



(12) **United States Design Patent**
Williams Barnett et al.

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- (54) **ELECTRICAL CONNECTOR**
- (71) Applicant: **Samtec, Inc.**, New Albany, IN (US)
- (72) Inventors: **Jean Karlo Williams Barnett**, New Albany, IN (US); **Jignesh H. Shah**, Santa Clara, CA (US); **Eric Zbinden**, Santa Clara, CA (US)
- (73) Assignee: **SAMTEC, INC.**, New Albany, IN (US)
- (**) Term: **15 Years**
- (21) Appl. No.: **29/733,196**
- (22) Filed: **Apr. 30, 2020**

Related U.S. Application Data

- (62) Division of application No. 29/628,702, filed on Dec. 6, 2017, now Pat. No. Des. 886,066.
- (51) **LOC (13) Cl.** **13-03**
- (52) **U.S. Cl.** **D13/147**
- (58) **Field of Classification Search**
- USPC D13/133, 146, 147, 154, 184, 199
- CPC H01R 9/075; H01R 9/16; H01R 12/616; H01R 13/05; H01R 13/193; H01R 13/2464; H01R 13/2478; H01R 13/2485; H01R

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Primary Examiner — Shawn T Gingrich
(74) *Attorney, Agent, or Firm* — BakerHostetler

(57) **CLAIM**

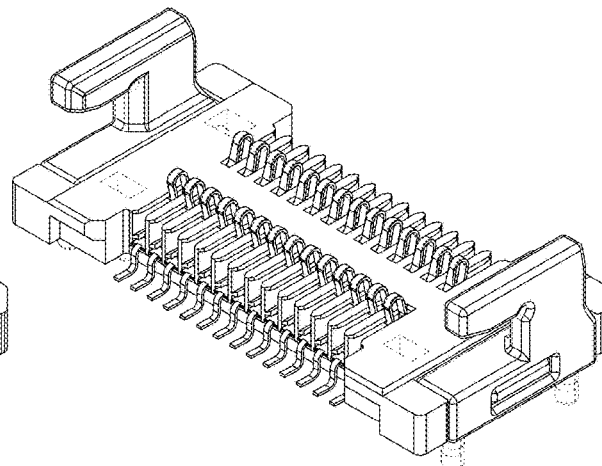
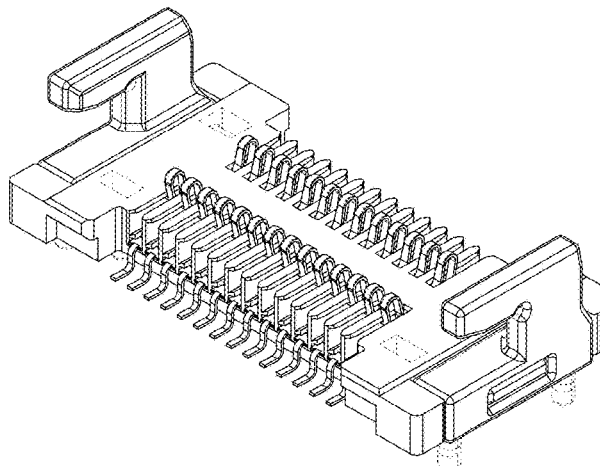
The ornamental design for an electrical connector, as shown and described.

DESCRIPTION

FIG. 1 is a top, left, front perspective view of an electrical connector according to one embodiment of our design; FIG. 2 is another top, left, front perspective view thereof; FIG. 3 is a bottom, right, rear perspective view of thereof; FIG. 4 is another bottom, right, rear perspective view of thereof; FIG. 5 is a front elevation view thereof; FIG. 6 is a rear elevation view thereof; FIG. 7 is a right side elevation view thereof; FIG. 8 is a left side elevation view thereof; FIG. 9 is a top plan view thereof; FIG. 10 is a bottom plan view thereof; FIG. 11 is a top, left, front perspective view of an electrical connector according to another embodiment of our design; FIG. 12 is another top, left, front perspective view thereof; FIG. 13 is a bottom, right, rear perspective view of thereof; FIG. 14 is another bottom, right, rear perspective view of thereof; FIG. 15 is a front elevation view thereof; FIG. 16 is a rear elevation view thereof; FIG. 17 is a left side elevation view thereof; FIG. 18 is a right side elevation view thereof; FIG. 19 is a top plan view thereof; and, FIG. 20 is a bottom plan view thereof.

The broken line portion in the drawings illustrate portions of the electrical connector that form no part of the claimed design.

1 Claim, 12 Drawing Sheets



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<p>(58) Field of Classification Search CPC 13/2492; H01R 13/6271; H01R 13/6275; H01R 13/6335; H01R 13/642; H01R 13/659; H01R 12/00; H01R 13/60; H01R 13/62; H01R 13/627 See application file for complete search history.</p>	<table border="0" style="width: 100%; border-collapse: collapse;"> <tr><td>10,367,282</td><td>B2</td><td>7/2019</td><td>Harmon et al.</td><td></td></tr> <tr><td>D860,140</td><td>S</td><td>9/2019</td><td>Wu</td><td></td></tr> <tr><td>D886,066</td><td>S *</td><td>6/2020</td><td>Williams Barnett</td><td>..... D13/154</td></tr> <tr><td>2002/0052131</td><td>A1</td><td>5/2002</td><td>Hashimoto</td><td></td></tr> <tr><td>2007/0218759</td><td>A1</td><td>9/2007</td><td>Liang et al.</td><td></td></tr> <tr><td>2008/0222351</td><td>A1</td><td>9/2008</td><td>Verdiell et al.</td><td></td></tr> <tr><td>2009/0305528</td><td>A1*</td><td>12/2009</td><td>Hirata</td><td>..... H01R 12/716 439/74</td></tr> <tr><td>2010/0120268</td><td>A1</td><td>5/2010</td><td>Cheng-Chi</td><td></td></tr> <tr><td>2010/0130044</td><td>A1*</td><td>5/2010</td><td>Taketomi</td><td>..... H01R 12/88 439/260</td></tr> <tr><td>2011/0123150</td><td>A1</td><td>5/2011</td><td>Zbinden et al.</td><td></td></tr> <tr><td>2011/0123151</td><td>A1</td><td>5/2011</td><td>Zbinden et al.</td><td></td></tr> <tr><td>2012/0257360</td><td>A1</td><td>10/2012</td><td>Sun</td><td></td></tr> <tr><td>2012/0289066</td><td>A1*</td><td>11/2012</td><td>Wang</td><td>..... H01R 12/83 439/65</td></tr> <tr><td>2013/0004120</td><td>A1</td><td>1/2013</td><td>Zbinden et al.</td><td></td></tr> <tr><td>2013/0129346</td><td>A1</td><td>5/2013</td><td>Zbinden et al.</td><td></td></tr> <tr><td>2013/0148973</td><td>A1</td><td>6/2013</td><td>Zbinden et al.</td><td></td></tr> <tr><td>2013/0344710</td><td>A1*</td><td>12/2013</td><td>Sasaki</td><td>..... H01R 12/716 439/65</td></tr> <tr><td>2014/0017914</td><td>A1*</td><td>1/2014</td><td>Endo</td><td>..... H01R 9/00 439/81</td></tr> <tr><td>2014/0082977</td><td>A1</td><td>3/2014</td><td>Pilon</td><td></td></tr> <tr><td>2014/0161407</td><td>A1</td><td>6/2014</td><td>Lee et al.</td><td></td></tr> <tr><td>2015/0357734</td><td>A1</td><td>12/2015</td><td>Copper et al.</td><td></td></tr> <tr><td>2015/0364865</td><td>A1</td><td>12/2015</td><td>Sutter et al.</td><td></td></tr> <tr><td>2016/0079692</td><td>A1</td><td>3/2016</td><td>Sasame et al.</td><td></td></tr> <tr><td>2017/0062963</td><td>A1</td><td>3/2017</td><td>Tagami et al.</td><td></td></tr> <tr><td>2017/0174167</td><td>A1</td><td>6/2017</td><td>Collazo Gomez</td><td></td></tr> <tr><td>2020/0185849</td><td>A1*</td><td>6/2020</td><td>Chi</td><td>..... H01R 12/88</td></tr> <tr><td>2020/0220286</td><td>A1</td><td>7/2020</td><td>Bettman et al.</td><td></td></tr> </table>	10,367,282	B2	7/2019	Harmon et al.		D860,140	S	9/2019	Wu		D886,066	S *	6/2020	Williams Barnett D13/154	2002/0052131	A1	5/2002	Hashimoto		2007/0218759	A1	9/2007	Liang et al.		2008/0222351	A1	9/2008	Verdiell et al.		2009/0305528	A1*	12/2009	Hirata H01R 12/716 439/74	2010/0120268	A1	5/2010	Cheng-Chi		2010/0130044	A1*	5/2010	Taketomi H01R 12/88 439/260	2011/0123150	A1	5/2011	Zbinden et al.		2011/0123151	A1	5/2011	Zbinden et al.		2012/0257360	A1	10/2012	Sun		2012/0289066	A1*	11/2012	Wang H01R 12/83 439/65	2013/0004120	A1	1/2013	Zbinden et al.		2013/0129346	A1	5/2013	Zbinden et al.		2013/0148973	A1	6/2013	Zbinden et al.		2013/0344710	A1*	12/2013	Sasaki H01R 12/716 439/65	2014/0017914	A1*	1/2014	Endo H01R 9/00 439/81	2014/0082977	A1	3/2014	Pilon		2014/0161407	A1	6/2014	Lee et al.		2015/0357734	A1	12/2015	Copper et al.		2015/0364865	A1	12/2015	Sutter et al.		2016/0079692	A1	3/2016	Sasame et al.		2017/0062963	A1	3/2017	Tagami et al.		2017/0174167	A1	6/2017	Collazo Gomez		2020/0185849	A1*	6/2020	Chi H01R 12/88	2020/0220286	A1	7/2020	Bettman et al.																																																																							
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D721,332	S	1/2015	Yokoo																																																																																																																																																																																																											
D722,968	S *	2/2015	Takemoto D13/147																																																																																																																																																																																																										
D729,173	S *	5/2015	Fukumoto D13/147																																																																																																																																																																																																										
D736,714	S	8/2015	Mongold et al.																																																																																																																																																																																																											
9,246,280	B2	1/2016	Neer et al.																																																																																																																																																																																																											
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	<p style="text-align: center;">FOREIGN PATENT DOCUMENTS</p> <table border="0" style="width: 100%; border-collapse: collapse;"> <tr><td>CN</td><td>104810683</td><td>A</td><td>7/2015</td><td></td></tr> <tr><td>CN</td><td>204668509</td><td>U</td><td>9/2015</td><td></td></tr> <tr><td>CN</td><td>105514708</td><td>A</td><td>4/2016</td><td></td></tr> <tr><td>CN</td><td>105655784</td><td>A</td><td>6/2016</td><td></td></tr> <tr><td>CN</td><td>207765710</td><td>U</td><td>8/2018</td><td></td></tr> <tr><td>JP</td><td>2002-093495</td><td>A</td><td>3/2002</td><td></td></tr> <tr><td>JP</td><td>2011-222273</td><td>A</td><td>11/2011</td><td></td></tr> <tr><td>KR</td><td>10-2015-0044212</td><td>A</td><td>4/2015</td><td></td></tr> <tr><td>KR</td><td>10-2016-0071753</td><td>A</td><td>6/2016</td><td></td></tr> <tr><td>TW</td><td>1223479</td><td>B</td><td>11/2004</td><td></td></tr> <tr><td>TW</td><td>D164746</td><td></td><td>12/2014</td><td></td></tr> <tr><td>TW</td><td>D183201</td><td></td><td>8/2016</td><td></td></tr> <tr><td>TW</td><td>D180510</td><td></td><td>1/2017</td><td></td></tr> <tr><td>TW</td><td>D184085</td><td></td><td>7/2017</td><td></td></tr> <tr><td>WO</td><td>2018/035108</td><td></td><td>2/2018</td><td></td></tr> </table>	CN	104810683	A	7/2015		CN	204668509	U	9/2015		CN	105514708	A	4/2016		CN	105655784	A	6/2016		CN	207765710	U	8/2018		JP	2002-093495	A	3/2002		JP	2011-222273	A	11/2011		KR	10-2015-0044212	A	4/2015		KR	10-2016-0071753	A	6/2016		TW	1223479	B	11/2004		TW	D164746		12/2014		TW	D183201		8/2016		TW	D180510		1/2017		TW	D184085		7/2017		WO	2018/035108		2/2018																																																																																																																																			
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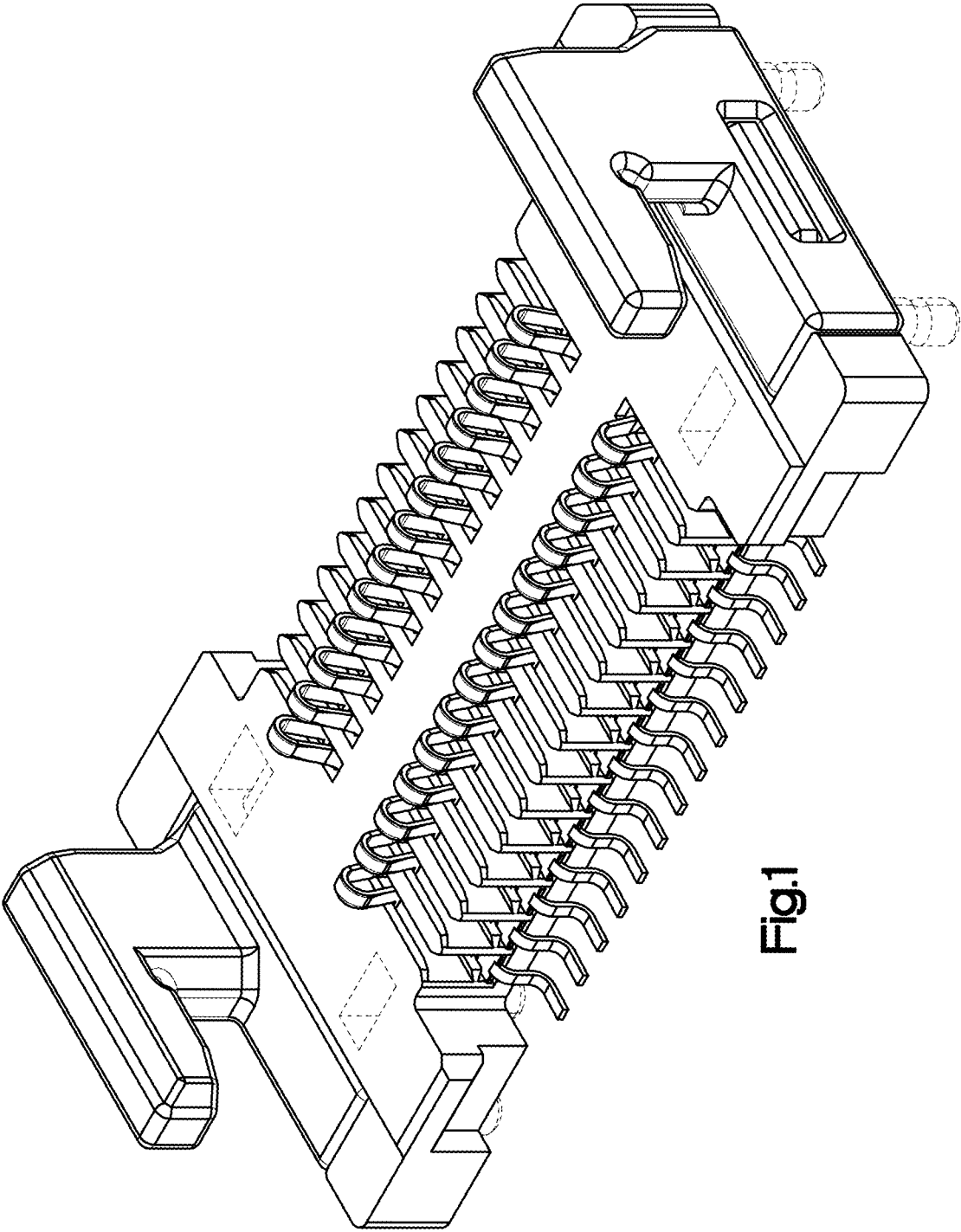


Fig.1

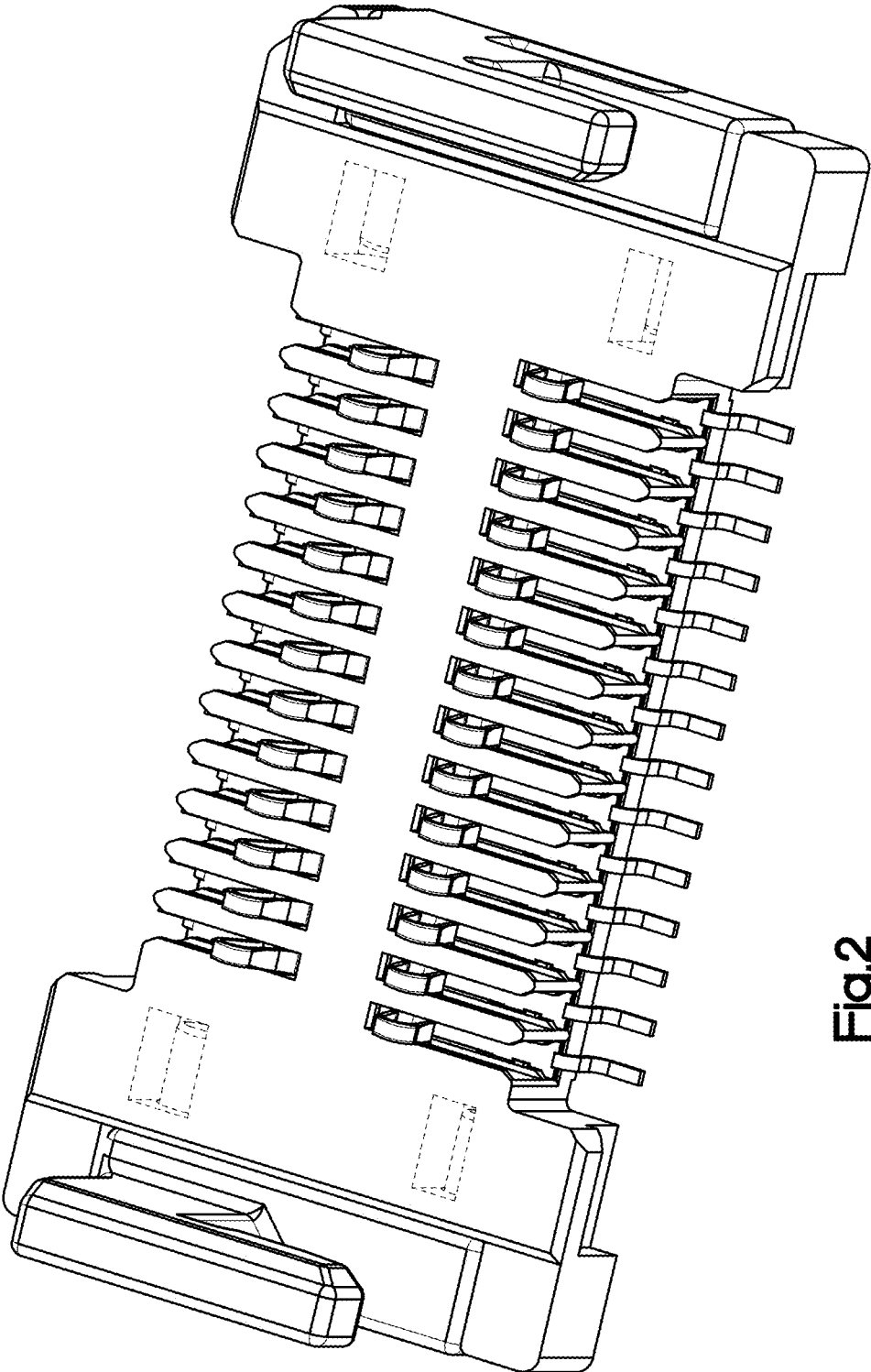


Fig.2

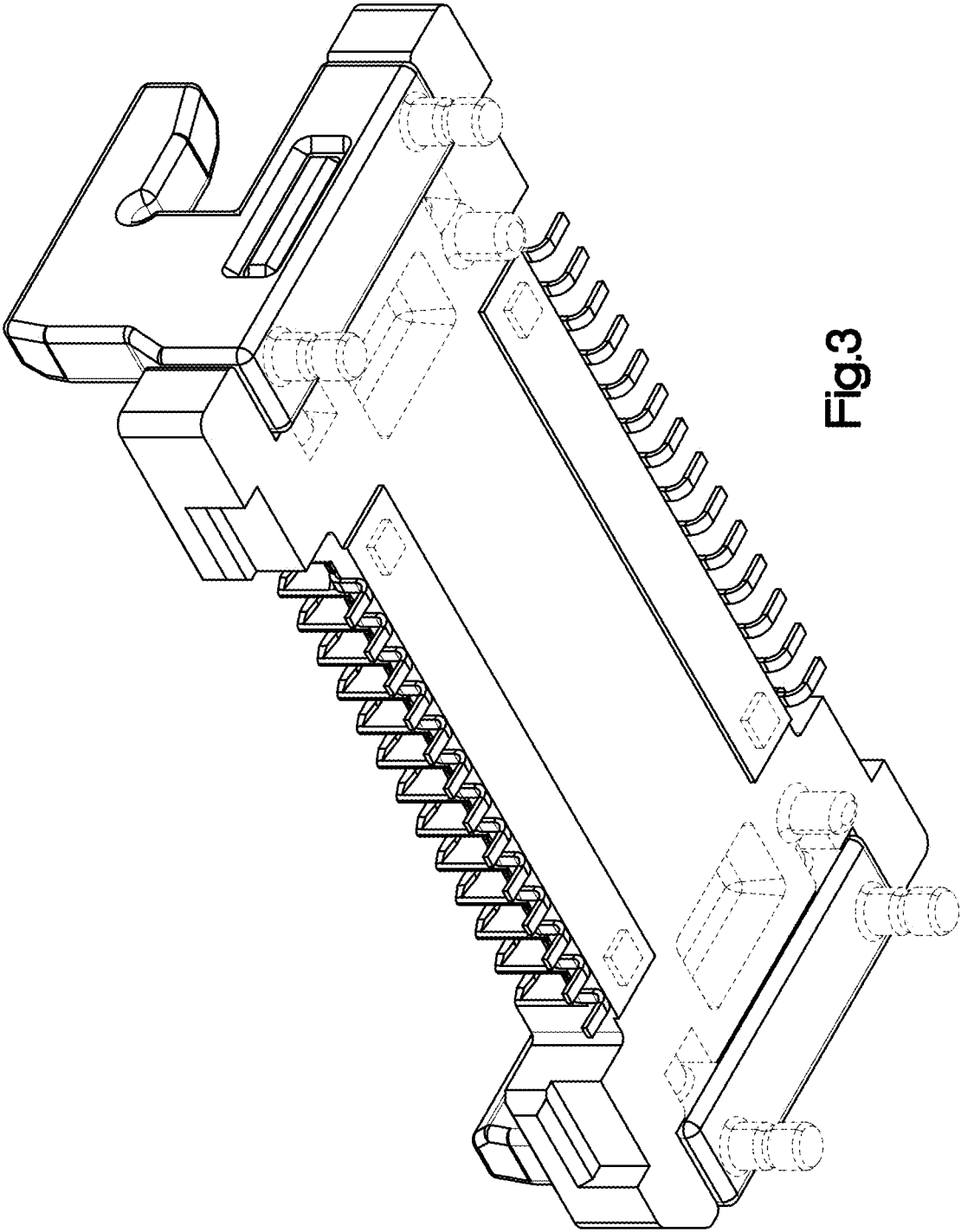


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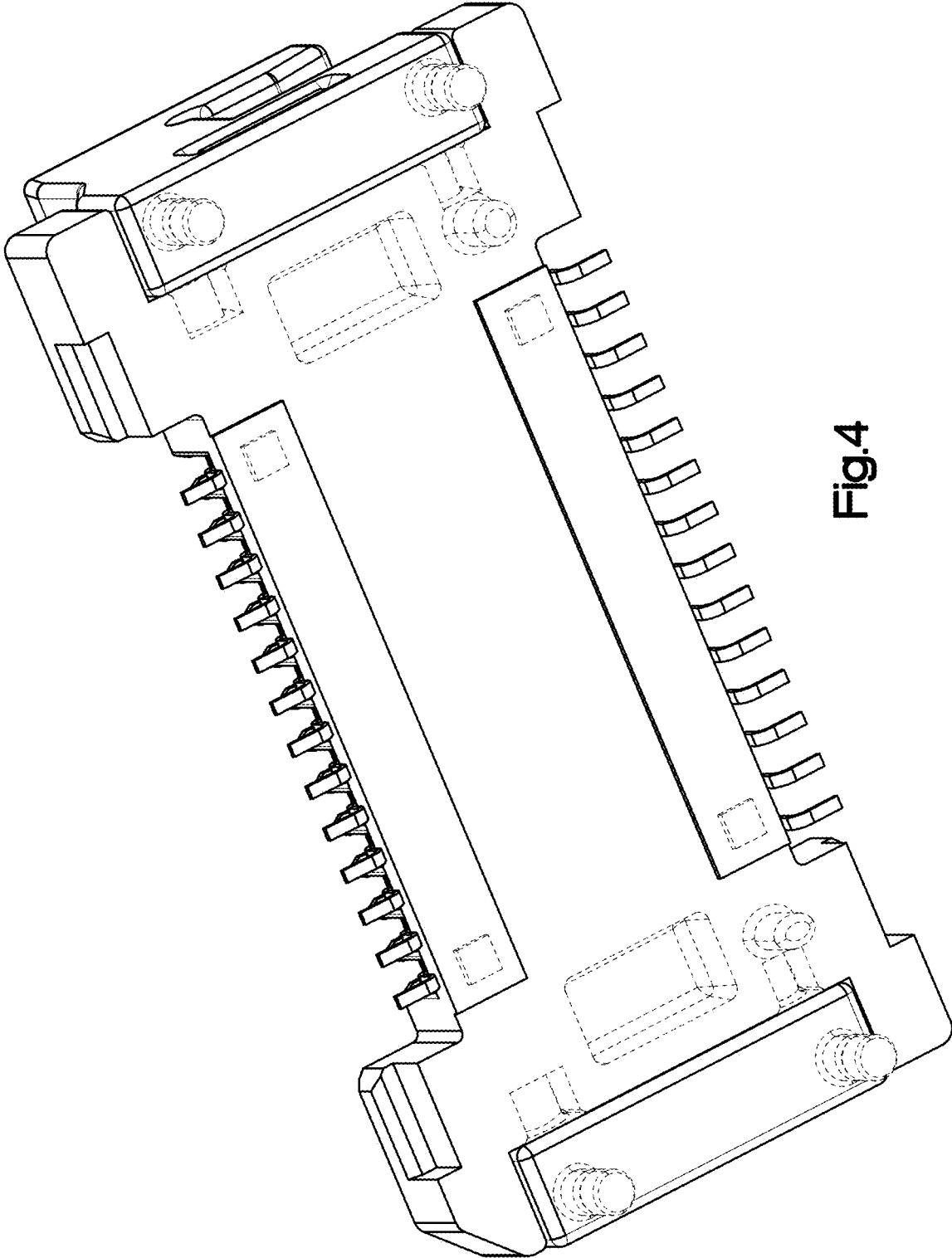


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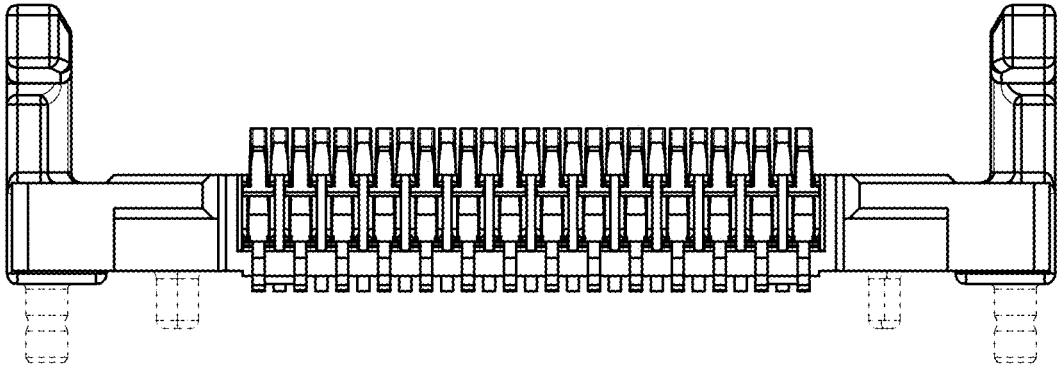


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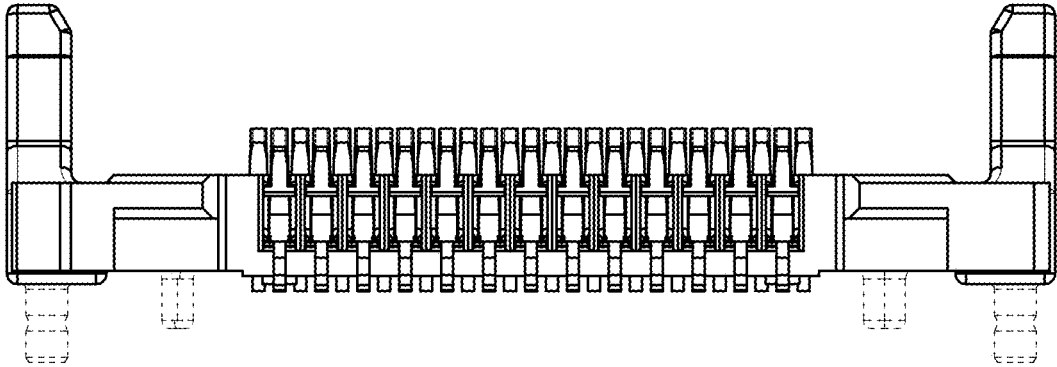


Fig.6

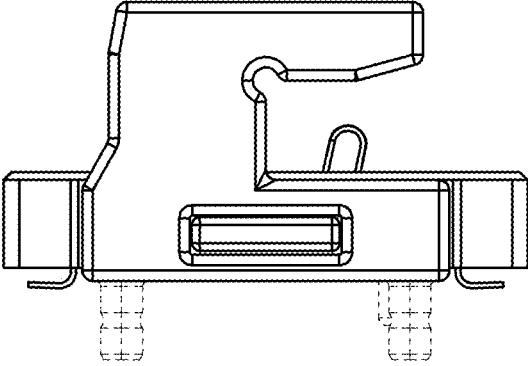


Fig.7

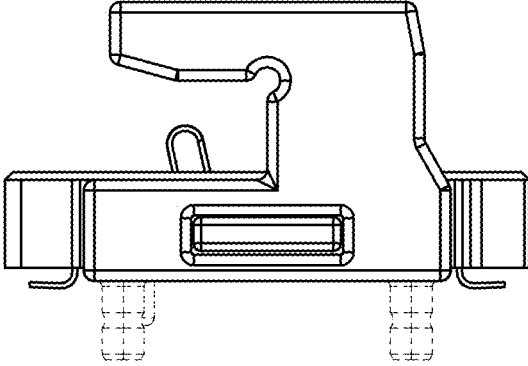


Fig.8

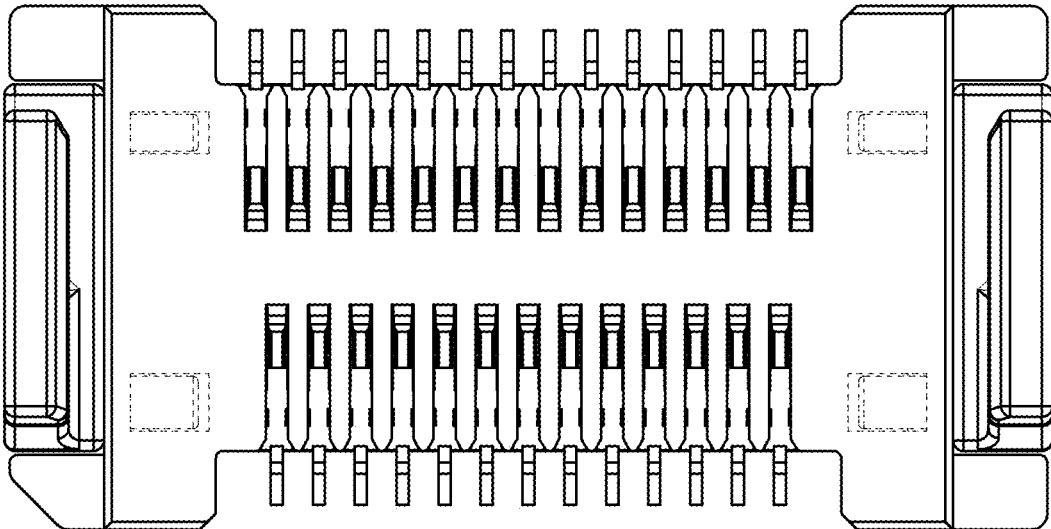


Fig.9

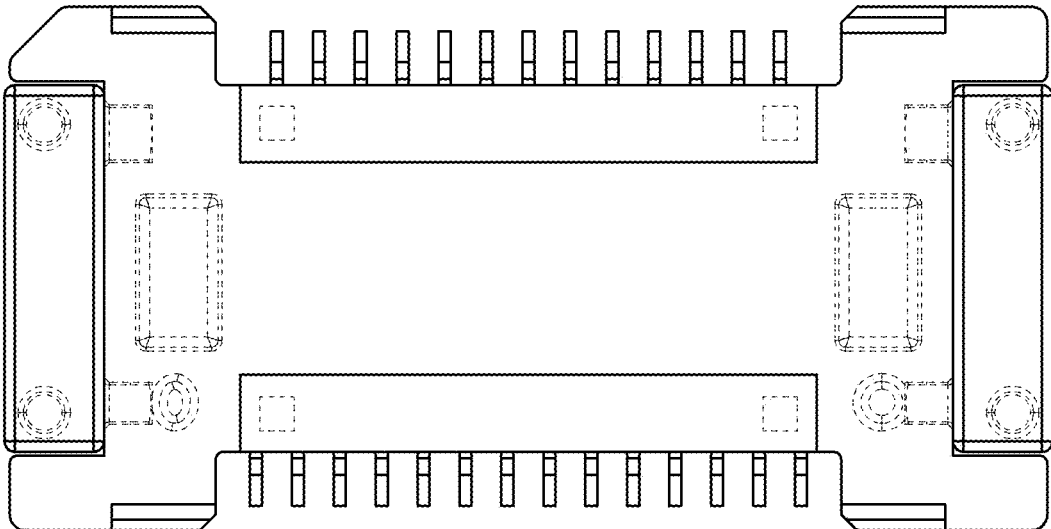


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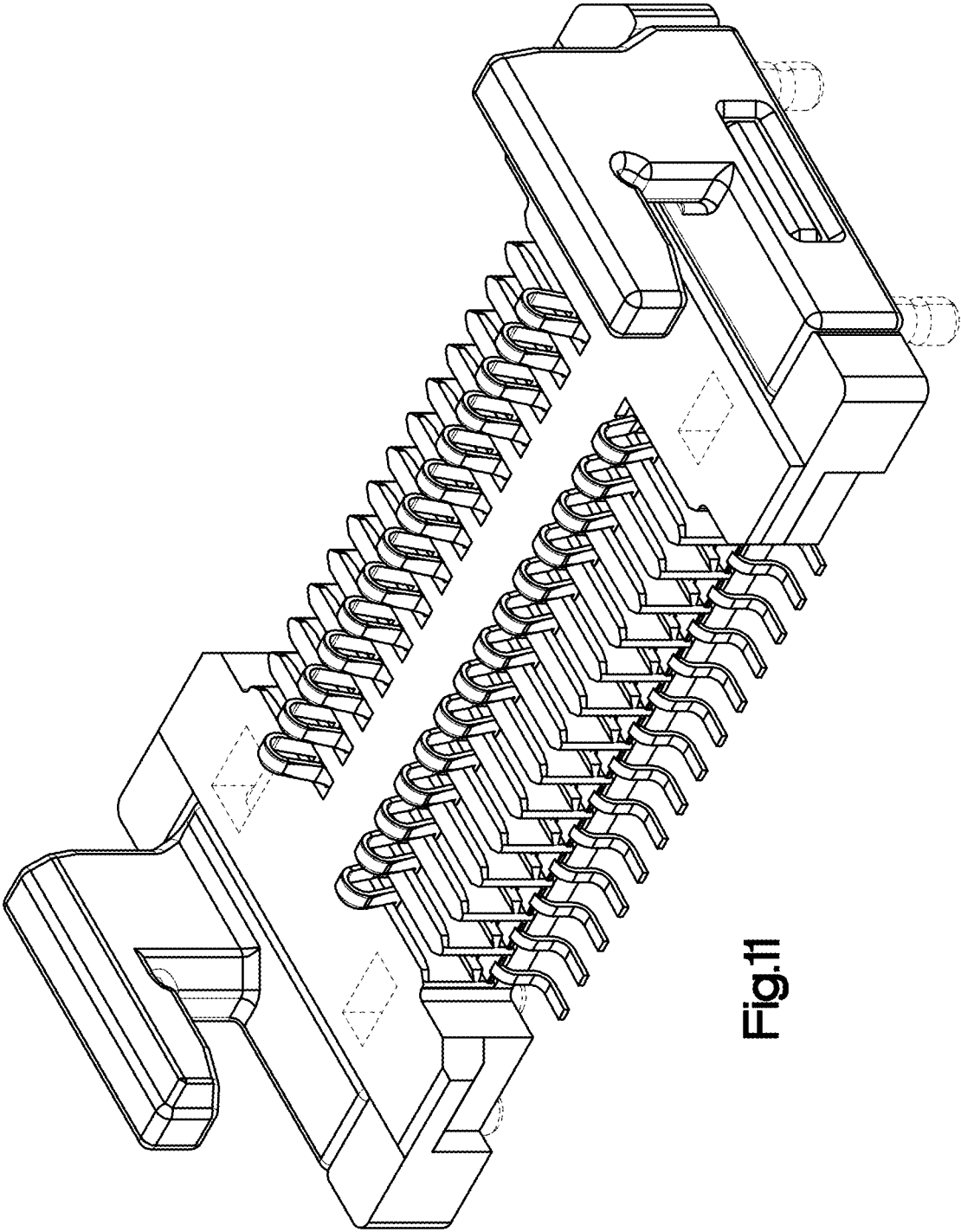


Fig.11

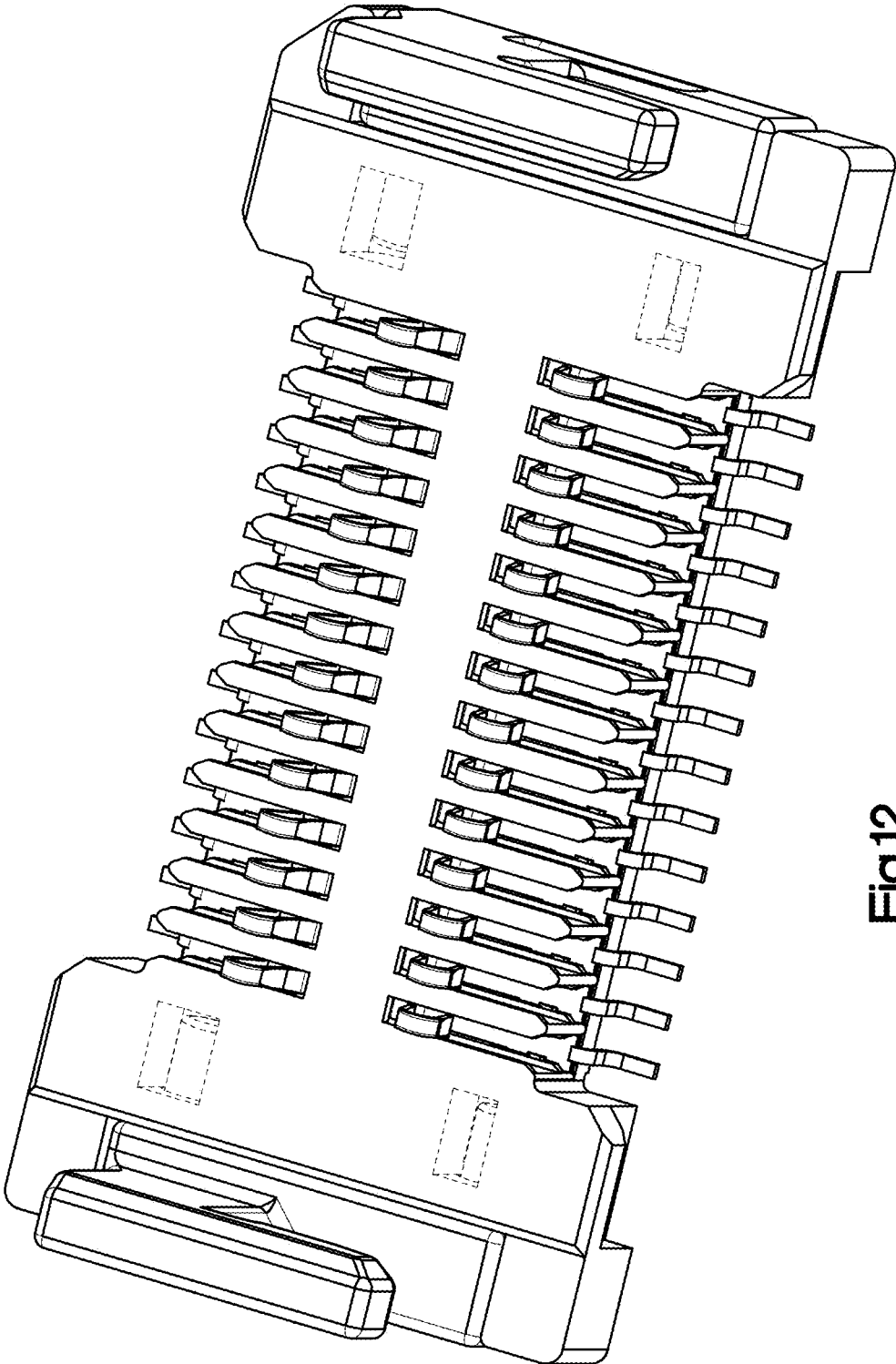


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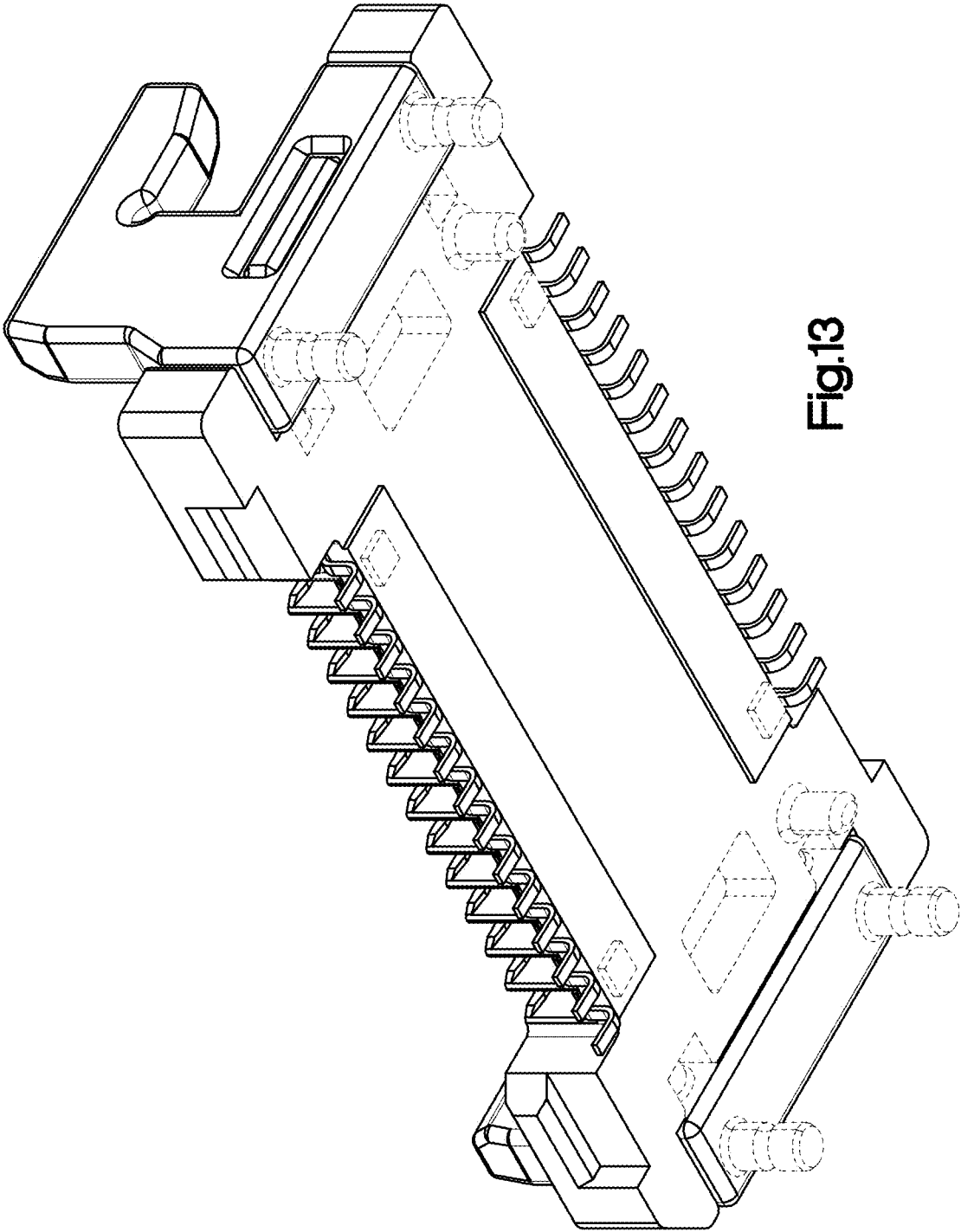


Fig.13

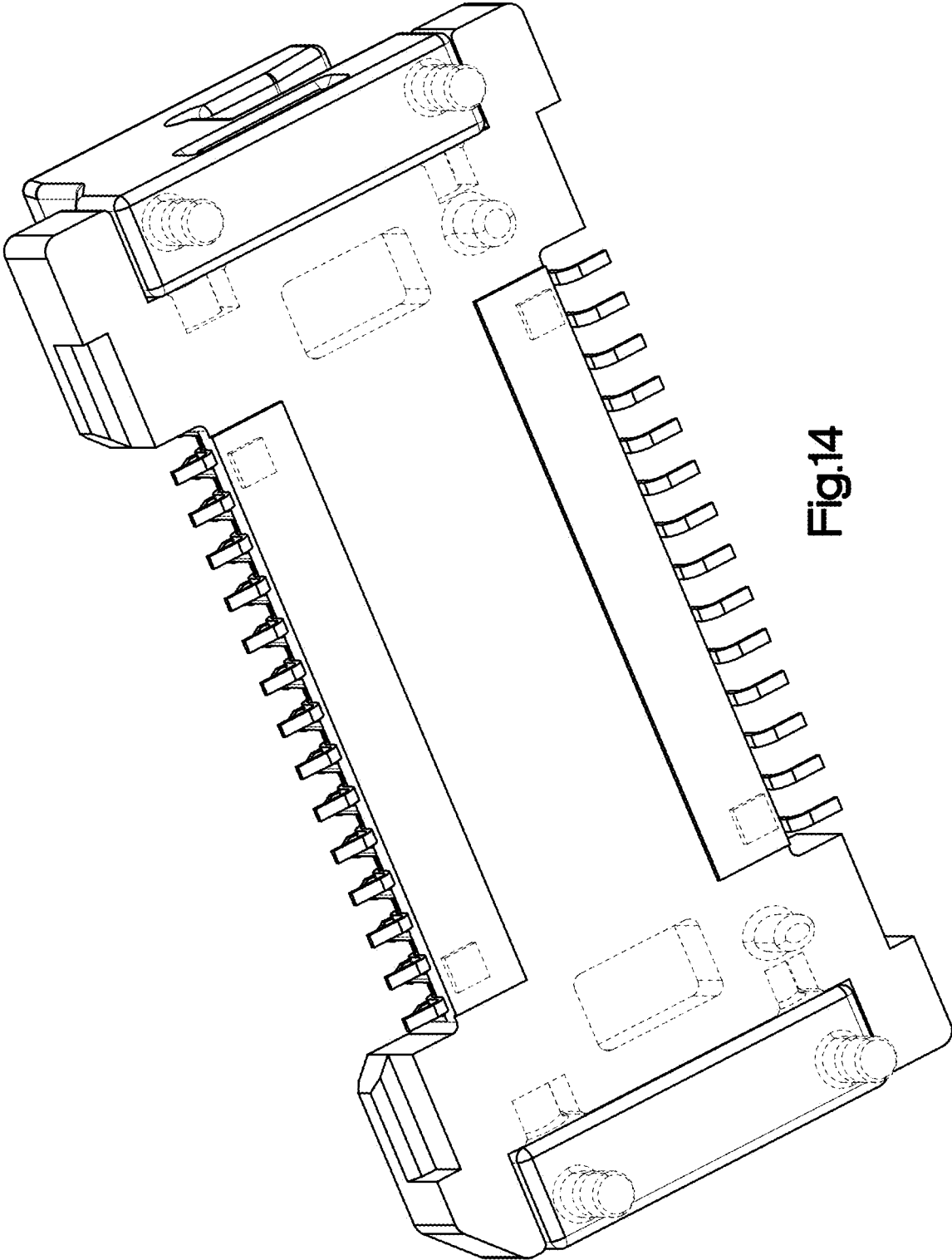


Fig.14

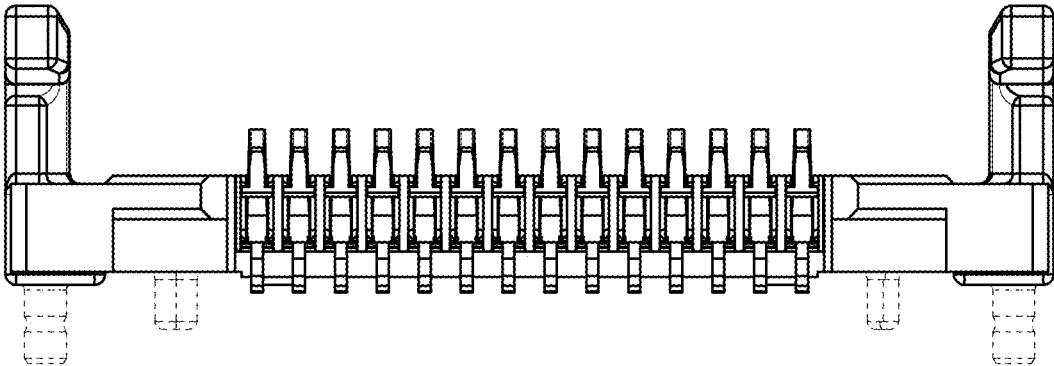


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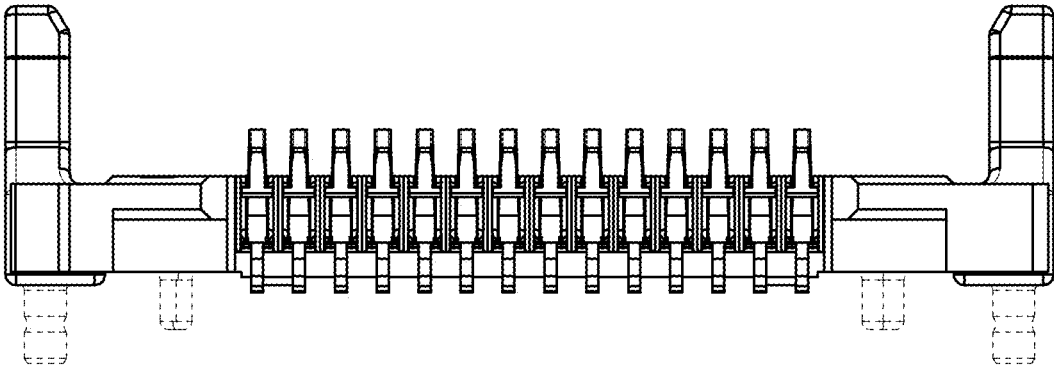


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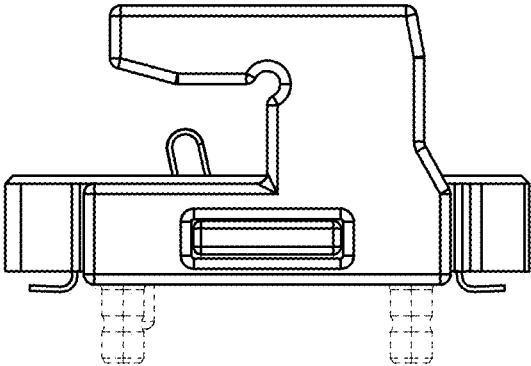


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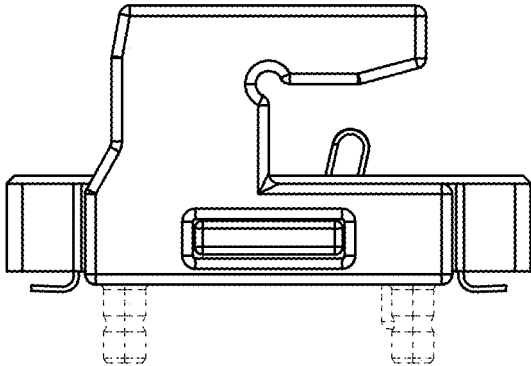


Fig.18

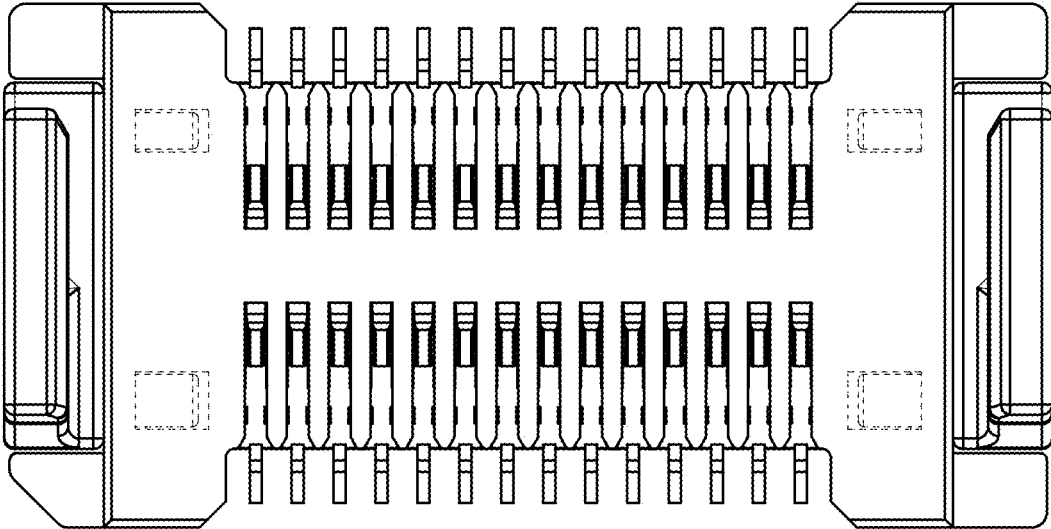


Fig.19

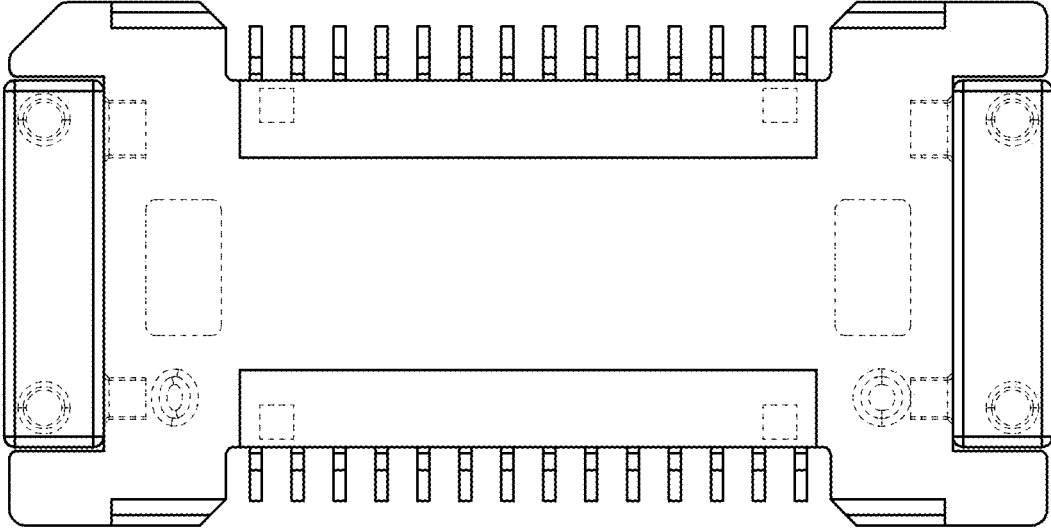


Fig.20