent No.:** **US D733,599 S**
(45) **Date of Patent:** **** Jul. 7, 2015**

(54) **SPECTROMETER**

FOREIGN PATENT DOCUMENTS

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JP 2013-029325 A 2/2013
JP 2013-029327 A 2/2013
WO WO-2008/149939 A1 12/2008

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Katsuhiko Kato, Hamamatsu (JP)

OTHER PUBLICATIONS

Hamamatsu Photonics K.K., "Website of Hamamatsu Photonics K.K.", Nov. 5, 2013.
Hamamatsu Photonics K.K., "News release from Hamamatsu Photonics K.K.", Nov. 5, 2013.

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Hamamatsu-shi, Shizuoka (JP)

* cited by examiner

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

Primary Examiner — Antoine D Davis

(21) Appl. No.: **29/498,395**

(74) *Attorney, Agent, or Firm* — Drinker Biddle & Reath LLP

(22) Filed: **Aug. 4, 2014**

(30) **Foreign Application Priority Data**

(57) **CLAIM**

The ornamental design for a spectrometer, as shown and described.

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Feb. 4, 2014 (JP) 2014-002260
Feb. 4, 2014 (JP) 2014-002261
Feb. 4, 2014 (JP) 2014-002262
Feb. 4, 2014 (JP) 2014-002263

DESCRIPTION

FIG. 1 is a front view of a spectrometer of the first embodiment of our new design.

(51) **LOC (10) Cl.** **10-04**

(52) **U.S. Cl.**
USPC **D10/81**

(58) **Field of Classification Search**
USPC D10/75, 78, 81
CPC G01J 3/00; G01J 2003/003–2003/006;
G01J 3/02–3/0278; G01J 2003/0281; G01J
3/0283–3/04; G01J 2003/042; G01J 2003/047;
G01J 3/06; G01J 2003/061–2003/069; G01J
3/08–3/10

FIG. 2 is a rear view of the spectrometer of FIG. 1.

FIG. 3 is a top plan view of the spectrometer of FIG. 1.

FIG. 4 is a bottom view of the spectrometer of FIG. 1.

FIG. 5 is a right side view of the spectrometer of FIG. 1.

FIG. 6 is a left side view of the spectrometer of FIG. 1.

FIG. 7 is a top perspective of the spectrometer of FIG. 1.

FIG. 8 is a bottom perspective of the spectrometer of FIG. 1.

FIG. 9 is a reference view of the spectrometer of FIG. 1 in use, wherein the spectrometer is connected to a printed circuit board in a printer.

FIG. 10 is a front view of a spectrometer of the second embodiment of our new design.

FIG. 11 is a rear view of the spectrometer of FIG. 10.

FIG. 12 is a top plan view of the spectrometer of FIG. 10.

FIG. 13 is a bottom view of the spectrometer of FIG. 10.

FIG. 14 is a right side view of the spectrometer of FIG. 10.

FIG. 15 is a left side view of the spectrometer of FIG. 10.

FIG. 16 is a top perspective of the spectrometer of FIG. 10.

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

7,132,644 B2 * 11/2006 Grunert et al. 250/226
D603,731 S * 11/2009 Shibayama D10/81

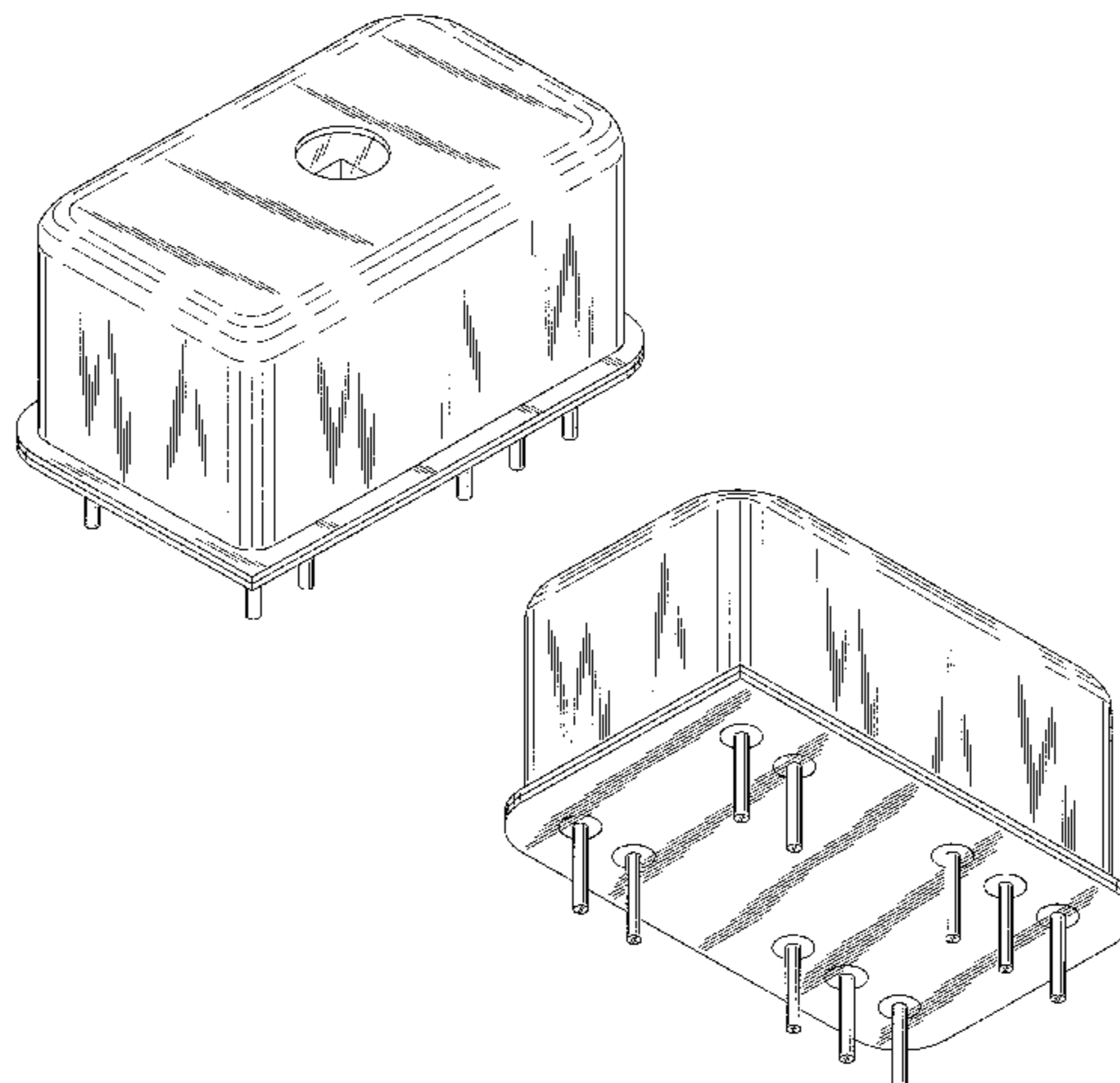


FIG. 17 is a bottom perspective of the spectrometer of FIG. 10.

FIG. 18 is a reference view of the spectrometer of FIG. 10 in use, wherein the spectrometer is connected to a printed circuit board in a printer.

FIG. 19 is a front view of a spectrometer of the third embodiment of our new design.

FIG. 20 is a rear view of the spectrometer of FIG. 19.

FIG. 21 is a top plan view of the spectrometer of FIG. 19.

FIG. 22 is a bottom view of the spectrometer of FIG. 19.

FIG. 23 is a right side view of the spectrometer of FIG. 19.

FIG. 24 is a left side view of the spectrometer of FIG. 19.

FIG. 25 is a top perspective of the spectrometer of FIG. 19.

FIG. 26 is a bottom perspective of the spectrometer of FIG. 19.

FIG. 27 is a reference view of the spectrometer of FIG. 19 in use, wherein the spectrometer is connected to a printed circuit board in a printer.

FIG. 28 is a front view of a spectrometer of the fourth embodiment of our new design.

FIG. 29 is a rear view of the spectrometer of FIG. 28.

FIG. 30 is a top plan view of the spectrometer of FIG. 28.

FIG. 31 is a bottom view of the spectrometer of FIG. 28.

FIG. 32 is a right side view of the spectrometer of FIG. 28.

FIG. 33 is a left side view of the spectrometer of FIG. 28.

FIG. 34 is a top perspective of the spectrometer of FIG. 28.

FIG. 35 is a bottom perspective of the spectrometer of FIG. 28; and,

FIG. 36 is a reference view of the spectrometer of FIG. 28 in use, wherein the spectrometer is connected to a printed circuit board in a printer.

The features shown in dotted lines depict environmental subject matter only and form no part of the claimed design.

1 Claim, 36 Drawing Sheets

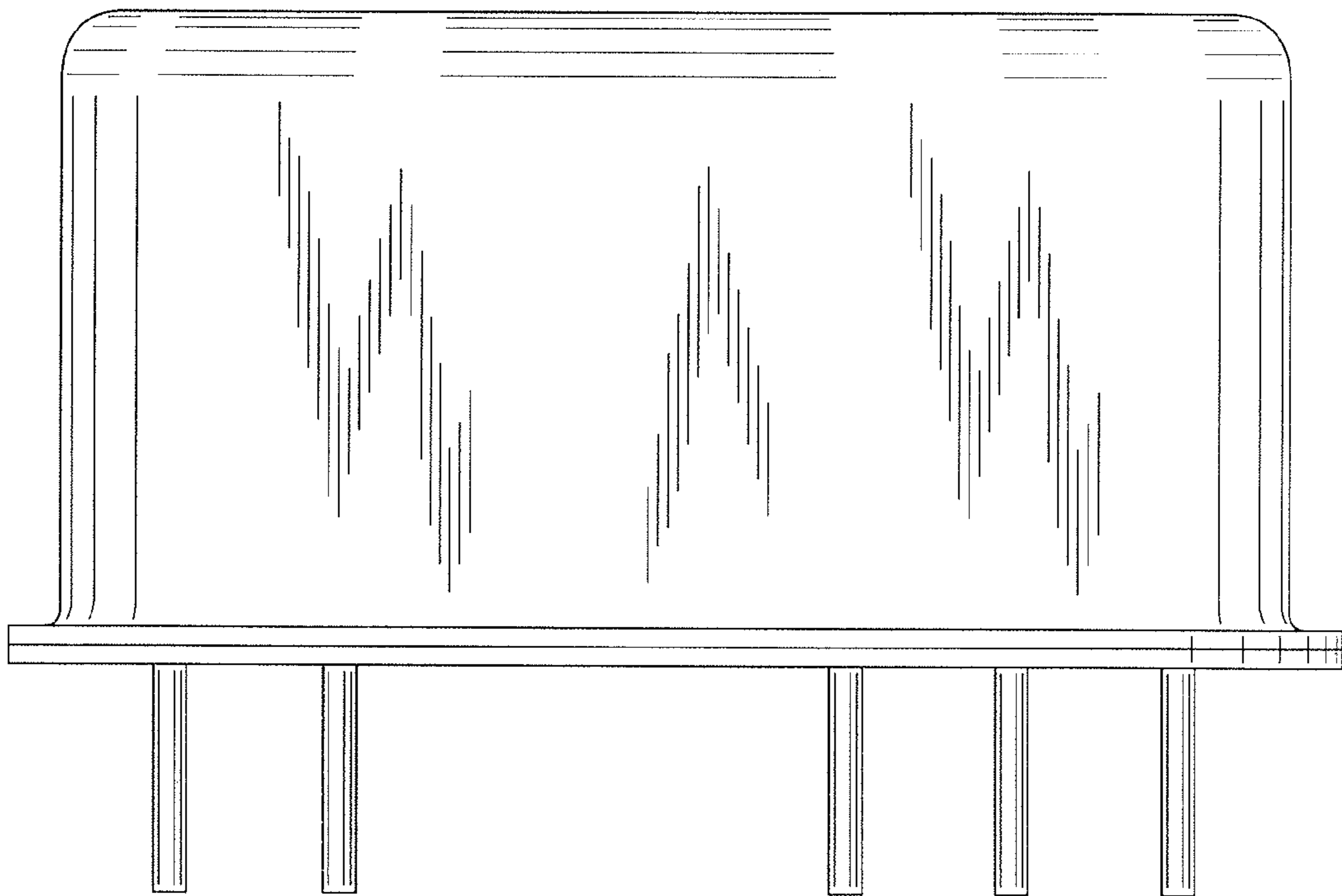


FIG. 1

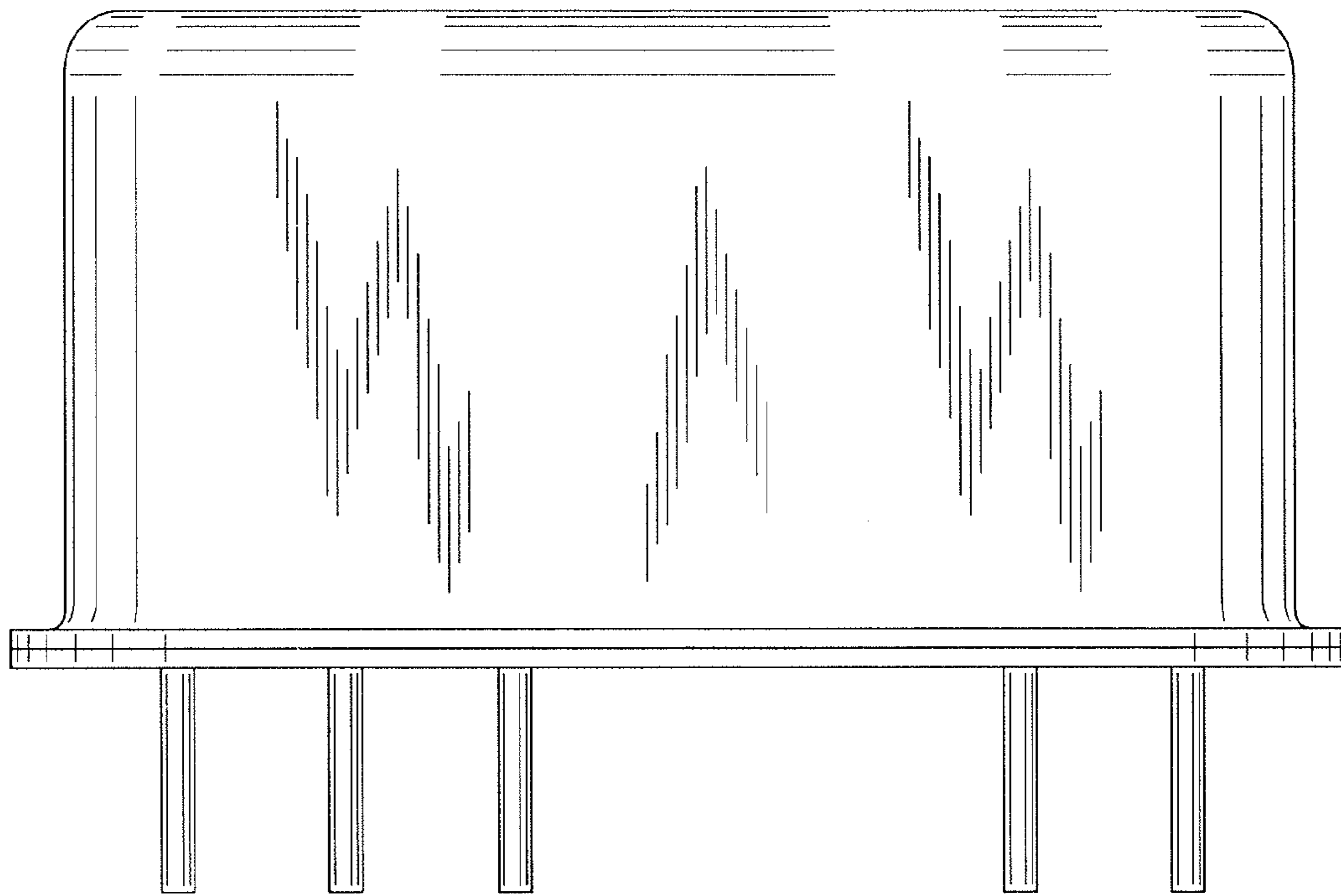


FIG. 2

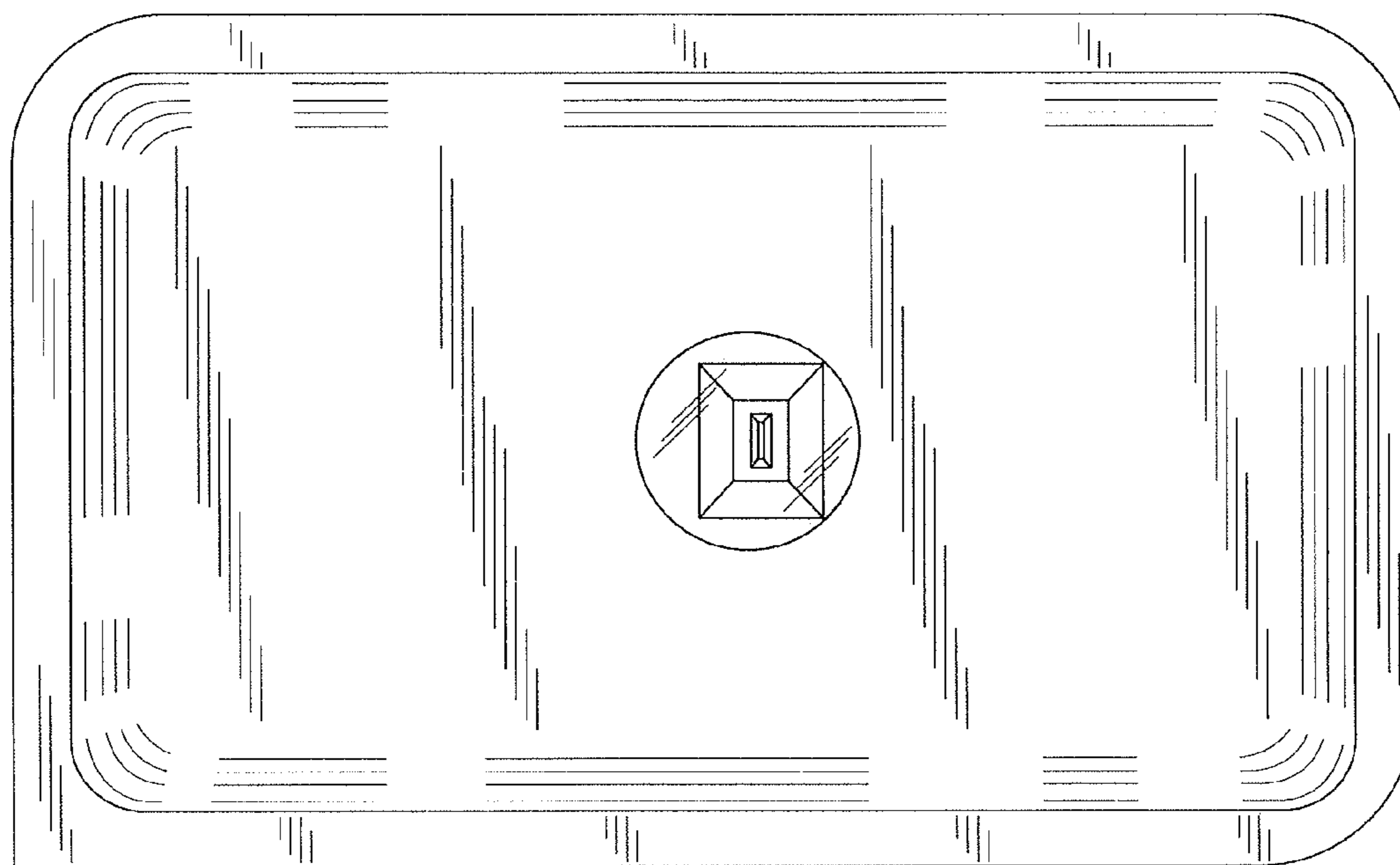


FIG. 3

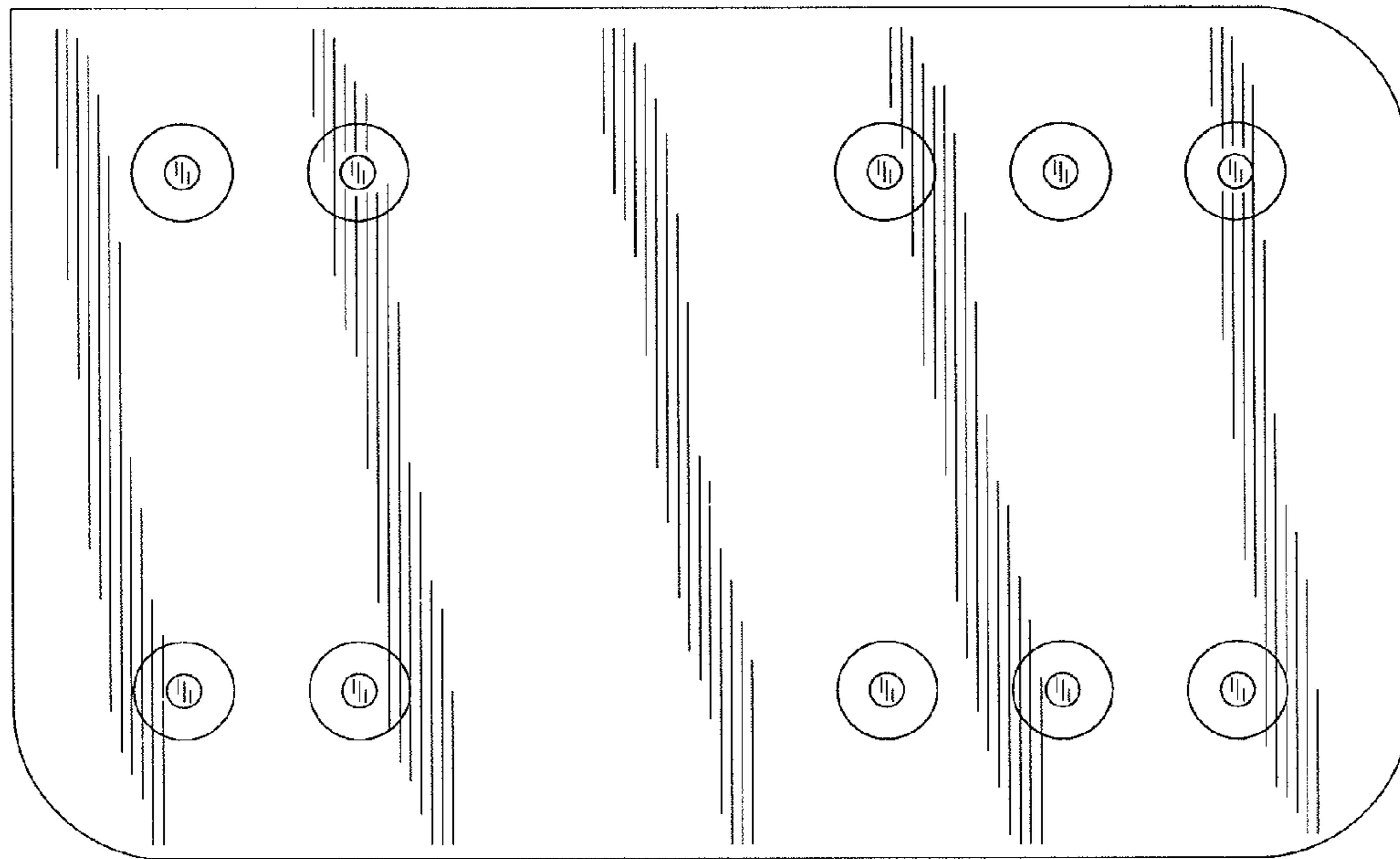


FIG. 4

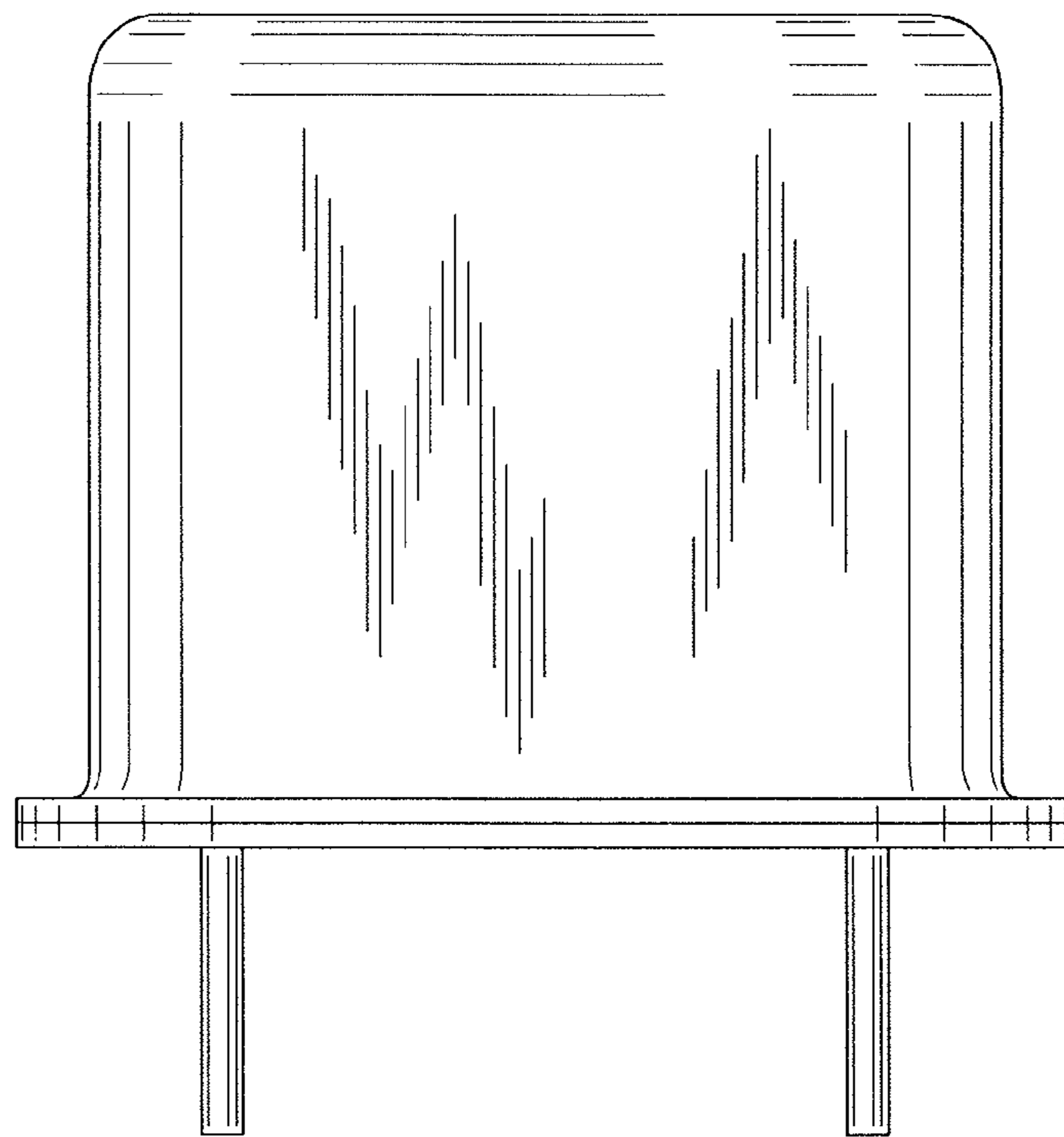


FIG. 5

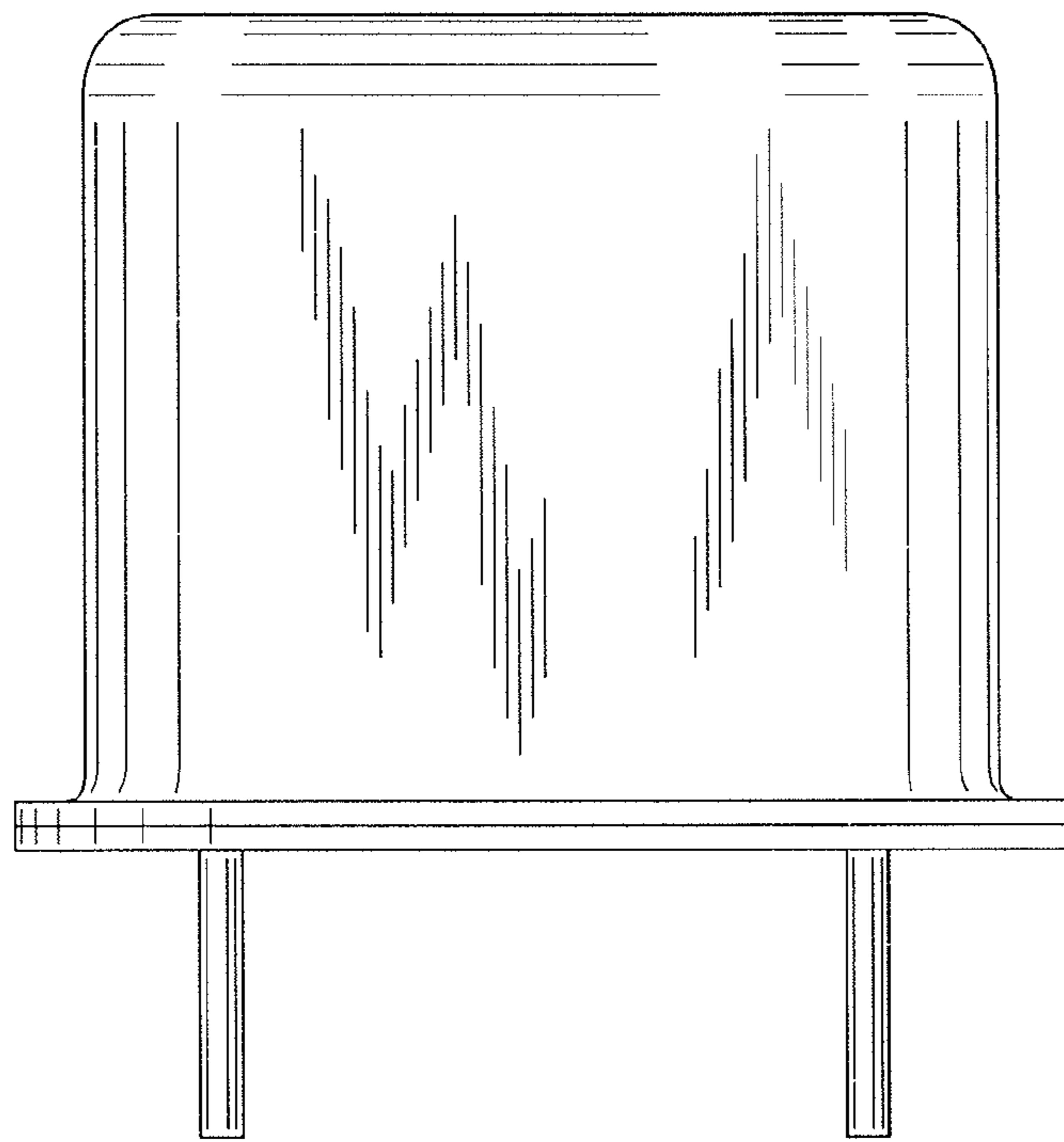


FIG. 6

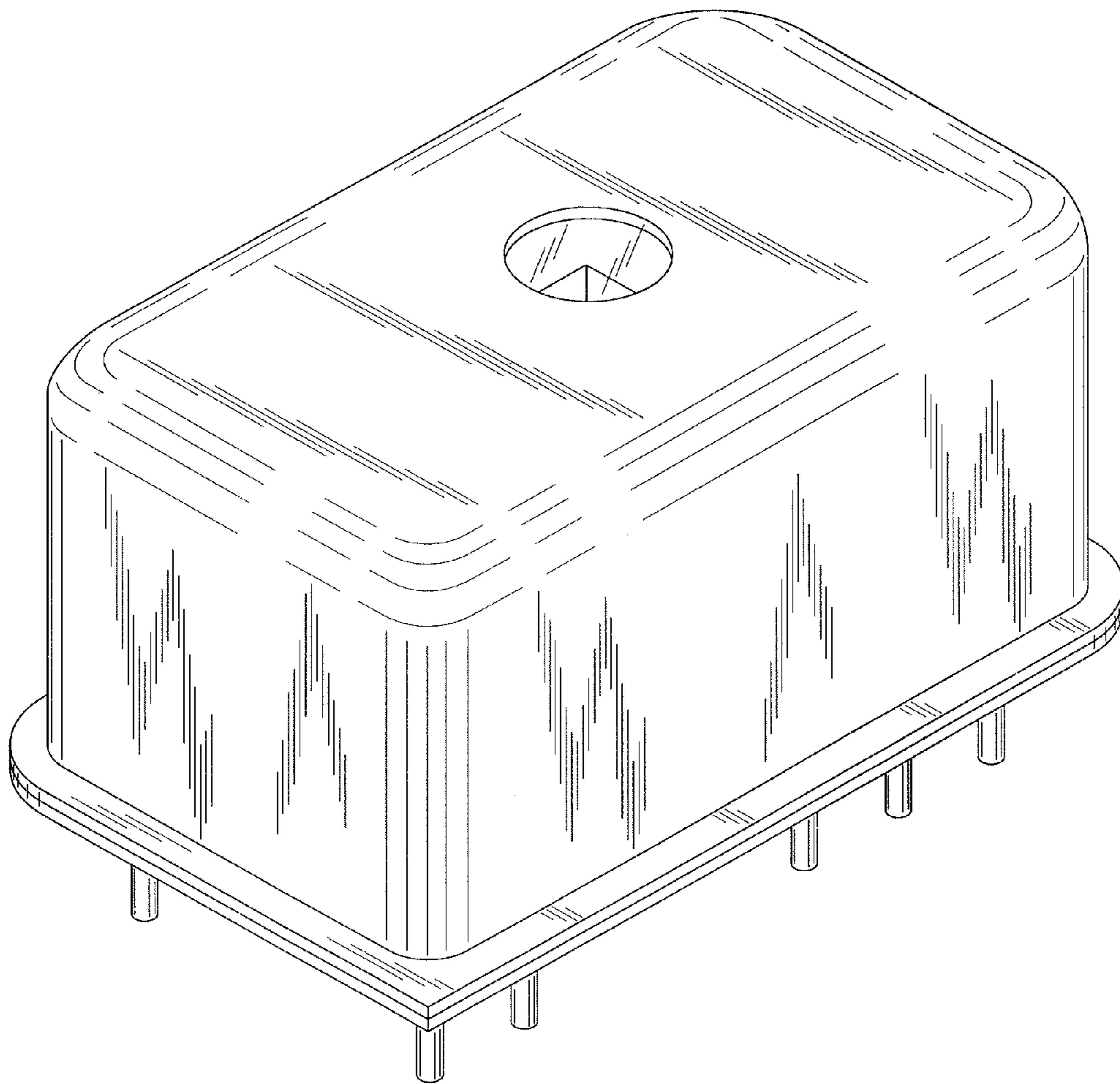


FIG. 7

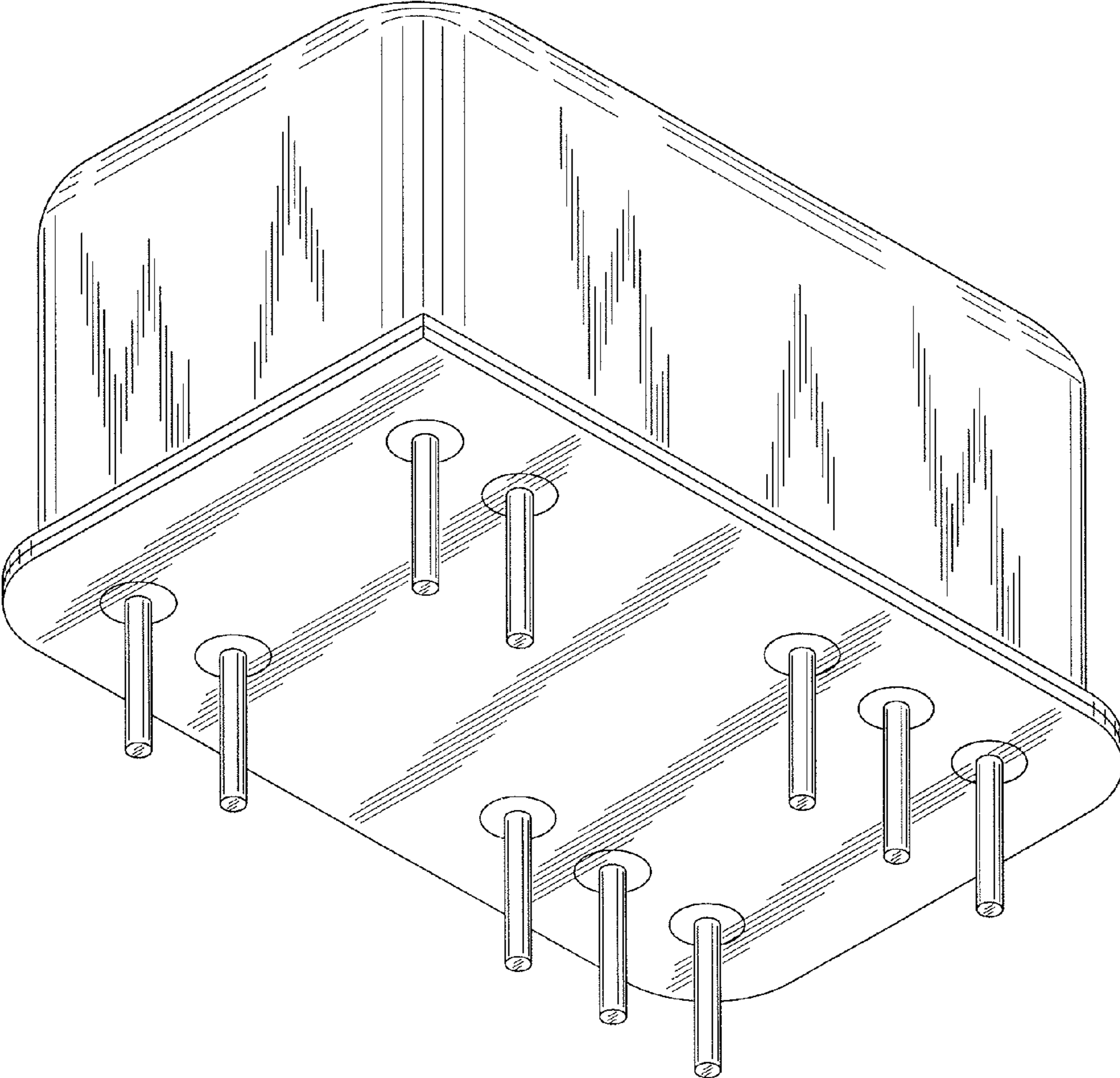


FIG. 8

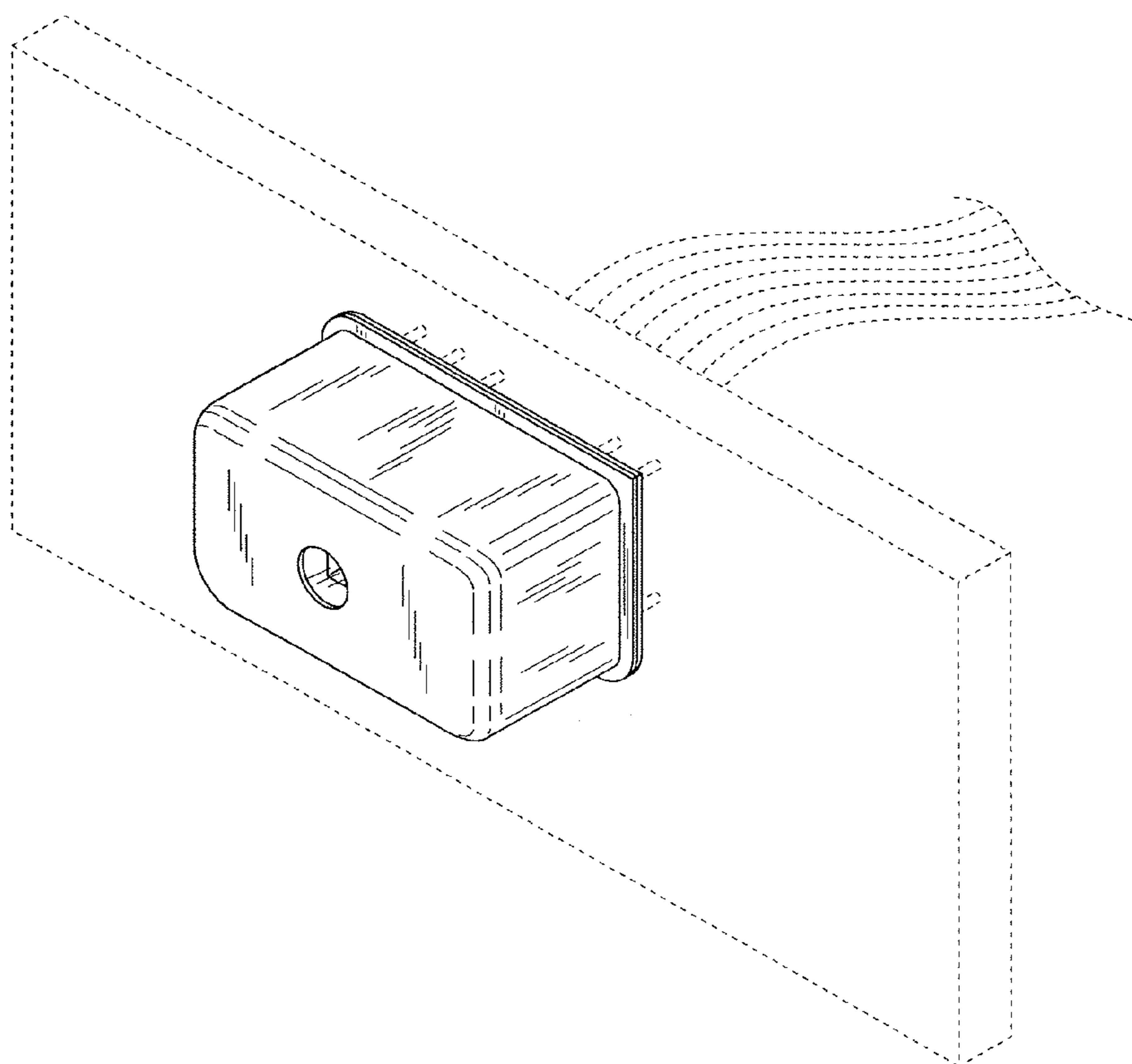


FIG. 9

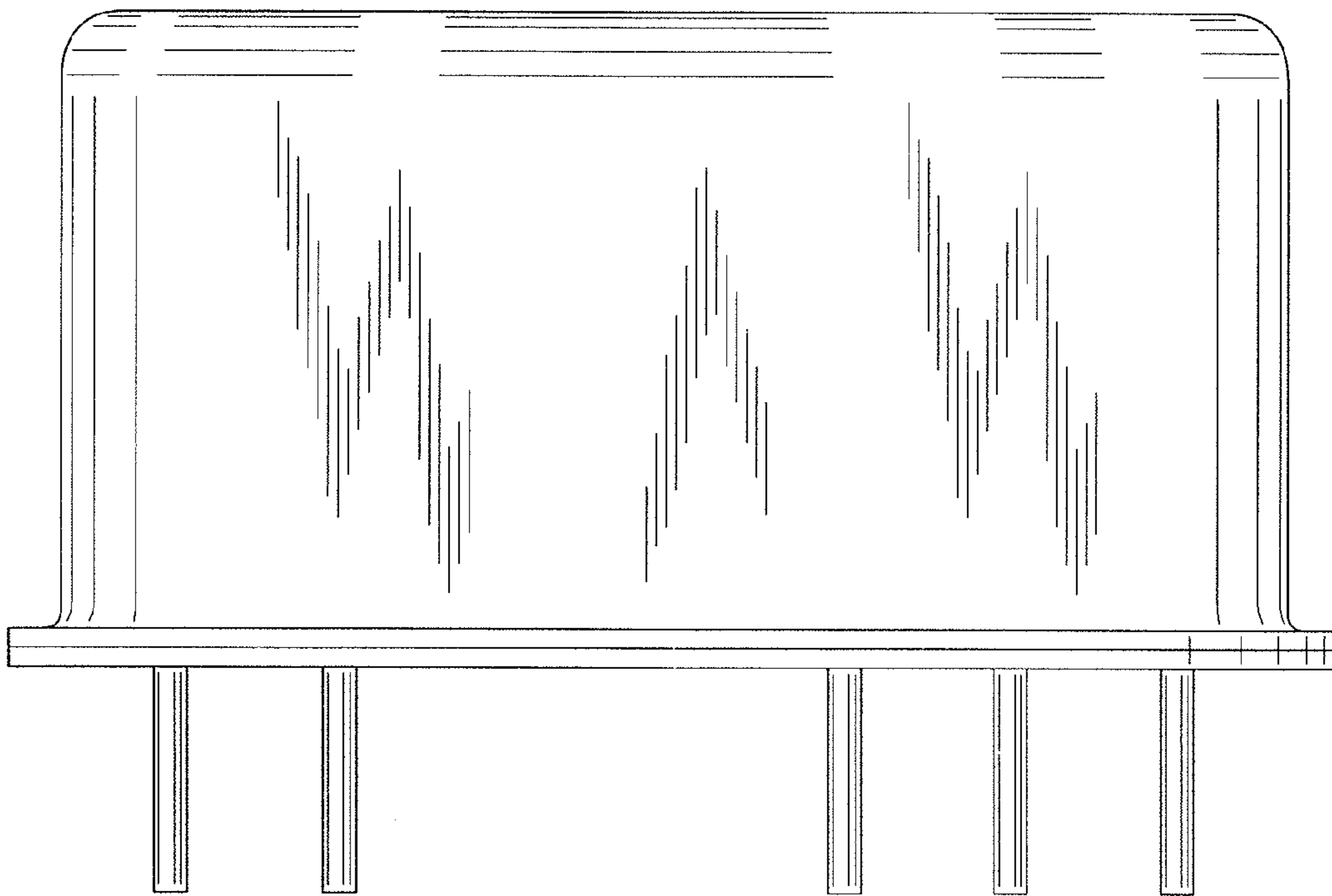


FIG. 10

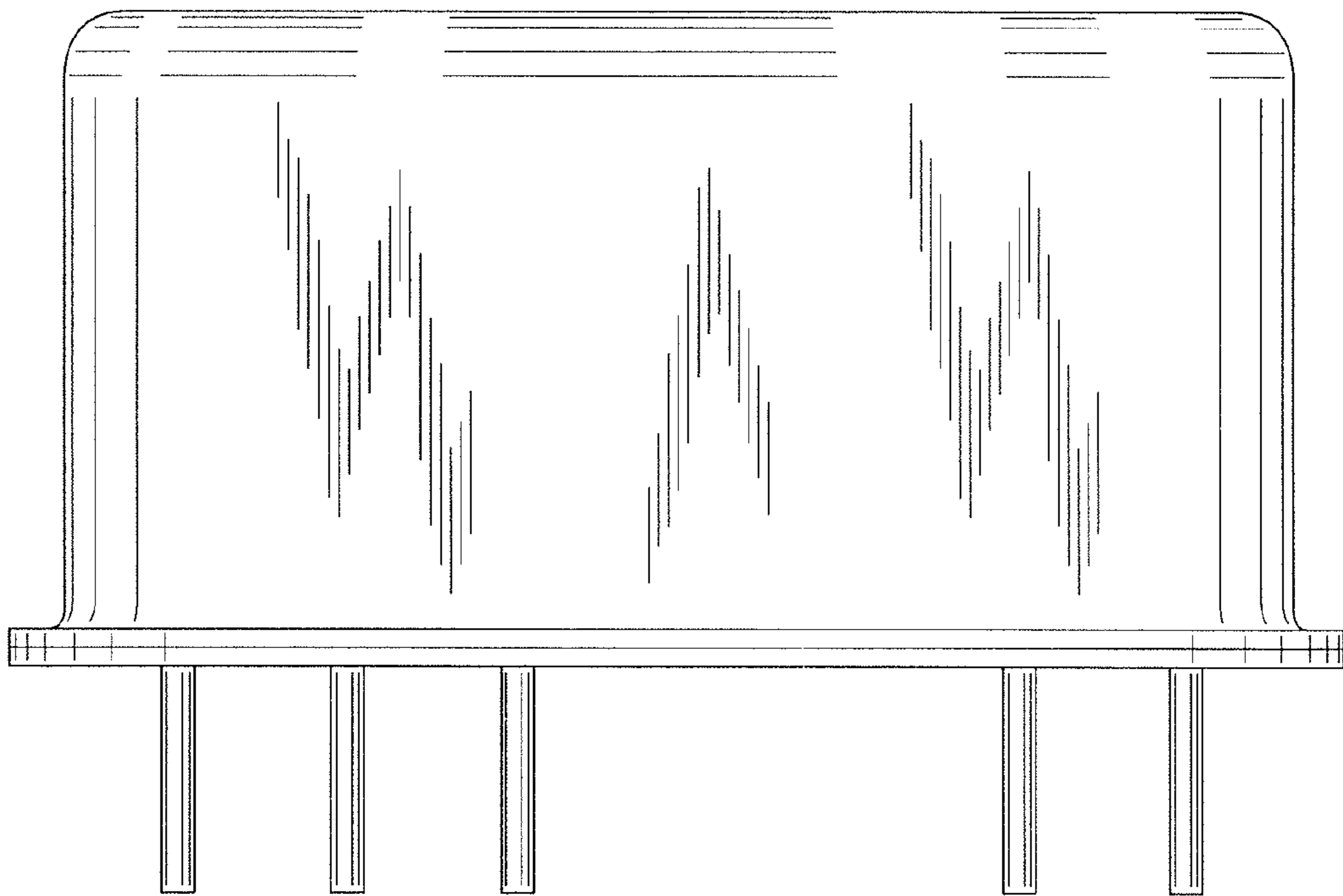


FIG. 11

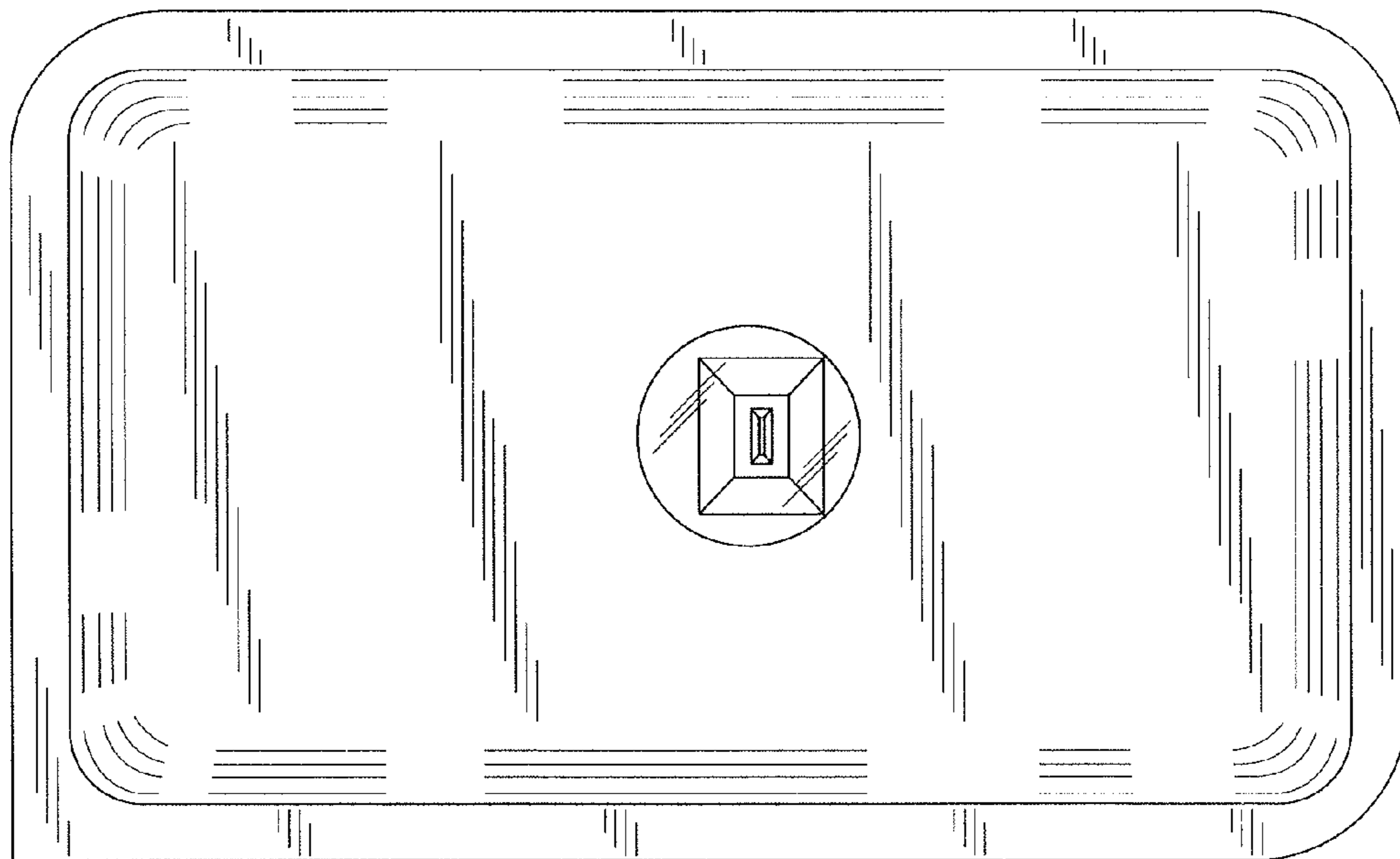


FIG. 12

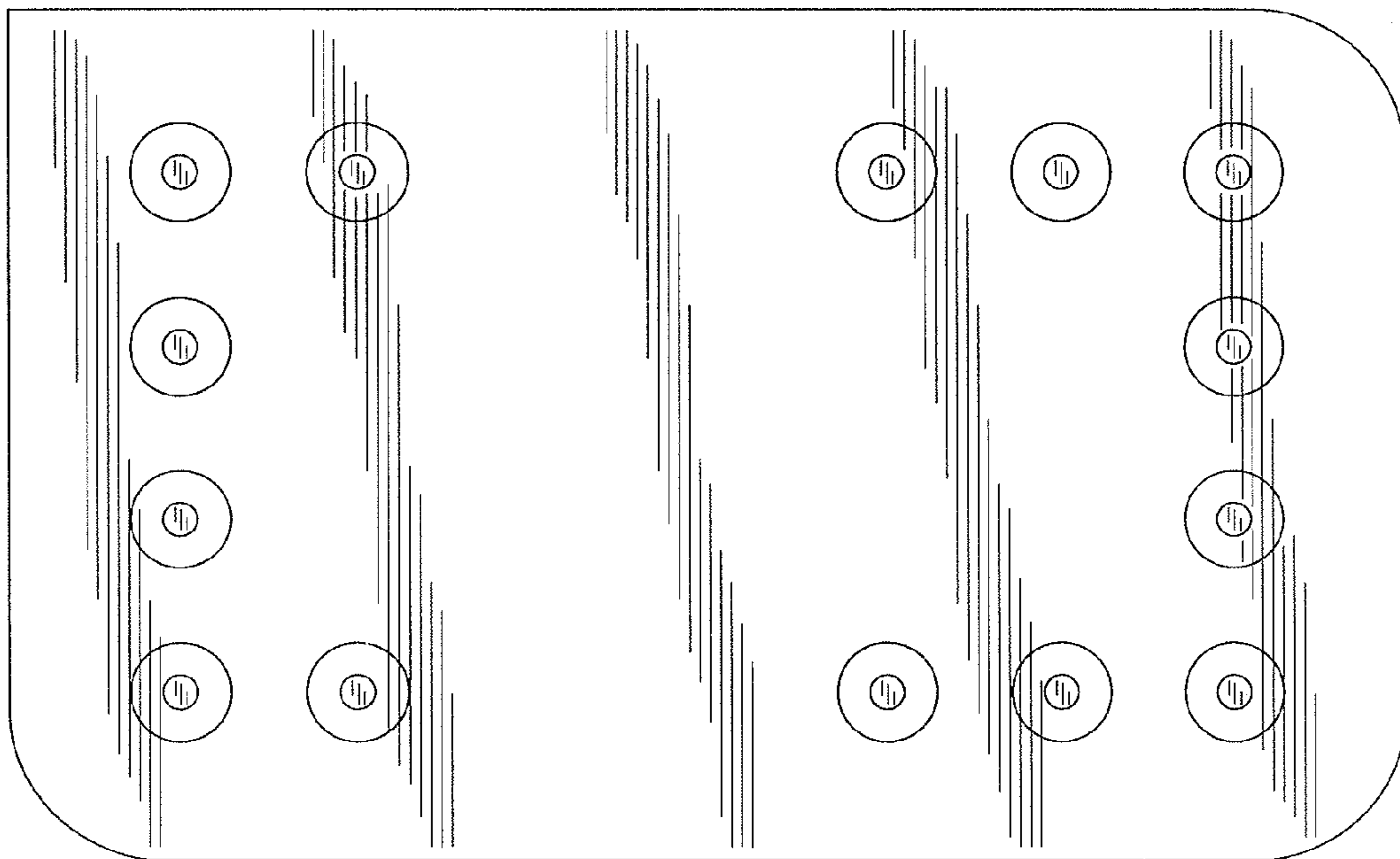


FIG. 13

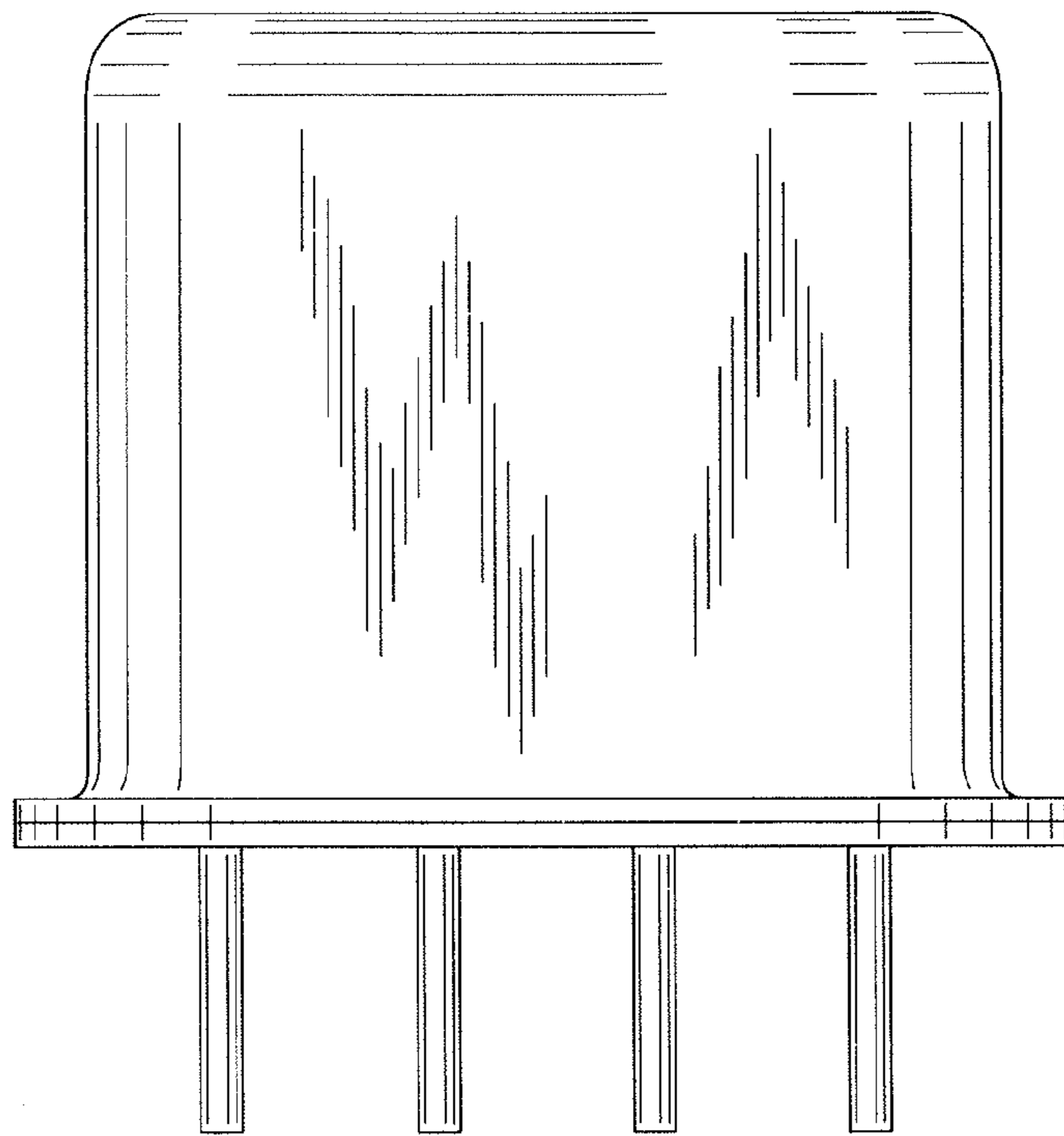


FIG. 14

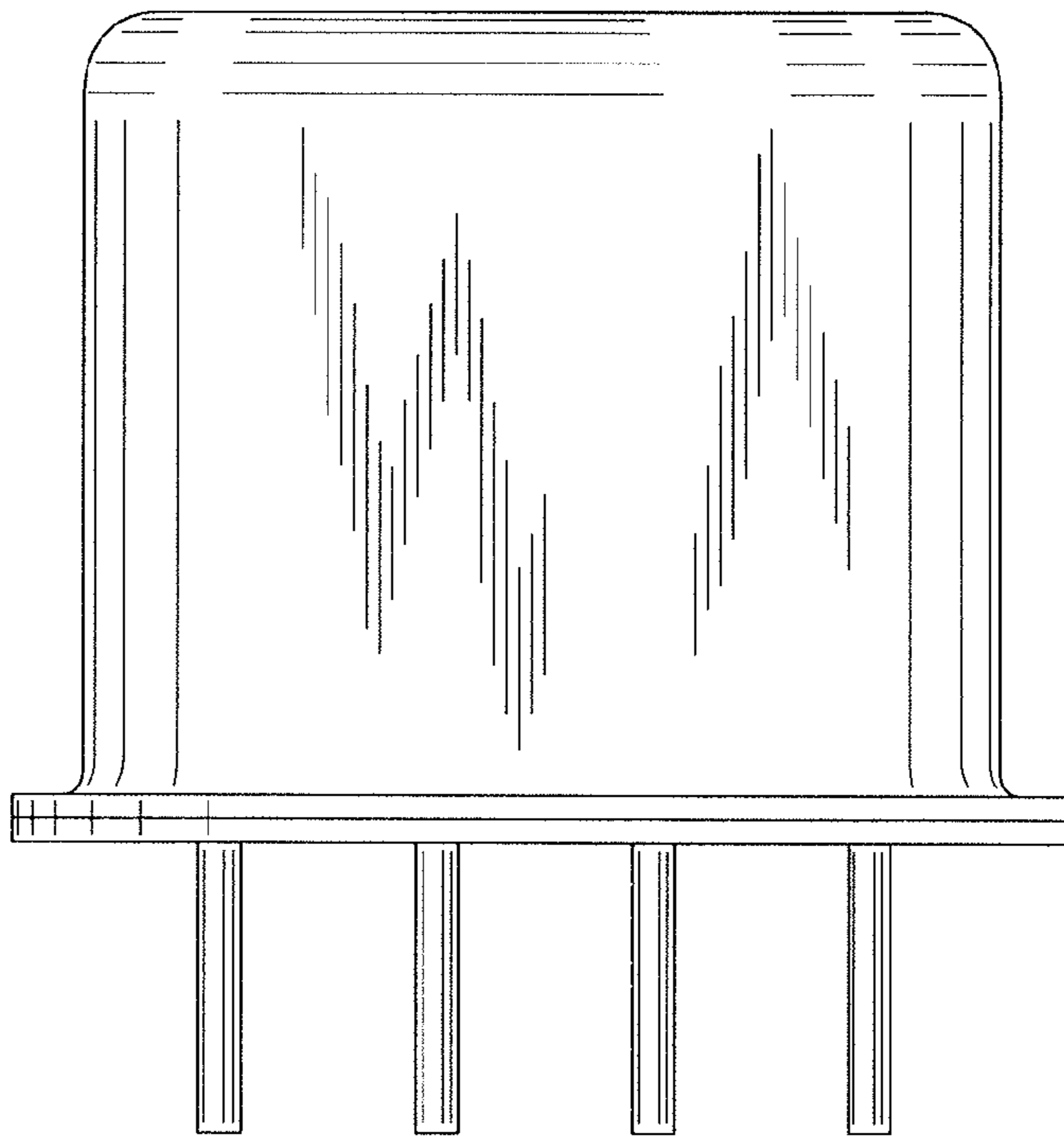


FIG. 15

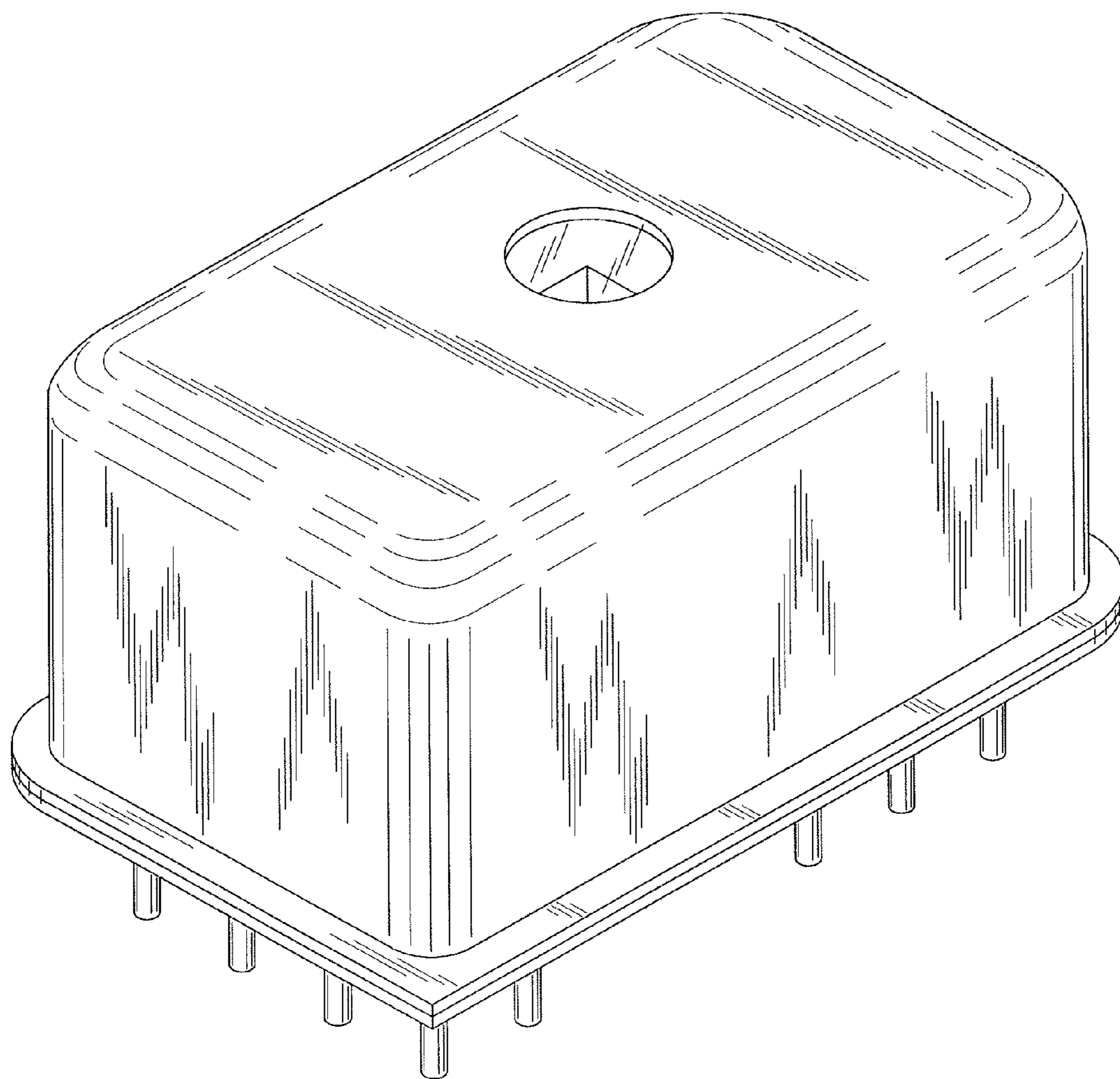


FIG. 16

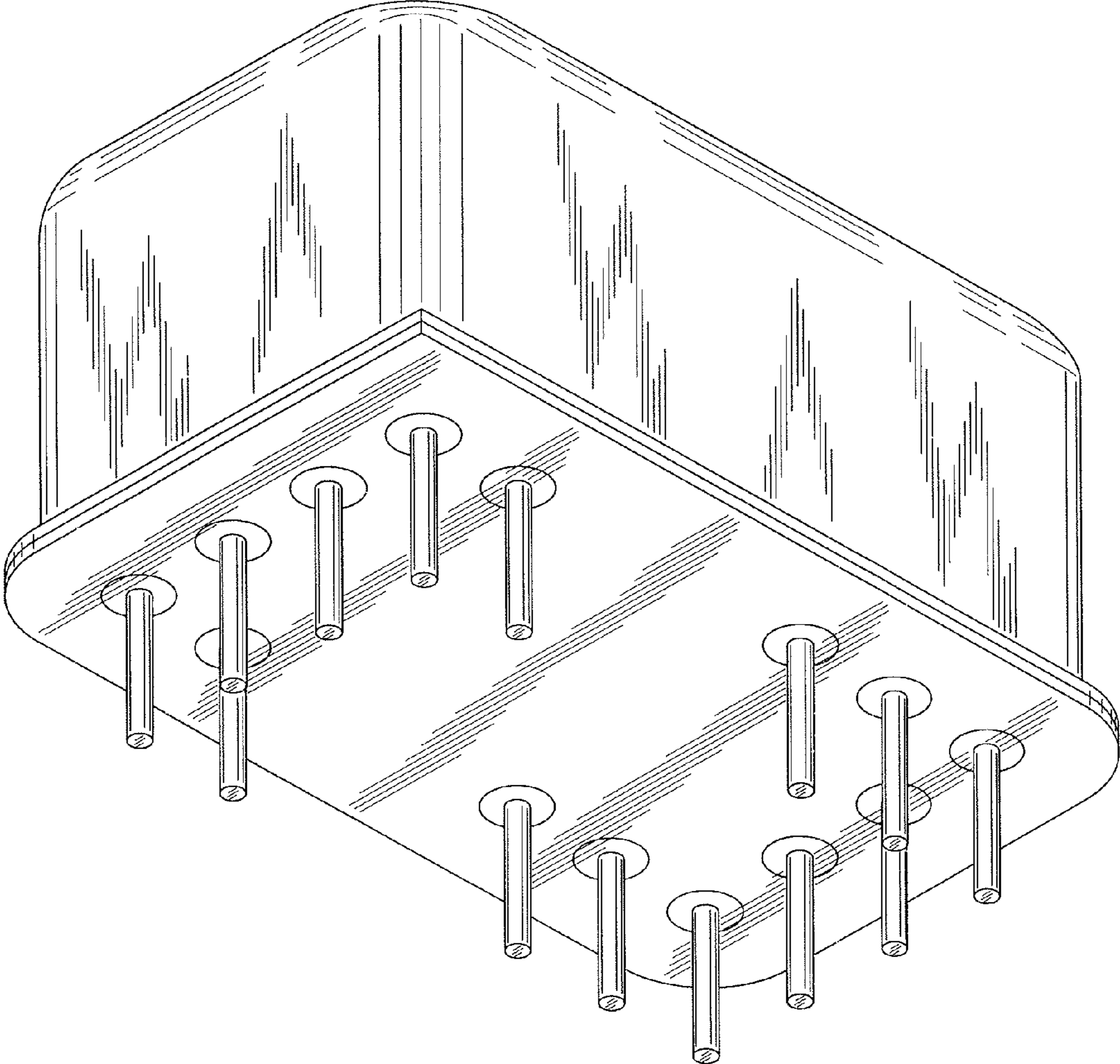


FIG. 17

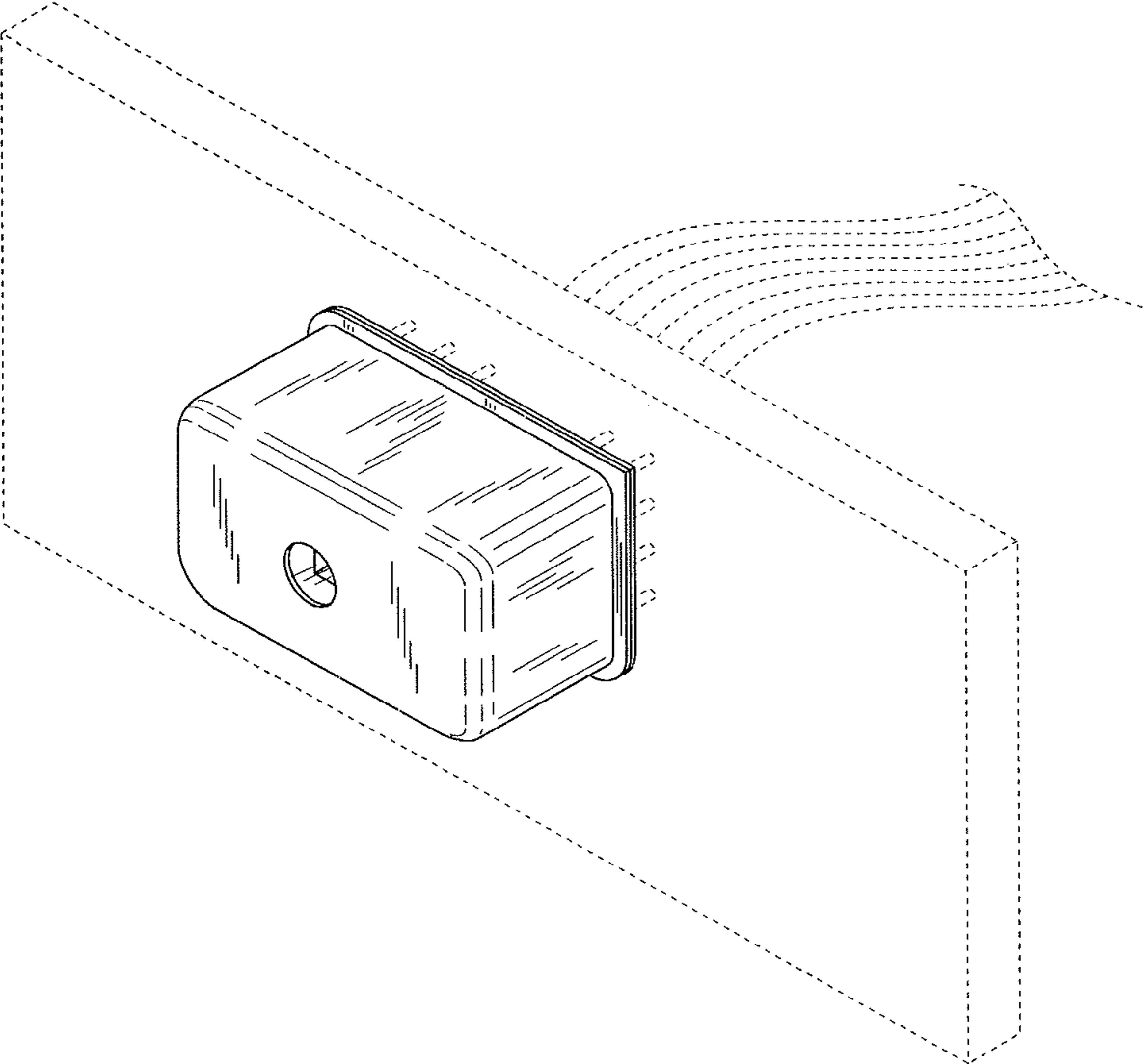


FIG. 18

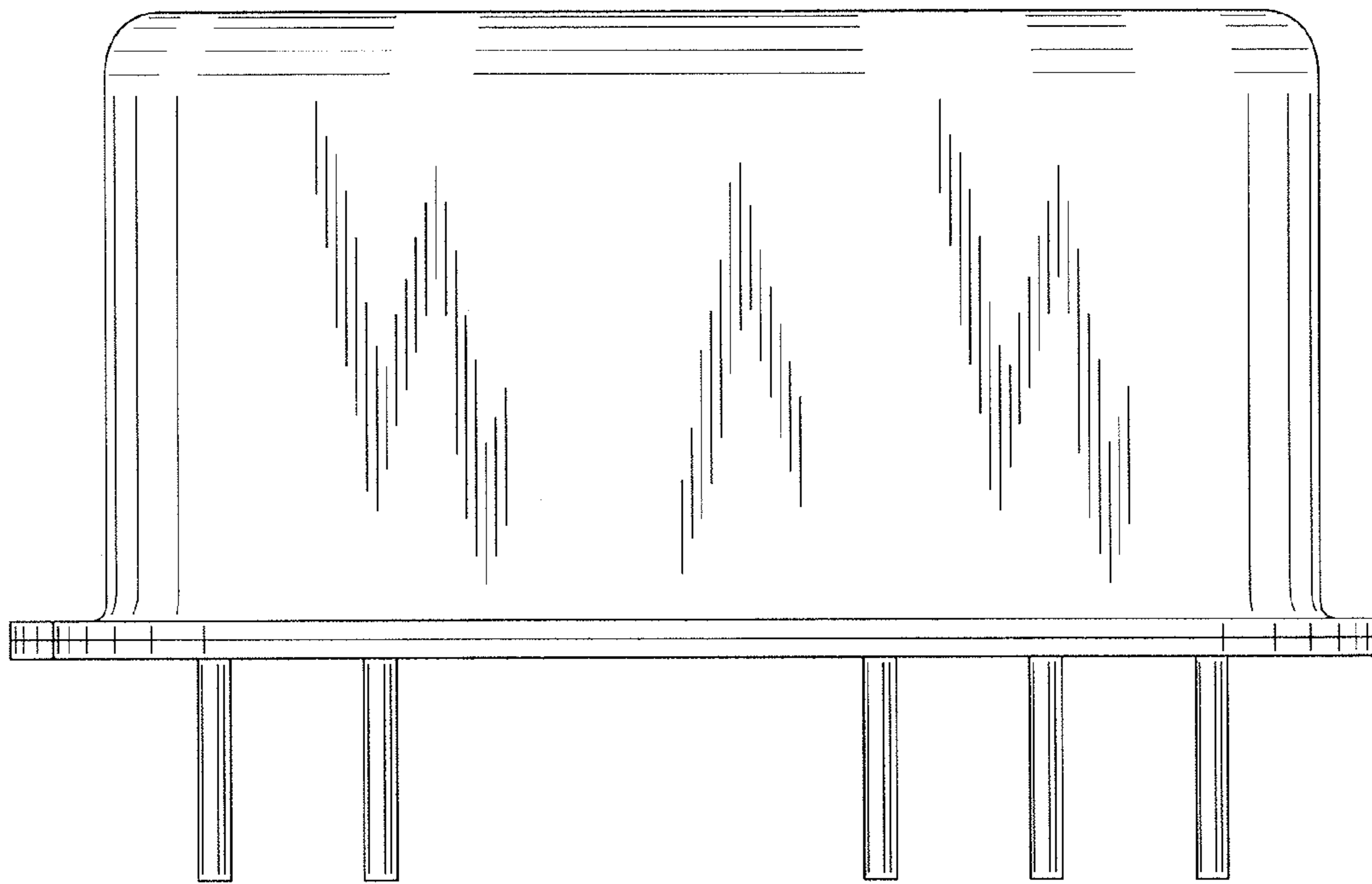


FIG. 19

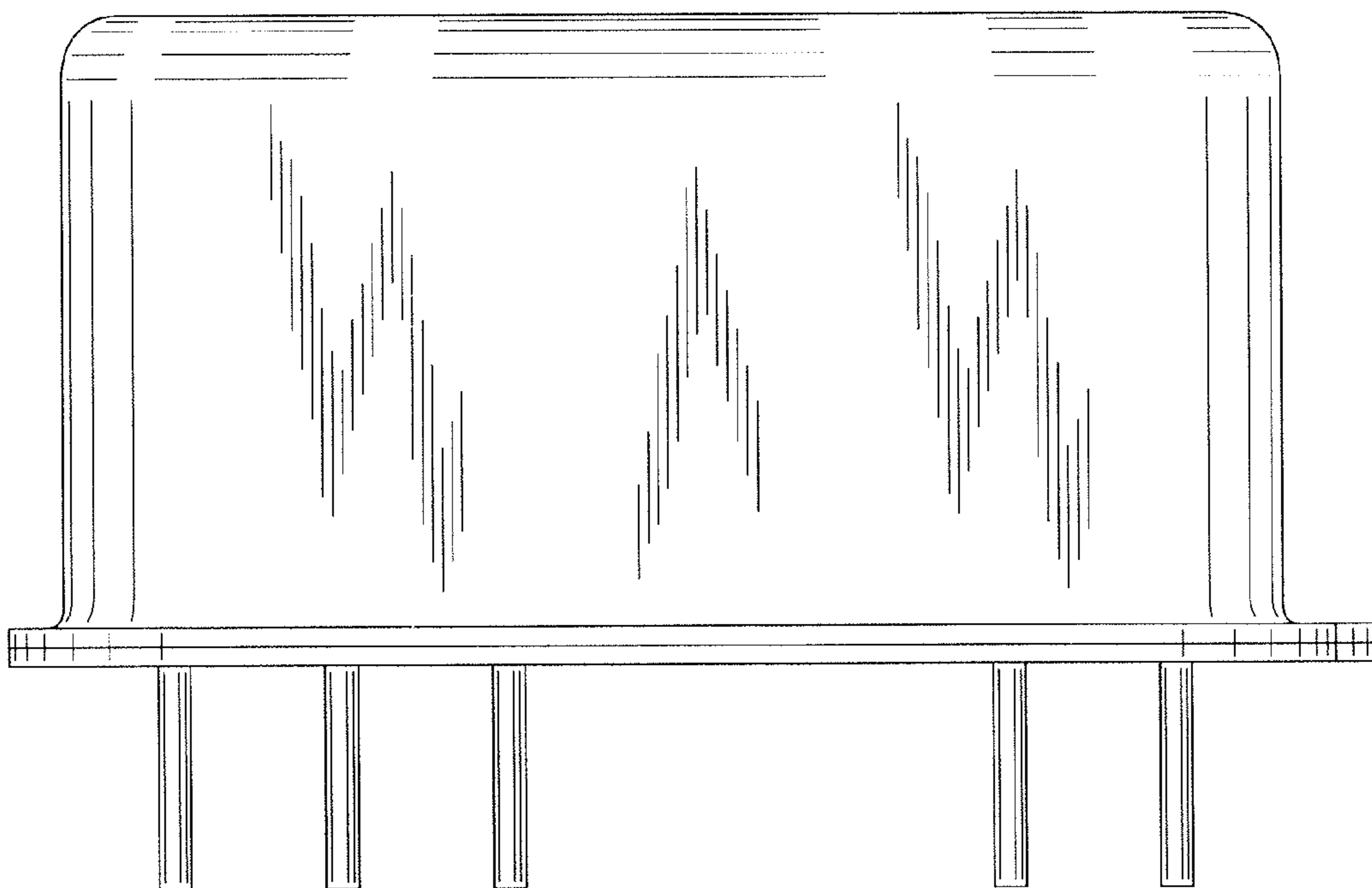


FIG. 20

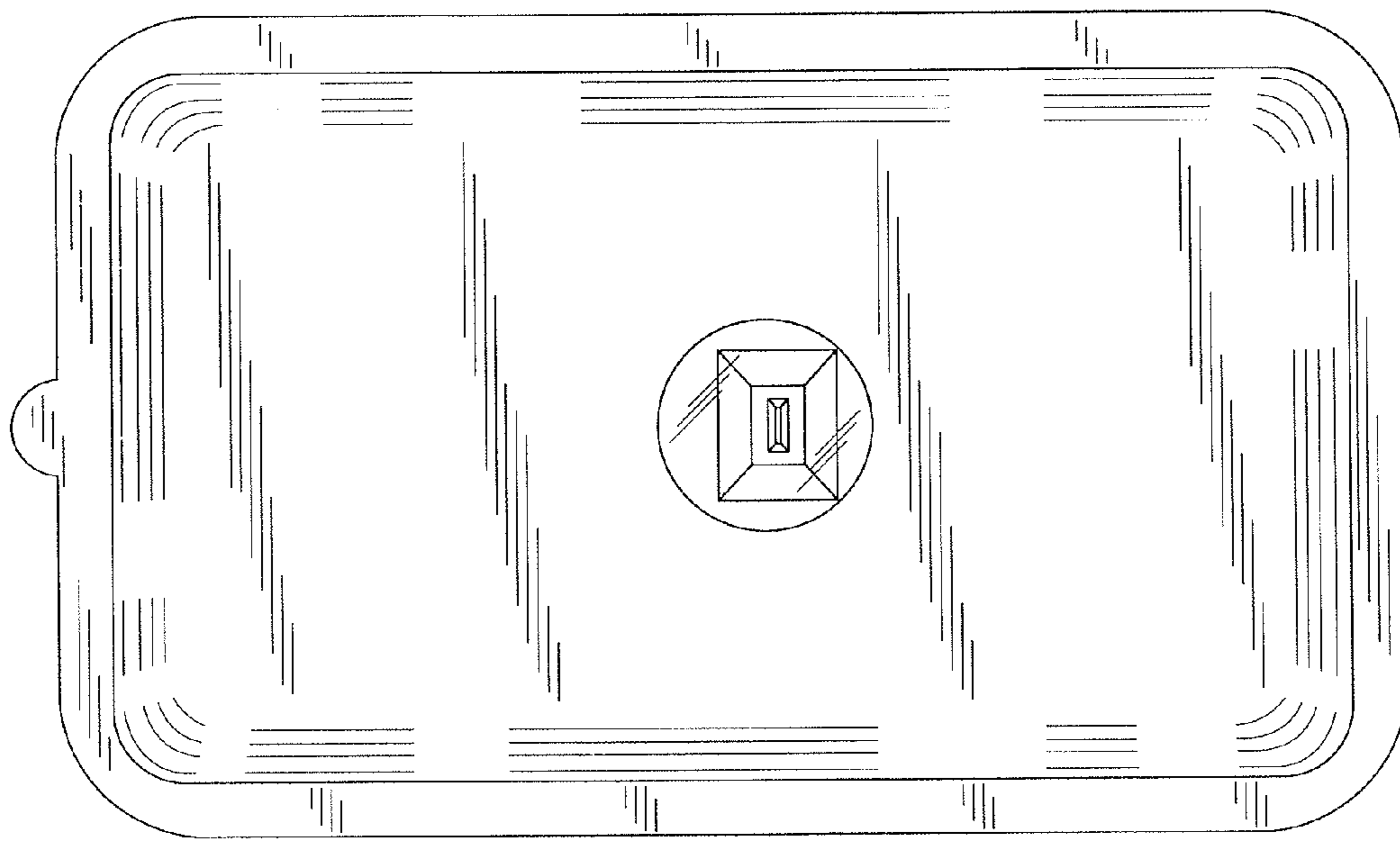


FIG. 21

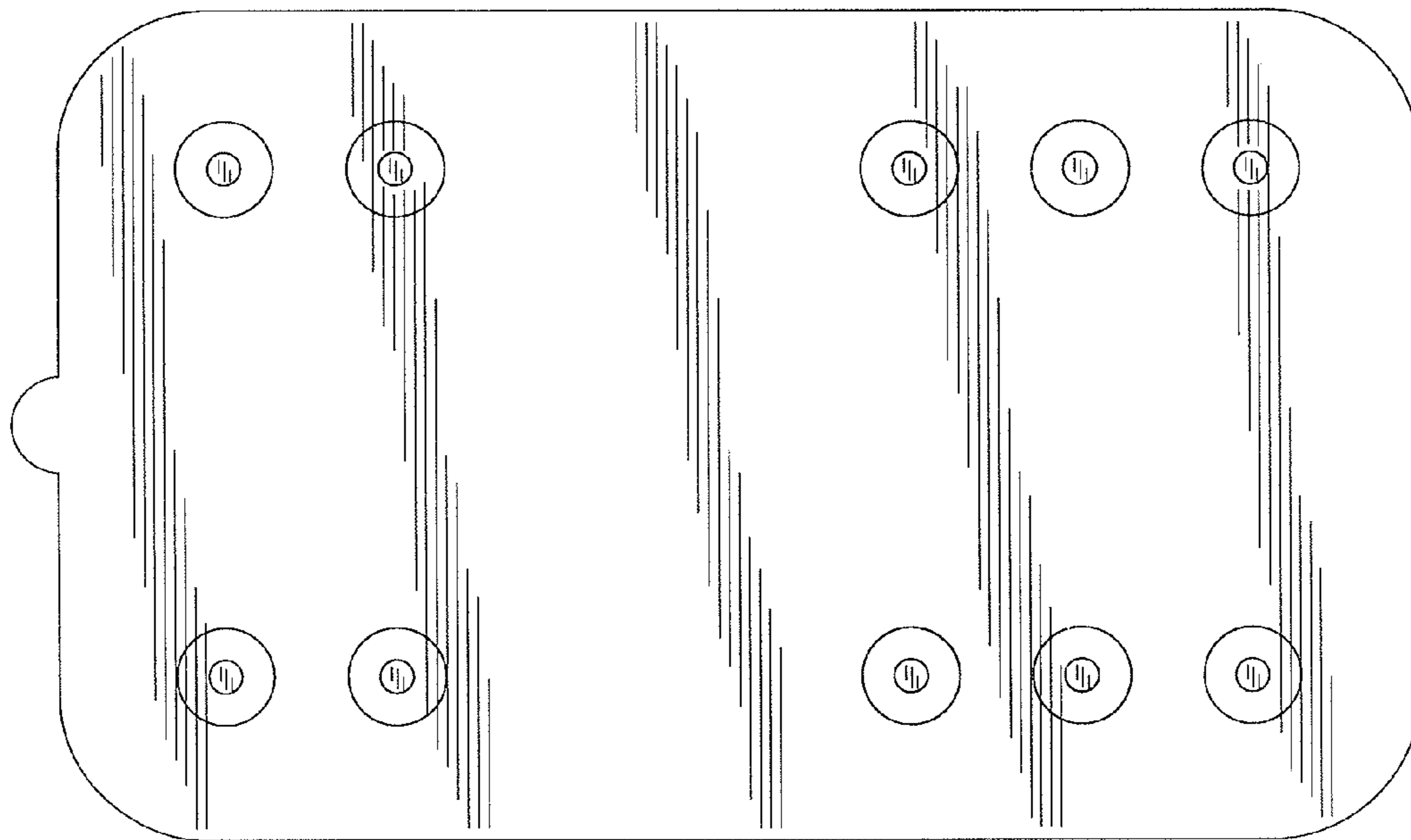


FIG. 22

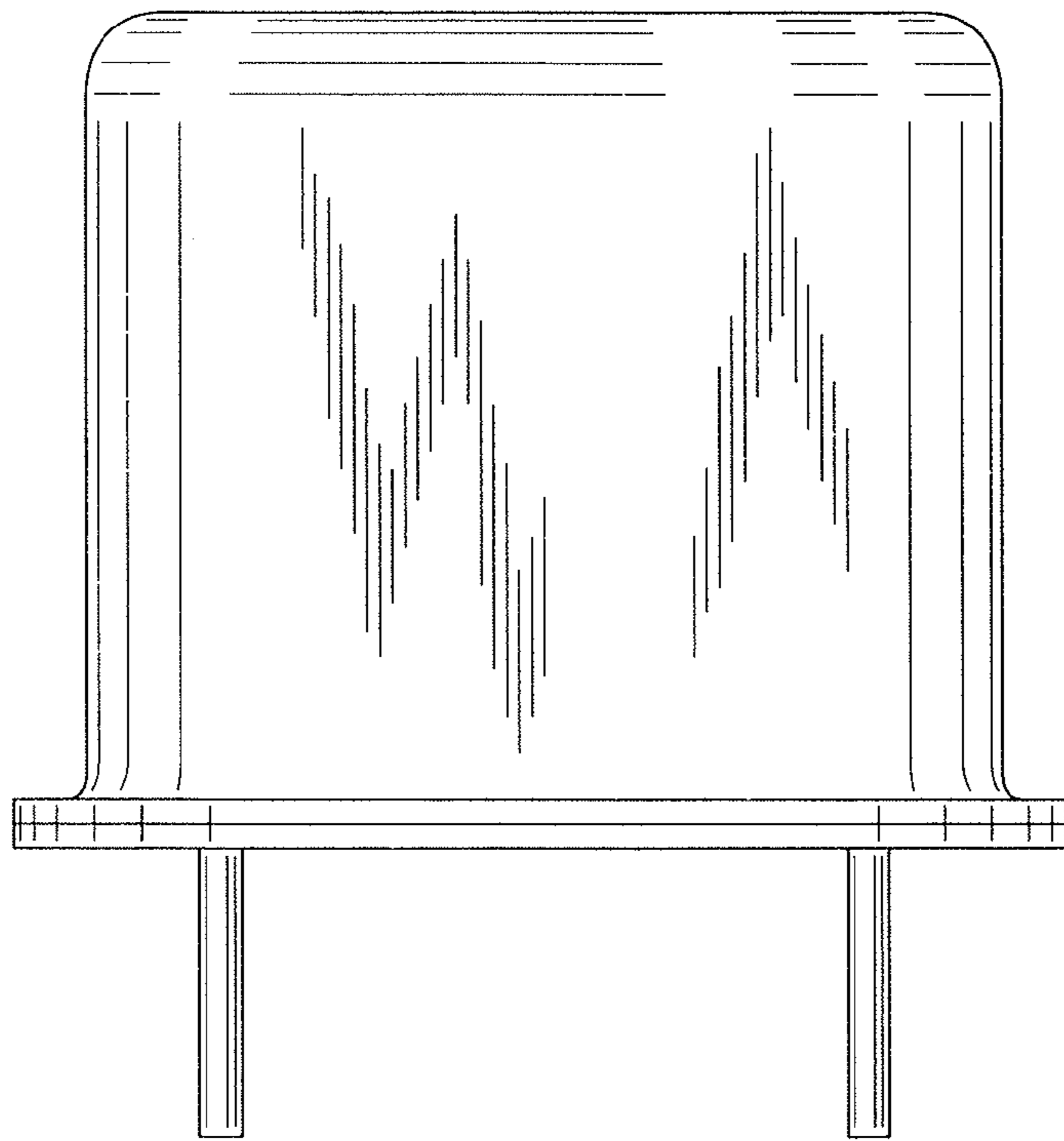


FIG. 23

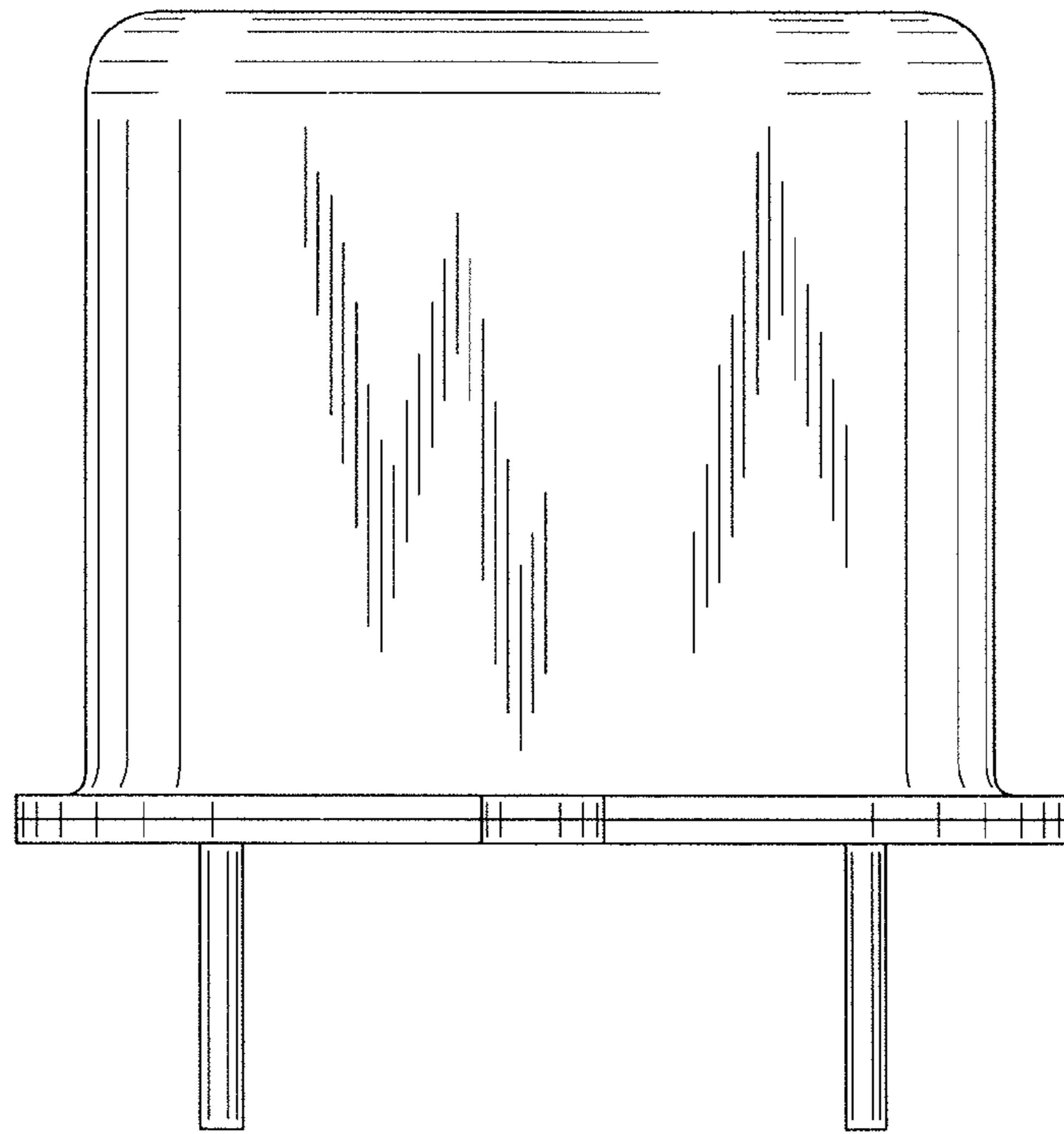


FIG. 24

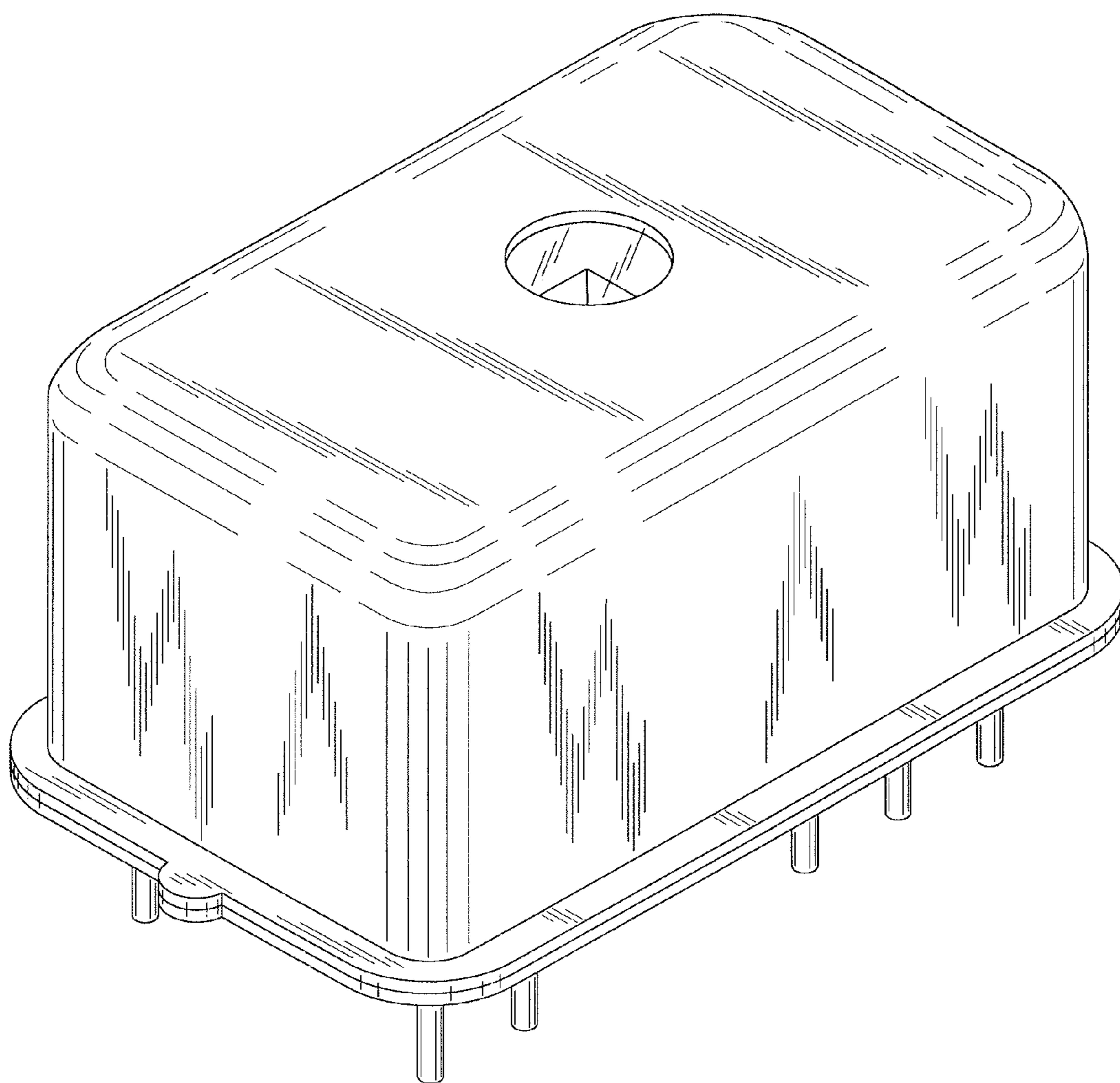


FIG. 25

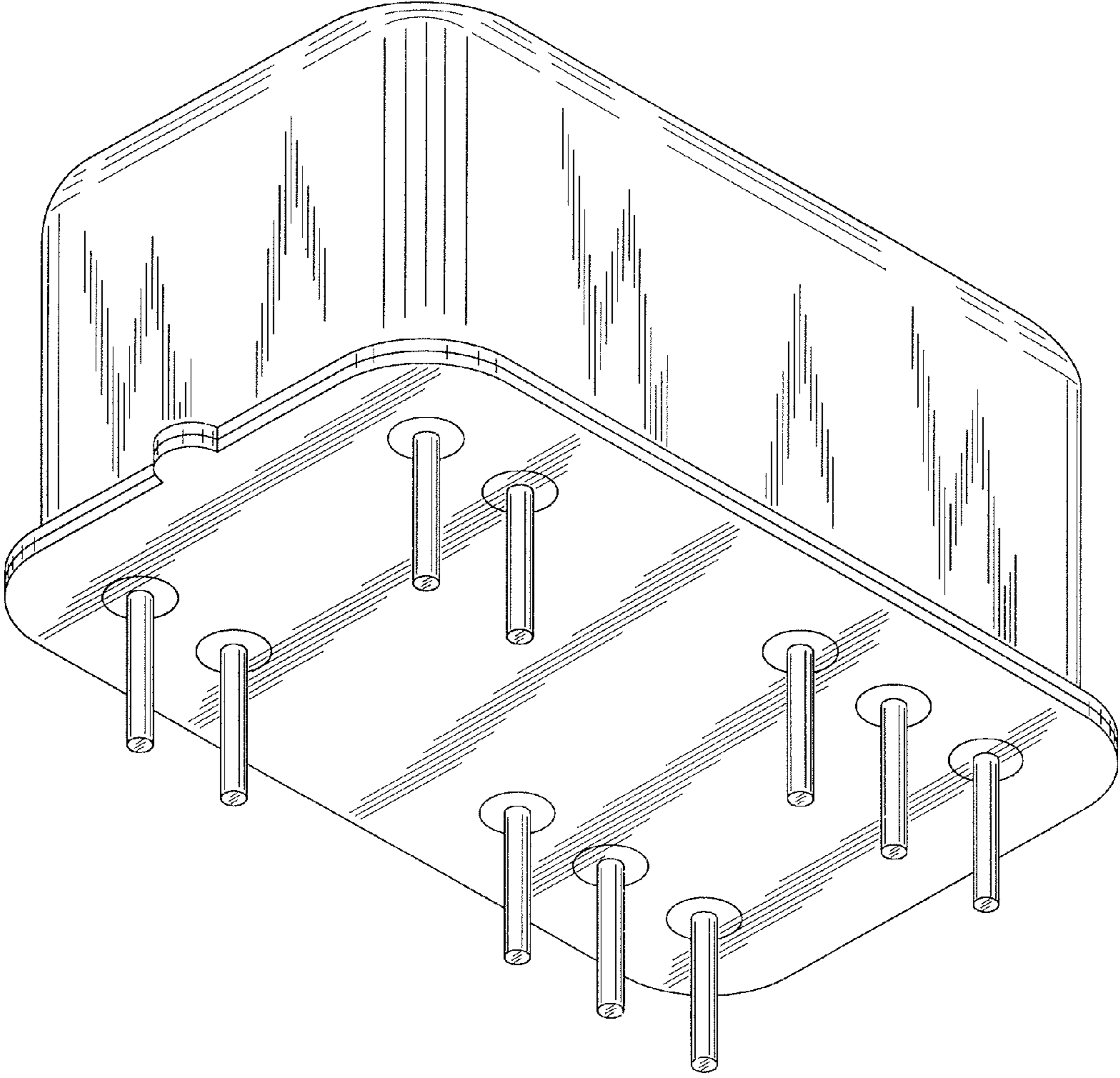


FIG. 26

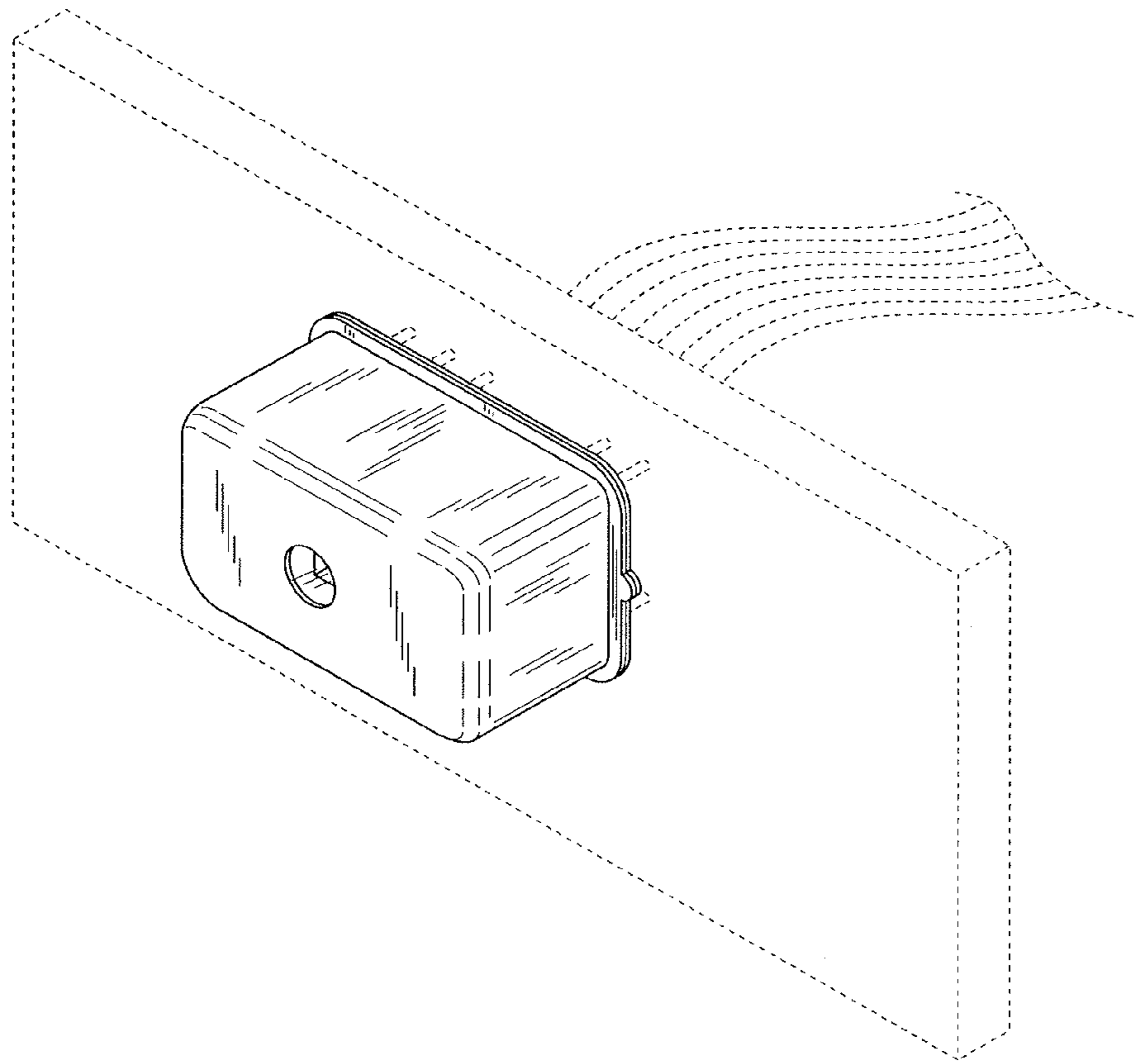


FIG. 27

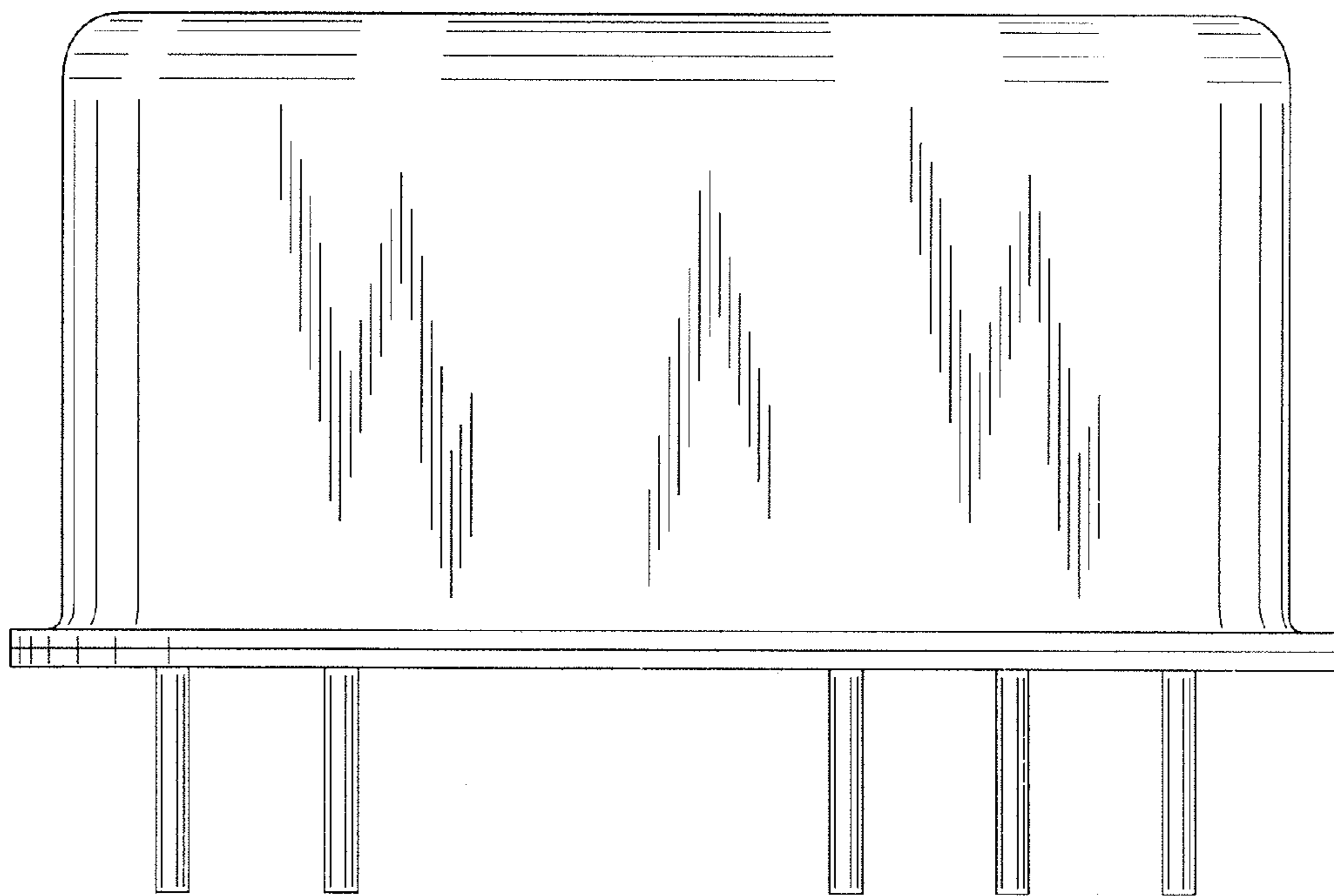


FIG. 28

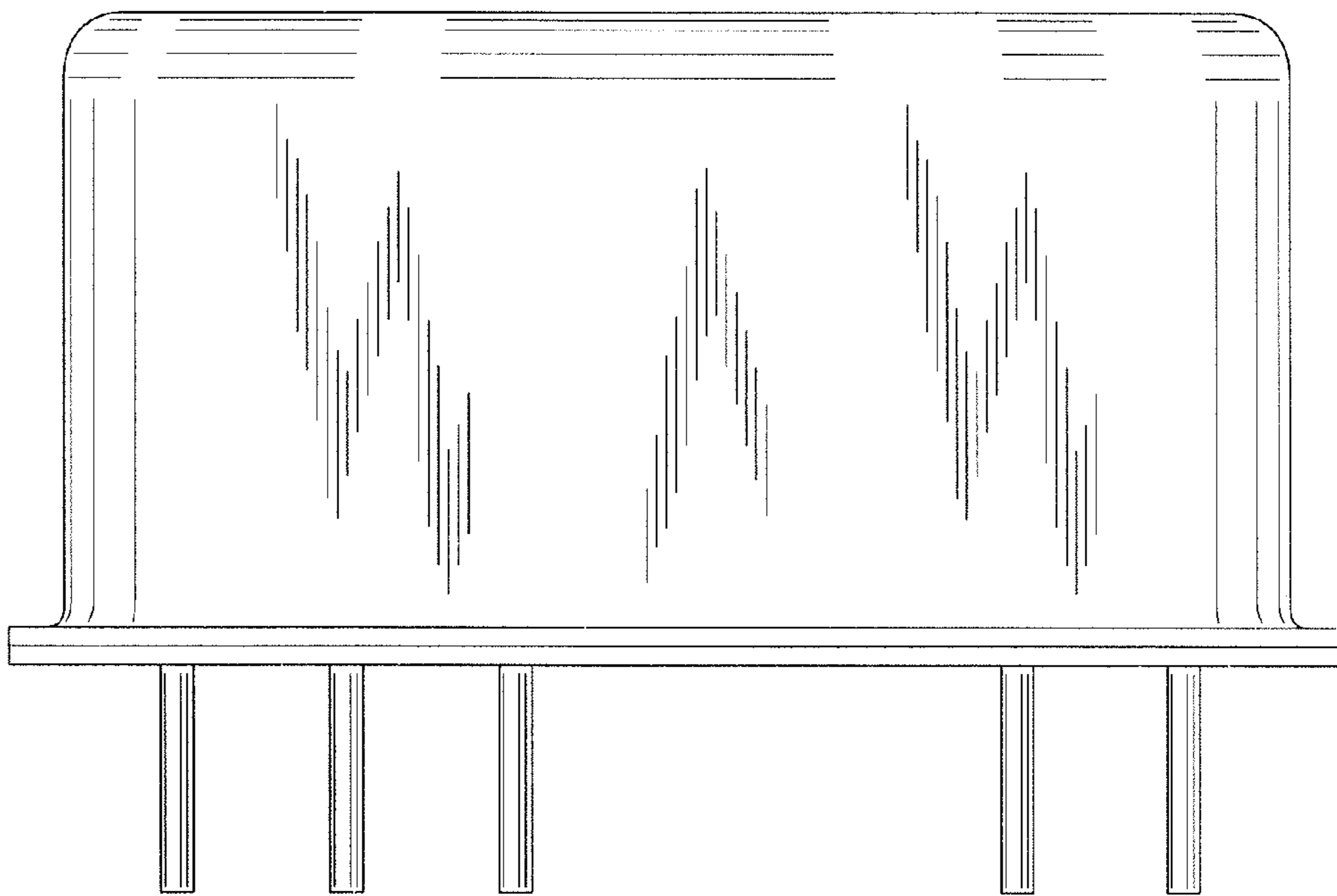


FIG. 29

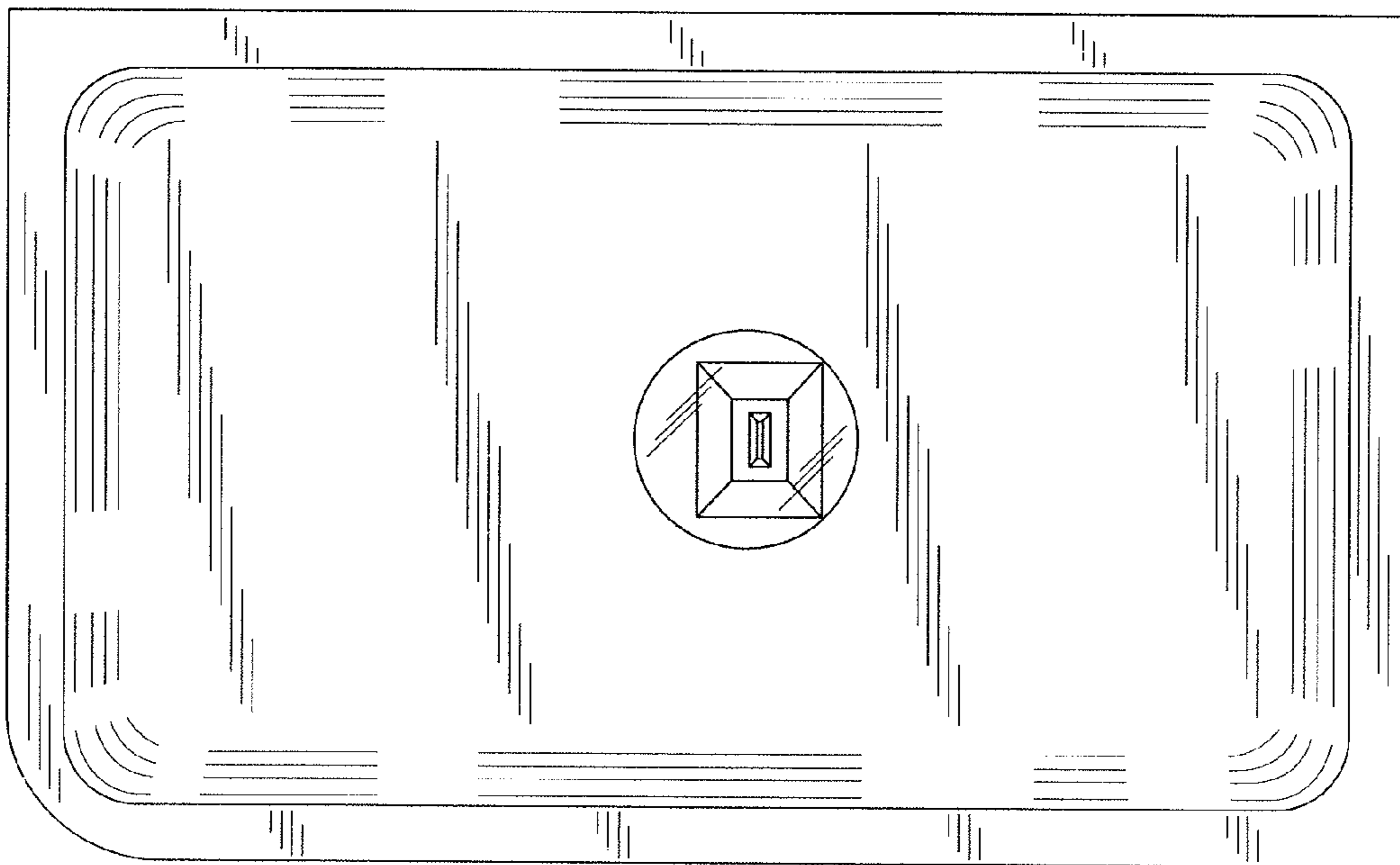


FIG. 30

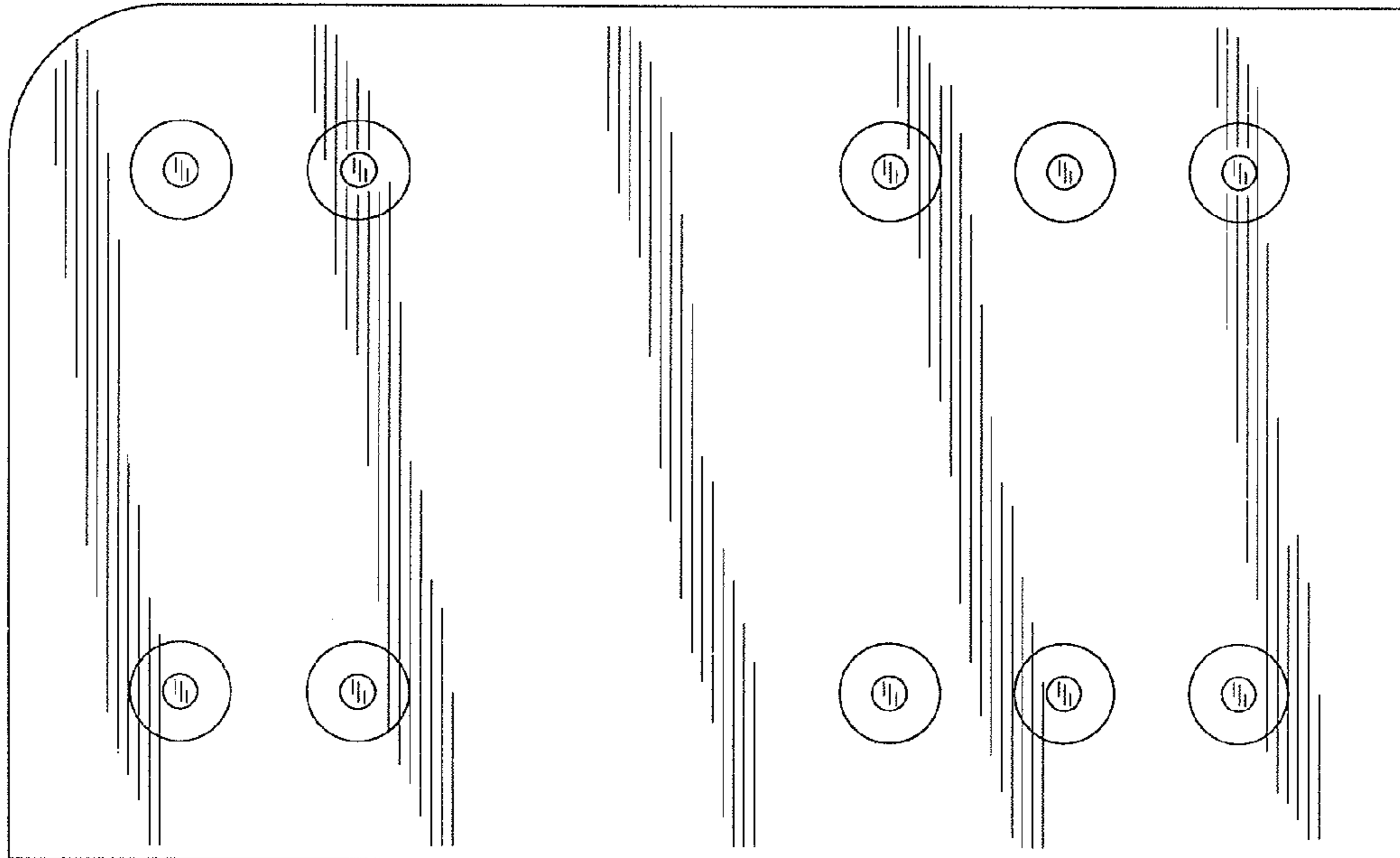


FIG. 31

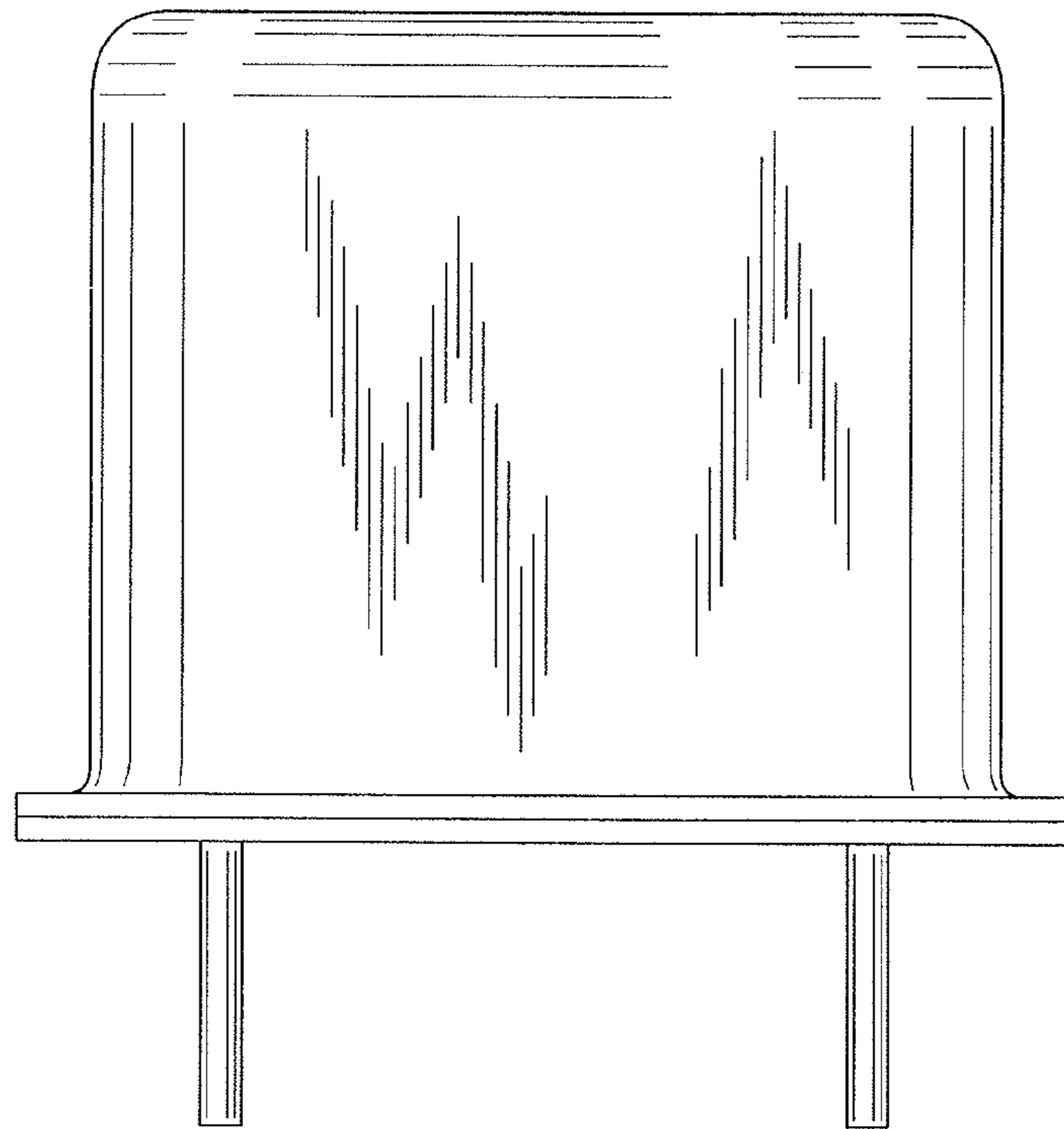


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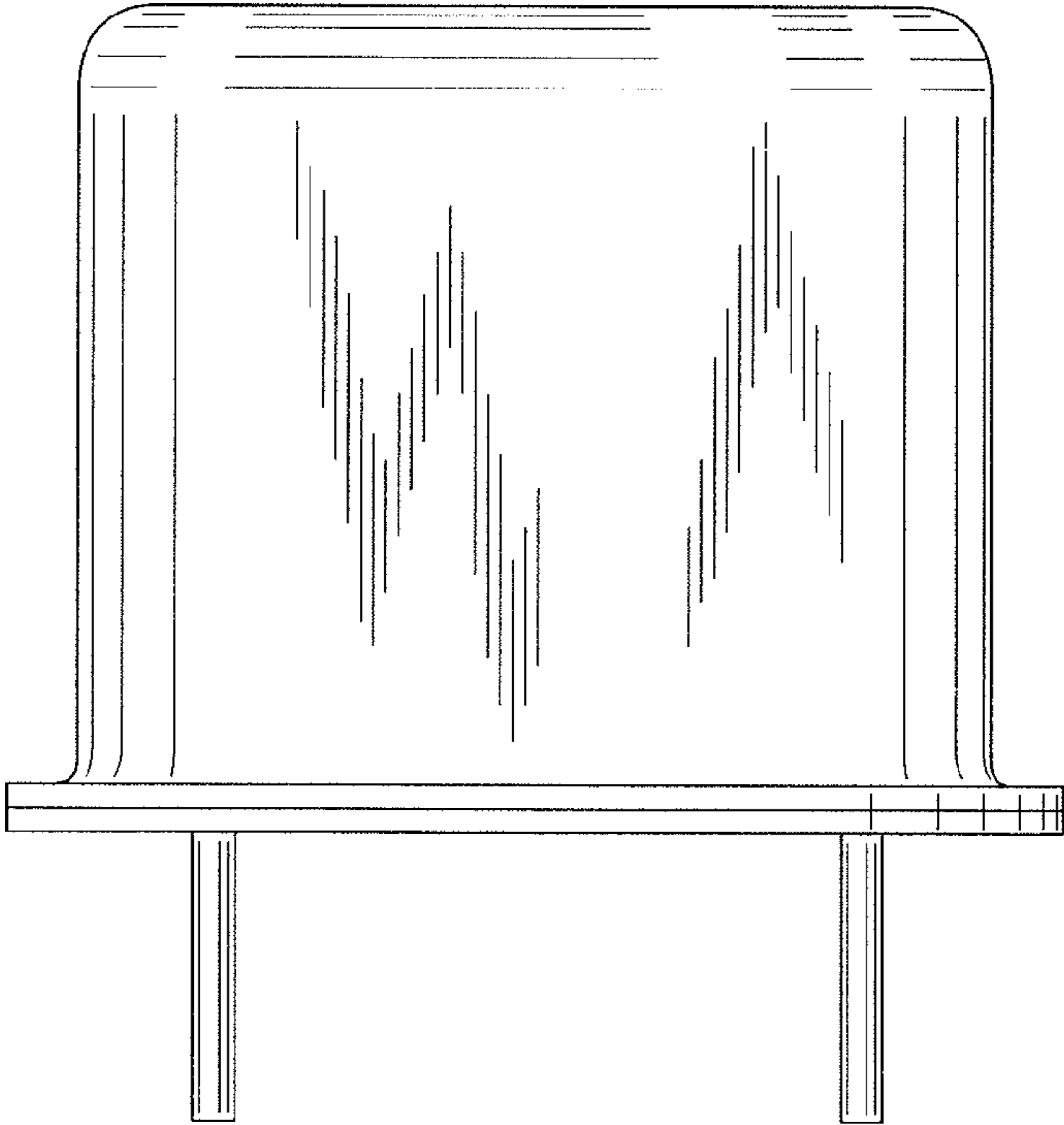


FIG. 33

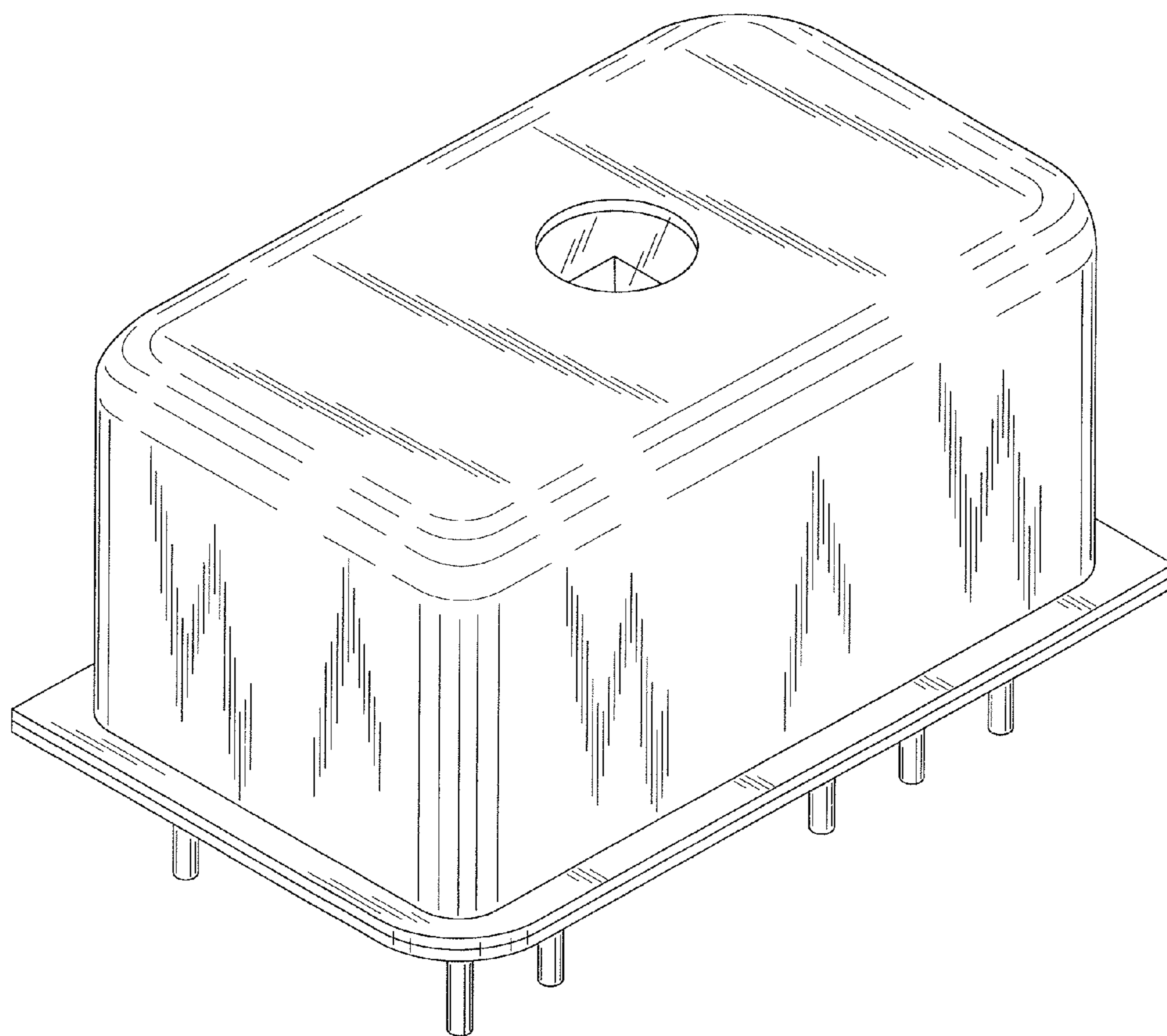


FIG. 34

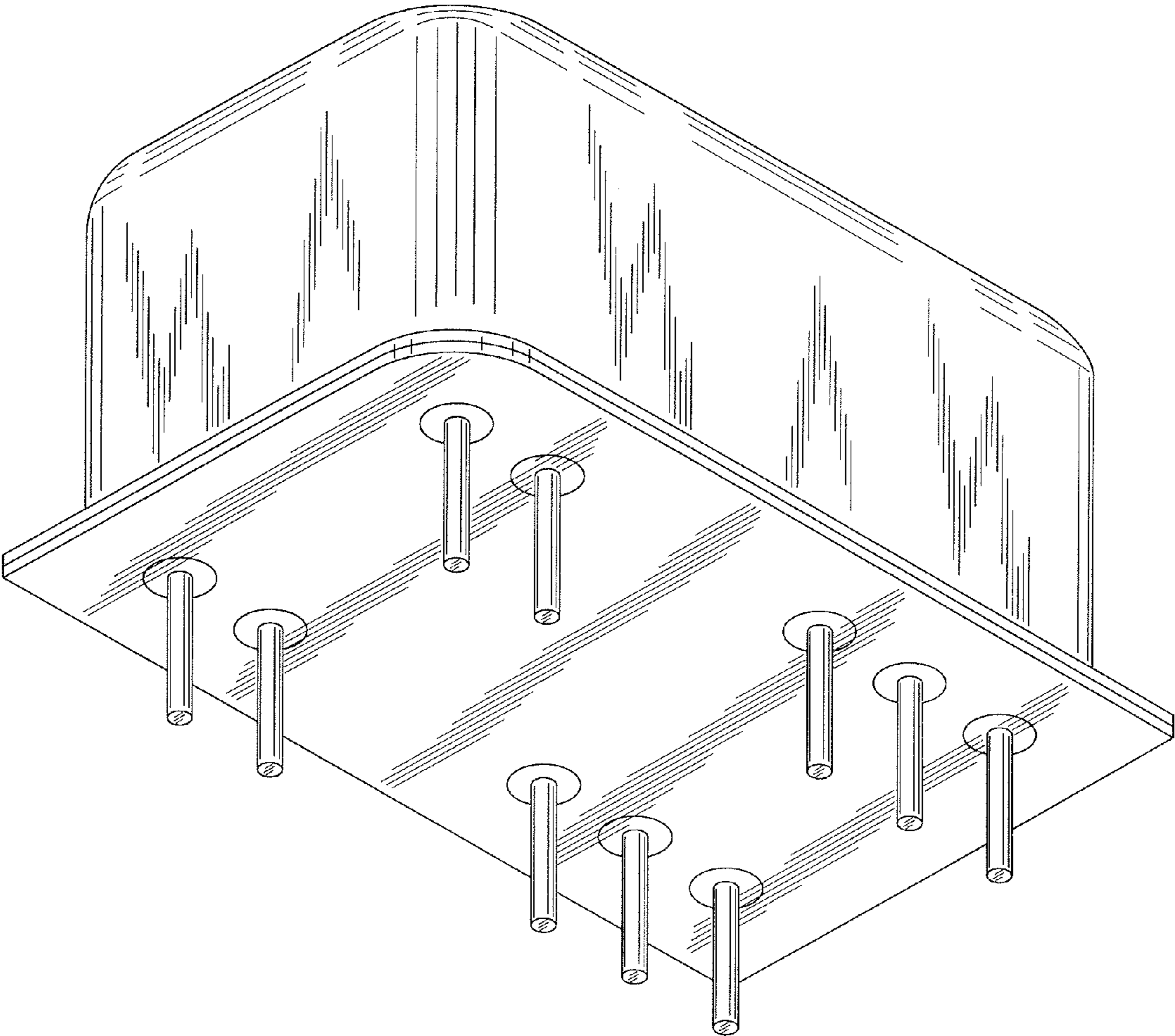


FIG. 35

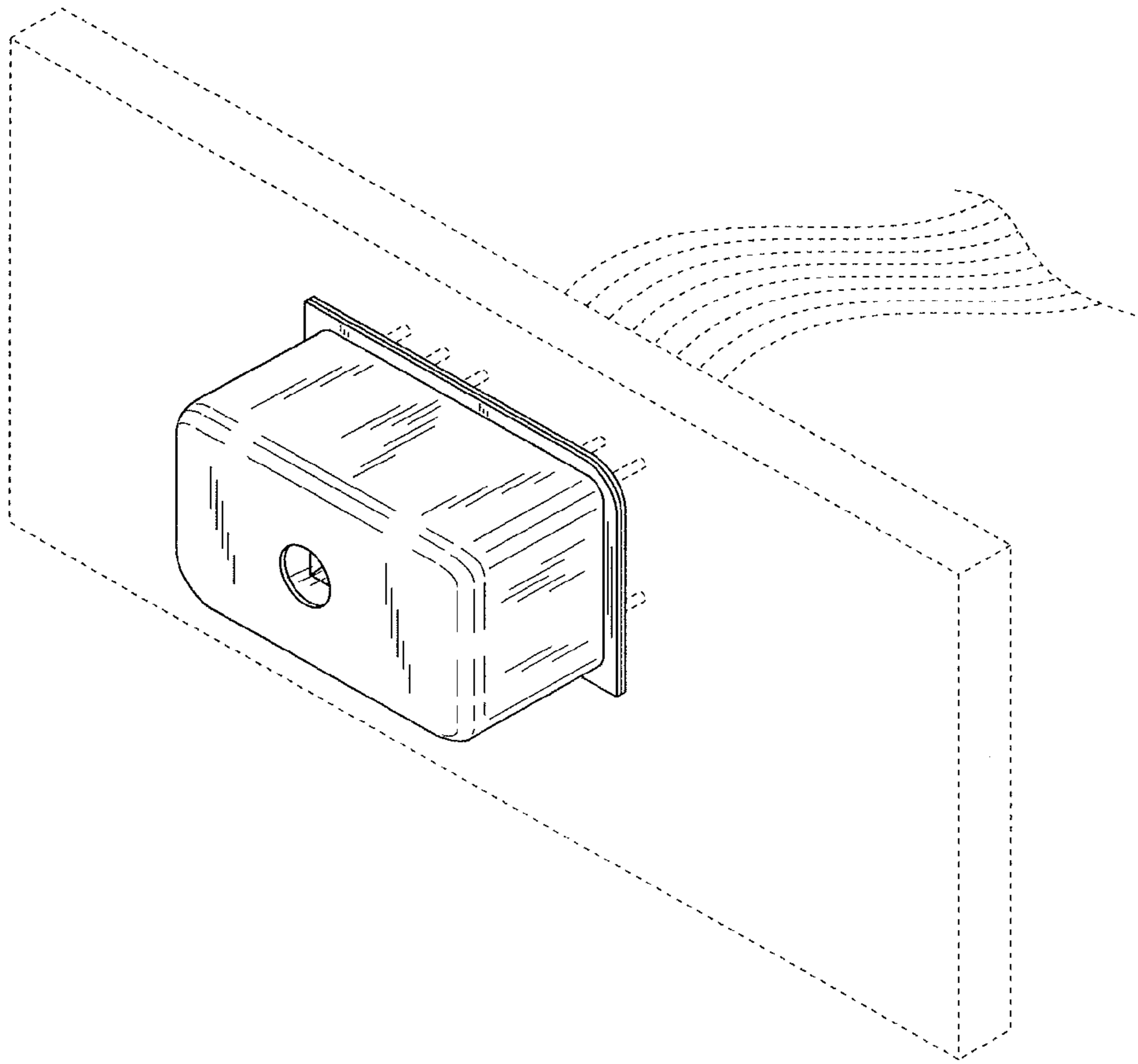


FIG. 36