



US00D846108S

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

(10) **Patent No.:** **US D846,108 S**

(45) **Date of Patent:** **** Apr. 16, 2019**

(54) **VANE DAMPER**

(71) Applicant: **Hongzheng Ruan**, Shanghai (CN)

(72) Inventor: **Hongzheng Ruan**, Shanghai (CN)

(73) Assignee: **Hongzheng Ruan**, Shanghai (CN)

(**) Term: **15 Years**

(21) Appl. No.: **29/566,220**

(22) Filed: **May 27, 2016**

(51) **LOC (11) Cl.** **23-04**

(52) **U.S. Cl.**

USPC **D23/370**

(58) **Field of Classification Search**

USPC D13/139.2, 180; D23/323, 328, 333,
D23/335-337, 341, 352, 357, 370, 385,
D23/386, 388, 392, 393, 397, 399, 400,
D23/406, 411-413, 499

CPC E04F 17/08; F16L 3/26; F16L 9/22; F16K
1/221; F16K 31/122; F23L 11/005; F24H
1/205; F24H 9/0026; F24H 9/0031; F24H
9/2035

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D489,808 S *	5/2004	Redetzke	.....	D23/411
D594,548 S *	6/2009	Salisbury	.....	D23/411
D596,737 S *	7/2009	Pan	.....	D23/411
D779,048 S *	2/2017	Hoss	.....	D23/370
D810,911 S *	2/2018	Hoss	.....	D23/370
D815,722 S *	4/2018	Muller	.....	D23/370
D820,966 S *	6/2018	De Filippis	.....	D23/370
2007/0204853 A1 *	9/2007	Cheng	.....	F24C 15/2057 126/299 D
2012/0180442 A1 *	7/2012	Siber	.....	B01D 45/06 55/337
2013/0315737 A1 *	11/2013	Dygert	.....	F04D 29/526 416/179
2015/0330411 A1 *	11/2015	Heli	.....	F04D 29/542 415/208.2

OTHER PUBLICATIONS

“Galvanized Steel (GI) Variable Inlet Vane Dampers, Shape: Rounded.”
indiamart.com. Date not available. Accessed May 9, 2018. Available
online at URL: <<https://www.indiamart.com/proddetail/variable-inlet-vane-dampers-1981975230.html>>.*
Siddiqui, Muhammad Junaid. “Request: Radial vane inlet damp-
ers.” grabcad.com. Date not available. Accessed May 9, 2018.
Available online at URL: <<https://grabcad.com/requests/radial-vane-inlet-dampers>>.*

* cited by examiner

Primary Examiner — Cathron C Brooks

Assistant Examiner — Christian P. McLean

(74) *Attorney, Agent, or Firm* — Troutman Sanders LLP;
James E. Schutz; Alexis N. Simpson

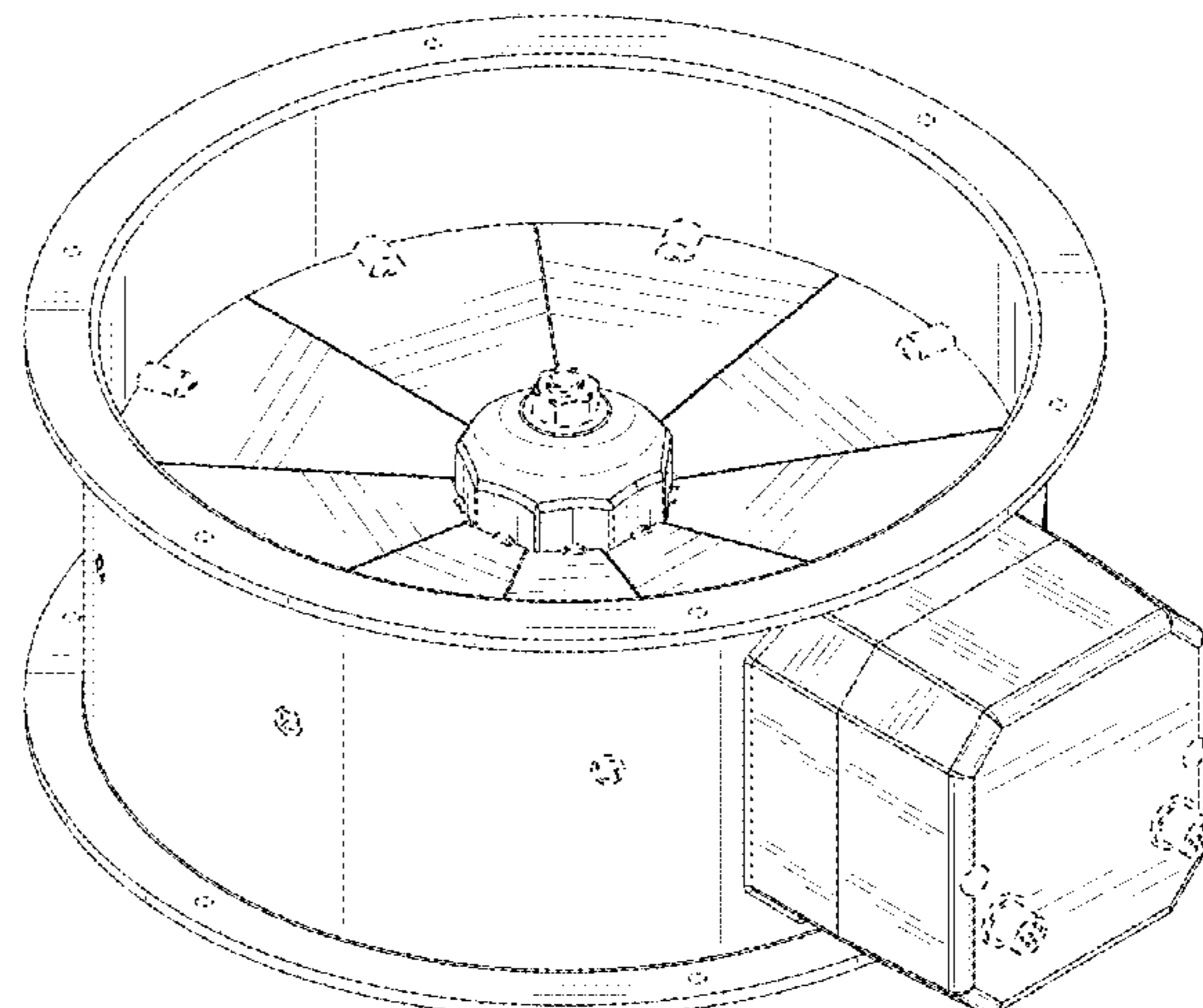
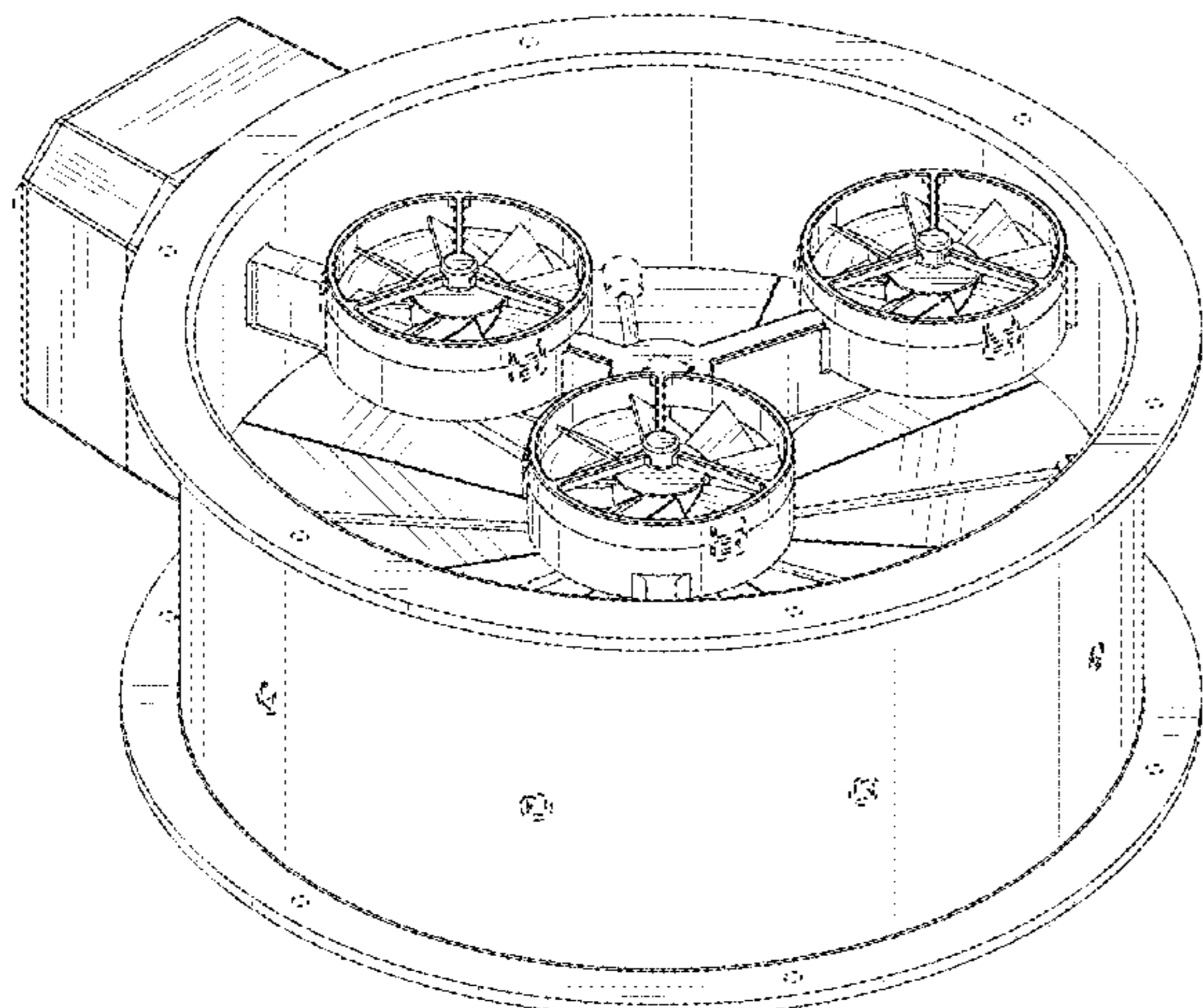
(57) **CLAIM**

The ornamental design for a vane damper, as shown and
described.

DESCRIPTION

FIG. 1 is a perspective bottom view of a vane damper of the
present invention;
FIG. 2 is a perspective top view of the vane damper of FIG.
1;
FIG. 3 is a bottom view of the vane damper of FIG. 1;
FIG. 4 is a top view of the vane damper of FIG. 1;
FIG. 5 is a back view of the vane damper of FIG. 1;
FIG. 6 is a front view of the vane damper of FIG. 1;
FIG. 7 is a right side view of the vane damper of FIG. 1; and,
FIG. 8 is a left side view of the vane damper of FIG. 1.
The broken lines illustrate portions of the vane damper that
form no part of the claimed design.

1 Claim, 8 Drawing Sheets



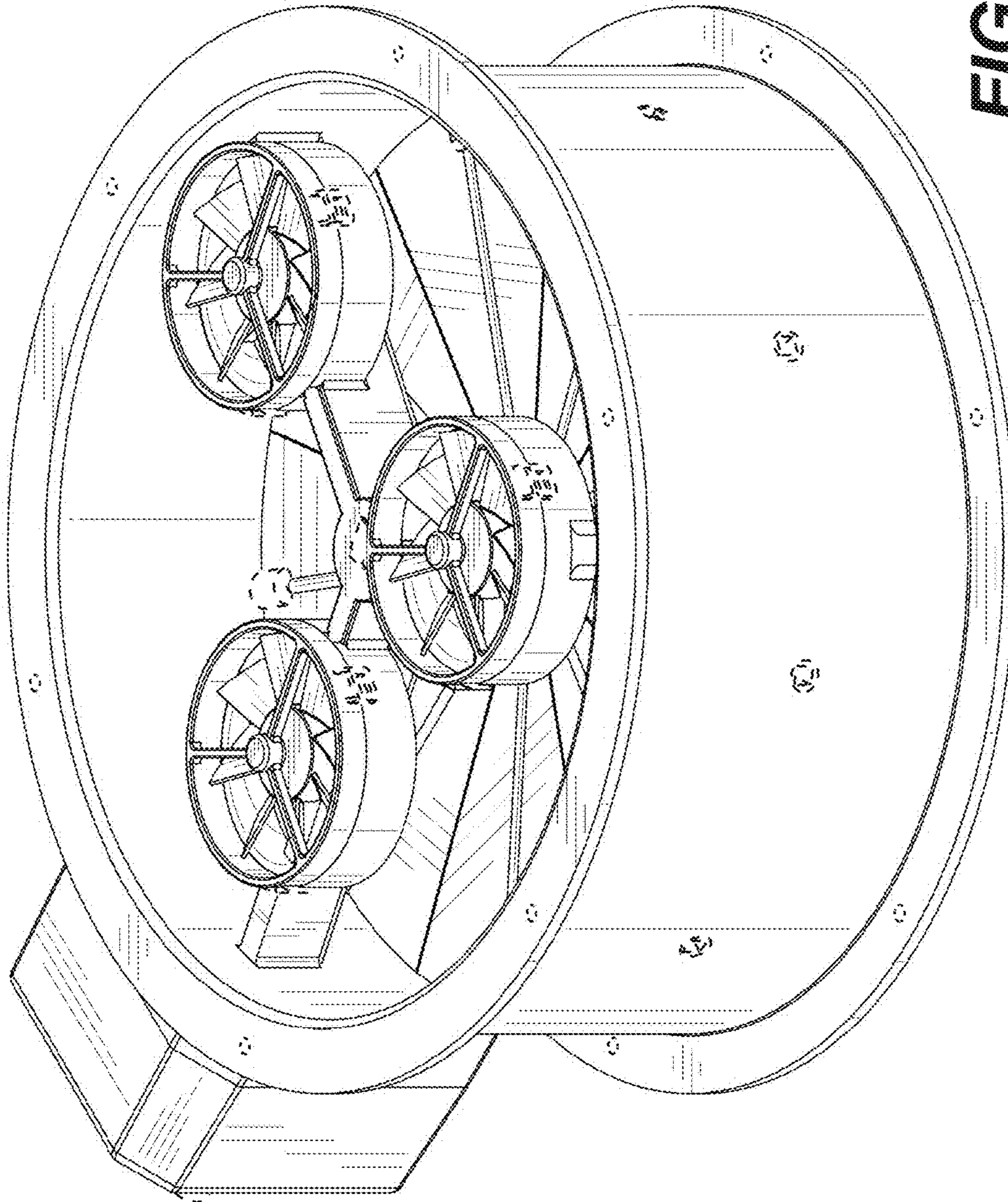


FIG. 1

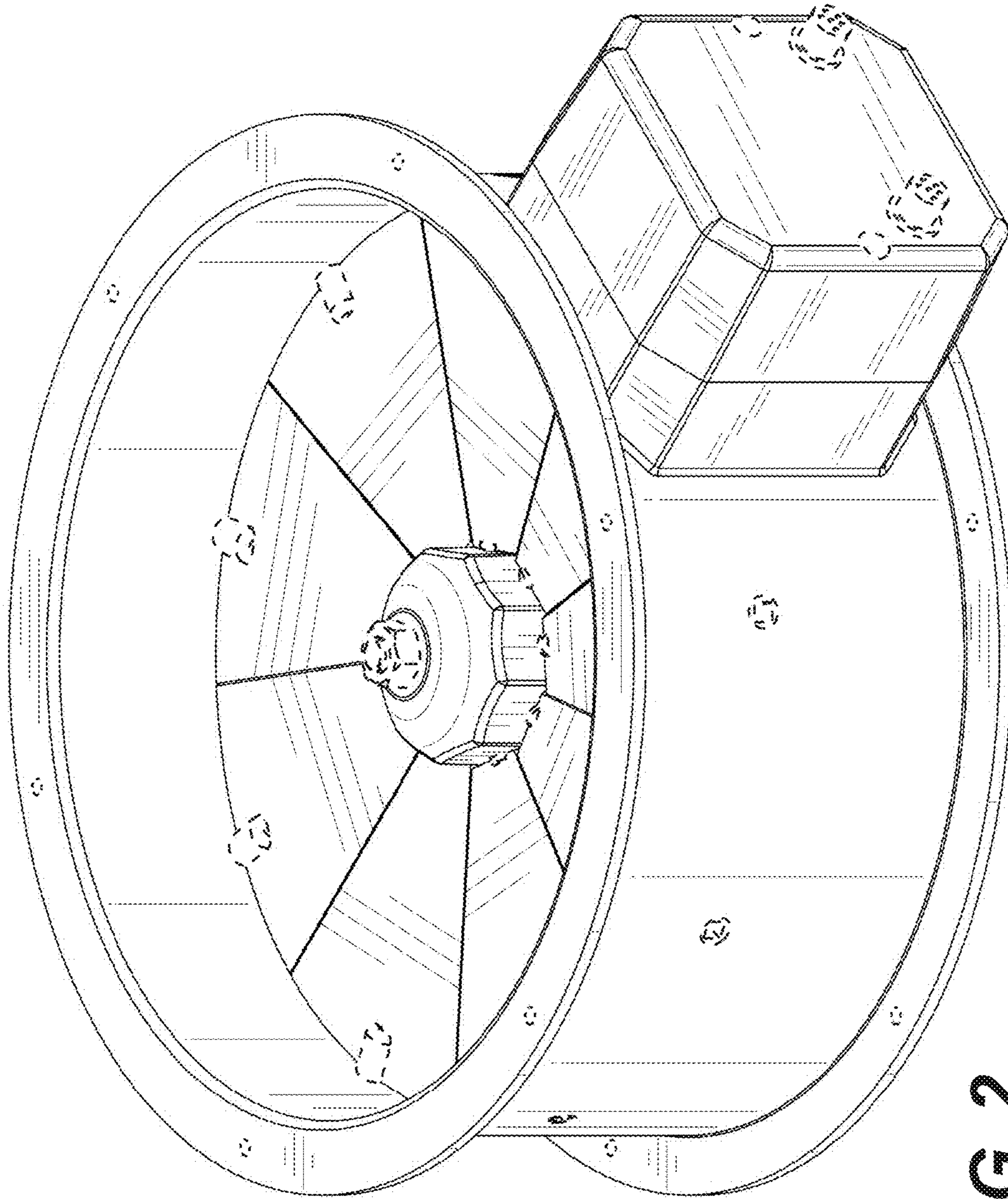


FIG. 2

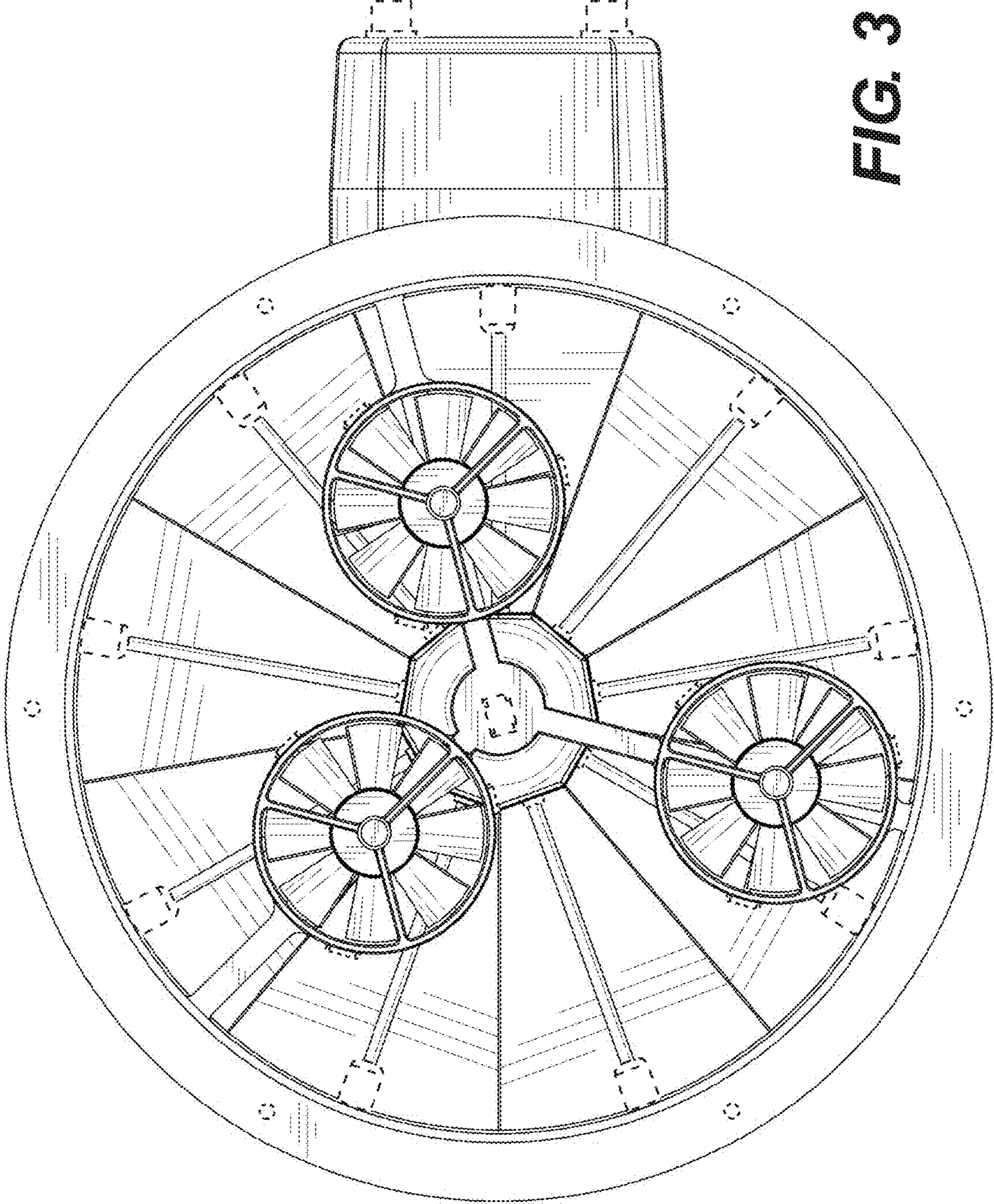


FIG. 3

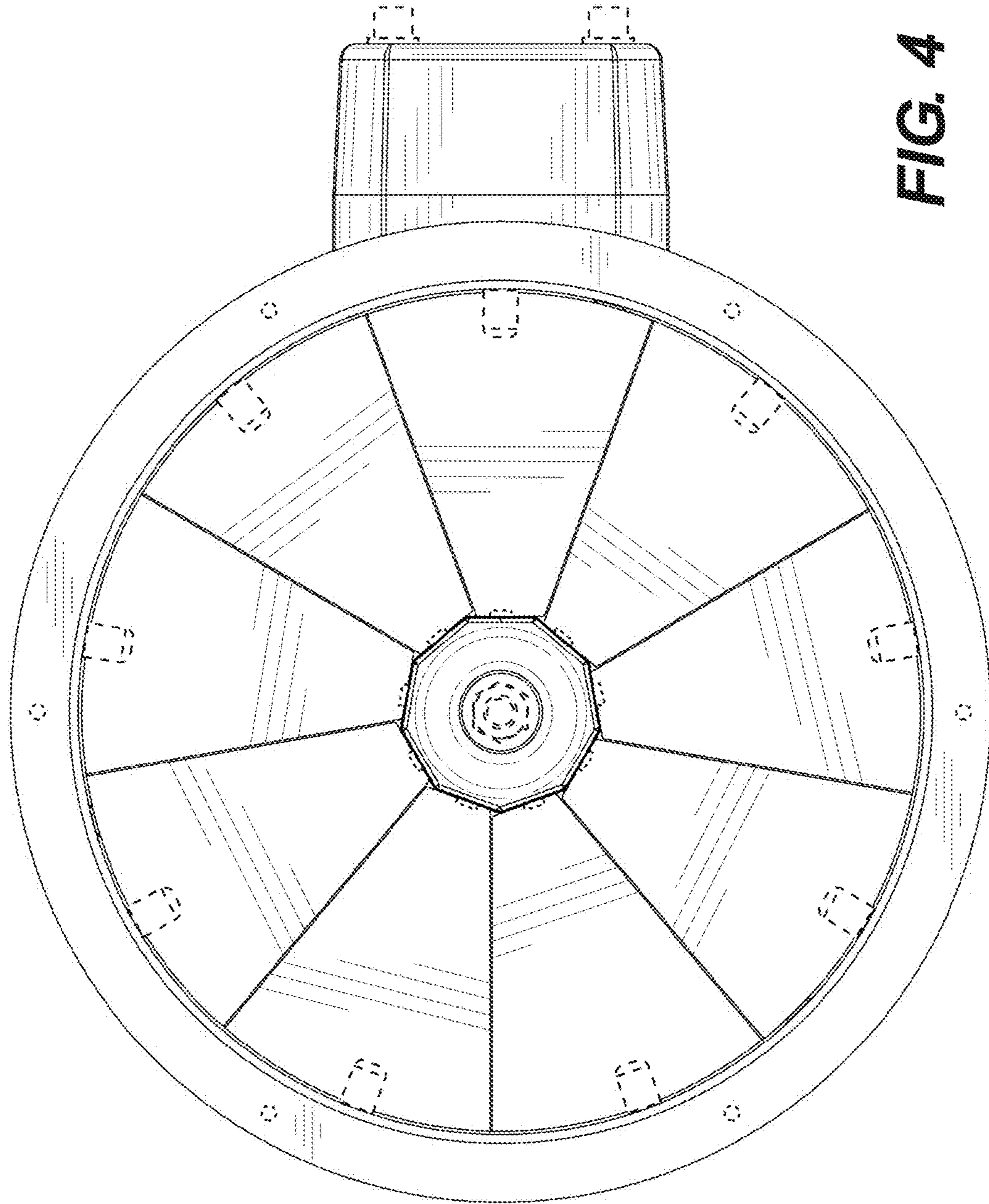


FIG. 4

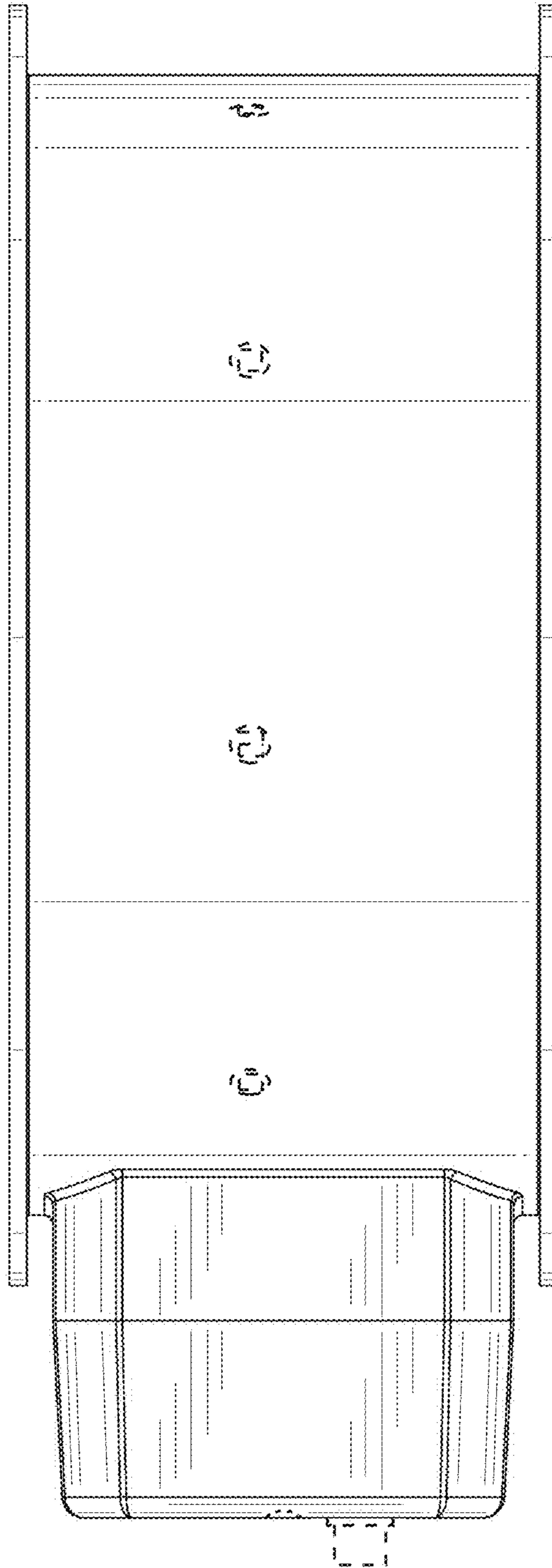


FIG. 5

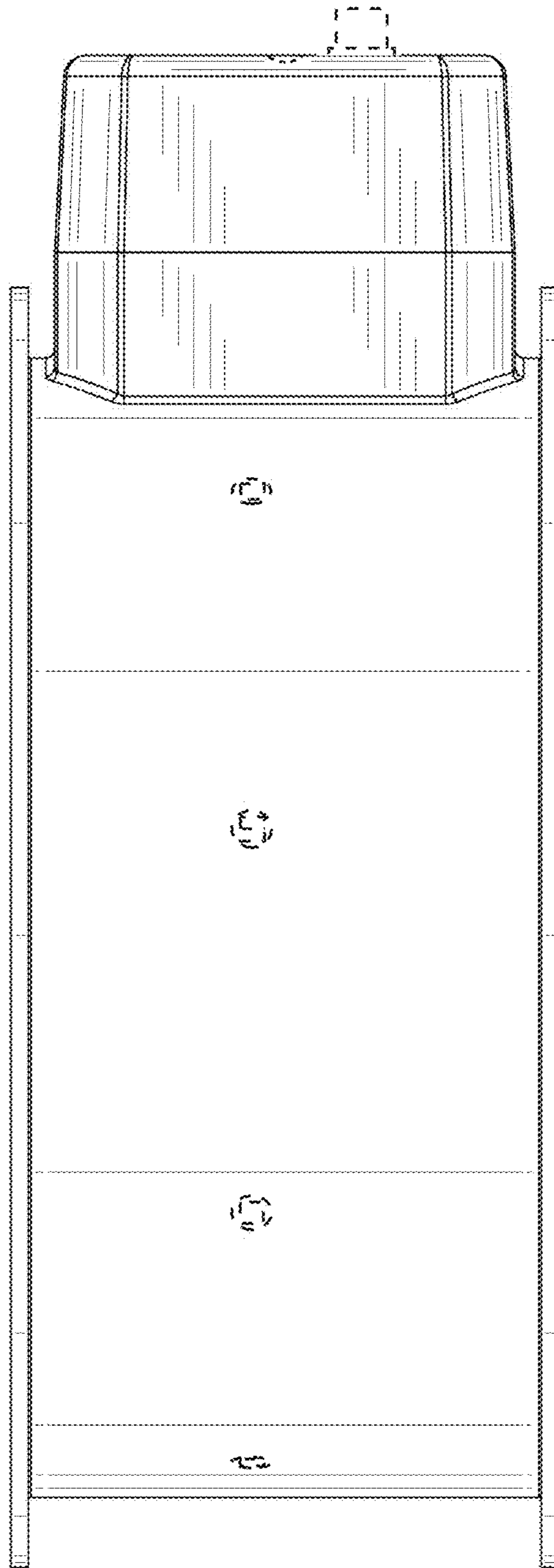


FIG. 6

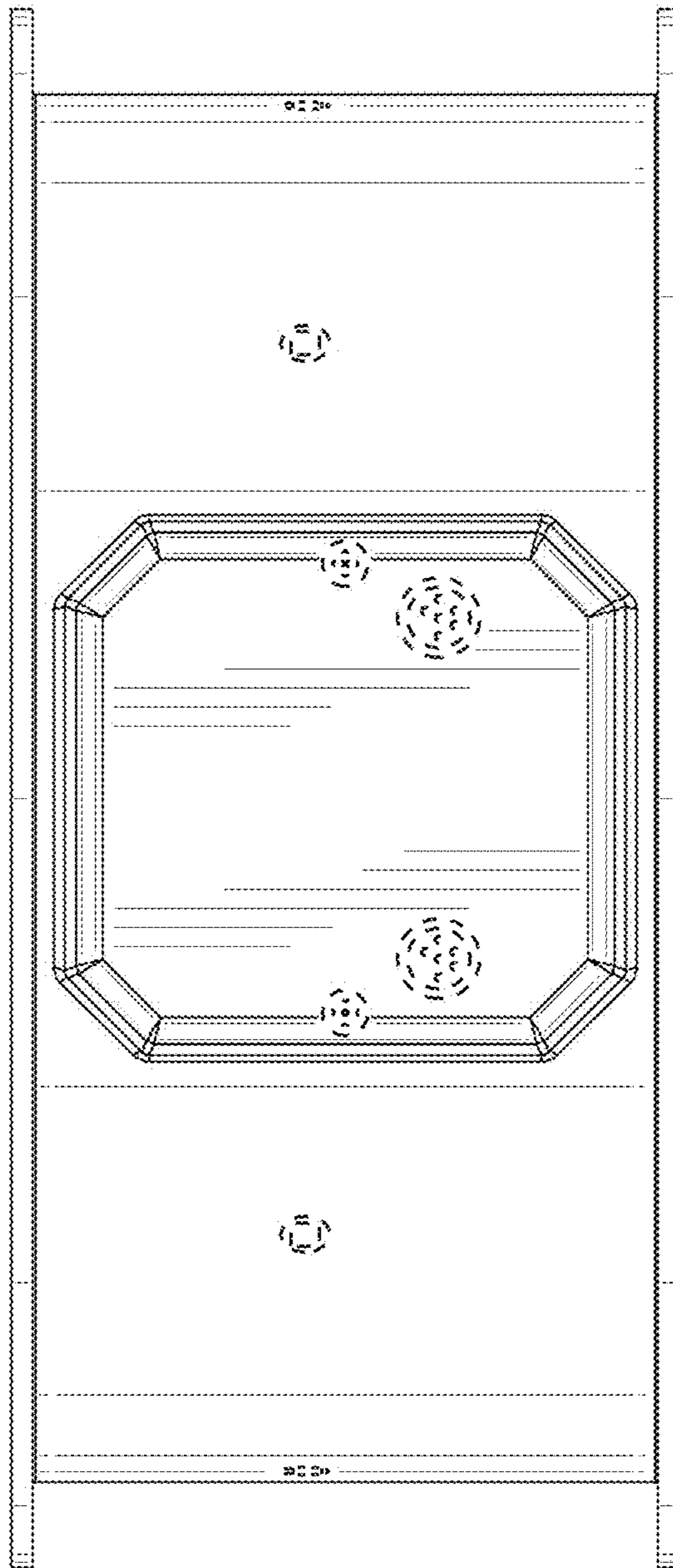


FIG. 7

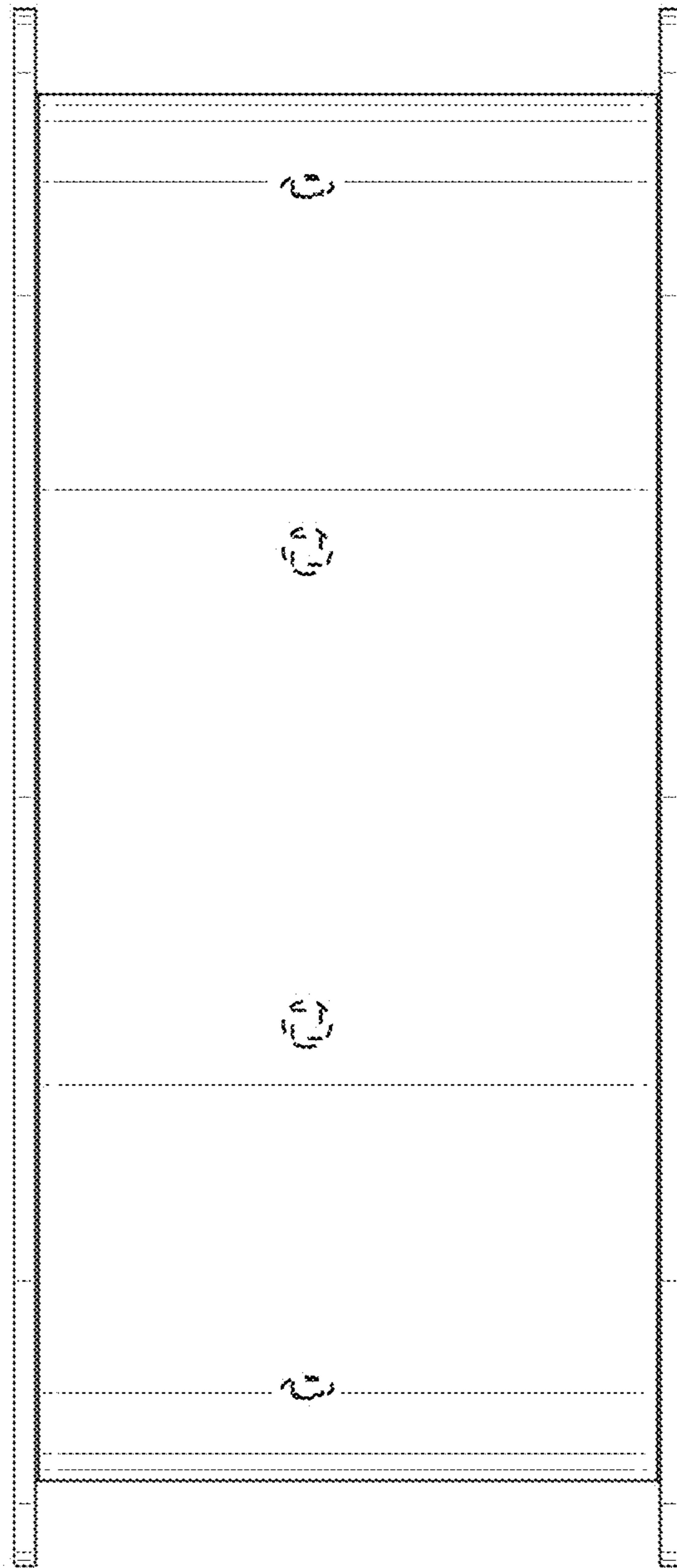


FIG. 8