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

(10) **Patent No.:** **US D797,688 S**
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- (54) **LIGHT EMITTING DIODE**
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- (**) Term: **15 Years**

7,687,292	B2 *	3/2010	Park	H01L 33/60
					257/E21.499
D623,611	S *	9/2010	Okuwaki	D13/180
7,960,748	B2 *	6/2011	Sakamoto	.....	H01L 33/60
					257/100
D647,068	S *	10/2011	Okuwaki	.....	D13/180
D647,865	S *	11/2011	Miyashita	.....	D13/180
D661,263	S *	6/2012	Okuwaki	.....	D13/180
D662,903	S *	7/2012	Kobayakawa	.....	D13/180
D663,703	S *	7/2012	Kobayakawa	.....	D13/180
D664,106	S *	7/2012	Kobayakawa	.....	D13/180
D669,042	S *	10/2012	Kanemaru	.....	D13/180
D669,043	S *	10/2012	Kamijo	.....	D13/180
8,410,502	B2 *	4/2013	Okamoto	G02B 6/0083
					257/100

(Continued)

(21) Appl. No.: **29/567,682**

FOREIGN PATENT DOCUMENTS

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(30) **Foreign Application Priority Data**

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

(52) **U.S. Cl.**
USPC **D13/180**

(57) **CLAIM**

(58) **Field of Classification Search**

The ornamental design for a light emitting diode, as shown and described.

USPC D13/180; D26/1
 CPC ... H01L 25/167; H01L 25/0753; H01L 27/15;
 H01L 27/156; H01L 33/00; H01L 33/04;
 H01L 33/08; H01L 33/10; H01L 33/20;
 H01L 33/38; H01L 33/42; H01L 33/48;
 H01L 33/483; H01L 33/486; H01L 33/60;
 F21K 9/135; F21K 9/30; F21K 9/50;
 Y10S 362/80

DESCRIPTION

See application file for complete search history.

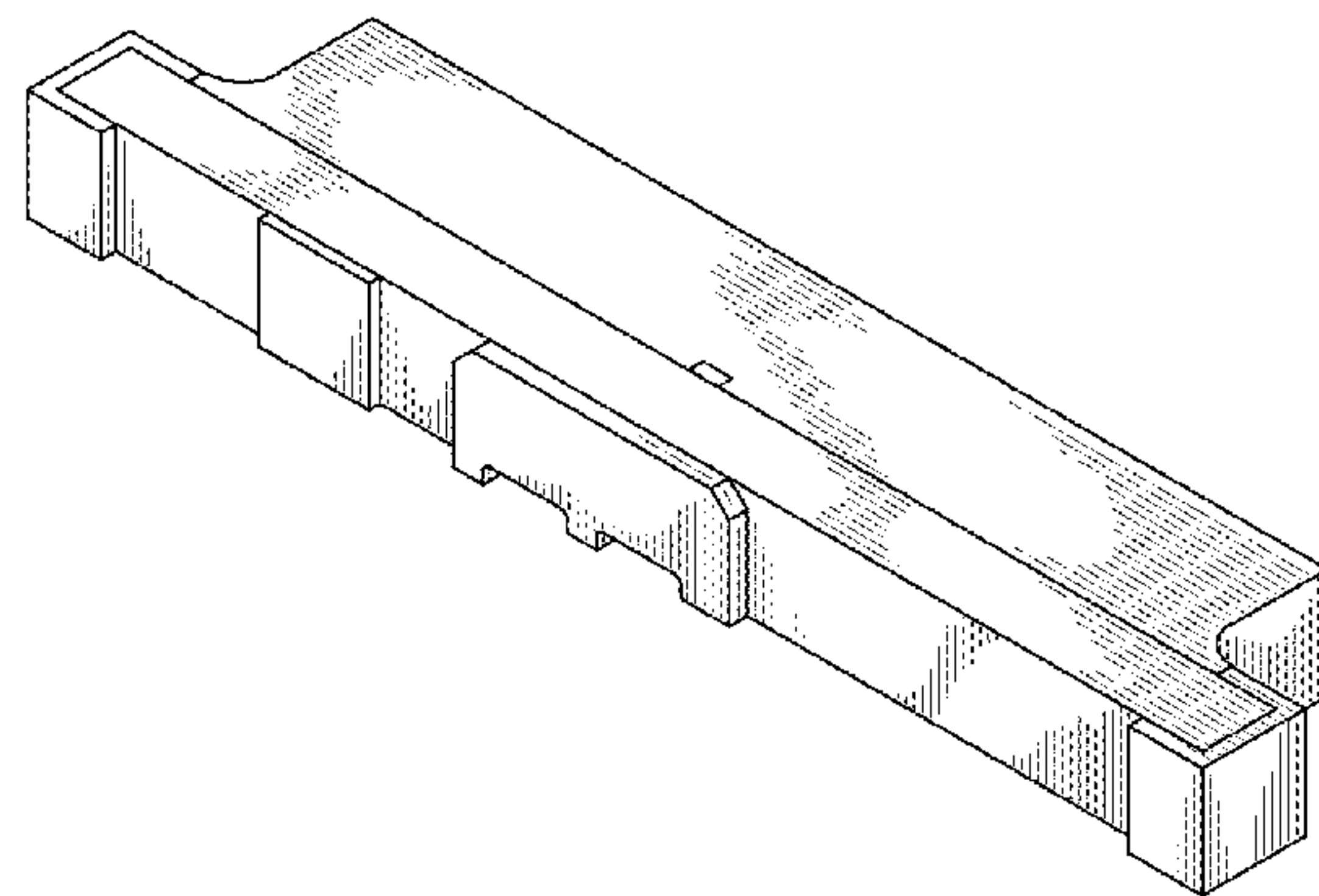
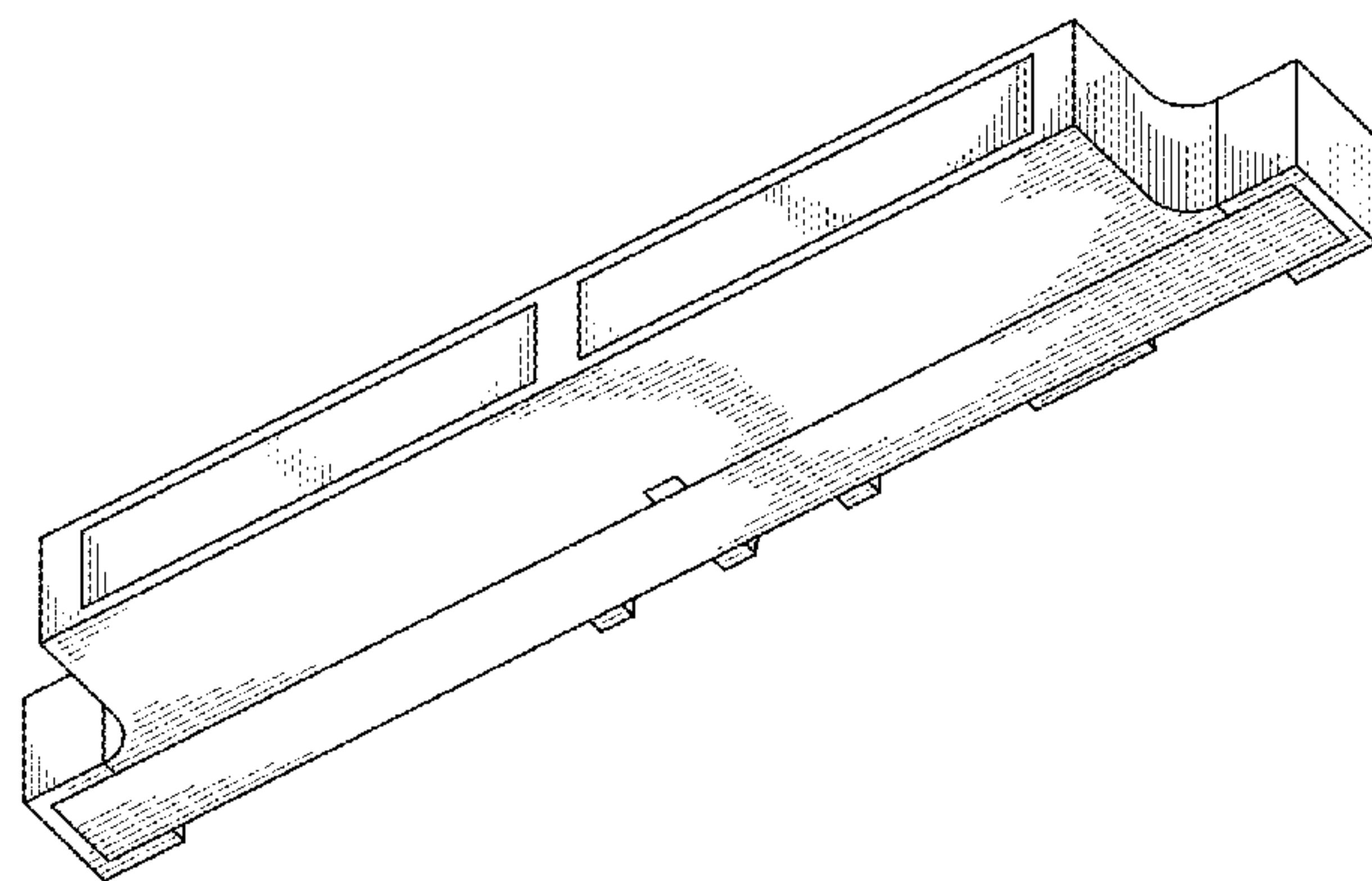
FIG. 1 is a front perspective view of a light emitting diode showing our new design;
 FIG. 2 is a rear perspective view thereof;
 FIG. 3 is a front view thereof;
 FIG. 4 is a rear view thereof;
 FIG. 5 is a left side view thereof;
 FIG. 6 is a right side view thereof;
 FIG. 7 is a top plan view thereof;
 FIG. 8 is a bottom view thereof; and,
 FIG. 9 is an alternate front view thereof wherein the lighting emitting surfaces are translucent.

(56) **References Cited**

U.S. PATENT DOCUMENTS

1 Claim, 9 Drawing Sheets

D476,960	S *	7/2003	Fukasawa	.....	D13/182
D478,879	S *	8/2003	Imai	.....	D13/182
D590,354	S *	4/2009	Tsuchiya	.....	D13/180



(56)

References Cited

U.S. PATENT DOCUMENTS

8,879,023 B2 * 11/2014 Tsou H01L 33/62
257/81
9,406,852 B2 * 8/2016 Nakabayashi H01L 33/486
9,461,207 B2 * 10/2016 Yamashita H01L 33/62
D781,256 S * 3/2017 Tanaka D13/180
2011/0050071 A1 * 3/2011 Chung F21K 9/00
313/46
2016/0056350 A1 * 2/2016 Huang H01L 33/62
257/787
2016/0300987 A1 * 10/2016 Sanga H01L 33/38

* cited by examiner

FIG. 1

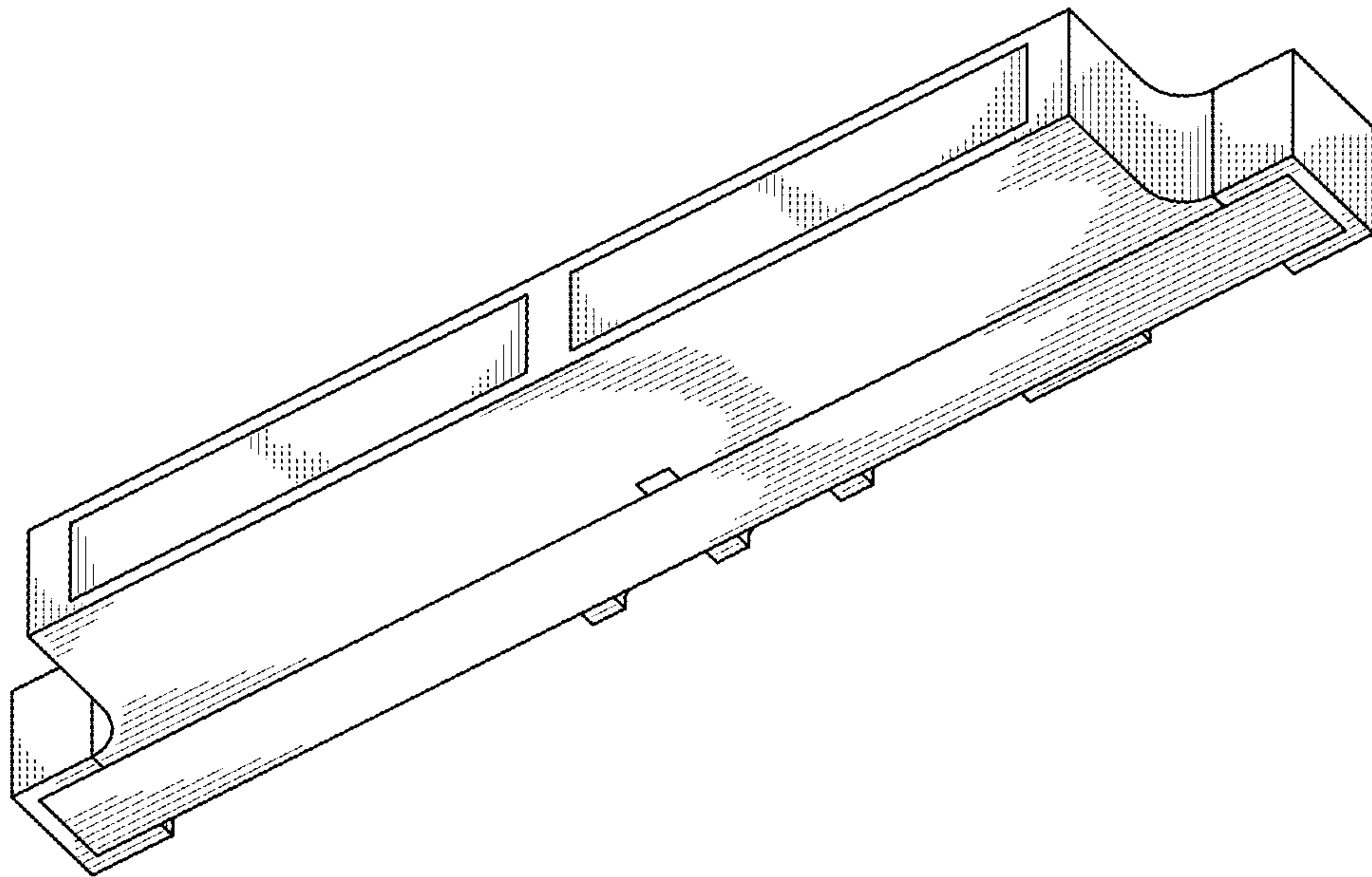


FIG. 2

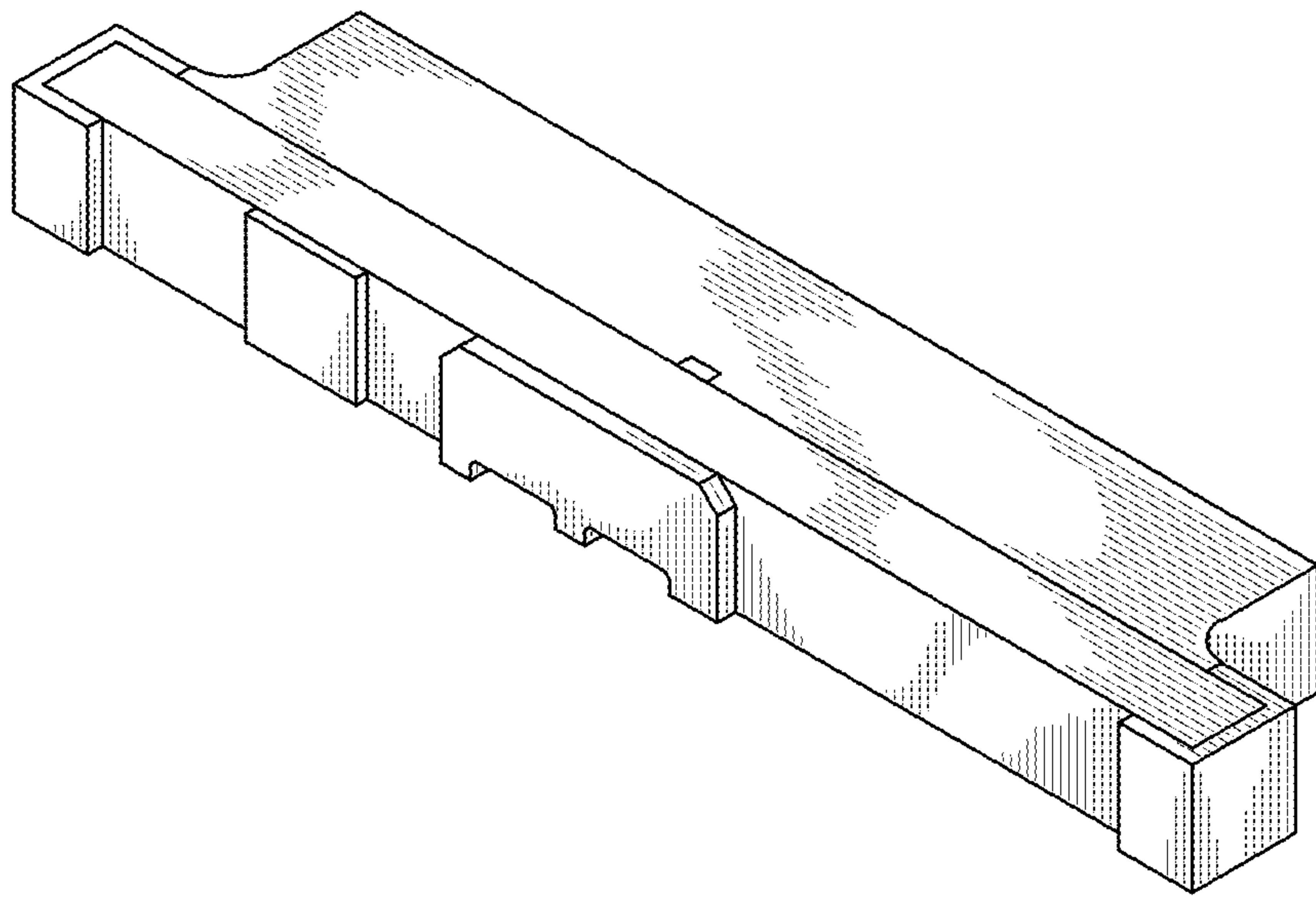


FIG. 3

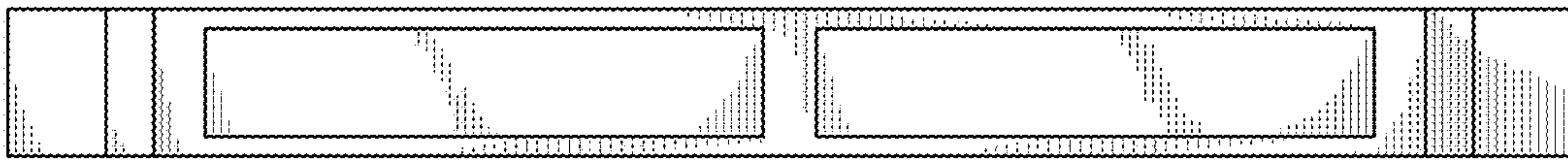


FIG. 4

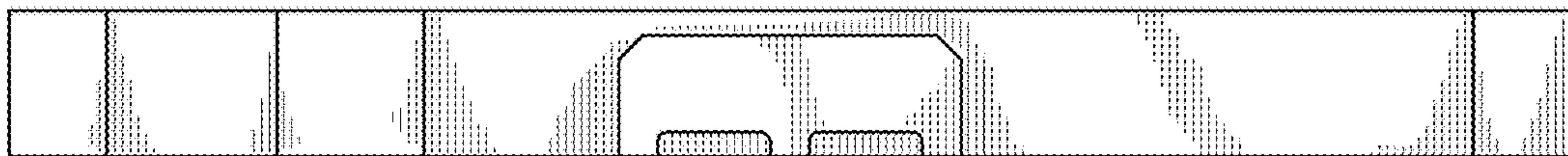


FIG. 5

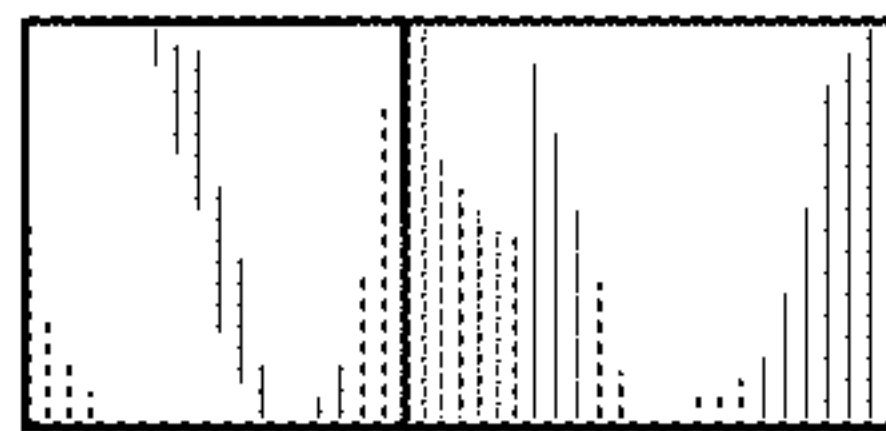


FIG. 6

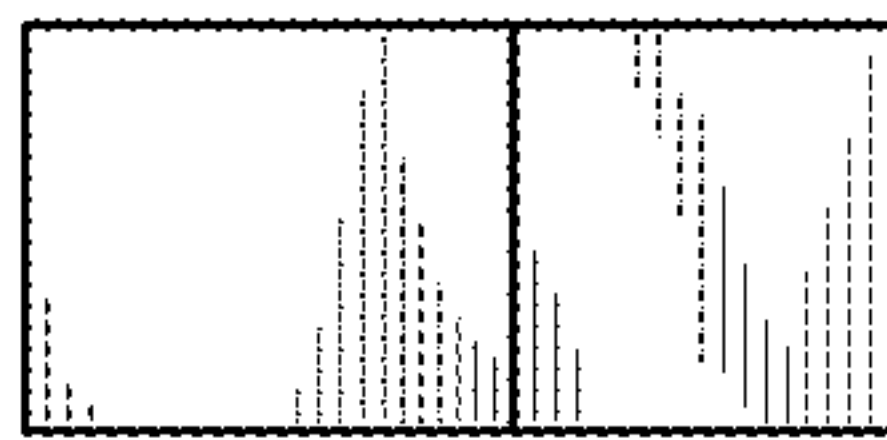


FIG. 7

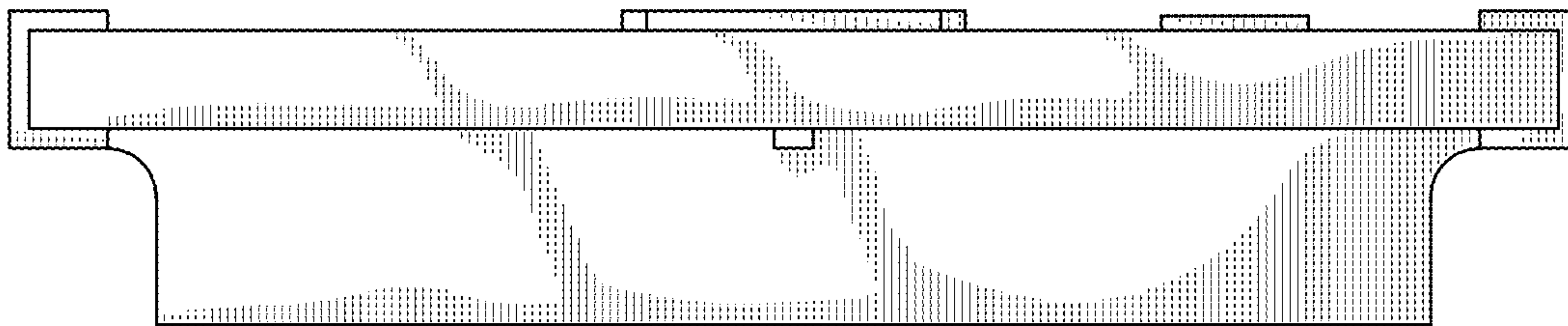


FIG. 8

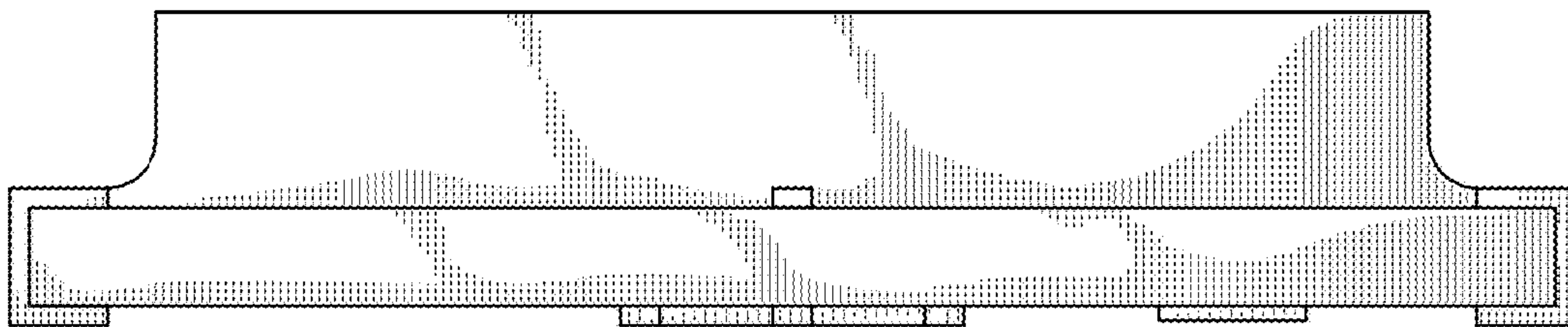




FIG. 9