US00D786202S

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

(10) **Patent No.: US D786,202 S**
(45) **Date of Patent: ** May 9, 2017**

(54) **HEAT SINK FOR A LIGHT-EMITTING DIODE**

(71) Applicant: **Liteideas, LLC**, Mansfield Center, CT (US)

(72) Inventor: **Todd W Hodrinsky**, Mansfield Center, CT (US)

(73) Assignee: **Liteideas, LLC**, Mansfield Center, CT (US)

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

(21) Appl. No.: **29/554,045**

(22) Filed: **Feb. 8, 2016**

(51) **LOC (10) Cl.** **13-03**

(52) **U.S. Cl.**
USPC **D13/179**

(58) **Field of Classification Search**
USPC D13/179, 122, 182
CPC H01L 23/34; H01L 31/1024; H01L 33/64; H01L 23/367; H01L 23/46; H01L 23/467; H01L 23/473; G06F 1/20; H05K 7/20972; B23P 2700/10; F28F 2215/00; F28F 2215/08
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D441,725	S *	5/2001	Chou	D13/179
D442,566	S *	5/2001	Chou	D13/179
D450,306	S *	11/2001	Lin	D13/179
D464,939	S *	10/2002	Chuang	D13/179
D476,958	S *	7/2003	Tsai	D13/179
D477,580	S *	7/2003	Kamada	D13/182
D500,745	S *	1/2005	Duan	D13/179
D593,512	S *	6/2009	Lin	D13/179

(Continued)

OTHER PUBLICATIONS

Aliexpress, "Led grow light kit,DIY COB full spectrum grow light, 50w led +50 driver+heat sink+lens + fan for hydroponics/greenhouse", Accessed Dec. 9, 2016. First sale dated Jun. 23, 2016. (https://www.aliexpress.com/store/product/Led-grow-light-kit-DIY-full-spectrum-grow-light-50w-led-50-driver-heat-sink-lens/121917_1567310446.html).*

(Continued)

Primary Examiner — Jennifer Rivard
Assistant Examiner — April Rivas
(74) *Attorney, Agent, or Firm* — Law Office of Ilya Libenzon

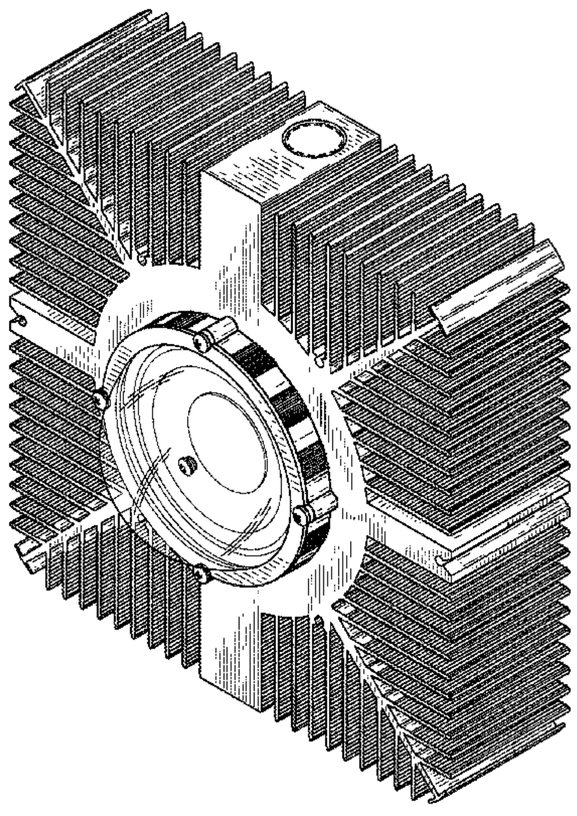
(57) **CLAIM**

What is claimed is the ornamental design for a heat sink for a light-emitting diode, as shown and described.

DESCRIPTION

FIG. **1** is a perspective view of the heat sink according to the present invention;
FIG. **2** is a top view of the heat sink according to the present invention;
FIG. **3** is a side view of the heat sink according to the present invention;
FIG. **4** is a front view of the heat sink according to the present invention;
FIG. **5** is a back view of the heat sink according to the present invention;
FIG. **6** is a perspective view with a region shown in dot-dash for an enlarged detail view of the heat sink according to the present invention;
FIG. **7** is an enlarged region as indicated in FIG. **6**;
FIG. **8** is a front view with a region shown in dot-dash for an enlarged detail view of the heat sink according to the present invention; and,
FIG. **9** is an enlarged region as indicated in FIG. **8**.
The broken lines illustrate portions of the heat sink for a light-emitting diode and form no part of the claimed design.

1 Claim, 8 Drawing Sheets



(56) **References Cited**

U.S. PATENT DOCUMENTS

D603,810	S *	11/2009	Yang	D13/179
D604,255	S *	11/2009	King	D13/179
D640,645	S *	6/2011	Andrews	D13/182
D643,380	S *	8/2011	Tan	D13/179
D663,268	S *	7/2012	Andrieux	D13/122
D681,573	S *	5/2013	Andrews	D13/182
D706,973	S *	6/2014	Shih	D26/113
2005/0088823	A1 *	4/2005	Kabadi	C04B 38/0067 361/704
2008/0175003	A1 *	7/2008	Tsou	F21S 48/328 362/294
2009/0067133	A1 *	3/2009	Li	H01L 23/34 361/709
2014/0345844	A1 *	11/2014	Chou	H01L 23/367 165/185

OTHER PUBLICATIONS

Power electronics, "Square Cold Forged Heat Sink for 60 W LED applications ", Accessed Dec. 9, 2016, Dated Nov. 18, 2014. (http://powerelectronics.com/thermal-management/square-cold-forged-heat-sink-60-w-led-applications).*

* cited by examiner

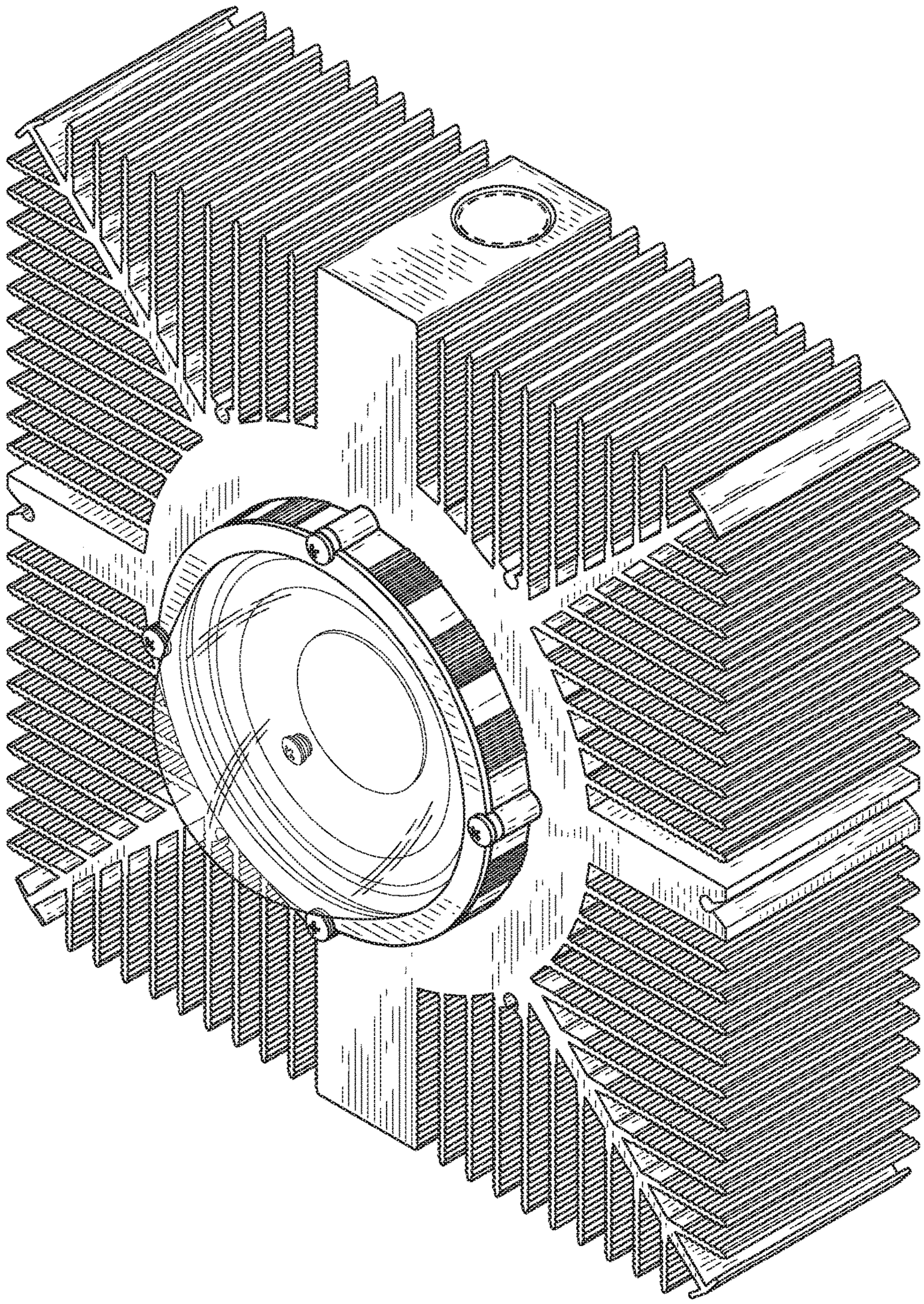


FIG. 1

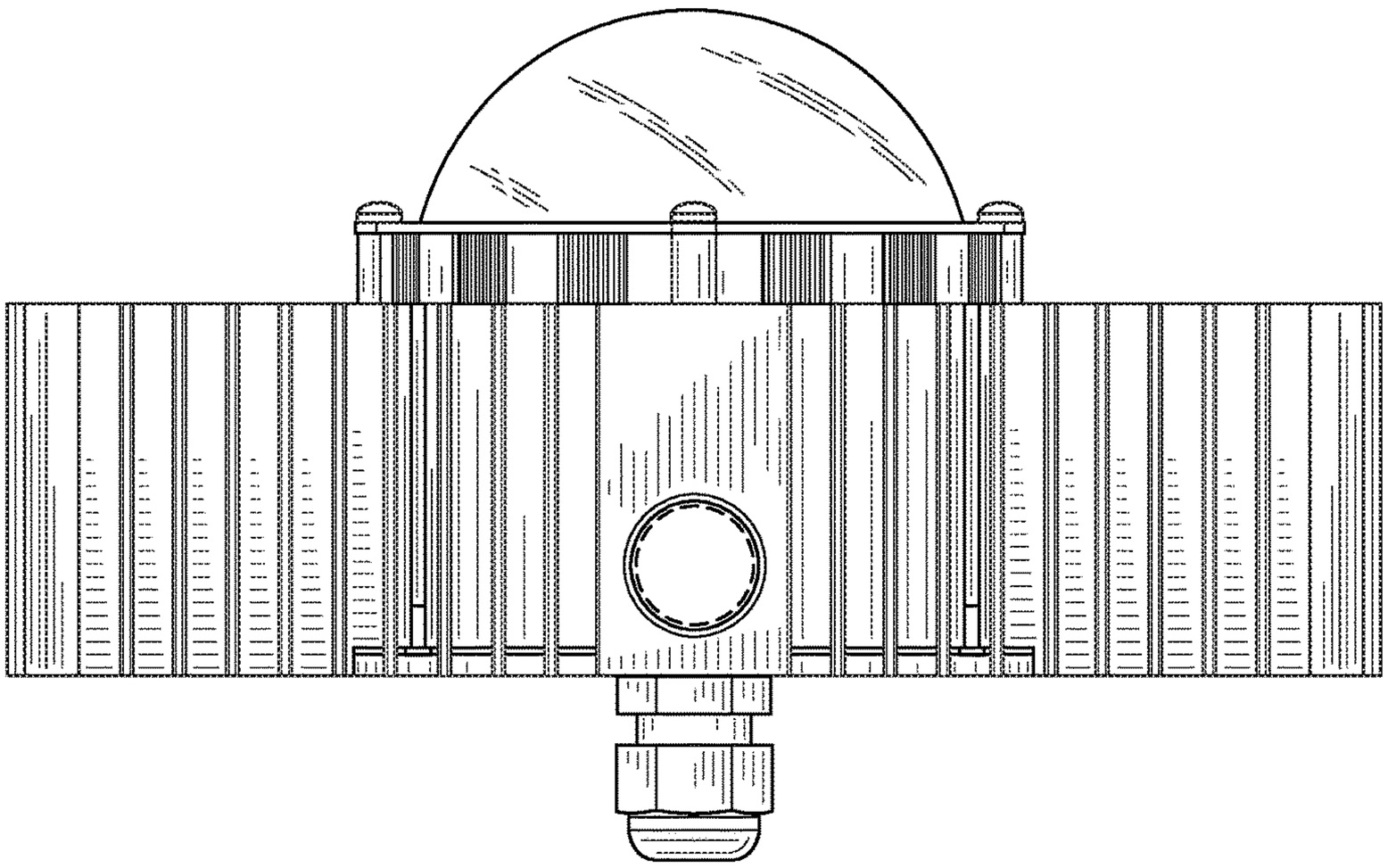


FIG. 2

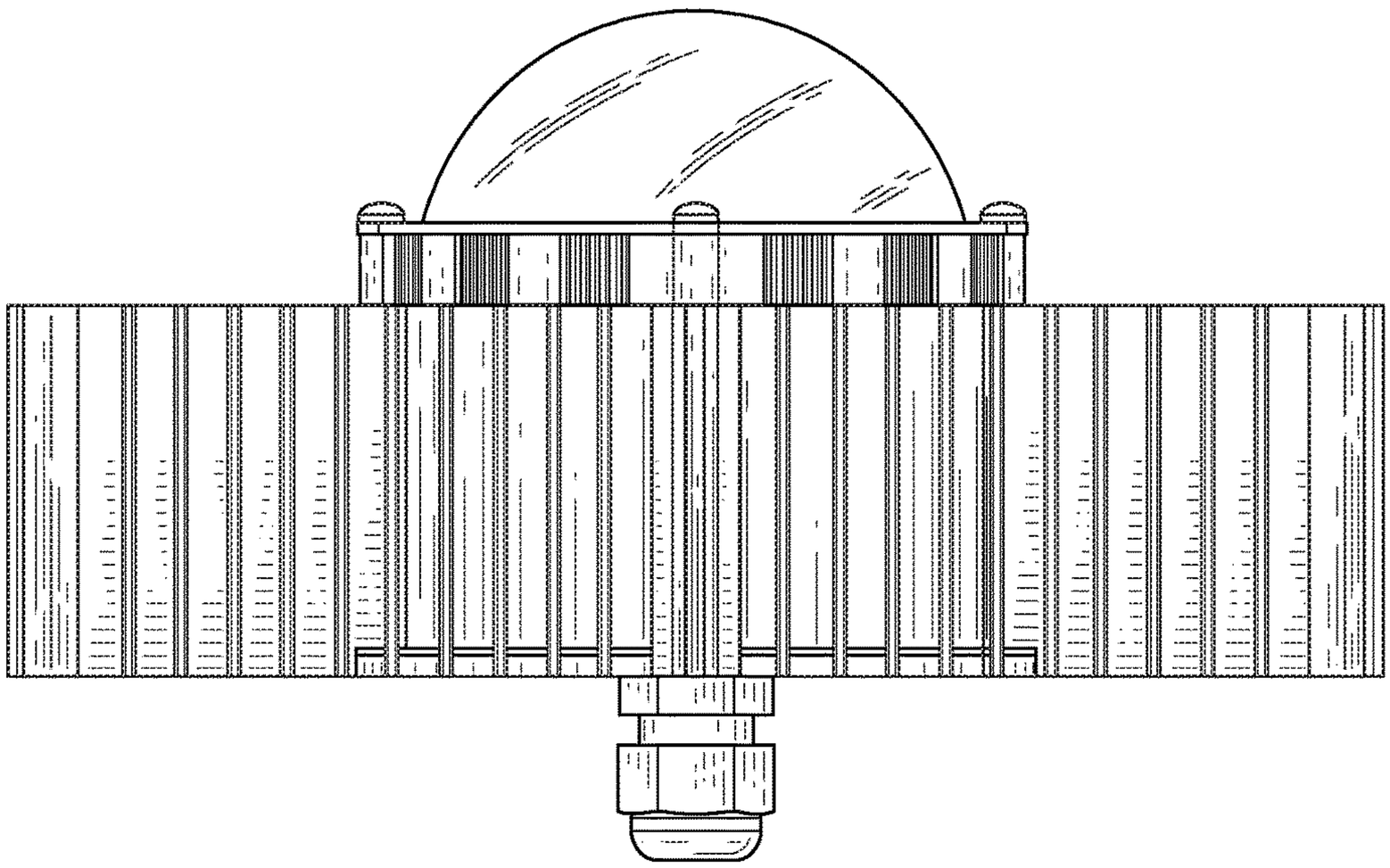


FIG. 3

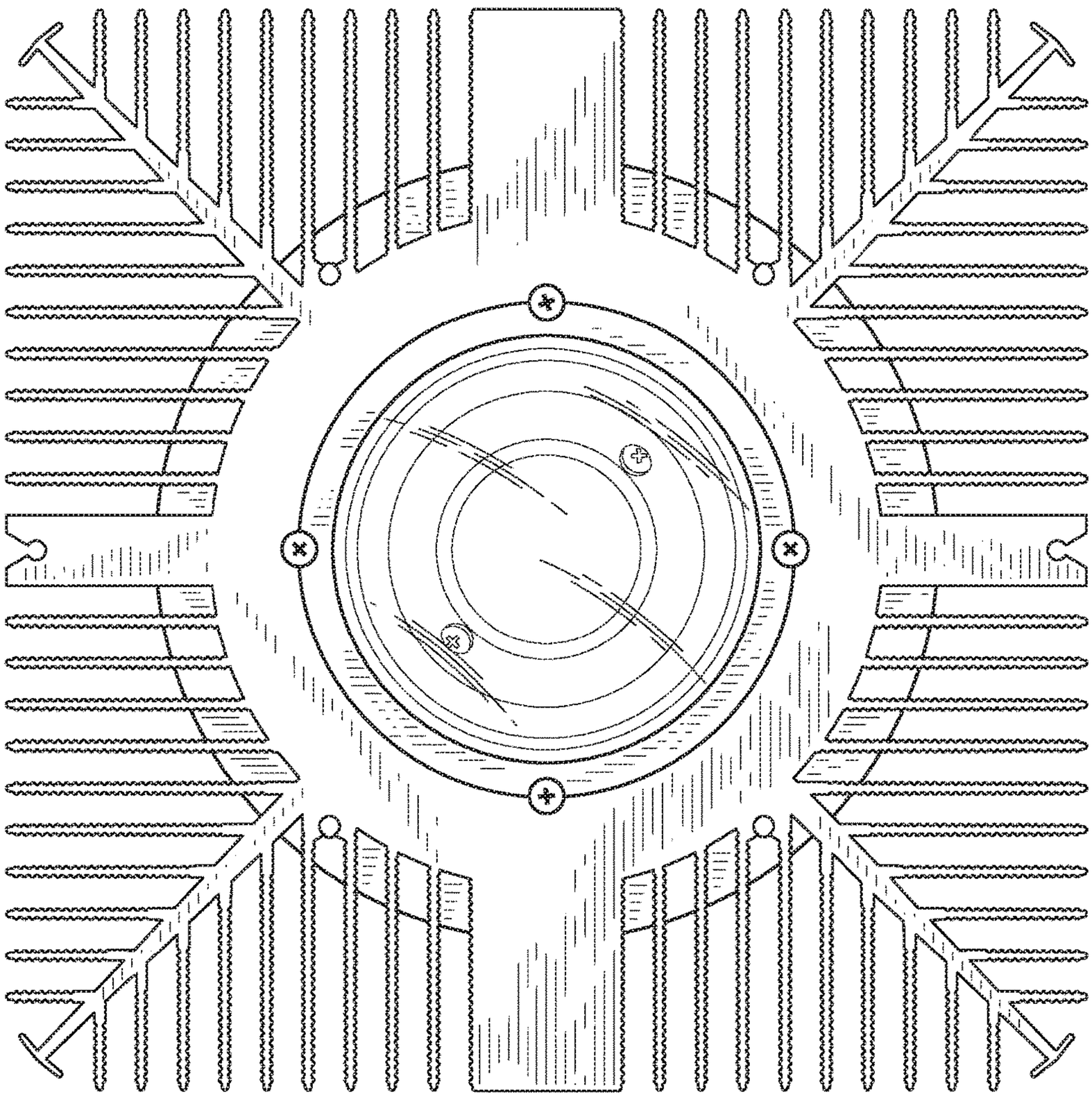


FIG. 4

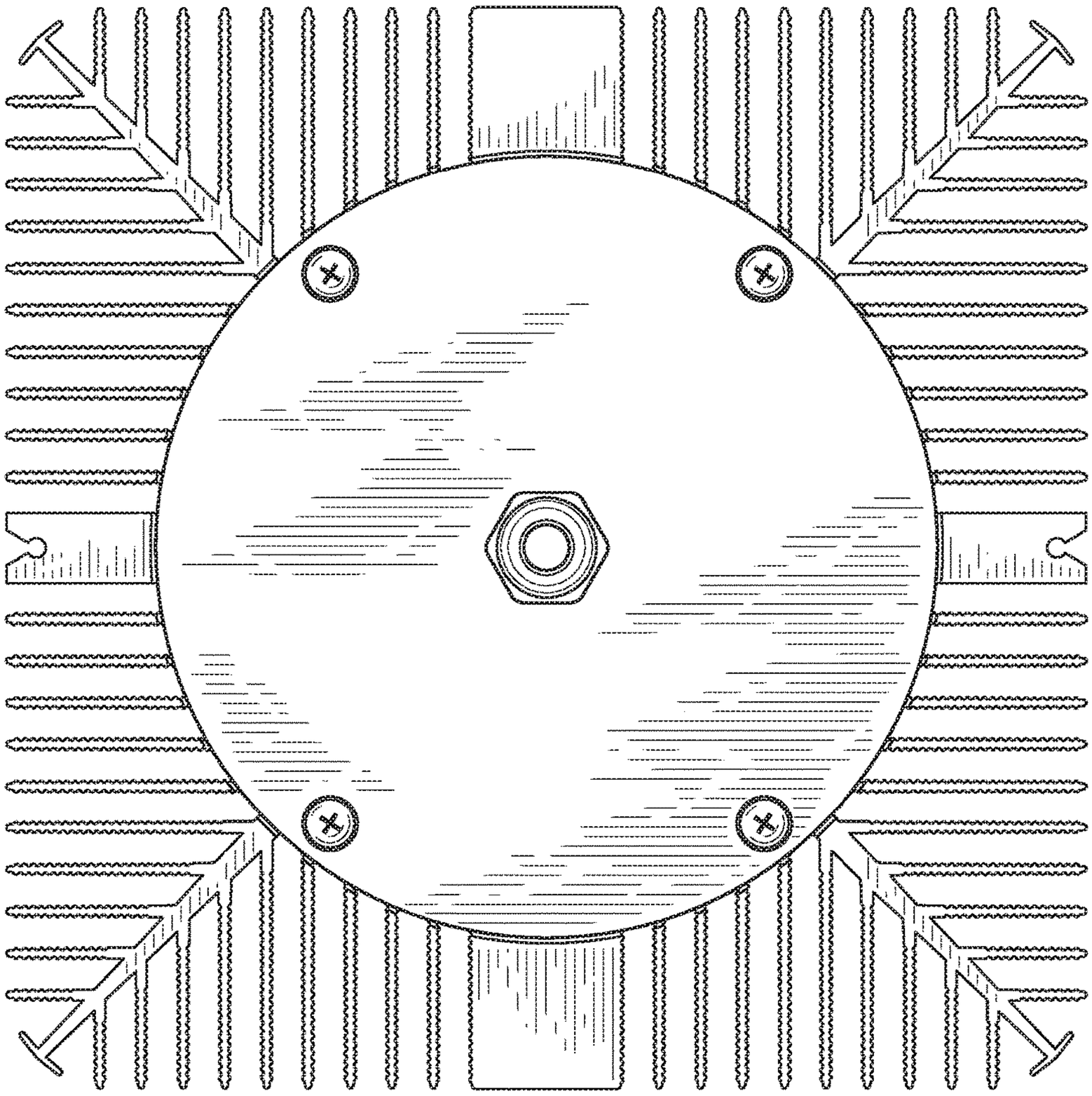


FIG. 5

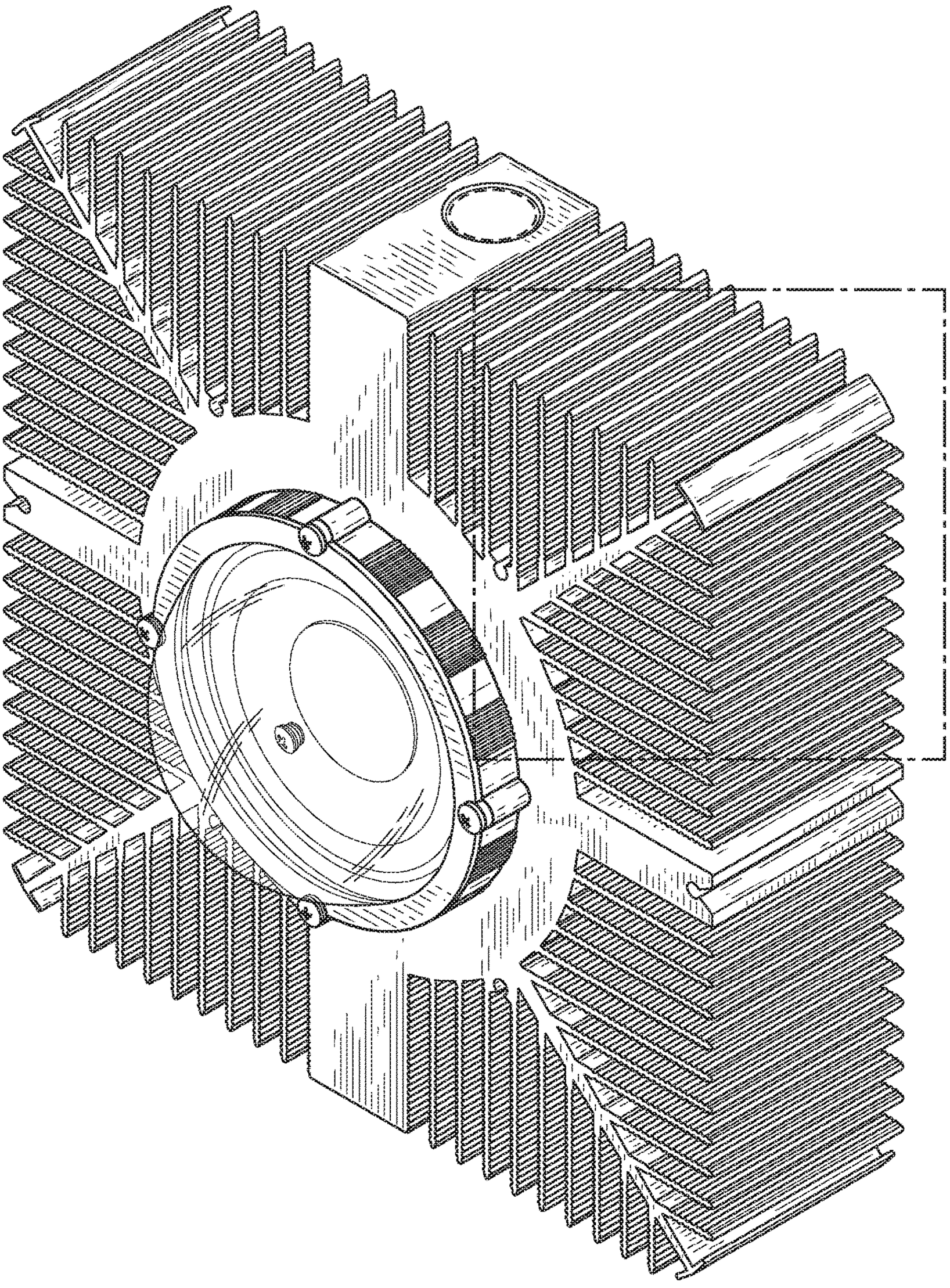


FIG. 6

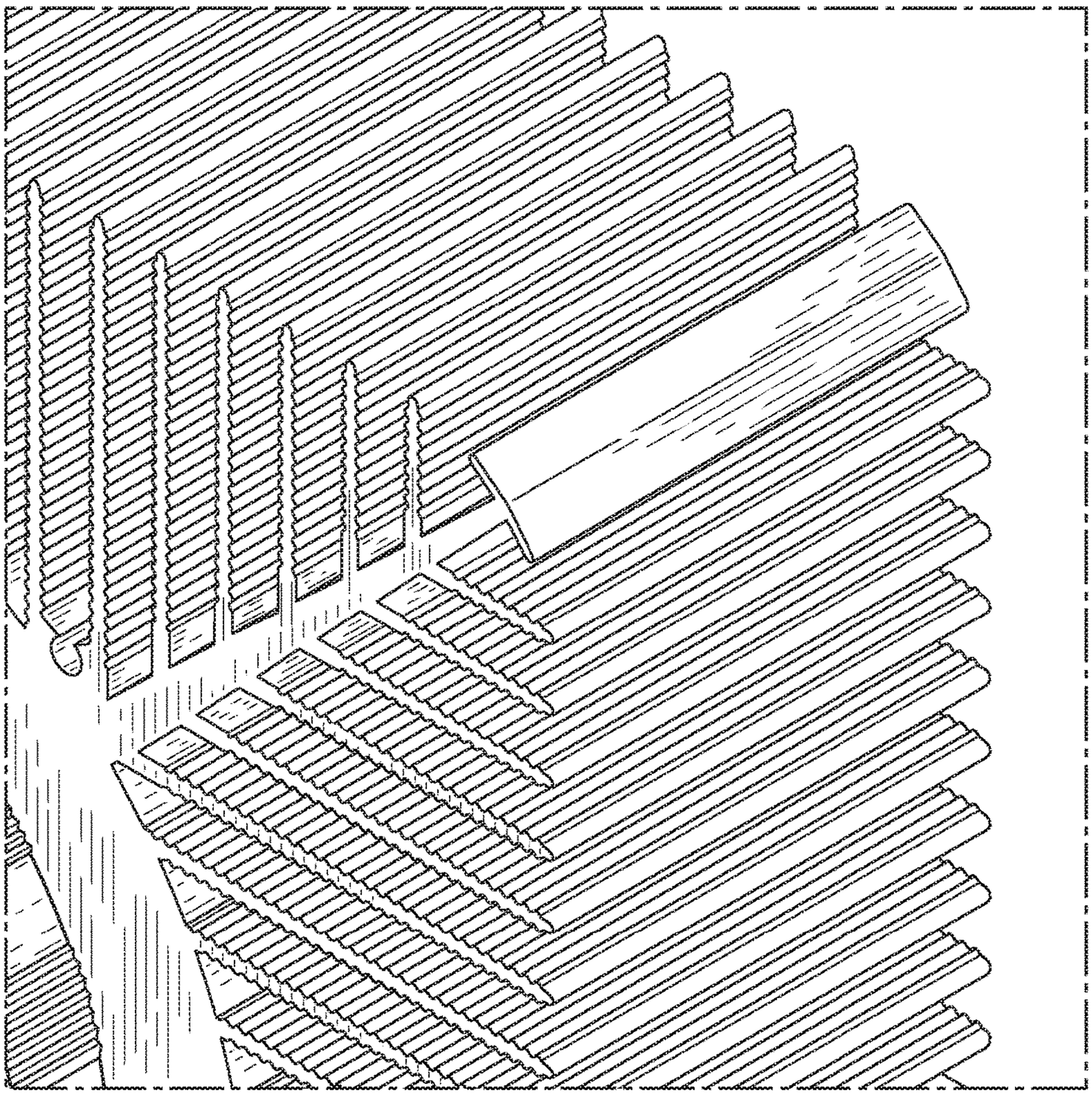


FIG. 7

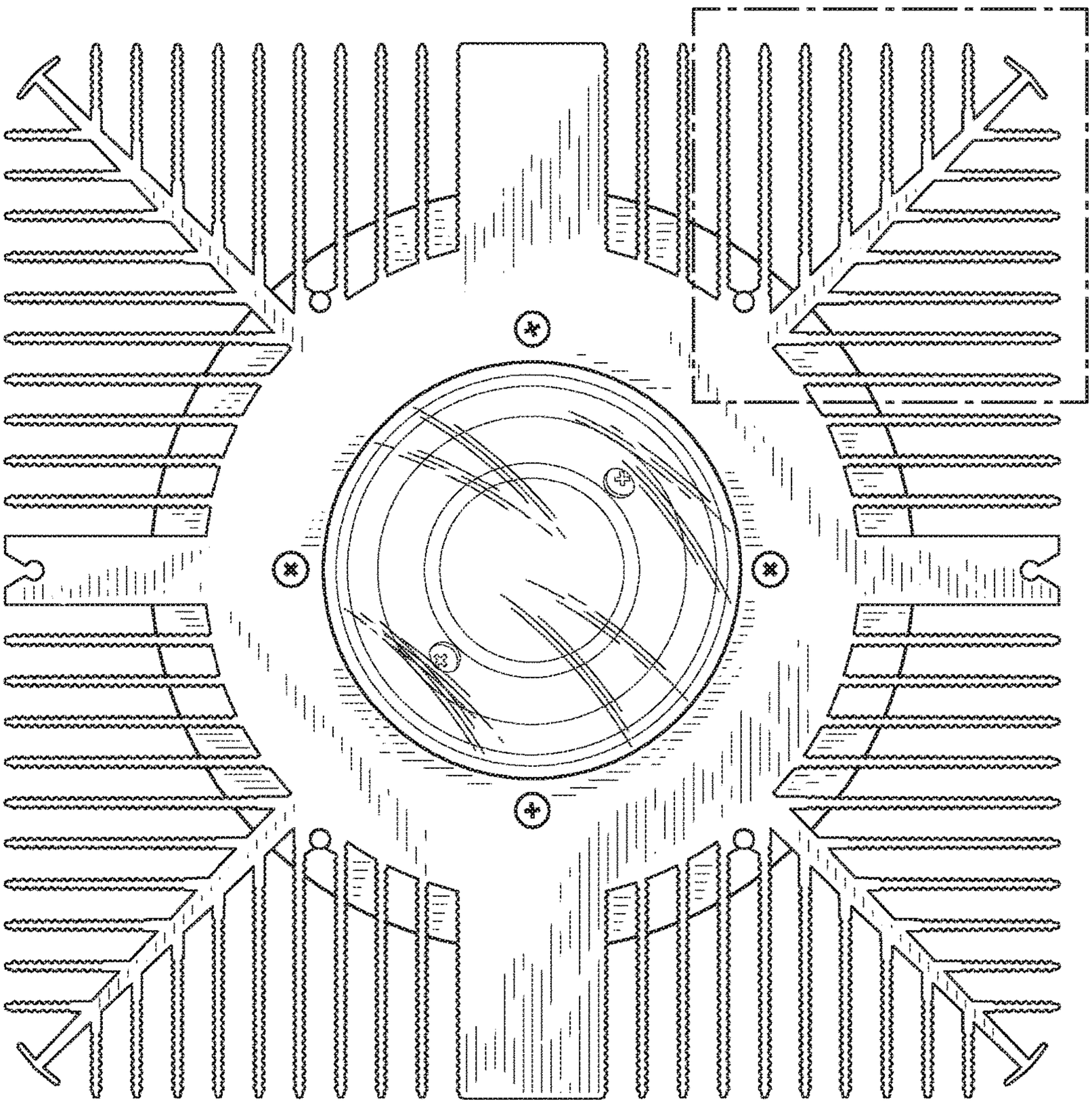


FIG. 8

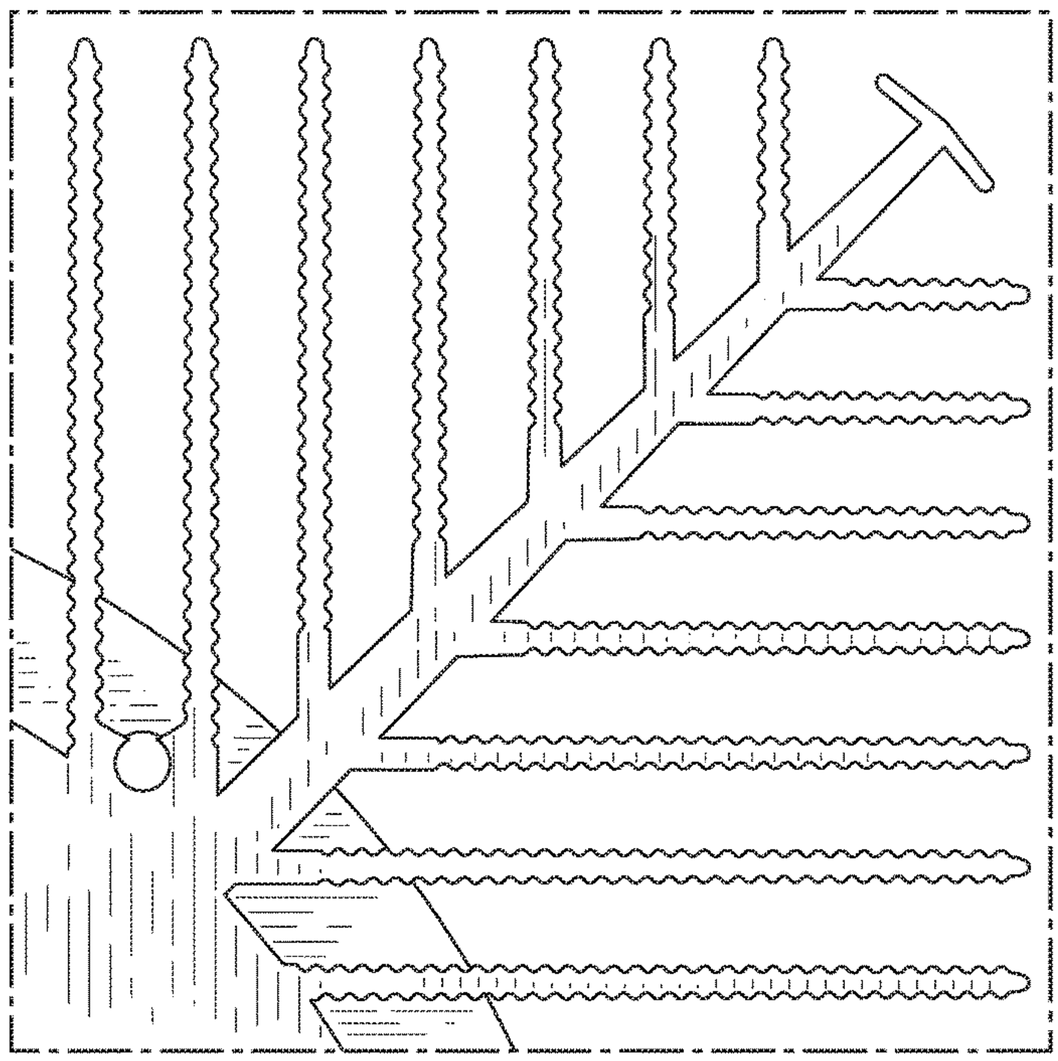


FIG. 9