



US00D860010S

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

(10) **Patent No.:** **US D860,010 S**

(45) **Date of Patent:** **\*\* Sep. 17, 2019**

(54) **CONSTANT TEMPERATURE LIQUID CIRCULATOR**

H01H 37/16; H01H 37/18; H01H 37/20;  
H01H 37/22; H01H 37/24; H01H 37/26;  
H01H 37/28; H01H 37/30

(71) Applicant: **SMC CORPORATION**, Chiyoda-ku (JP)

See application file for complete search history.

(72) Inventor: **Shota Furukawa**, Bando (JP)

(56) **References Cited**

(73) Assignee: **SMC CORPORATION**, Chiyoda-ku (JP)

U.S. PATENT DOCUMENTS

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

6,308,519	B1 *	10/2001	Bielinski .....	F24F 5/0042 136/203
8,140,195	B2 *	3/2012	Matteson .....	G06F 1/206 700/299
8,490,413	B2 *	7/2013	Blackway .....	F25B 21/02 62/3.62
D707,187	S *	6/2014	Mauchle .....	D13/162
9,585,290	B2 *	2/2017	Herman .....	H05K 7/1489

(21) Appl. No.: **29/647,348**

(22) Filed: **May 11, 2018**

\* cited by examiner

(30) **Foreign Application Priority Data**

Nov. 17, 2017 (JP) ..... 2017-025774

(51) **LOC (12) Cl.** ..... **10-04**

(52) **U.S. Cl.**  
USPC ..... **D10/49; D13/162.1; D13/164**

(58) **Field of Classification Search**  
USPC ..... D10/49, 50; D13/162, 162.1, 164  
CPC ..... H01H 2223/00; H01H 2223/002; H01H 2223/003; H01H 2223/004; H01H 2223/006; H01H 2223/008; H01H 2223/01; H01H 2223/012; H01H 2223/014; H01H 2223/016; H01H 2223/018; H01H 2223/02; H01H 2223/022; H01H 2223/024; H01H 2223/026; H01H 2223/028; H01H 2223/03; H01H 2223/032; H01H 2223/034; H01H 2223/0345; H01H 2223/036; H01H 2223/038; H01H 2223/04; H01H 2223/042; H01H 2223/044; H01H 2223/046; H01H 2223/048; H01H 2223/05; H01H 2223/052; H01H 2223/054; H01H 2223/056; H01H 2223/058; H01H 2223/06; H01H 2223/062; H01H 37/04; H01H 37/08; H01H 37/12; H01H 37/14;

*Primary Examiner* — Antoine Duval Davis  
(74) *Attorney, Agent, or Firm* — Oblon, McClelland, Maier & Neustadt, L.L.P.

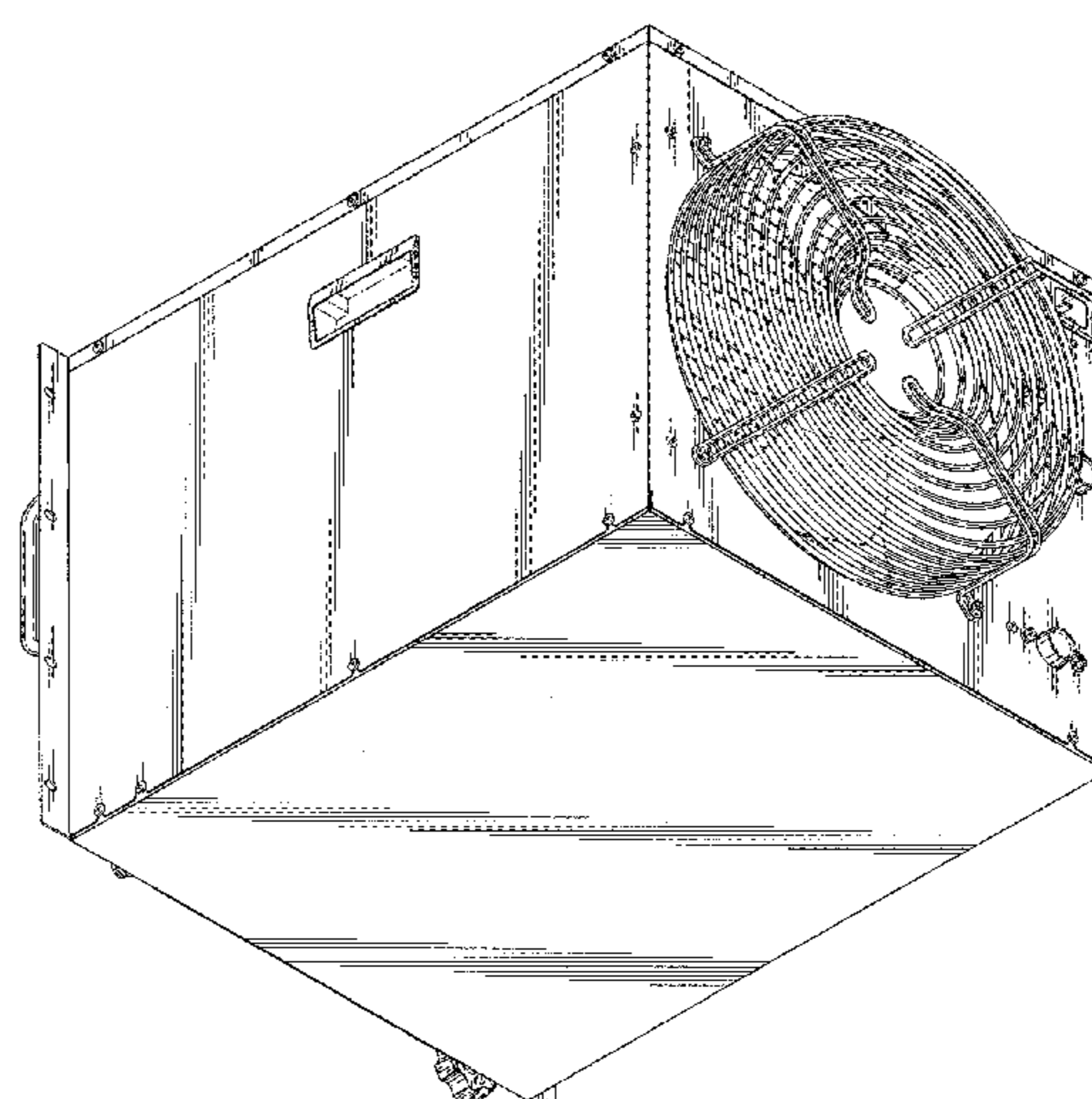
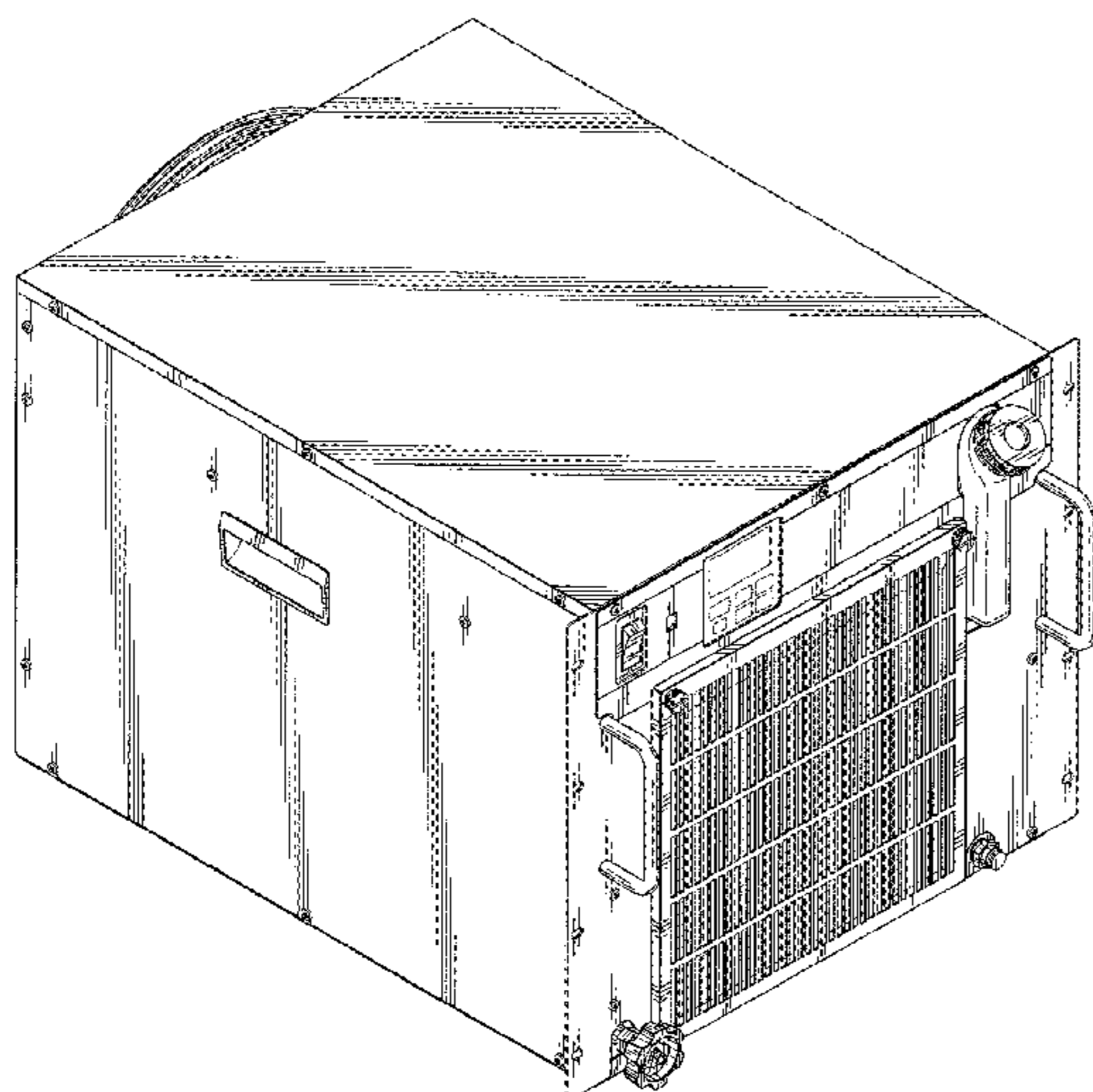
(57) **CLAIM**

The ornamental design for a constant temperature liquid circulator, as shown and described.

**DESCRIPTION**

FIG. 1 is a front, top, and left side perspective view of a constant temperature liquid circulator;  
FIG. 2 is a rear, bottom, and right side perspective view thereof;  
FIG. 3 is a front elevational view thereof;  
FIG. 4 is a rear elevational view thereof;  
FIG. 5 is a top plan view thereof;  
FIG. 6 is a bottom plan view thereof;  
FIG. 7 is a left side elevational view thereof; and,  
FIG. 8 is a right side elevational view thereof.  
The broken lines shown in the figures are for the purpose of illustrating portions of the constant temperature liquid circulator that form no part of the claimed design.

**1 Claim, 8 Drawing Sheets**



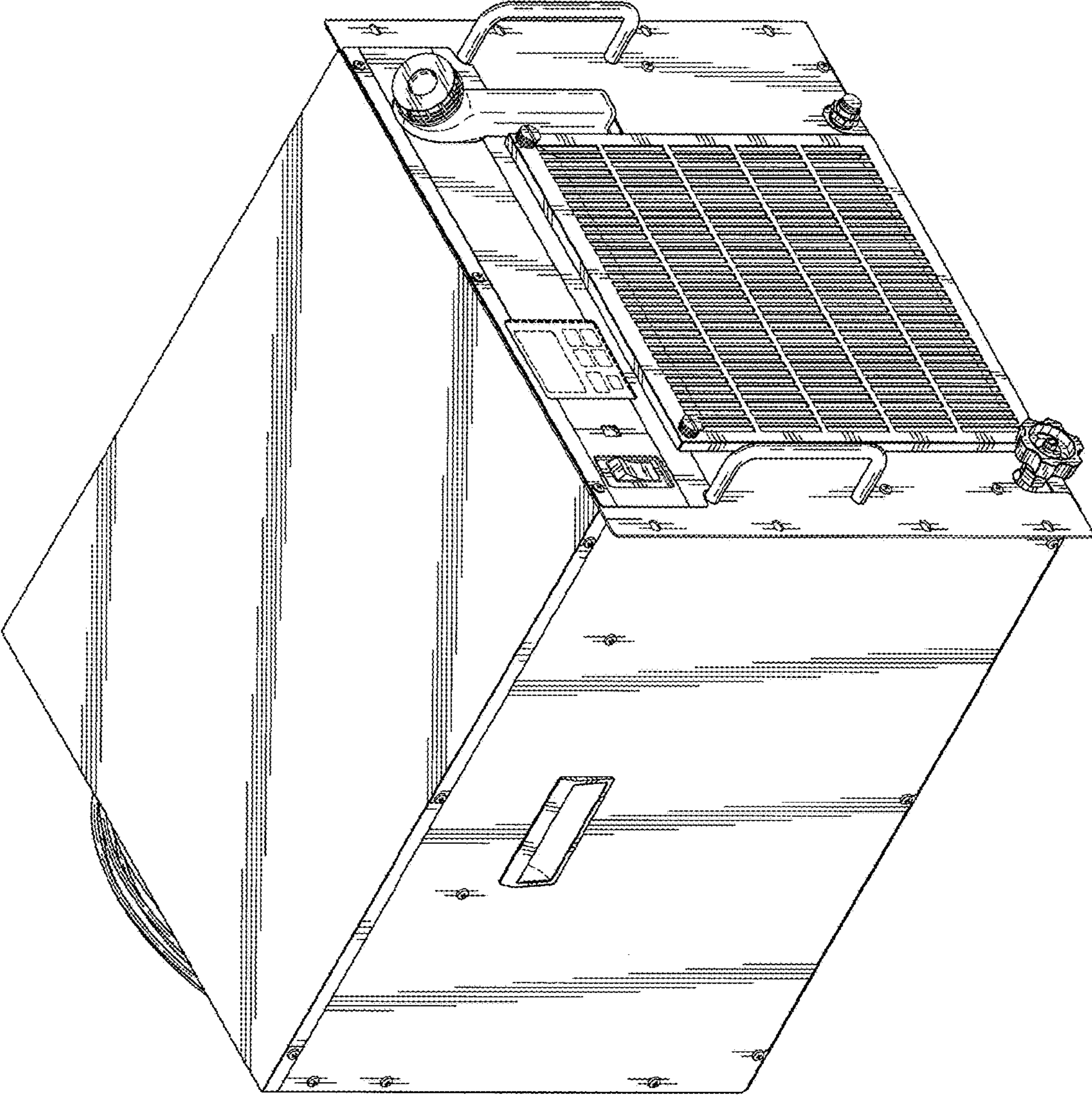


FIG. 1

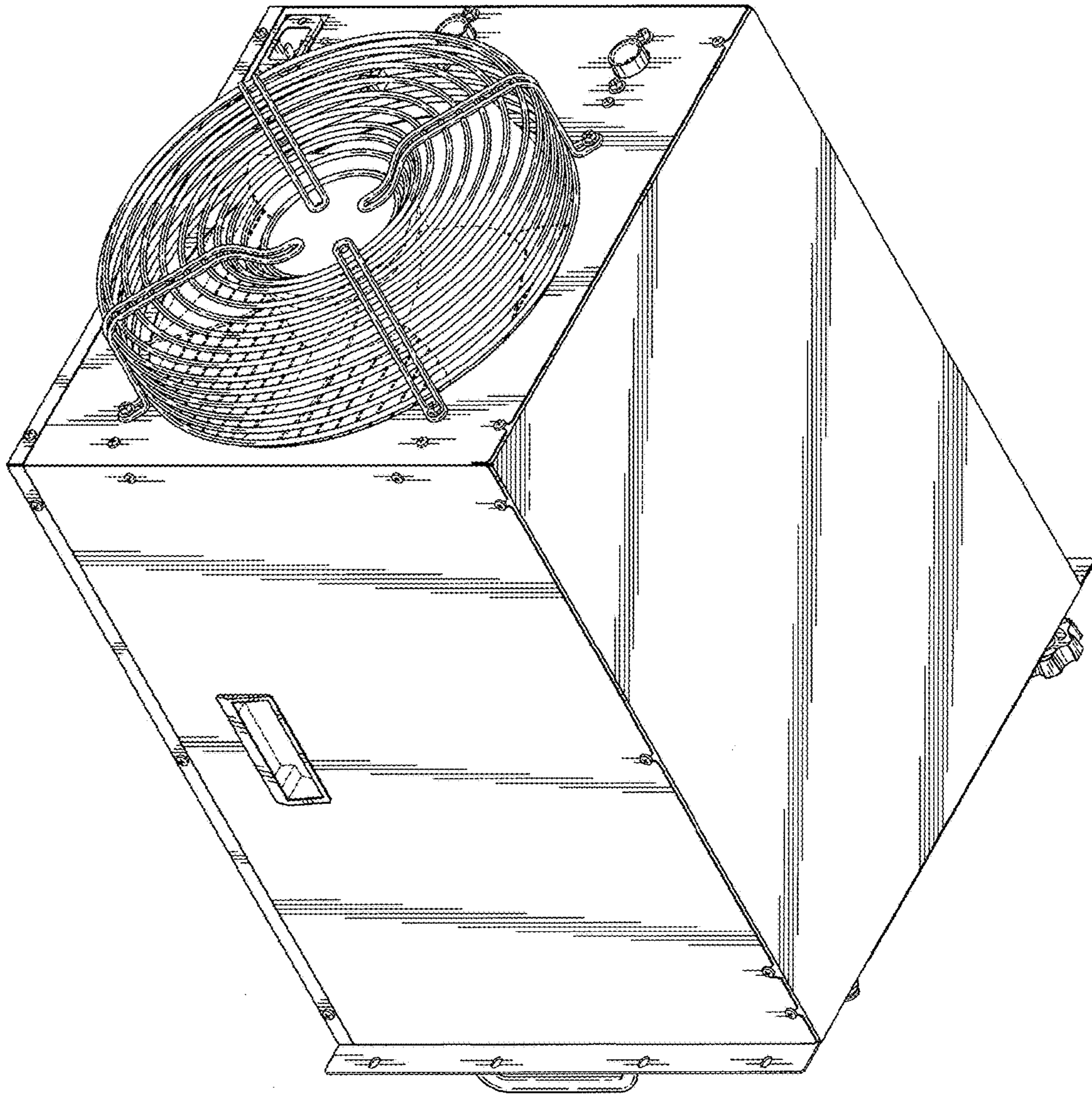


FIG. 2

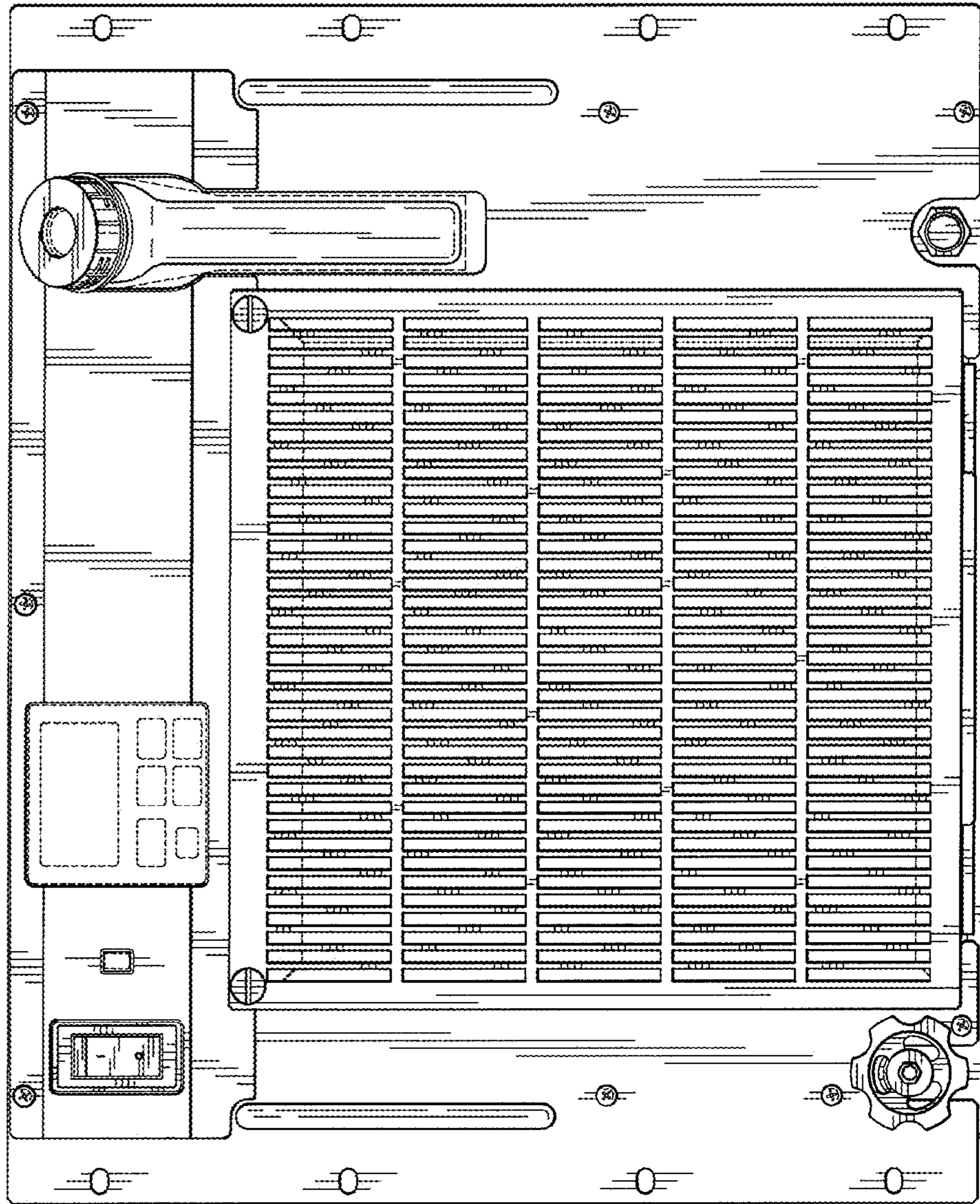


FIG. 3

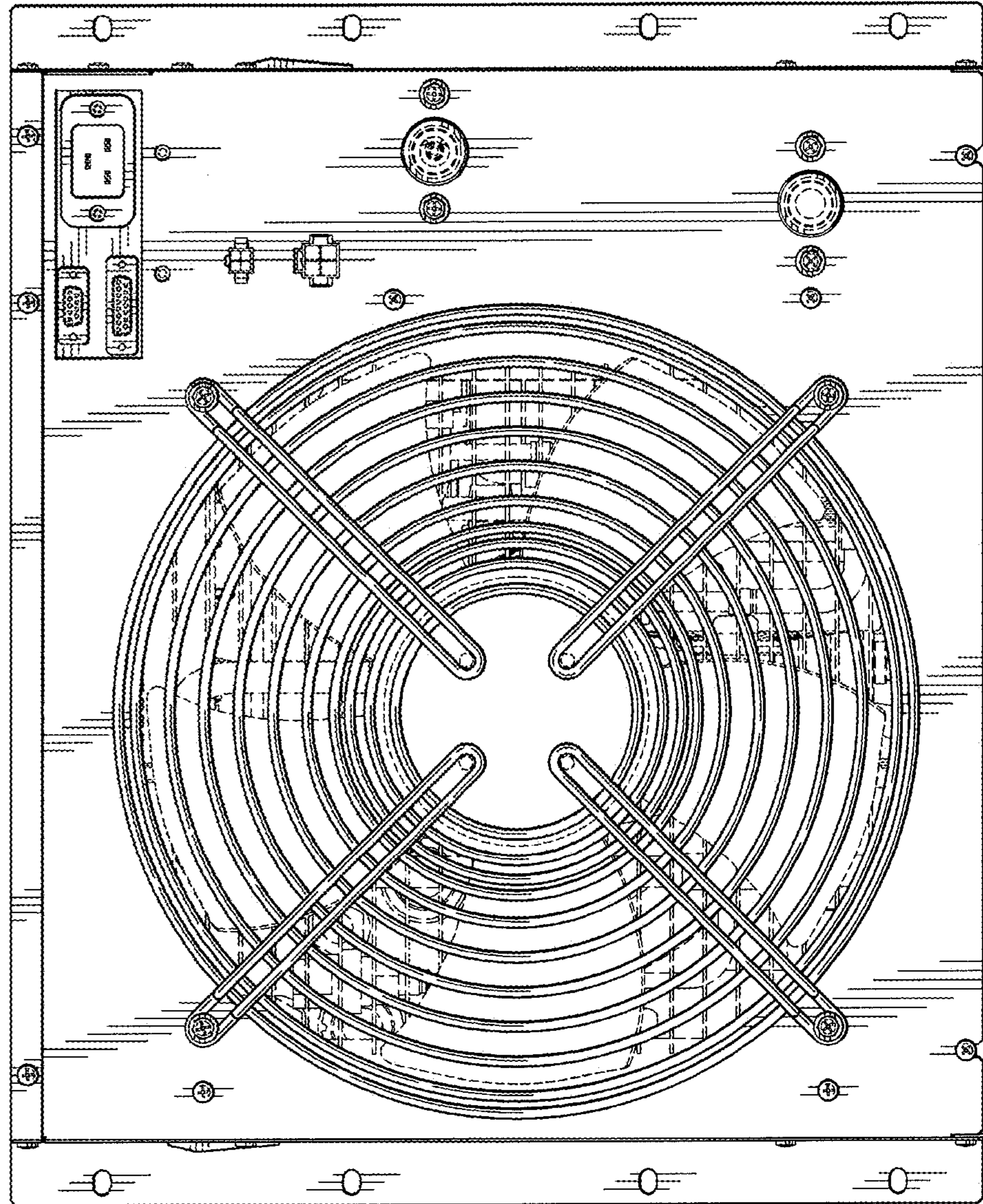


FIG. 4

FIG. 5

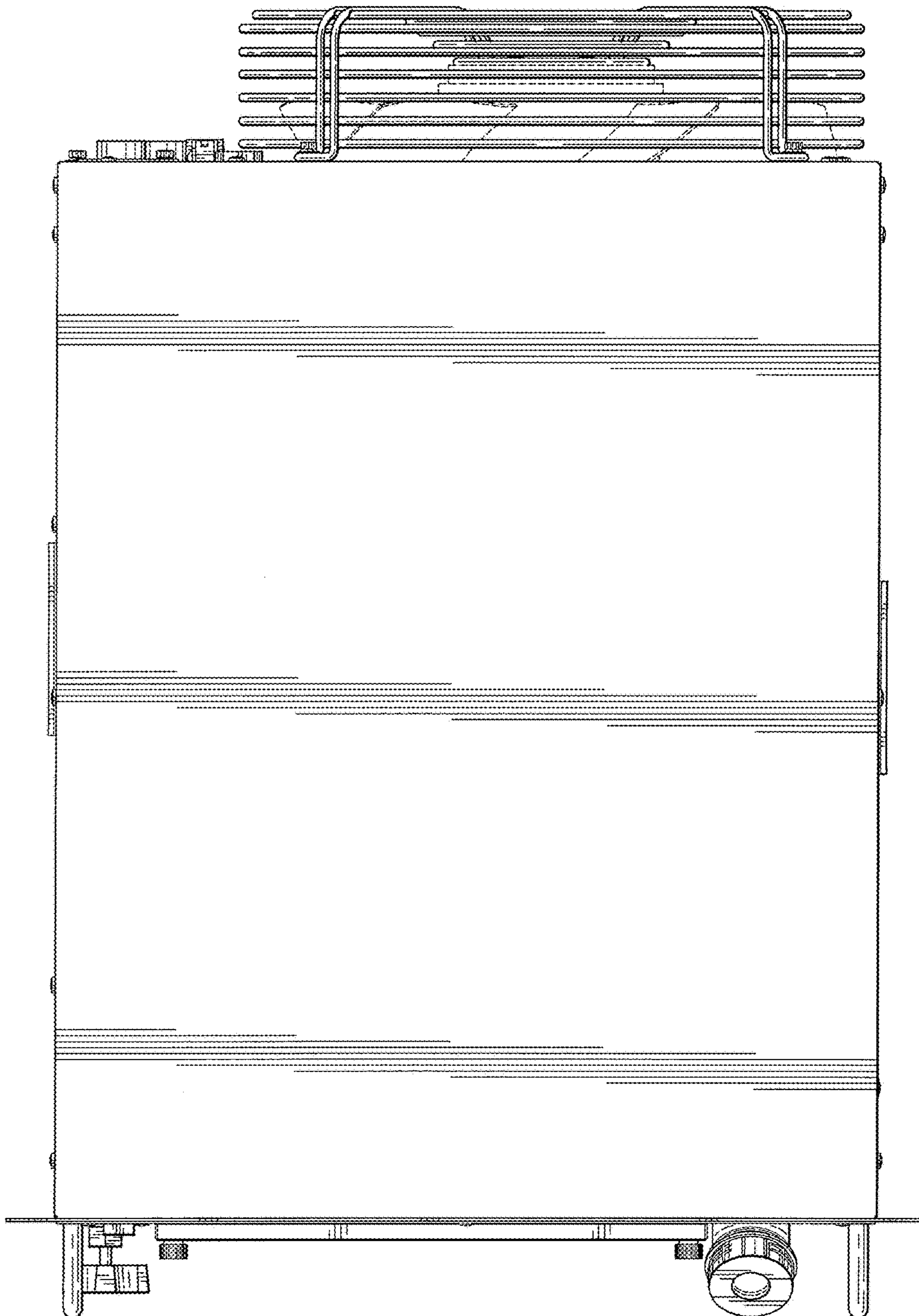
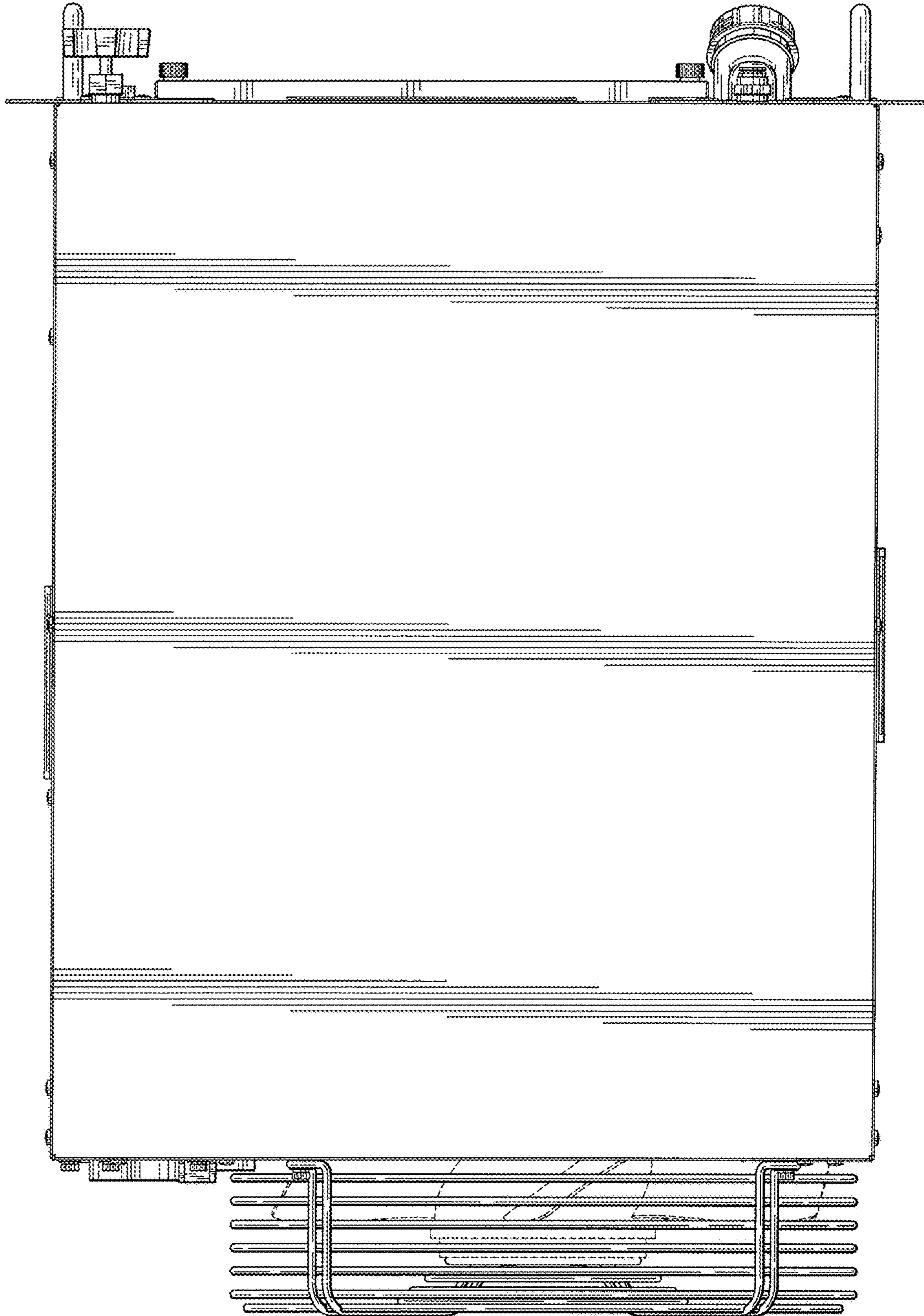


FIG. 6



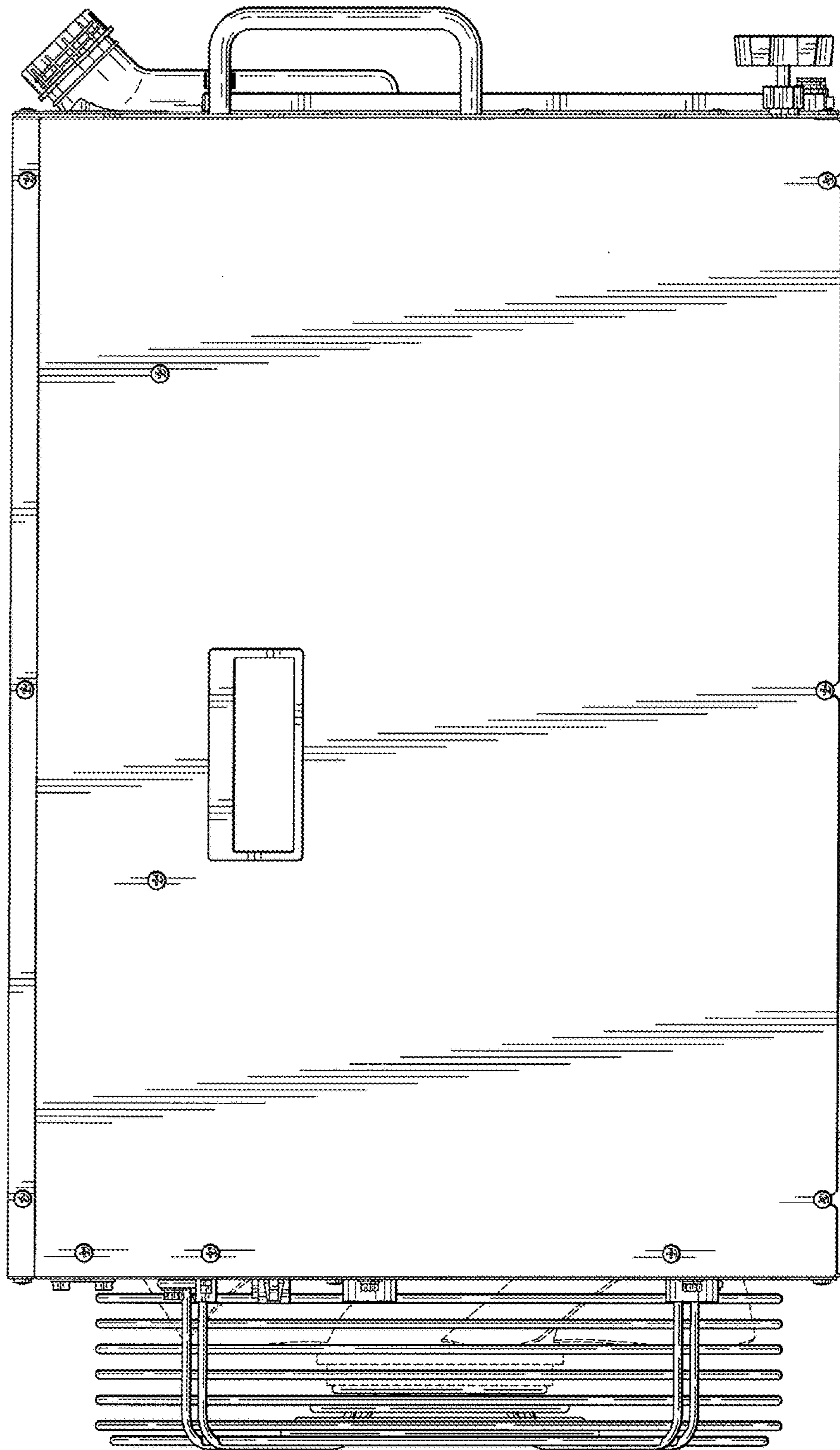


FIG. 7



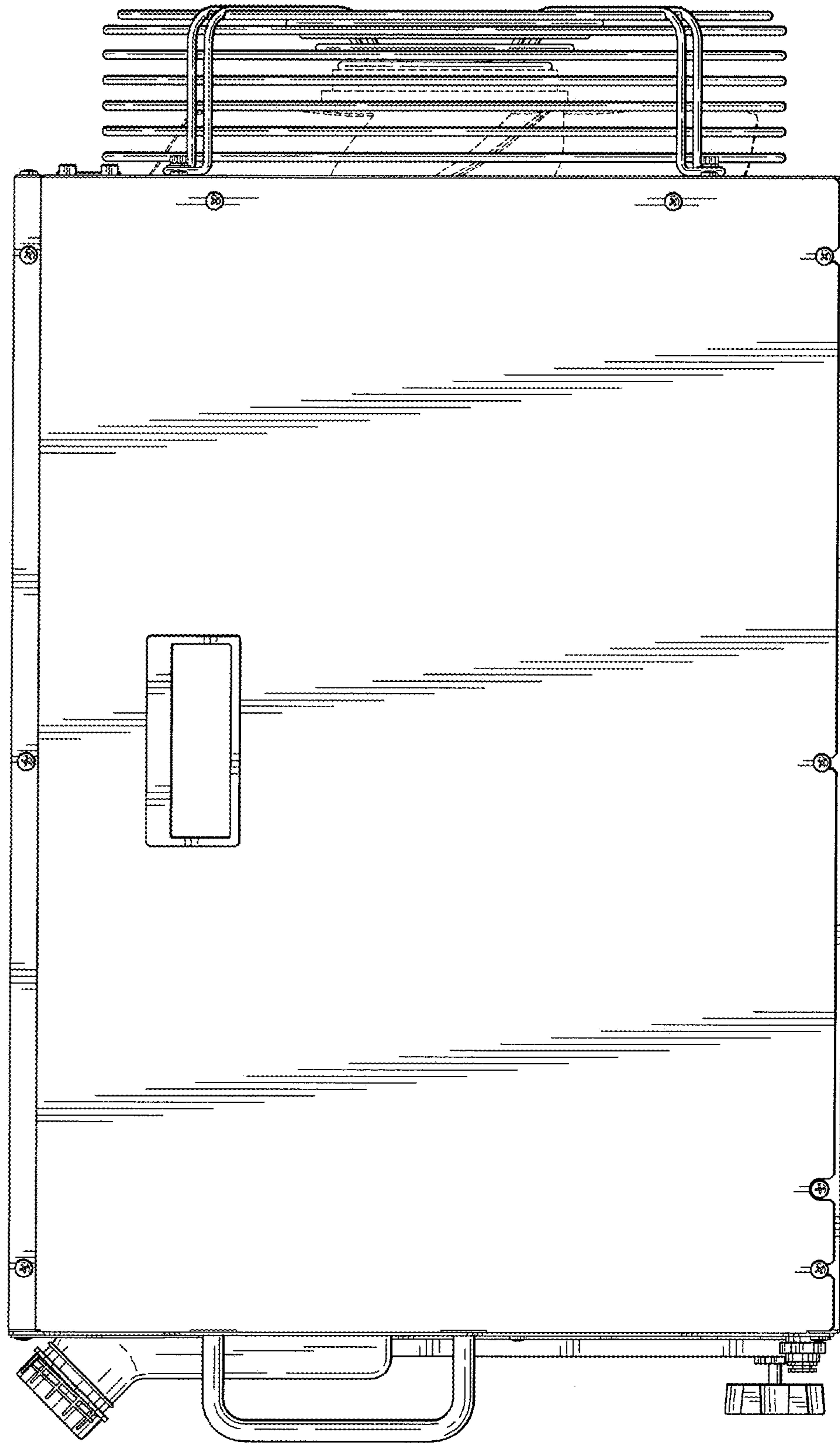


FIG. 8