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(12) **United States Design Patent**
Chen et al.

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(54) **HEAT SINK**

(56) **References Cited**

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U.S. PATENT DOCUMENTS

(72) Inventors: **Kai Chen**, Hangzhou (CN); **Jianming Huang**, Hangzhou (CN)

5,574,626	A *	11/1996	Smith	361/204
D379,799	S *	6/1997	Widmayer et al.	D13/179
6,141,220	A *	10/2000	Lin	361/704
6,307,747	B1 *	10/2001	Farnsworth et al.	361/704
6,483,704	B2 *	11/2002	Ulen et al.	361/704
6,560,113	B1 *	5/2003	Ma	361/719
6,722,908	B2 *	4/2004	Llapitan et al.	439/327
7,391,614	B2 *	6/2008	Artman	361/704
7,626,822	B2 *	12/2009	Ma et al.	361/719
7,760,509	B1 *	7/2010	Zhao et al.	361/719
8,009,428	B1 *	8/2011	Ye	361/710
8,051,896	B2 *	11/2011	Wayman	165/80.3
D672,322	S *	12/2012	Lin	D13/179
D672,728	S *	12/2012	Lin	D13/179
2011/0286216	A1 *	11/2011	Araman	362/249.02

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

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(22) Filed: **Dec. 18, 2014**

* cited by examiner

(30) **Foreign Application Priority Data**

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Primary Examiner — Selina Sikder

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

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

(57) **CLAIM**

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

(58) **Field of Classification Search**

DESCRIPTION

USPC D13/179
CPC F28D 1/0246; F28D 1/0426; F28D 15/02;
F28D 15/0266; F28D 15/0275; F28D 15/04;
F28F 13/003; F28F 13/12; F28F 1/325;
F04D 25/0613; F04D 25/068; F04D
29/281422; F21V 29/2293; F21V 29/2231;
G03B 21/16; G06F 1/20; G06F 1/203; H01L
23/34; H01L 23/367; H01L 23/3672; H01L
23/40; H01L 23/4006; H01L 23/4093; H01L
23/427; H01L 23/467; H05K 7/20; H05K
7/20127; H05K 7/20145; H05K 7/20154;
H05K 7/20172; H05K 7/20336

FIG. 1 is a front perspective view of the heat sink of the present invention.
FIG. 2 is a back perspective view of the heat sink of the present invention.
FIG. 3 is a side view of the heat sink.
FIG. 4 is a side view of the heat sink, showing the opposite side from FIG. 2.
FIG. 5 is a top view of the heat sink.
FIG. 6 is a bottom view of the heat sink.
FIG. 7 is a front view of the heat sink; and,
FIG. 8 is a back view of the heat sink.

See application file for complete search history.

1 Claim, 3 Drawing Sheets

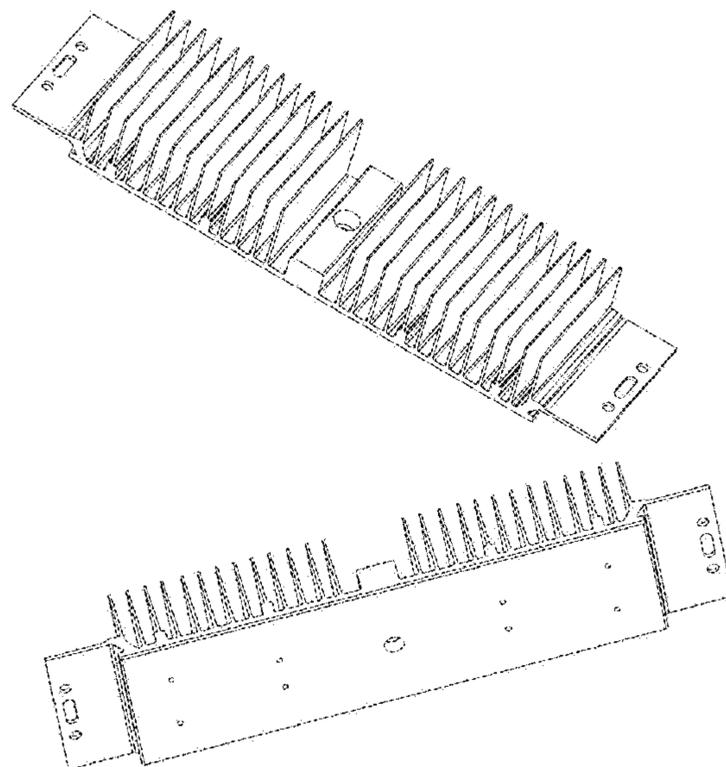


Fig. 1

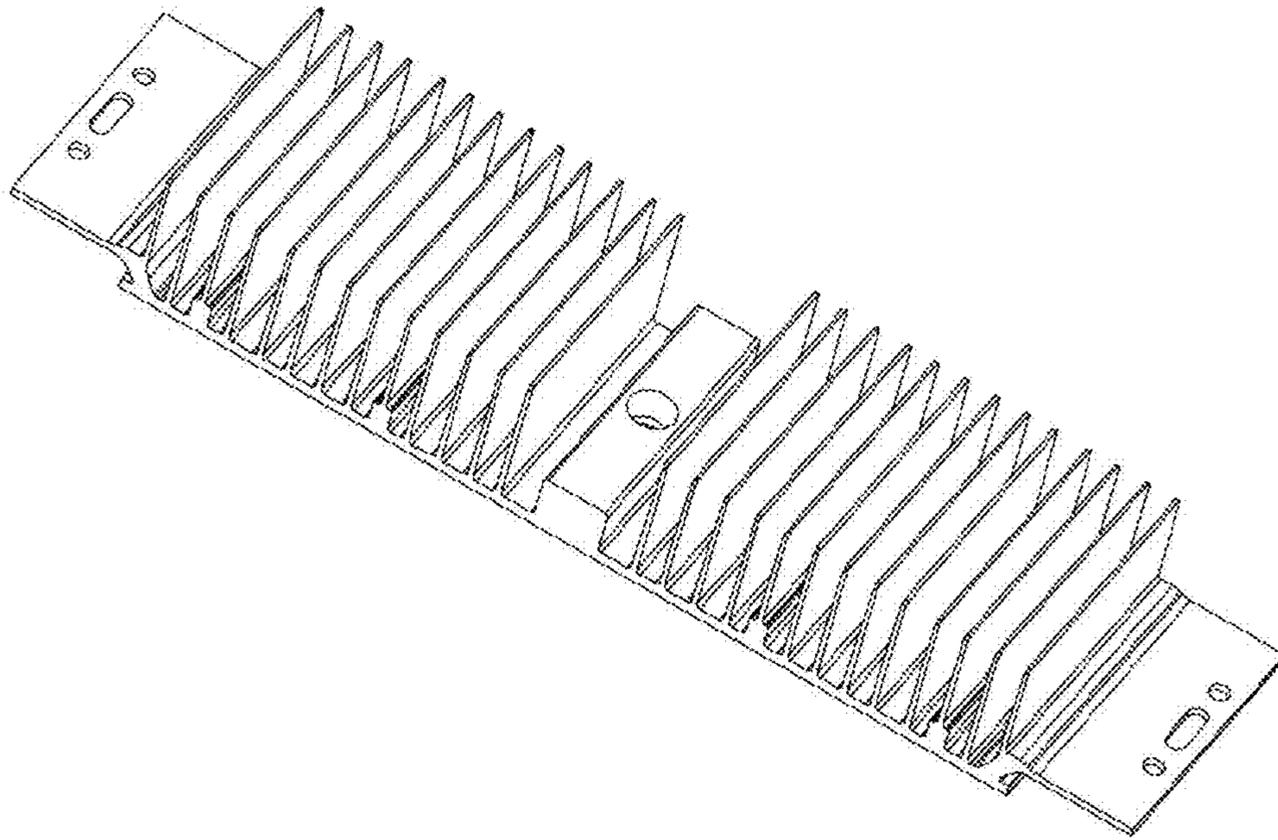


Fig. 2

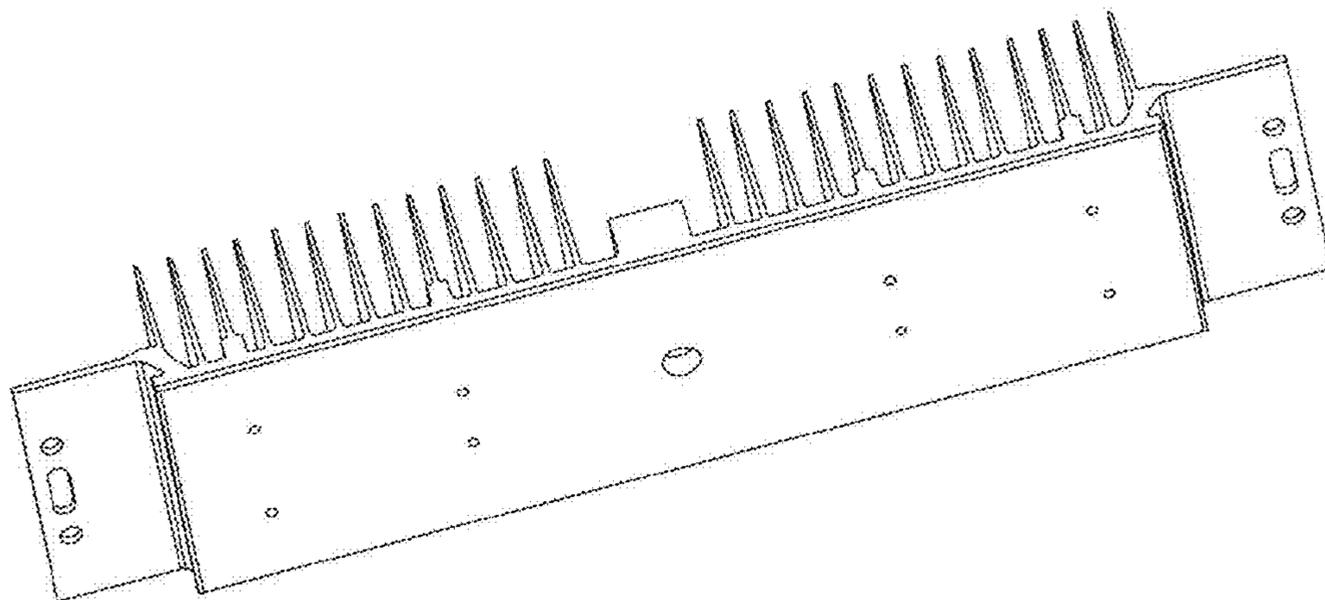


Fig. 3

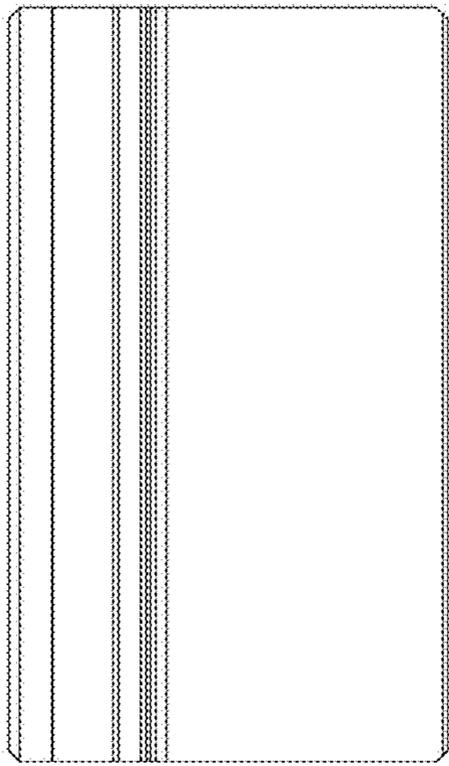


Fig. 4

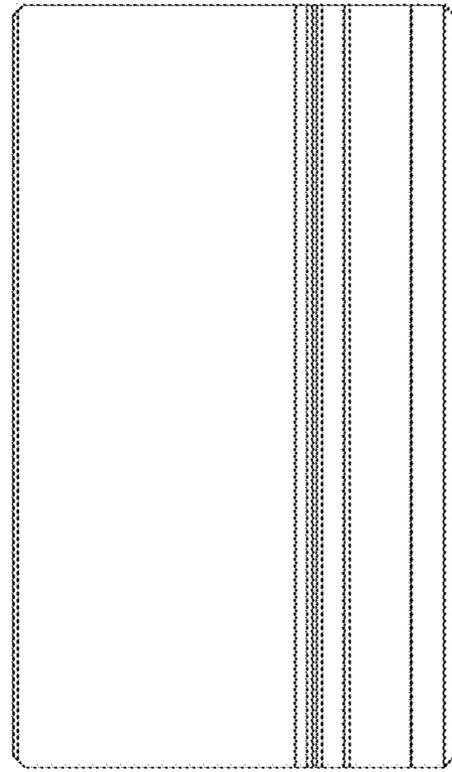


Fig. 5

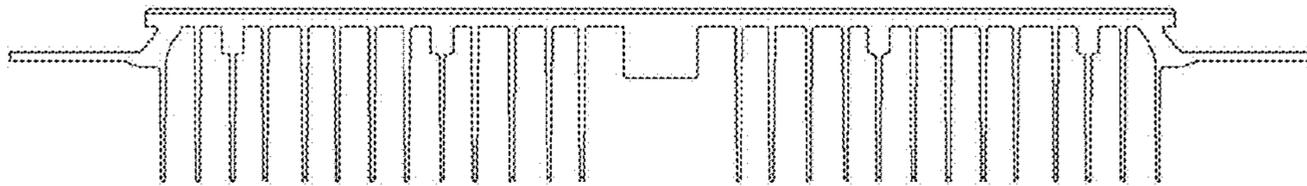


Fig. 6

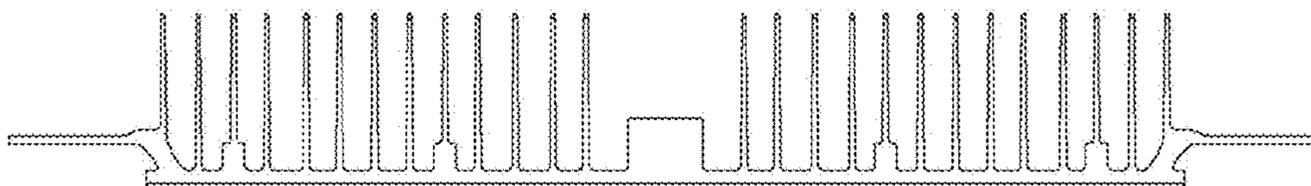


Fig. 7

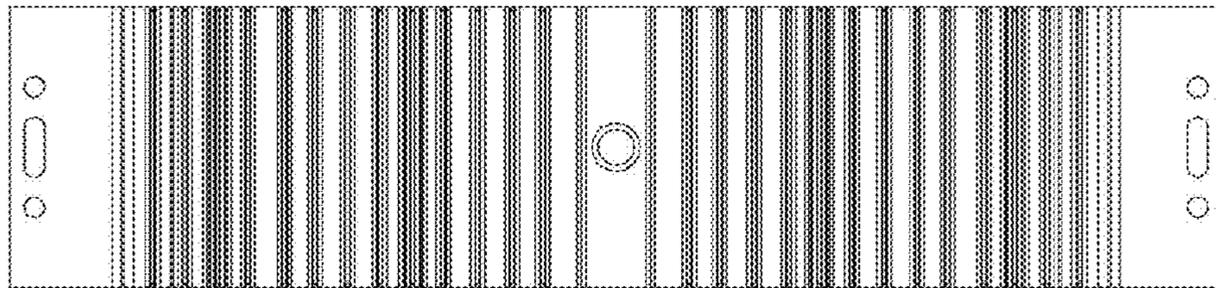


Fig. 8

