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(12) **United States Design Patent** (10) **Patent No.:** **US D833,988 S**  
**Huang** (45) **Date of Patent:** **\*\* Nov. 20, 2018**

(54) **HEAT SINK**  
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(72) Inventor: **Tsung-Hsien Huang**, I-Lan Hsien (TW)  
(\*\*) Term: **15 Years**  
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Jul. 22, 2016 (CN) ..... 2016 3 0338852

(51) **LOC (11) Cl.** ..... **13-03**

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

(58) **Field of Classification Search**  
USPC ..... D13/179, 145, 184  
CPC . F28D 15/0275; F28D 21/0003; F02M 26/32;  
F28F 1/025; F28F 3/022; F28F 21/00  
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D487,885 S \* 3/2004 Fan ..... D13/179  
D496,338 S \* 9/2004 Chen ..... D13/179  
D573,110 S \* 7/2008 Otsuki ..... D13/179  
D579,423 S \* 10/2008 Chang ..... D13/179  
D582,359 S \* 12/2008 Chang ..... D13/179  
D715,750 S \* 10/2014 Mira ..... D13/179  
D786,807 S \* 5/2017 Murphy ..... D13/179  
2009/0260782 A1\* 10/2009 Whitney ..... B21D 53/02  
165/104.21  
2012/0067550 A1\* 3/2012 Shih ..... F28D 15/0233  
165/104.21

2013/0168055 A1\* 7/2013 Wu ..... F28D 15/0233  
165/104.26  
2014/0202666 A1\* 7/2014 Cheng ..... F28F 3/06  
165/104.26  
2015/0219400 A1\* 8/2015 Sasaki ..... H01L 23/427  
165/104.26  
2017/0082377 A1\* 3/2017 Lin ..... F28F 3/02  
2017/0094843 A1\* 3/2017 Agostini ..... F28F 13/10  
2017/0102186 A1\* 4/2017 Huang ..... F28D 15/0275  
2017/0153063 A1\* 6/2017 Lin ..... F28D 15/0233  
2017/0153065 A1\* 6/2017 Lan ..... F28D 15/0275  
2017/0229376 A1\* 8/2017 Lin ..... H01L 23/427

\* cited by examiner

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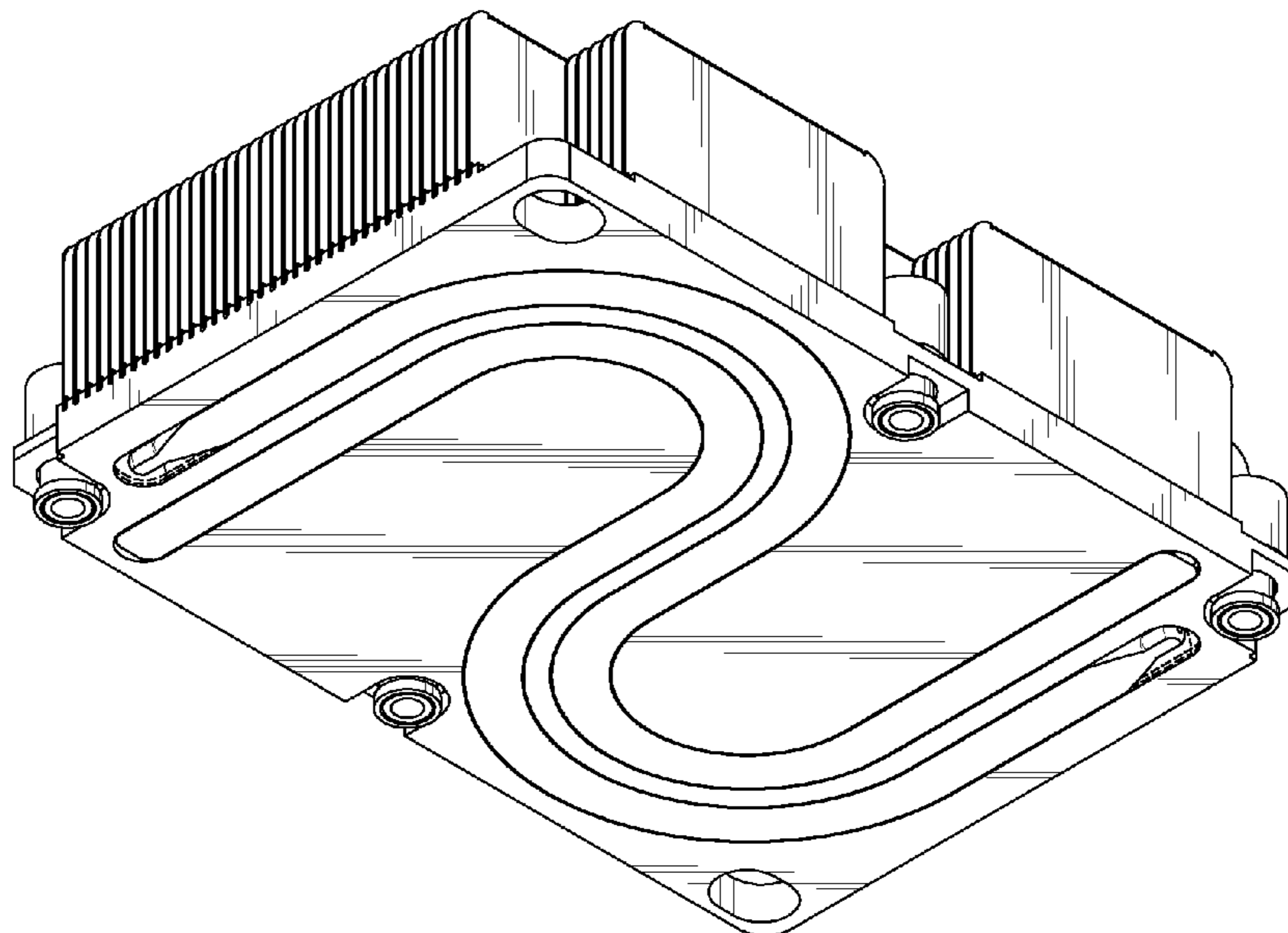
(57) **CLAIM**

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

**DESCRIPTION**

FIG. 1 is a top perspective view of a heat sink, showing my new design;  
FIG. 2 is a bottom perspective view thereof;  
FIG. 3 is a front elevational view thereof;  
FIG. 4 is a rear elevational view thereof;  
FIG. 5 is a left side elevational view thereof;  
FIG. 6 is a right side elevational view thereof;  
FIG. 7 is a top plan view thereof; and,  
FIG. 8 is a bottom plan view thereof.  
The broken lines illustrate portions of the heat sink and form no part of the claimed design.

**1 Claim, 5 Drawing Sheets**



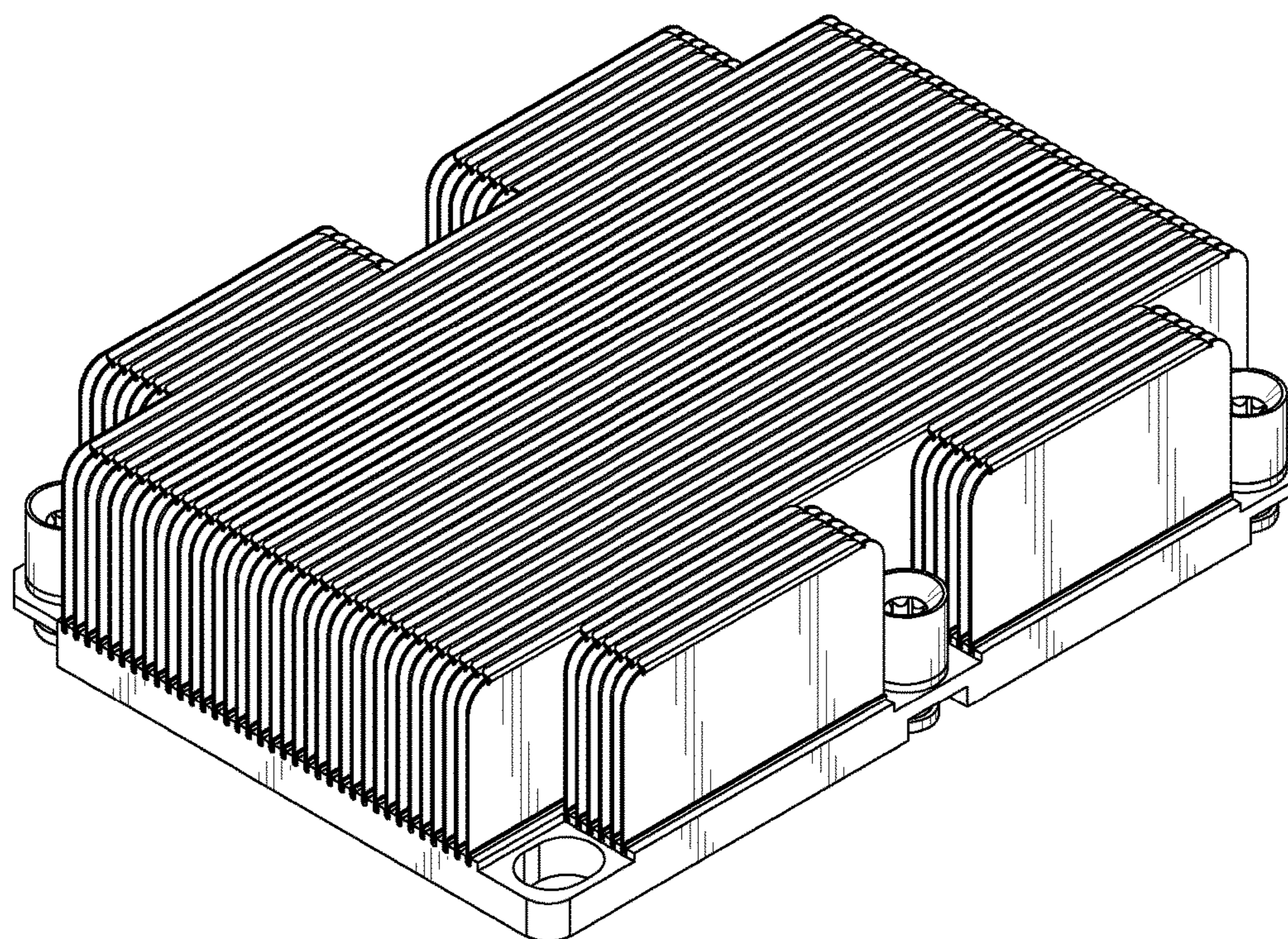


FIG. 1

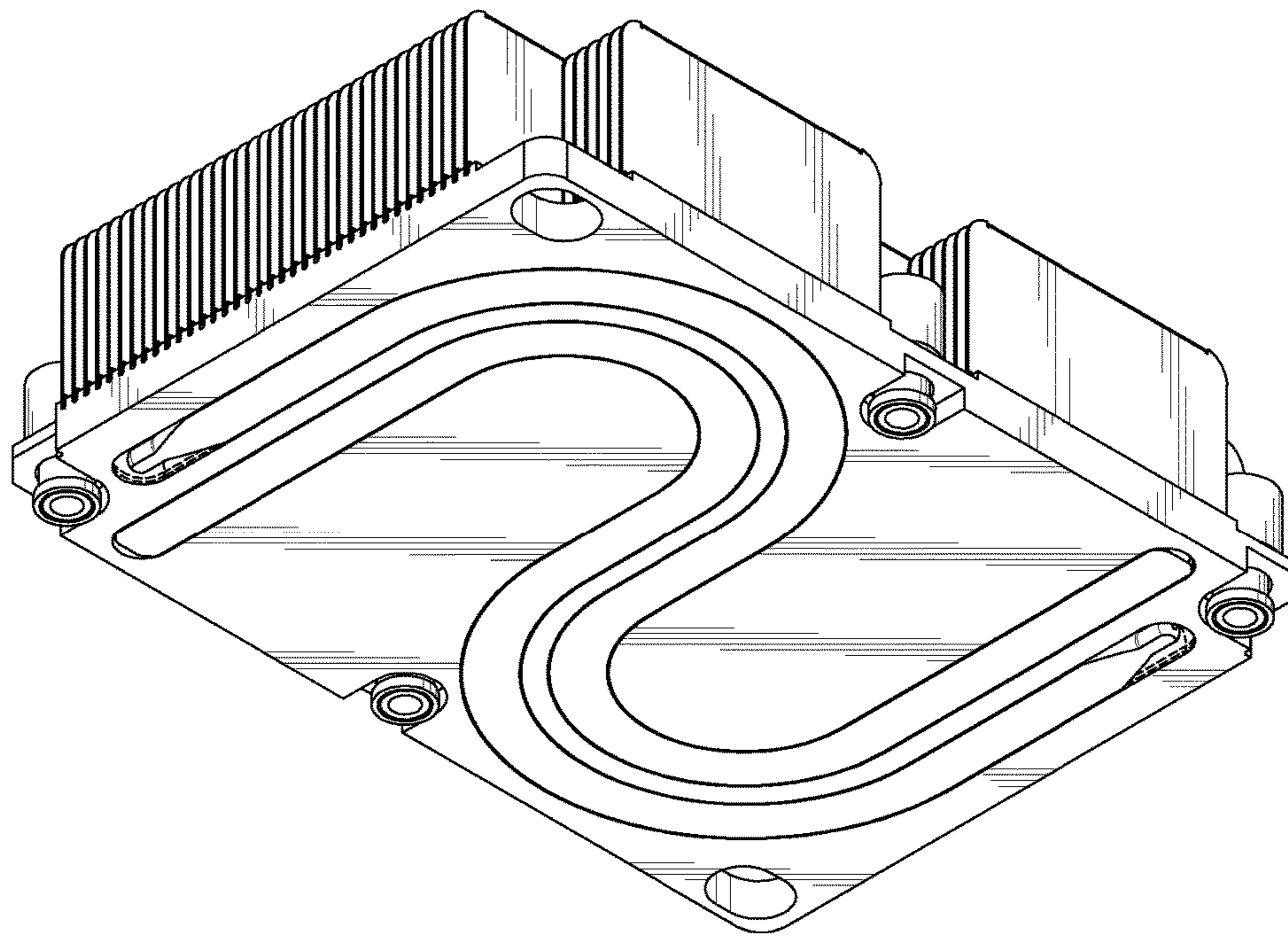


FIG. 2

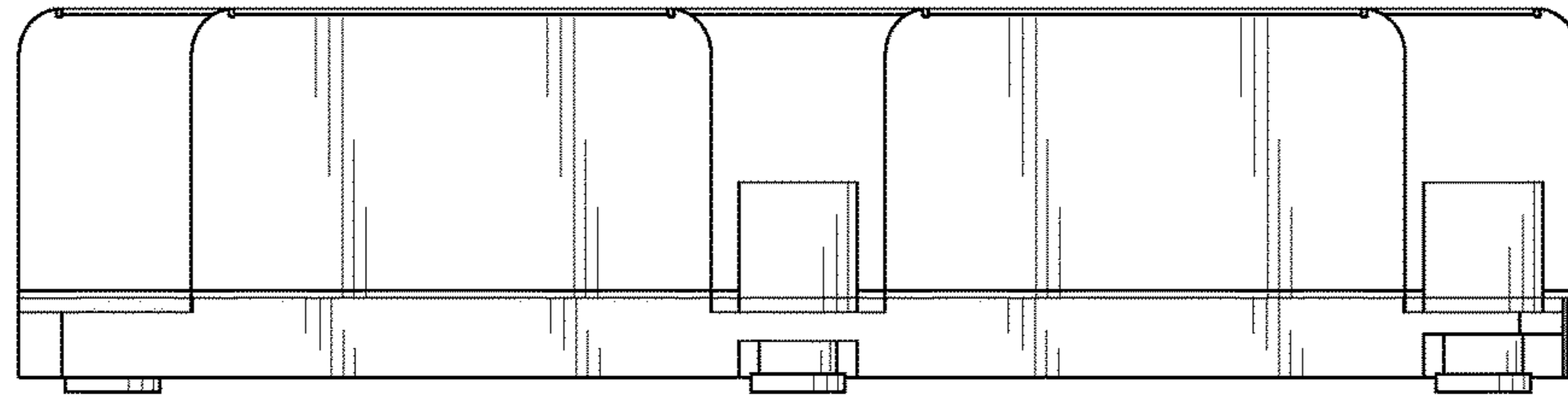


FIG. 3

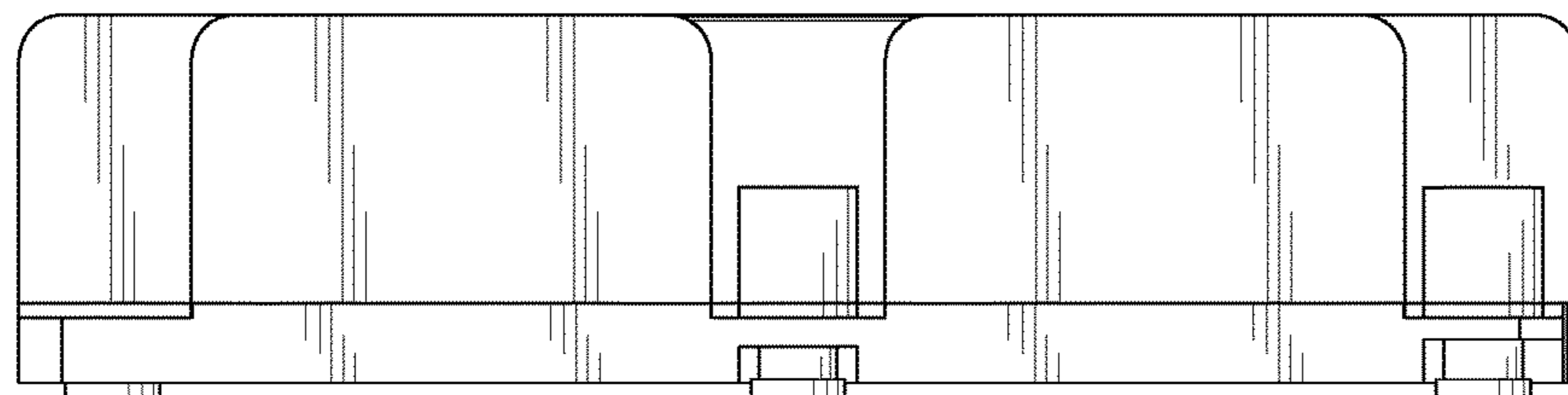


FIG. 4

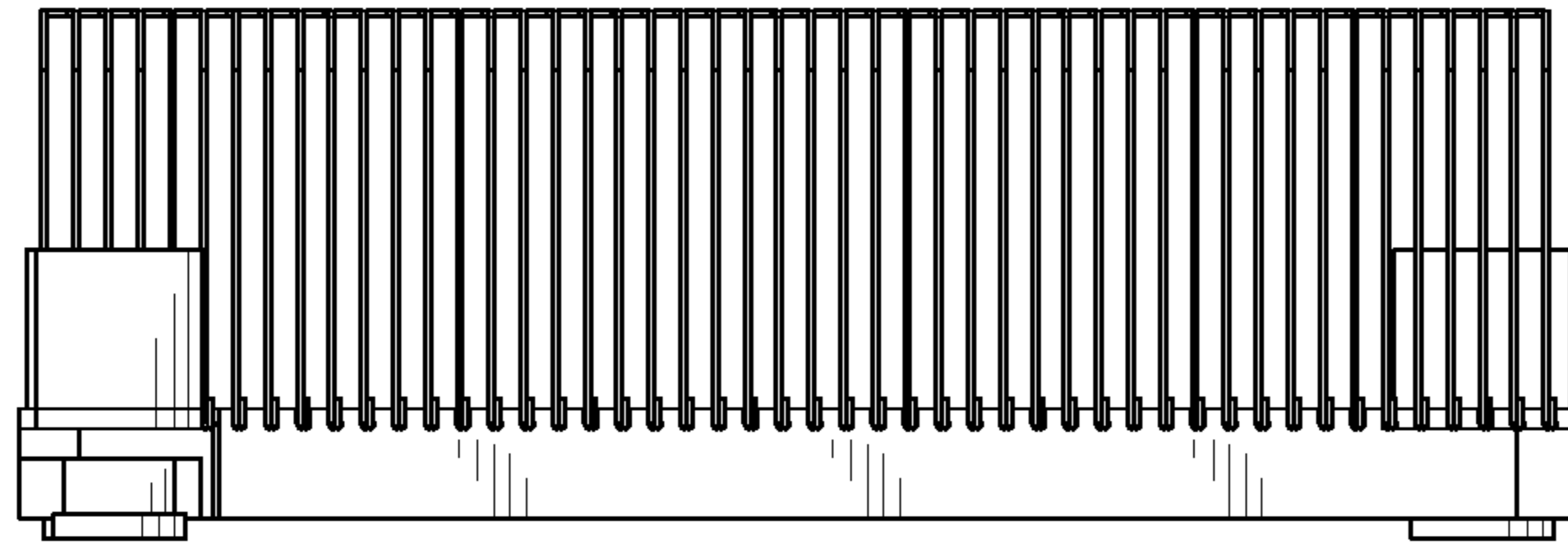


FIG. 5

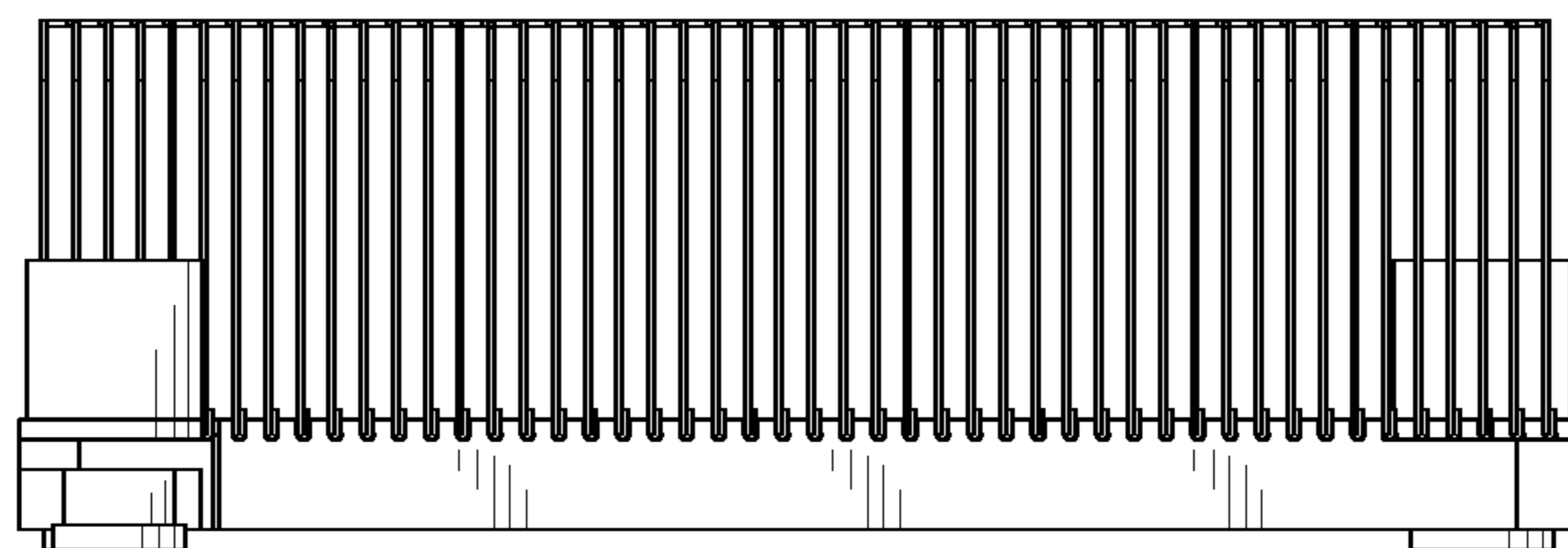


FIG. 6

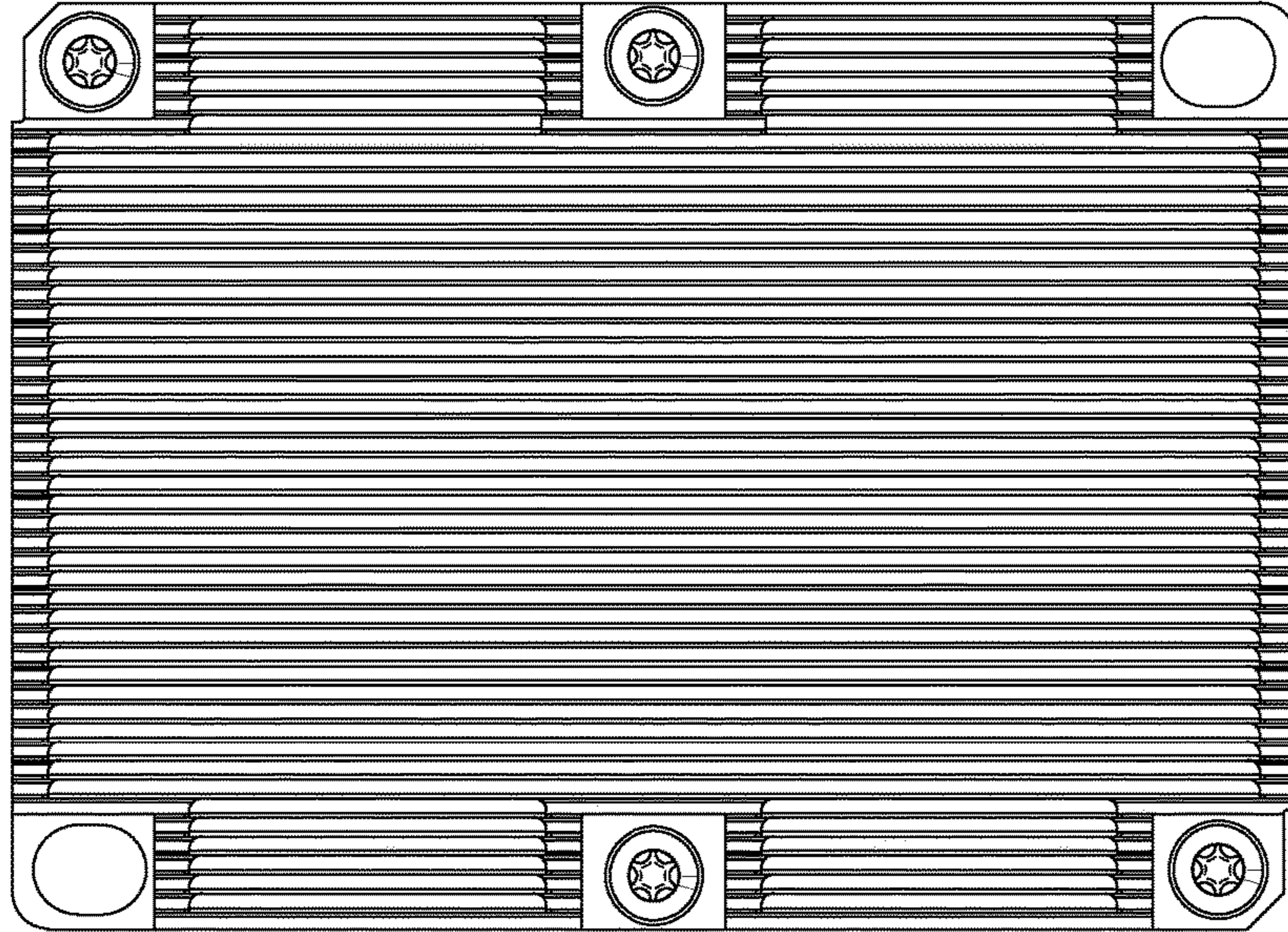


FIG. 7

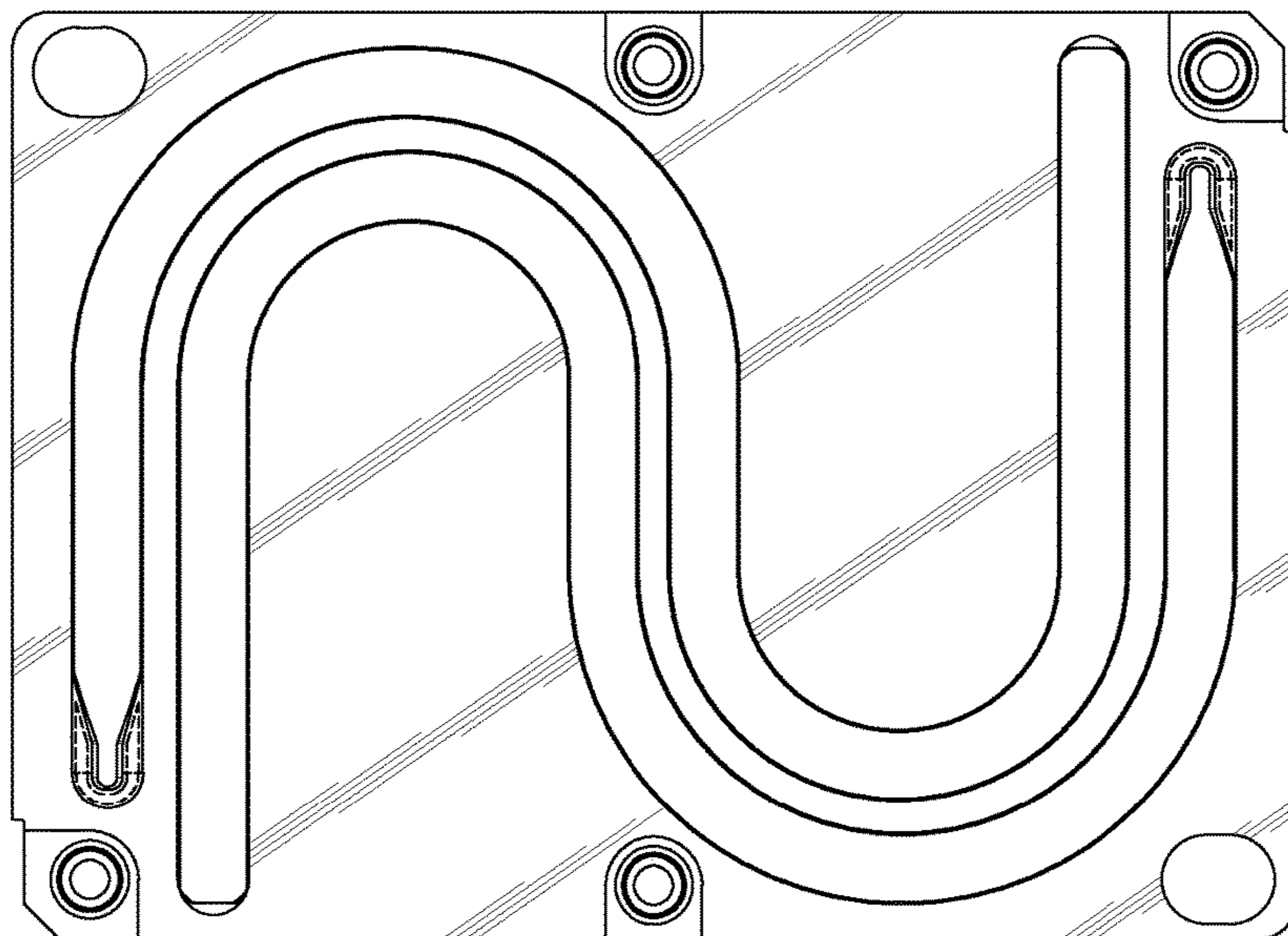


FIG. 8