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Fujiuchi et al.

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(54) **IMAGE SENSOR**

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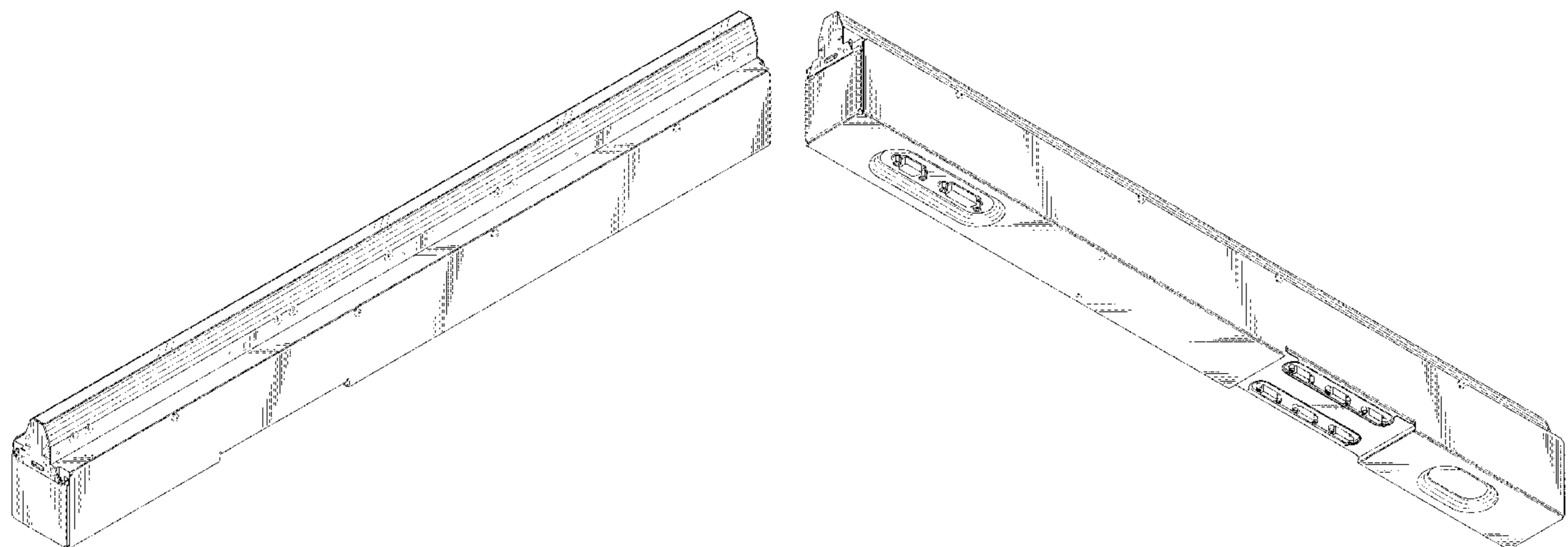
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(51) **LOC (10) Cl.** **14-02**

(52) **U.S. Cl.**
USPC **D14/420**; D14/421; D14/453

(58) **Field of Classification Search**
USPC D14/421-425, 420; D18/55, 49, 46, 40, D18/36-39, 41, 44, 45, 47, 48, 50-54, D18/56; 235/462, 455, 470, 462.43, 482, 235/483, 462.21, 472.01, 435, 439, 440, 235/446, 454, 461, 462.32, 462.35, 235/462.41, 462.42, 463; 358/474, 486, 358/488, 496, 497, 498, 452, 449, 451, 358/453, 1.13; 318/685, 696; 355/81, 355/75; 399/405, 367, 379, 380; 382/217; 715/209, 222, 226, 274; 400/613, 613.1-613.4, 690.1-690.4, 400/691-694; D26/1-3, 24, 56, 72, D26/74-86, 88-91, 25; D13/180, 182; 362/150, 217.01-217.09, 217.1, 217.12, 362/217.13, 260, 364, 365, 366, 404, 555, 362/576, 800, 14, 148, 296.01

CPC .. D07G 1/0036; D07G 1/0045; D07G 1/0063; D07G 1/0072; D07G 1/009; G08B 13/1427; G08B 13/1472; G08B 13/1481; G08B 13/194; G08B 13/246; G08B 13/2462; G08B 13/2465; A47F 9/04; A47F 9/046; A47F 9/047; A47F 9/048; A47F 10/02; A47F 2010/005; A47F 2010/025; G06K 7/10693; G06K 7/10712; G06K 7/10722; G06K 7/10792; G06K 7/10801; G06K 7/10811; G06K 7/1096; G06K 7/1097; G06K 7/1098; G06K 7/12; G06K 7/14; G06K 7/143; G06K 7/146; G06K 2007/10485; G06K 7/10544-7/10762; G06K 7/10821-7/10871; G06K 7/1404-7/1495; G06K 2207/00; G06K 2207/1011-2207/1018; G01G 19/4144; G01G 21/22; G01G 21/28; G01G 23/32; G01G 23/34; G01G 23/35; G01G 23/375; G01G 23/38; G01G 23/44; G07G 1/0063; G07G 1/0072; G07G 3/006; G02B 5/09; G02B 6/00; G06T 2211/00; H04N 1/0313-1/032; H04N 1/02815-1/02895; H04N 1/0249; H04N 1/02481; H04N 1/00; H04N 1/12; H04N 1/00013; H04N 1/00015; H04N 1/00018; H04N 1/00026; H04N 1/00557; H04N 1/00564; H04N 1/00567; H04N 1/0057; H04N 1/00572; H04N 1/0586; H04N 1/00588; H04N 1/00591; H04N 1/00594; H04N 1/00596; H04N 1/00604; H04N 1/00519; H04N 1/00559; H04N 1/00551; H04N 1/00278; H04N 1/1013; H04N 1/10; H04N 5/2251-5/2256; H04N 2201/02456; H04N 2201/02458; H04N 2201/02462; H04N 2201/03468; H04N 2201/02485; H04N 2201/0249; H04N 2201/02481; H04N 2201/0456; H04N 2201/0446; H04N 2201/00; H04N 2201/0094; H01L 27/14618-27/14643; H01L 27/14649; H01L 27/14652; H01L 27/14658-27/1467; H01L 31/0232-31/02327; H01L 31/1055; H01L 31/14; G03G 15/0142; G03G 15/605;



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G03G 15/602; F21S 2/00; F21S 4/00;
 F21S 4/003; F21S 4/005; F21S 4/006;
 F21S 4/007; F21S 4/008; F21S 6/00;
 F21S 8/00; F21S 8/024; F21S 8/026;
 F21S 8/031; F21S 8/033; F21S
 8/035-8/037; F21S 8/04; F21S 8/043;
 F21S 8/063

See application file for complete search history.

(56)

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2010/0238520	A1 *	9/2010	Nagata	G02B 3/0062 358/475	2015/0316706	A1 *	11/2015	Fujiuchi	H04N 1/02835 358/482
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2013/0181311	A1 *	7/2013	Sugiyama	H04N 1/193 257/432	<i>Primary Examiner</i> — Susan Moon Lee				
2013/0222918	A1 *	8/2013	Nemoto	G03G 15/04054 359/622	(74) <i>Attorney, Agent, or Firm</i> — Studebaker & Brackett PC				
2013/0250373	A1 *	9/2013	Takeuchi	H04N 1/0285 358/474	(57)	CLAIM			
2013/0265617	A1 *	10/2013	Murakami	G02B 6/0001 358/448	The ornamental design for an image sensor, as shown and described.				
2013/0265618	A1 *	10/2013	Kobayashi	H04N 1/00557 358/475	DESCRIPTION				
2013/0314756	A1 *	11/2013	Amemiya	F21V 13/04 358/497	FIG. 1 is a front perspective view of the front, left, and top sides of an image sensor showing our new design;				
2014/0014819	A1 *	1/2014	Yoshida	G02B 6/0096 250/208.1	FIG. 2 is a rear perspective view of the rear, right, and bottom sides thereof;				
2014/0111835	A1 *	4/2014	Ozawa	H04N 1/028 358/475	FIG. 3 is a front view thereof;				
2014/0168724	A1 *	6/2014	Kobayashi	H04N 1/02835 358/475	FIG. 4 is a rear view thereof;				
2014/0169656	A1 *	6/2014	Shimoda	G02B 6/0001 382/135	FIG. 5 is a left side view thereof;				
2014/0198355	A1 *	7/2014	Miwa	H04N 1/0318 358/482	FIG. 6 is a right side view thereof;				
2014/0320937	A1 *	10/2014	Horiguchi	H04N 1/02835 358/475	FIG. 7 is a top plan view thereof;				
2014/0346578	A1 *	11/2014	Hirota	H01L 27/14614 257/292	FIG. 8 is a bottom view thereof; and,				
2014/0376065	A1 *	12/2014	Okamoto	H04N 1/00989 358/475	FIG. 9 is an enlarged left side view thereof.				
2015/0015924	A1 *	1/2015	Fujiuchi	H04N 1/02835 358/474	Broken lines and unshaded portions contained within broken lines depict exemplary elements of the image sensor that are shown for illustrative purposes only and that form no part of the claimed design.				

1 Claim, 9 Drawing Sheets

FIG. 1

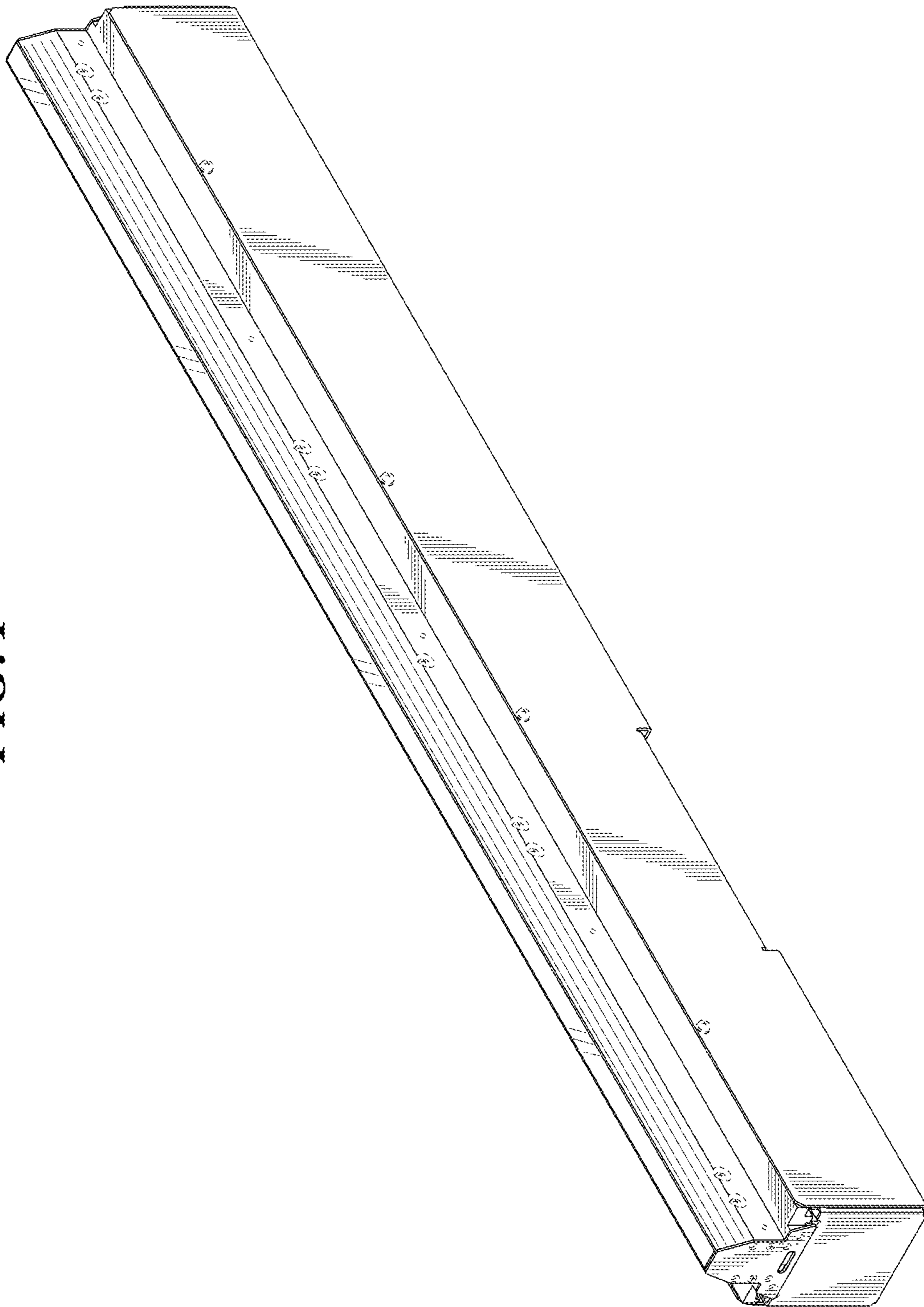


FIG. 2

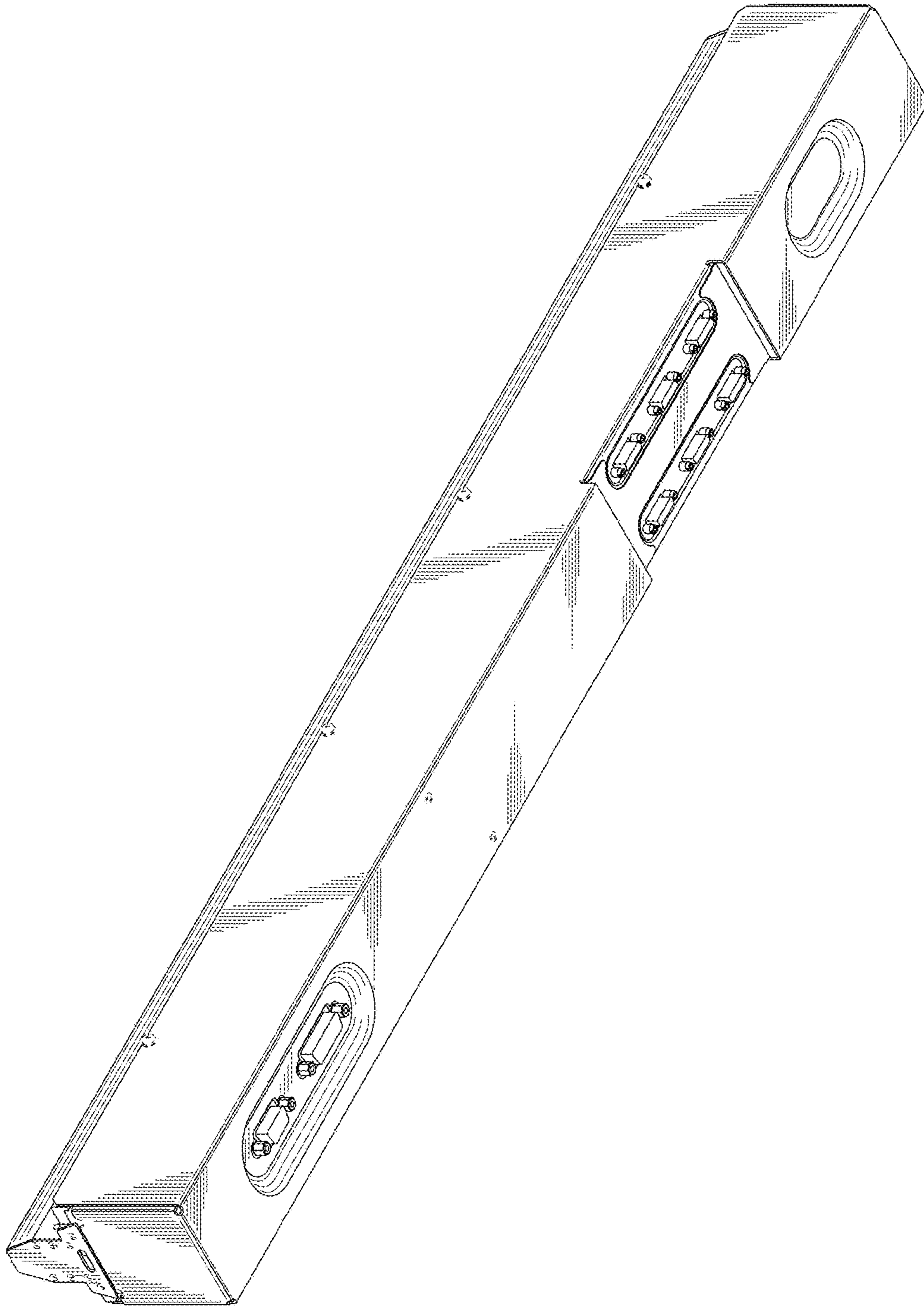


FIG. 3

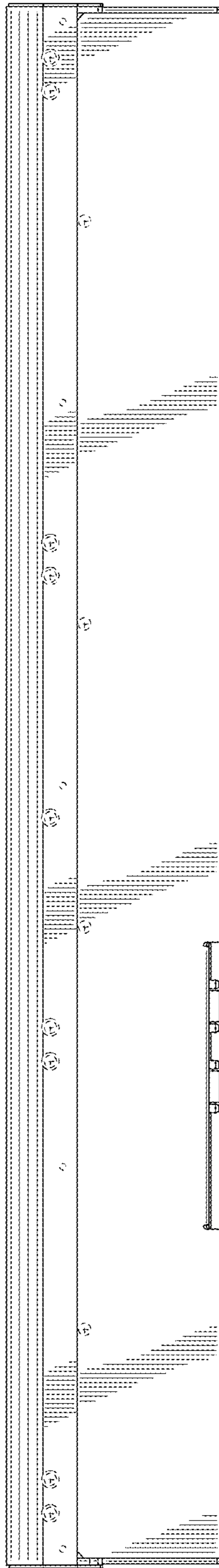


FIG. 4

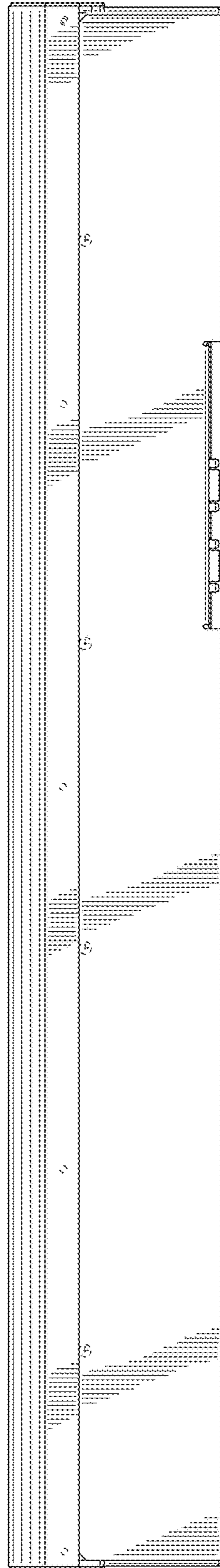


FIG. 5

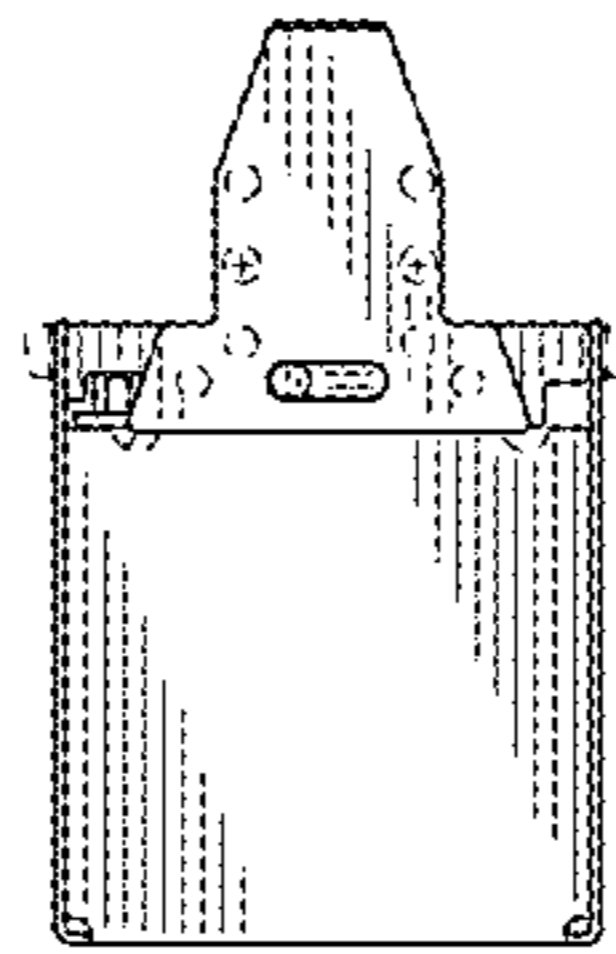


FIG. 6

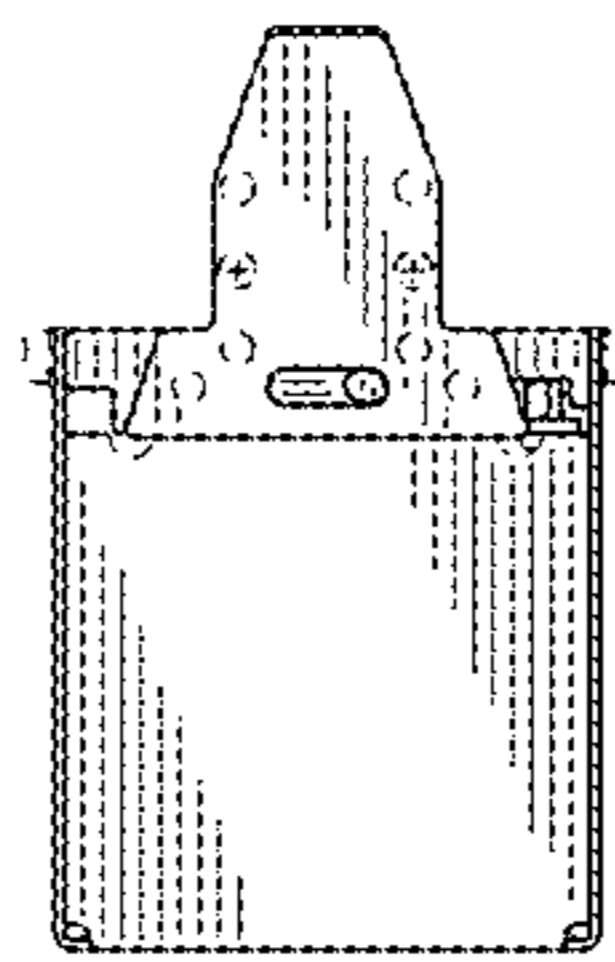


FIG. 7

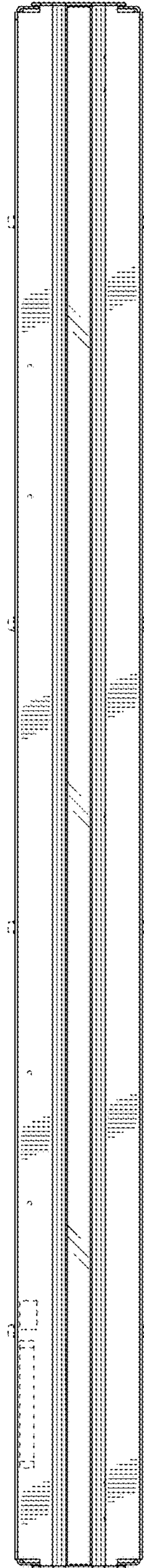


FIG. 8

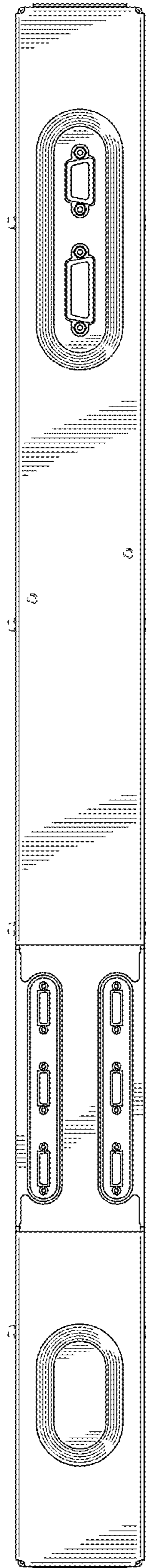


FIG. 9

