



US00D539882S

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

(10) **Patent No.:** **US D539,882 S**

(45) **Date of Patent:** **** Apr. 3, 2007**

(54) **HEAT PUMP**

(75) Inventor: **Gang Li**, Clemmons, NC (US)

(73) Assignee: **H-Tech, Inc.**, Wilmington, DE (US)

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

(21) Appl. No.: **29/239,290**

(22) Filed: **Sep. 28, 2005**

(51) **LOC (8) Cl.** **23-04**

(52) **U.S. Cl.** **D23/351**

(58) **Field of Classification Search** D23/351-54,
D23/333; 312/236; 454/201-4; 62/259.1,
62/259.4, 262-63, 304, 324.1, DIG. 16
See application file for complete search history.

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U.S. Appl. No. 60/721,479 "Heat Pump for Low Ambient Air Temperature Operations," Filed Sep. 28, 2005.

* cited by examiner

Primary Examiner—Brian N Vinson

(74) *Attorney, Agent, or Firm*—McCarter & English, LLP

(57) **CLAIM**

The ornamental design for a heat pump, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of a heat pump showing my new design;

FIG. 2 is a front elevational view thereof;

FIG. 3 is a rear elevational view thereof;

FIG. 4 is a left side elevational view thereof;

FIG. 5 is a right side elevational view thereof;

FIG. 6 is a top plan view thereof; and,

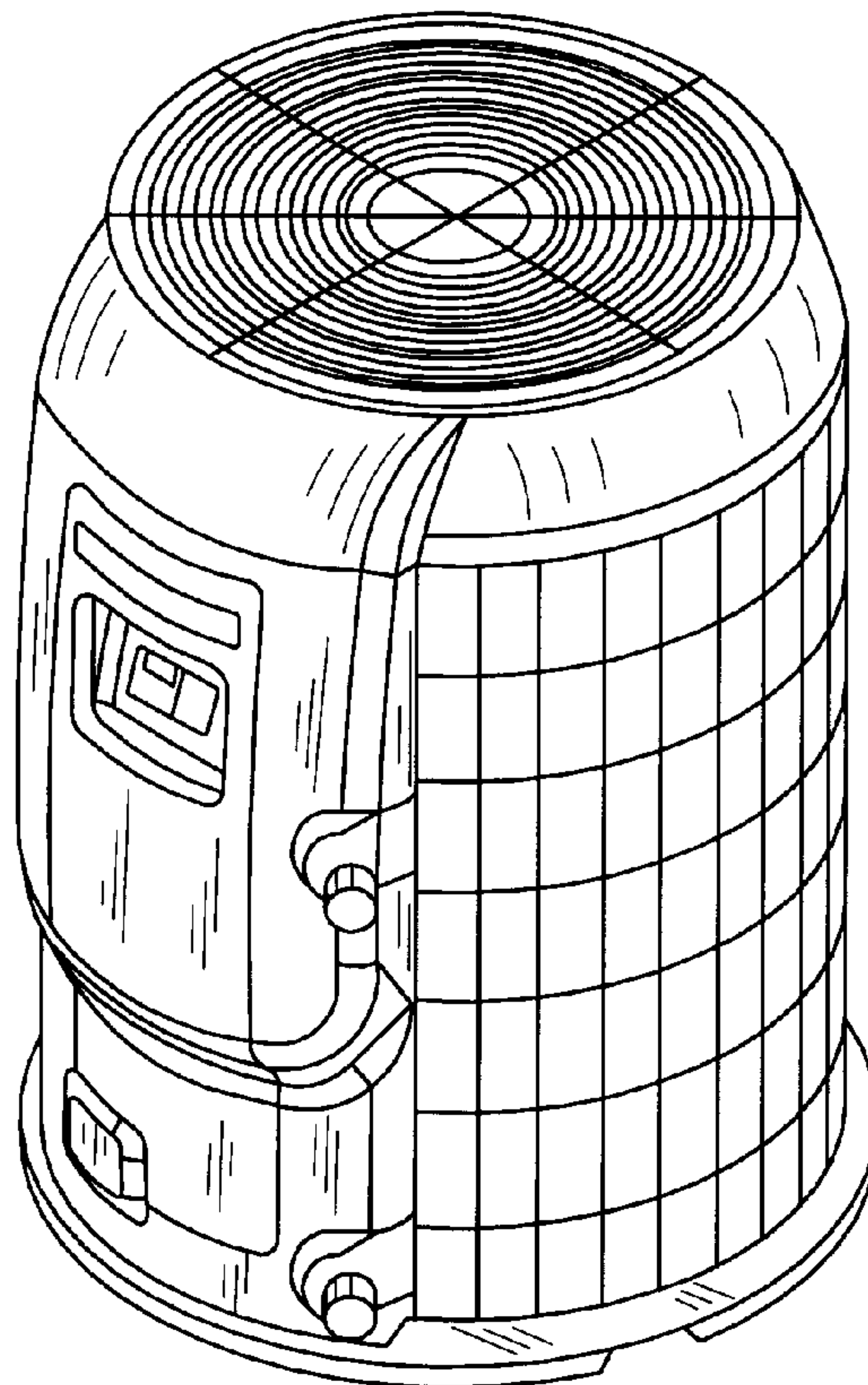
FIG. 7 is a bottom plan view thereof.

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1 Claim, 6 Drawing Sheets



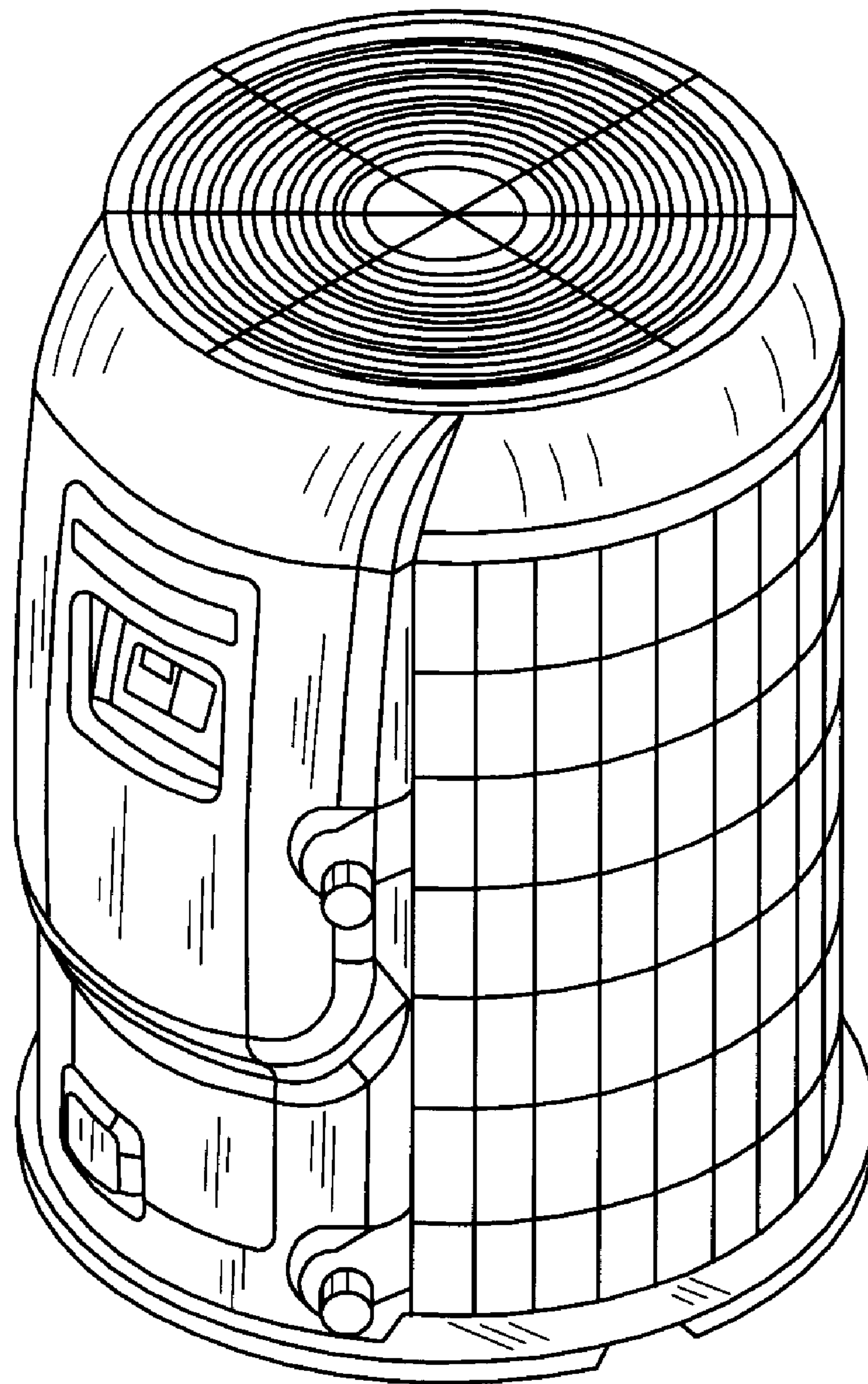


FIG. 1

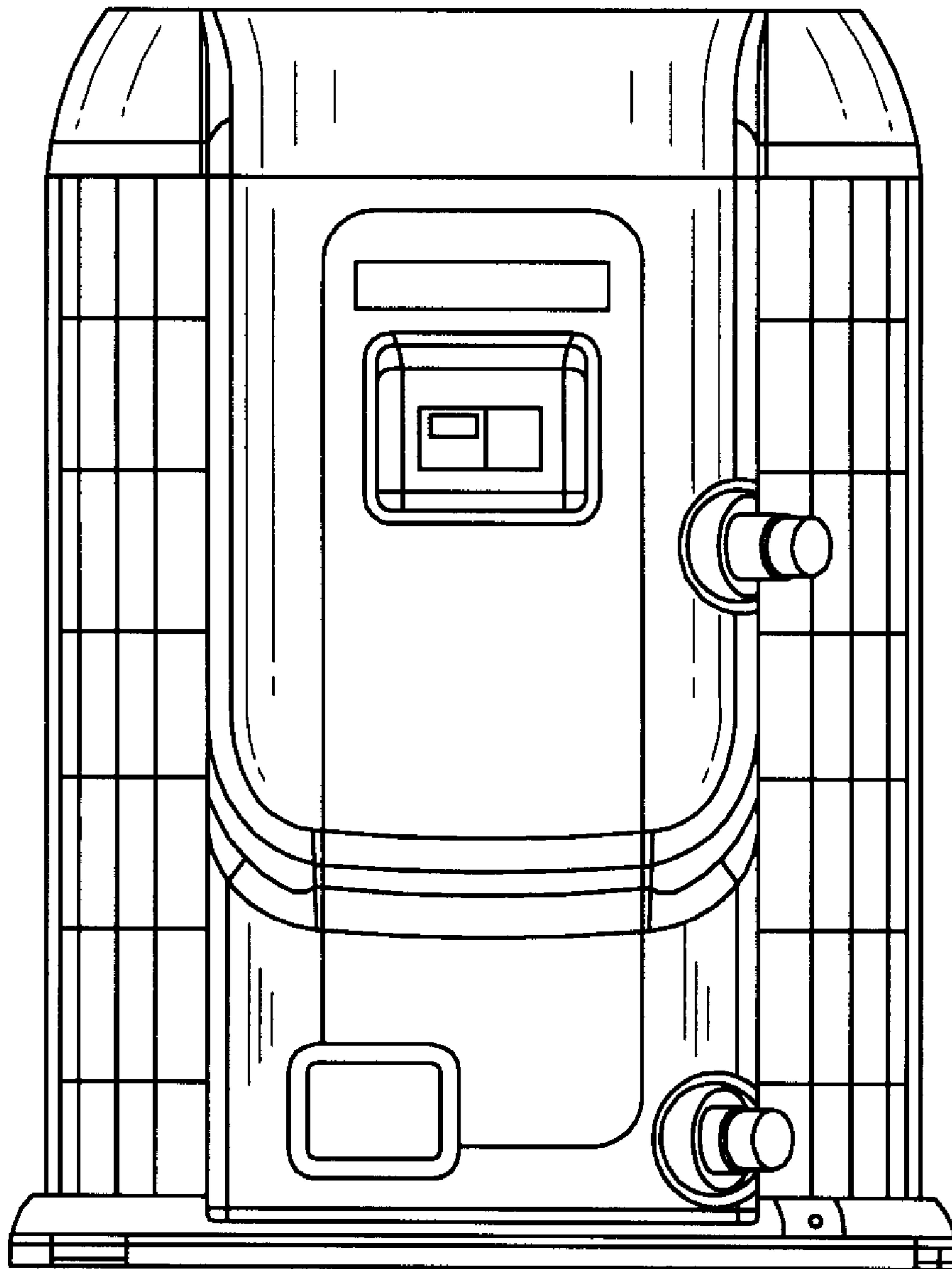


FIG. 2

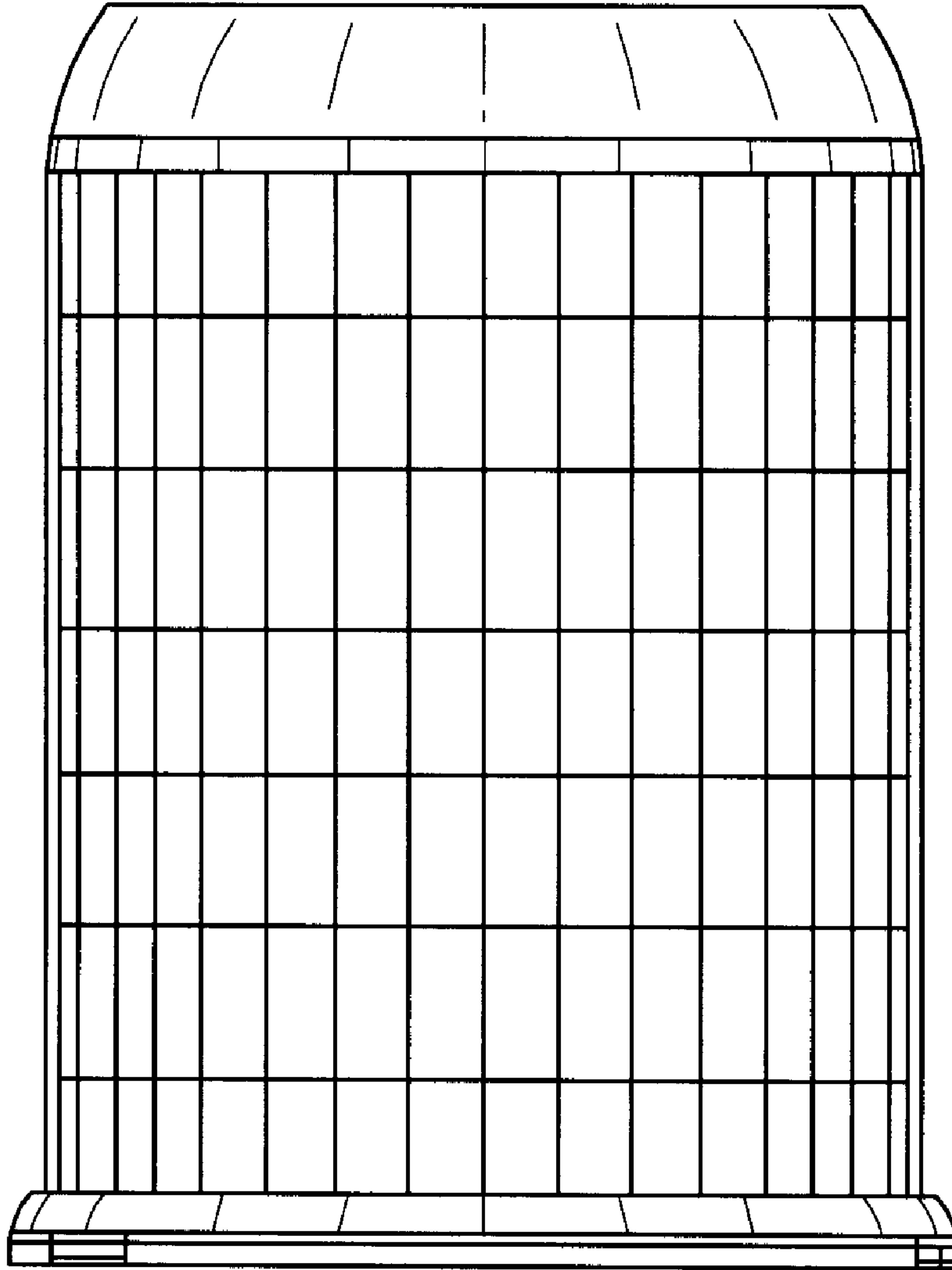


FIG. 3

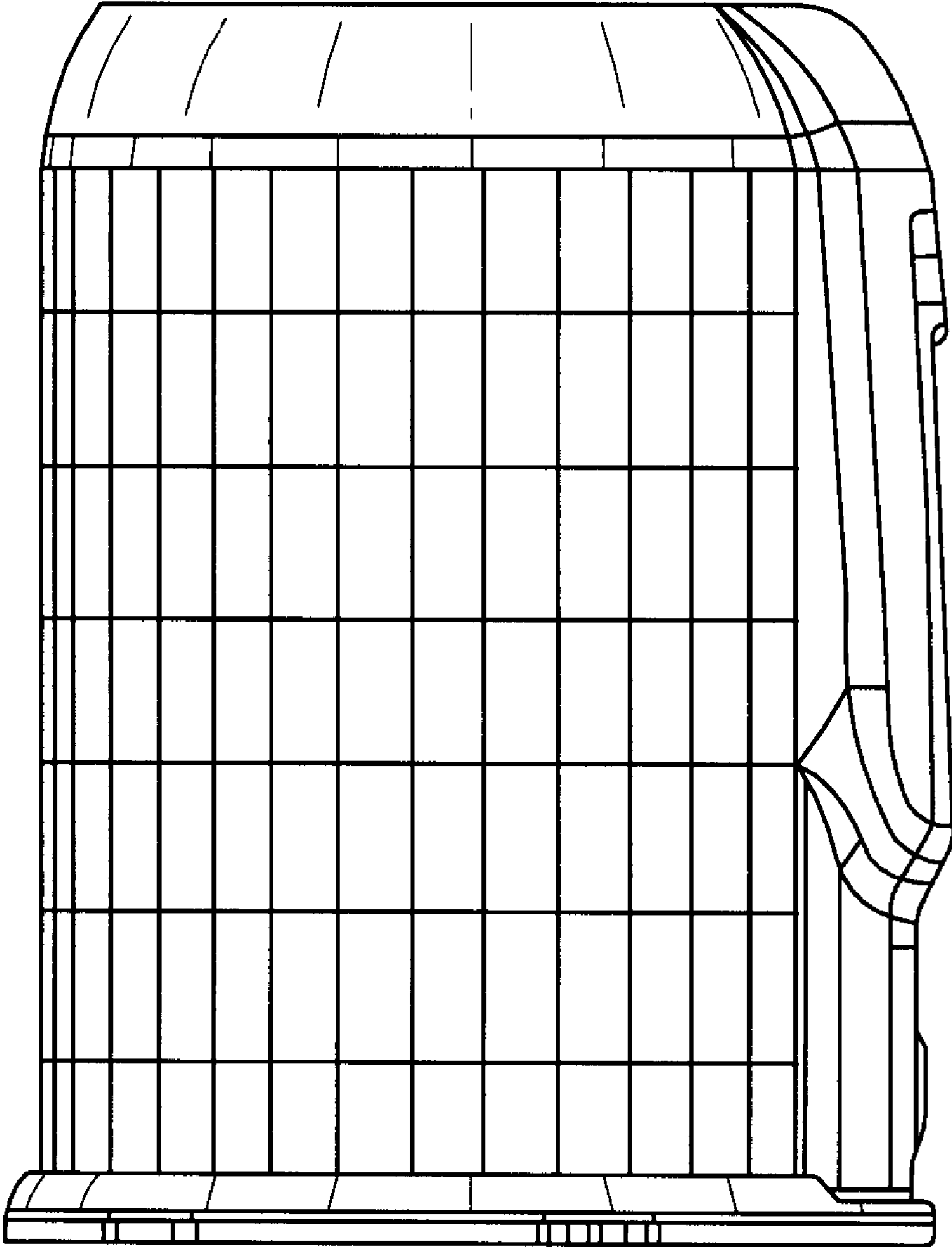


FIG. 4

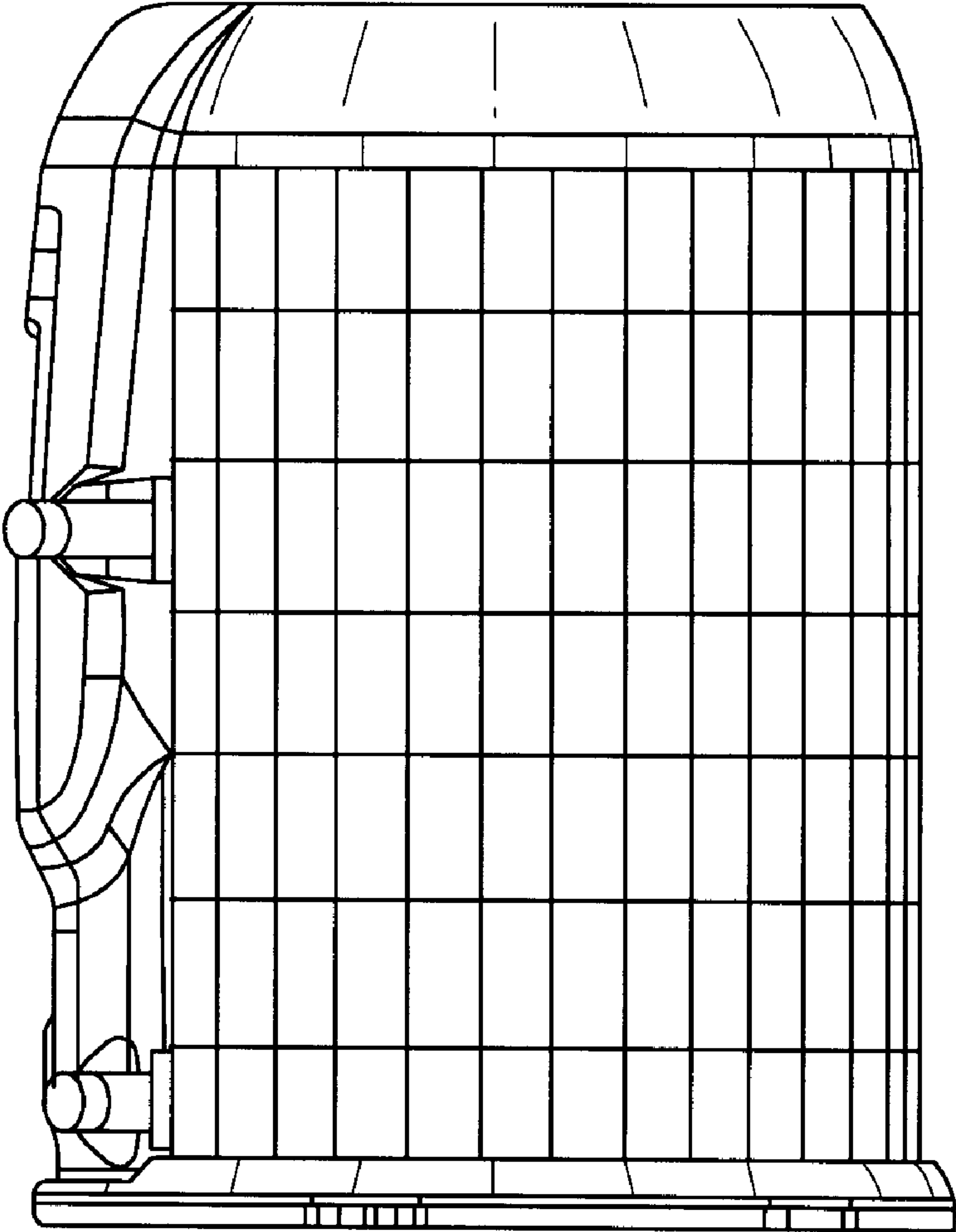


FIG. 5

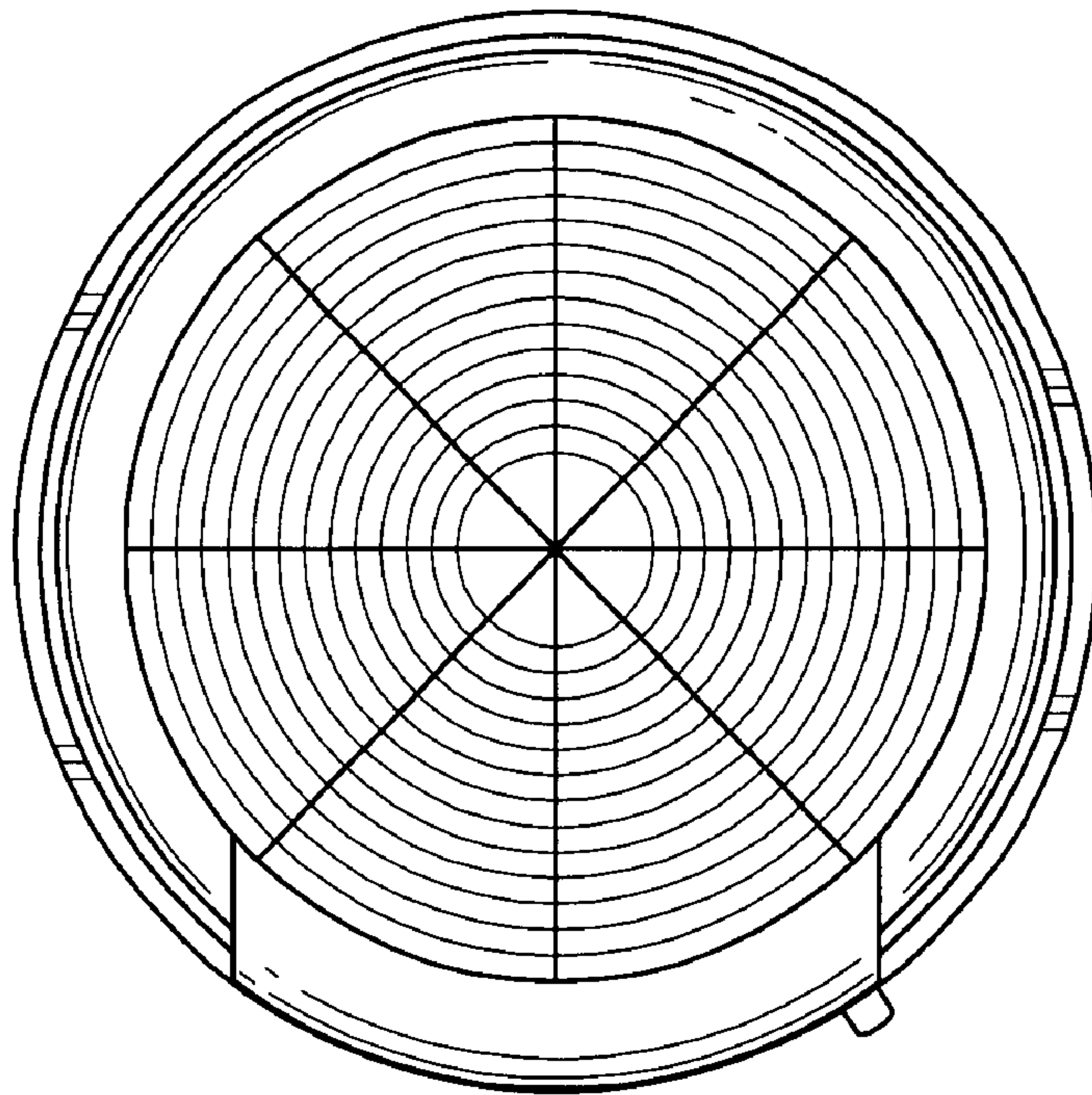


FIG. 6

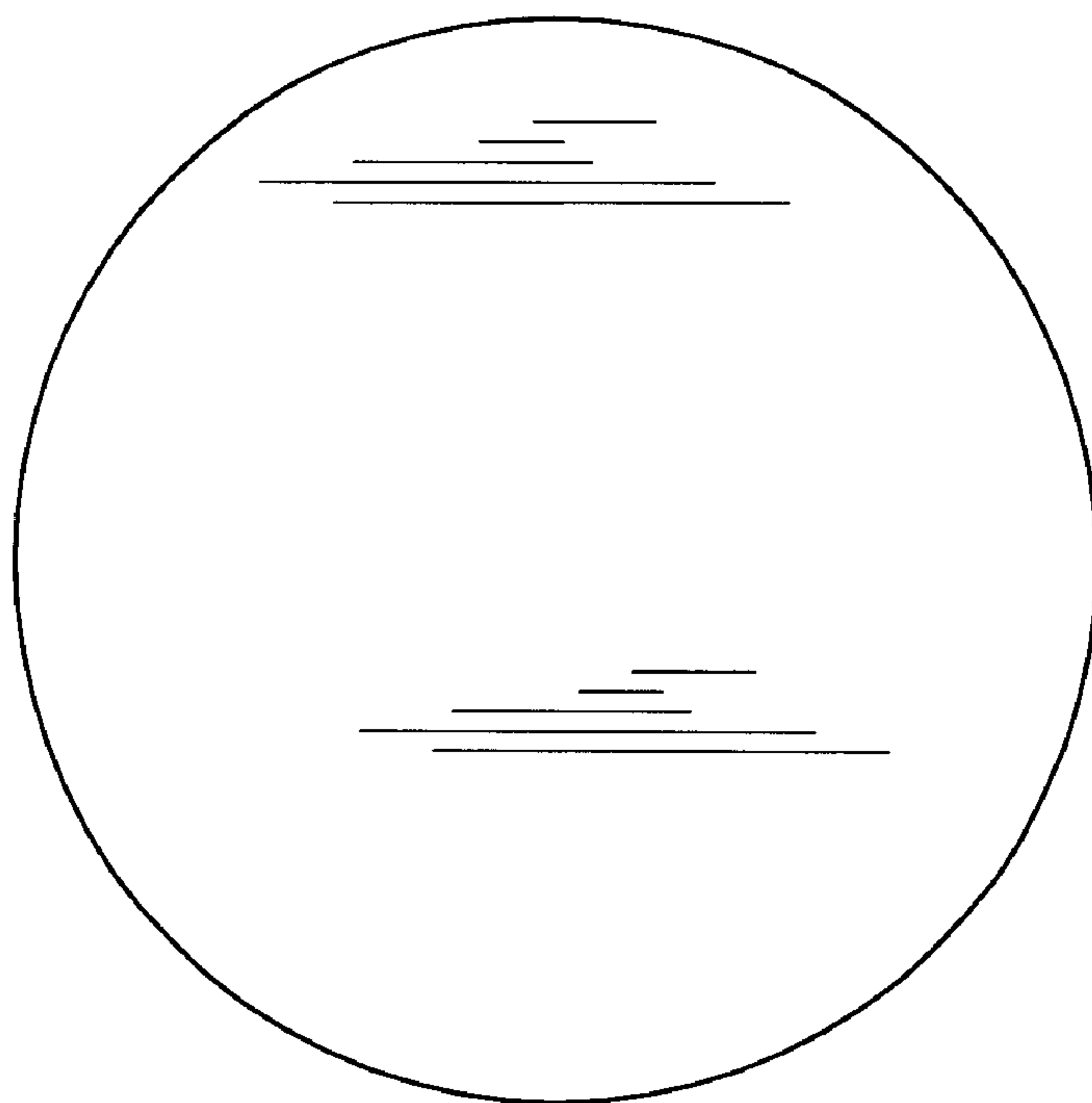


FIG. 7

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : Des. 539,882 S
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INVENTOR(S) : David L. Schardt et al.

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the face page of the Patent, item [75] the name of the Inventor is listed incorrectly as "Gang Li".

The inventors should read:

-- David L. Schardt, Brentwood, TN (US), Vitaly Shinkarev, Greensboro, NC (US),
Ronald H. Griffin, Boonville, NC(US), John Griffin, Phoenix, AZ (US) --

Signed and Sealed this

Twenty-first Day of August, 2007

A handwritten signature in black ink on a dotted background. The signature reads "Jon W. Dudas" in a cursive style.

JON W. DUDAS

Director of the United States Patent and Trademark Office