



US00D875968S

(12) **United States Design Patent** (10) **Patent No.:** **US D875,968 S**  
**Curry et al.** (45) **Date of Patent:** **\*\* Feb. 18, 2020**

(54) **PIPETTE TIP SHEET ASSEMBLY**

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(\*\*) Term: **15 Years**

(21) Appl. No.: **29/654,517**

(22) Filed: **Jun. 25, 2018**

**Related U.S. Application Data**

(60) Division of application No. 29/601,729, filed on Apr. 25, 2017, now Pat. No. Des. 824,535, which is a (Continued)

(51) **LOC (12) Cl.** ..... **24-02**

(52) **U.S. Cl.**  
USPC ..... **D24/227**

(58) **Field of Classification Search**  
USPC ..... D24/107, 216, 227-230, 222, 127, 128; 422/50, 400, 500, 501, 524, 526, 552, (Continued)

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D246,466 S 11/1977 Attree et al.  
4,087,248 A 5/1978 Miles  
(Continued)

**FOREIGN PATENT DOCUMENTS**

EP 1110613 6/2001  
WO WO 95/08392 3/1995  
(Continued)

**OTHER PUBLICATIONS**

<https://www.fishersci.se/shop/products/axygen-robotic-pipetter-tips-15/p-4356795> Jul. 27, 2019.\*

(Continued)

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(74) *Attorney, Agent, or Firm* — Grant IP, Inc.

(57) **CLAIM**

The ornamental design for a pipette tip sheet assembly, as shown and described.

**DESCRIPTION**

FIG. 1 is a top perspective view of a pipette tip sheet assembly comprising a tray, a pipette tip sheet apparatus and an array of pipette tips;

FIG. 2 is an enlarged view of a portion of the assembly shown in FIG. 1;

FIG. 3 is an exploded view of the assembly shown in FIG. 1;

FIG. 4 is a top view of the assembly shown in FIG. 1;

FIG. 5 shows a cross sectional view taken in the direction of line 5-5 in FIG. 4;

FIG. 6 is an enlarged view of a portion of the cross section shown in FIG. 5;

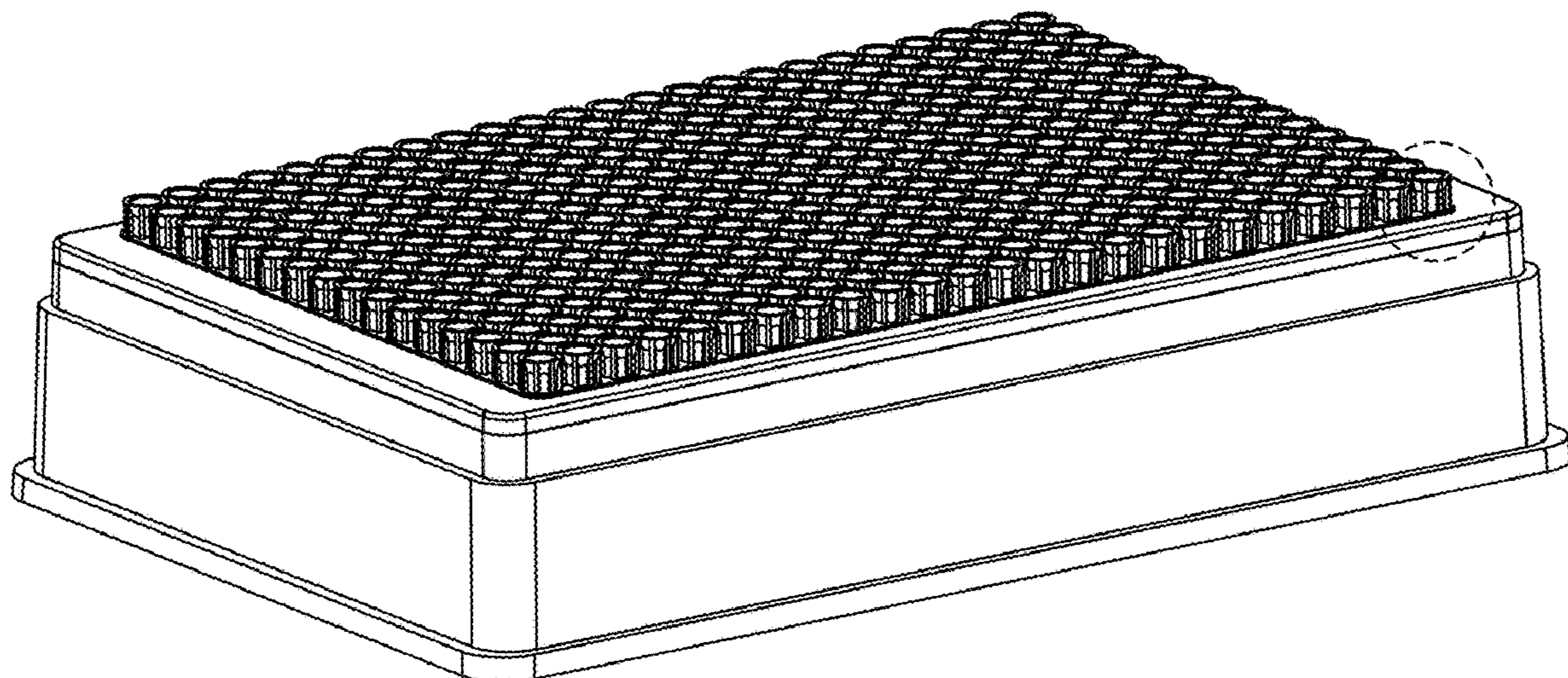
FIG. 7 is a long side view of the assembly shown in FIG. 1;

FIG. 8 is a short side view of the assembly shown in FIG. 1;

FIG. 9 is a bottom view of the assembly shown in FIG. 1; and,

FIG. 10 is a bottom perspective view of the assembly shown in FIG. 1.

**1 Claim, 5 Drawing Sheets**



**Related U.S. Application Data**

division of application No. 29/527,027, filed on May 14, 2015, now Pat. No. Des. 815,753, which is a continuation-in-part of application No. 14/566,143, filed on Dec. 10, 2014, now abandoned, and a continuation of application No. 14/712,451, filed on May 14, 2015, now Pat. No. 10,137,453.

(58) **Field of Classification Search**

USPC ..... 422/564, 563, 562, 561, 942, 401;  
206/557, 563; 159/16.1  
CPC ..... B01L 3/0275; B01L 3/5085; B01L 3/02;  
B01L 2300/08; B01L 2300/0829; B01L  
2200/06; B01L 9/543; B01D 1/14  
See application file for complete search history.

(56)

**References Cited**

U.S. PATENT DOCUMENTS

4,130,978	A	12/1978	Cohen	D574,505	S	8/2008	Muller-Cohn et al.
D264,810	S	6/1982	Voltmann	D576,208	S	9/2008	Quercetti
4,349,109	A	9/1982	Scordato et al.	7,459,128	B2	12/2008	Karg et al.
D271,239	S	11/1983	Lemieux et al.	D593,207	S	5/2009	Ayliffe
4,511,534	A	4/1985	Bennett, Jr. et al.	D598,566	S	8/2009	Allaer
D282,208	S	1/1986	Lowry	7,628,960	B2	12/2009	Ruddock
D283,162	S	3/1986	Godsey	D608,013	S	1/2010	Coulling et al.
4,577,760	A	3/1986	Ranin et al.	D632,404	S	2/2011	Karpiloff
4,676,377	A	6/1987	Rainin et al.	D632,803	S	2/2011	Motadel et al.
5,000,921	A	3/1991	Hanaway et al.	7,906,075	B2	3/2011	Ueda
5,156,811	A	10/1992	White	7,968,056	B2	6/2011	Stockwell
D332,145	S	12/1992	Wada et al.	8,088,593	B2	1/2012	Burd et al.
D337,165	S	7/1993	Malinoff	D654,186	S	2/2012	Park et al.
5,255,979	A	10/1993	Ferrari	D657,473	S	4/2012	Miyashita et al.
5,324,482	A	6/1994	Scaramella	8,148,168	B2	4/2012	Gjerde et al.
5,366,088	A	11/1994	Hill et al.	D673,294	S	12/2012	Motadel
5,392,914	A	2/1995	Lemieux et al.	D673,296	S	12/2012	Fry et al.
5,441,702	A	8/1995	Lemieux	D677,400	S	3/2013	Blaettler
5,487,872	A	1/1996	Hafeman et al.	D679,025	S	3/2013	Motadel et al.
5,487,997	A	1/1996	Stolp	D679,830	S	4/2013	May et al.
D369,415	S	4/1996	Boulton et al.	8,453,838	B2	6/2013	Hill
5,612,000	A	3/1997	Lemieux	8,460,622	B2	6/2013	Motadel
5,779,984	A	7/1998	Kelly	8,470,265	B2	6/2013	Motadel et al.
5,882,603	A	3/1999	Taggart	D690,027	S	9/2013	Motadel
D411,308	S	6/1999	Pandey et al.	8,590,736	B2	11/2013	Motadel
D414,271	S	9/1999	Mendoza	D697,227	S	1/2014	Motadel
6,007,779	A	12/1999	Lemieux et al.	D699,370	S	2/2014	Motadel et al.
D420,142	S	2/2000	Ballin et al.	D699,371	S	2/2014	Williams et al.
D420,743	S	2/2000	Monks	D699,859	S	2/2014	Motadel
6,019,225	A	2/2000	Kalmakis et al.	D702,854	S	4/2014	Nakahana
6,164,449	A	12/2000	Lahti	D707,847	S	6/2014	Motadel et al.
D439,673	S	3/2001	Brophy et al.	D709,718	S	7/2014	Snyder
D441,091	S	4/2001	Day	8,790,578	B2	7/2014	Wohlstadter
6,238,626	B1	5/2001	Higuchi	8,795,606	B2	8/2014	Motadel et al.
6,286,678	B1	9/2001	Petrek	D724,236	S	3/2015	Motadel
D448,854	S	10/2001	Kuiper et al.	9,089,845	B2	7/2015	Motadel et al.
D452,740	S	1/2002	Brennan et al.	D745,698	S	12/2015	Hage et al.
6,426,047	B1	7/2002	Hamel et al.	9,238,227	B2	1/2016	Motadel
D461,554	S	8/2002	Lafond et al.	9,302,262	B2	4/2016	Motadel
D464,734	S	10/2002	Berna et al.	9,464,739	B2	10/2016	Chiang et al.
D466,219	S	11/2002	Wynschenk et al.	9,511,364	B2	12/2016	Andersin
6,517,782	B1	2/2003	Horner et al.	9,579,656	B2	2/2017	Finneran
6,534,015	B1	3/2003	Viot et al.	9,623,171	B2*	4/2017	Okihara ..... A61M 5/002
6,706,244	B1	3/2004	Holden et al.	D804,050	S	11/2017	Coulling et al.
6,875,405	B1	4/2005	Mathus et al.	9,878,330	B2*	1/2018	Motadel ..... B01L 9/543
7,060,226	B1	6/2006	Jessop et al.	D815,753	S	4/2018	Curry et al.
D529,622	S	10/2006	Hadjis et al.	D824,535	S*	7/2018	Curry ..... D24/227
D533,948	S	12/2006	Schaub et al.	D833,031	S	11/2018	Curry et al.
D534,658	S	1/2007	Bargh	10,137,453	B2	11/2018	Curry et al.
7,169,361	B2	1/2007	Arnold et al.	10,258,992	B2*	4/2019	Curry ..... B01L 3/0275
7,187,286	B2	3/2007	Morris et al.	D849,962	S	5/2019	Curry et al.
7,220,590	B2	5/2007	Moritz et al.	2003/0064508	A1	4/2003	Kwasnoski et al.
D556,338	S	11/2007	Coulling et al.	2003/0129089	A1	7/2003	Arnold et al.
D556,339	S	11/2007	Coulling et al.	2003/0152494	A1	8/2003	Moritz et al.
D562,463	S	2/2008	Berndt et al.	2004/0033168	A1	2/2004	Hughes
7,335,337	B1	2/2008	Smith	2005/0136546	A1	6/2005	Berndt
				2006/0093530	A1	5/2006	Ueda
				2006/0257292	A1	11/2006	Motadel
				2007/0017870	A1	1/2007	Belov et al.
				2008/0240999	A1	10/2008	Timpson
				2008/0284602	A1	11/2008	Morris
				2009/0007702	A1	1/2009	Yiu
				2009/0255949	A1	10/2009	Motadel
				2010/0080734	A1	4/2010	Brophy
				2010/0089938	A1	4/2010	Motadel
				2010/0119418	A1	5/2010	Clements
				2010/0266457	A1	10/2010	Rethwisch et al.
				2010/0314051	A1	12/2010	Barger
				2011/0236278	A1	9/2011	Motadel et al.
				2012/0257953	A1	10/2012	Williams
				2013/0108522	A1	5/2013	Cohen et al.
				2013/0161225	A1*	6/2013	Lepot ..... A61M 5/001 206/557
				2014/0205518	A1	7/2014	Malinoski
				2014/0234182	A1	8/2014	Motadel et al.
				2014/0314637	A1	10/2014	Motadel et al.
				2015/0110690	A1	4/2015	Stiles
				2015/0283548	A1	10/2015	Motadel et al.
				2016/0167041	A1	6/2016	Curry et al.

(56)

**References Cited**

U.S. PATENT DOCUMENTS

2016/0319329 A1 11/2016 Natale  
 2017/0080432 A1 3/2017 Curry  
 2017/0297030 A1 10/2017 Motadel et al.  
 2018/0117595 A1 5/2018 Curry et al.  
 2018/0304269 A1 10/2018 Motadel et al.

FOREIGN PATENT DOCUMENTS

WO WO 00/24513 5/2000  
 WO WO 01/70401 9/2001  
 WO WO 02/072261 9/2002  
 WO WO 03/064271 8/2003  
 WO WO 06/133440 12/2006  
 WO WO 09/126945 10/2009  
 WO WO 10/085669 7/2010  
 WO WO 13/181163 12/2013  
 WO WO 16/094553 6/2016

OTHER PUBLICATIONS

<https://www.amazon.com/Eppendorf-022491903-Quality-Pipette-microliter/dp/B005GVHHTU/ref=> Jan. 14, 2016.\*

International Search Report and Written Opinion dated Sep. 2, 2010 in International Application No. PCT/US2010/021838 filed on Jan. 22, 2010 and published as: WO 10/085669 on: Jul. 29, 2010.

Extended European Search Report dated Jun. 1, 2012 in European Application No. EP10733922 filed Jan. 22, 2010, based on International Application No. PCT/US2010/021838 filed Jan. 22, 2010 and published as WO/2010/085669 on Jul. 29, 2010.

International Preliminary Report on Patentability dated Aug. 4, 2011 in International Application No. PCT/US2010/021838 filed on Jan. 22, 2010 and published as: WO 10/085669 on: Jul. 29, 2010. U.S. Appl. No. 61/044,243, filed Apr. 11, 2008 by Arta Motadel.

Office Action dated Jun. 25, 2013 in U.S. Appl. No. 29/445,143, filed Feb. 27, 2013.

Office Action dated Feb. 12, 2014 in U.S. Appl. No. 29/445,143, filed Feb. 27, 2013.

Office Action dated Feb. 26, 2013 in U.S. Appl. No. 12/692,426, filed Jan. 22, 2012 and published as: US-2010/0221151 on: Sep. 2, 2010.

Office Action dated Sep. 25, 2012 in U.S. Appl. No. 12/692,426, filed Jan. 22, 2012 and published as: US-2010/0221151 on: Sep. 2, 2010.

Office Action dated Feb. 13, 2012 in U.S. Appl. No. 12/692,426, filed Jan. 22, 2012 and published as: US-2010/0221151 on: Sep. 2, 2010.

Office Action dated Apr. 26, 2012 in U.S. Appl. No. 29/354,397, filed Jan. 22, 2010.

Office Action dated Nov. 8, 2012 in U.S. Appl. No. 29/354,397, filed Jan. 22, 2010.

Office Action dated Mar. 27, 2014 in U.S. Appl. No. 13/769,212, filed Feb. 15, 2013 and published as US 2013-0161226 on Jun. 27, 2013.

Office Action dated Oct. 23, 2014 in U.S. Appl. No. 13/769,212, filed Feb. 15, 2013 and published as US 2013-0161226 on Jun. 27, 2013.

Office Action dated Apr. 3, 2015 in U.S. Appl. No. 13/769,212, filed Feb. 15, 2013 and published as US 2013-0161226 on Jun. 27, 2013.

Office Action dated Sep. 24, 2015 in U.S. Appl. No. 14/746,711, filed Jun. 22, 2015 and published as US 2015-0283548 on Oct. 8, 2015.

Office Action dated Oct. 1, 2015 in U.S. Appl. No. 14/712,451, filed May 14, 2015.

Office Action dated Apr. 6, 2016 in U.S. Appl. No. 14/746,711, filed Jun. 22, 2015 and published as US 2015-0283548 on Oct. 8, 2015.

Office Action dated Jun. 13, 2016 in U.S. Appl. No. 14/712,451, filed May 14, 2015 and published as US 2016-0167041 on Jun. 16, 2016.

Office Action dated Oct. 28, 2016 in U.S. Appl. No. 14/746,711, filed Jun. 22, 2015 and published as US 2015-0283548 on Oct. 8, 2015.

Office Action dated Nov. 3, 2016 in U.S. Appl. No. 14/712,451, filed May 14, 2015 and published as US 2016-0167041 on Jun. 16, 2016.

Office Action dated Apr. 19, 2017 in U.S. Appl. No. 14/746,711, filed Jun. 22, 2015 and published as US 2015-0283548 on Oct. 8, 2015.

Office Action dated May 26, 2017 in U.S. Appl. No. 14/712,451, filed May 14, 2015 and published as US 2016-0167041 on Jun. 16, 2016.

International Preliminary Report on Patentability dated Jun. 22, 2017 for International Application No. PCT/US2015/064784, filed on Dec. 9, 2015 and published as WO 2016/094553 on Jun. 16, 2016.

Office Action dated Jul. 31, 2017 in U.S. Appl. No. 29/527,027, filed May 14, 2015.

Office Action dated Oct. 5, 2017 in U.S. Appl. No. 15/637,148, filed Jun. 29, 2017 and published as US 2017-0297030 on Oct. 19, 2017.

Office Action dated Nov. 8, 2017 in U.S. Appl. No. 14/712,451, filed May 14, 2015 and published as US 2016-0167041 on Jun. 16, 2016.

Office Action dated Dec. 13, 2017 in U.S. Appl. No. 29/601,729, filed Apr. 25, 2017.

Office Action dated Dec. 13, 2017 in U.S. Appl. No. 29/601,730, filed Apr. 25, 2017.

Office Action dated Dec. 18, 2017 in U.S. Appl. No. 29/527,027, filed May 14, 2015.

Office Action dated Jan. 25, 2018 in U.S. Appl. No. 29/527,027, filed May 14, 2015.

Office Action dated Mar. 26, 2018 in U.S. Appl. No. 29/601,729, filed Apr. 25, 2017.

Office Action dated May 17, 2018 in U.S. Appl. No. 29/601,730, filed Apr. 25, 2017.

Office Action dated Jun. 22, 2018 in U.S. Appl. No. 15/277,923, filed Sep. 27, 2016 and published as US 2017-0080432 on Mar. 23, 2017.

Office Action dated Jul. 27, 2018 in U.S. Appl. No. 14/712,451, filed May 14, 2015 and published as US 2016-0167041 on Jun. 16, 2016.

Office Action dated Nov. 26, 2018 in U.S. Appl. No. 15/277,923, filed Sep. 27, 2016 and published as US 2017-0080432 on Mar. 23, 2017.

Office Action dated Nov. 28, 2018 in U.S. Appl. No. 15/543,224, filed Jul. 12, 2017 and published as US 2018-0117595 on May 3, 2018.

Office Action dated Dec. 28, 2018 in U.S. Appl. No. 29/592,989, filed Feb. 3, 2017.

Office Action dated Jan. 2, 2019 in U.S. Appl. No. 29/548,015, filed Dec. 9, 2015.

Office Action dated Jan. 9, 2019 in U.S. Appl. No. 15/852,620, filed Dec. 22, 2017 and published as US 2018-0304269 on Oct. 25, 2018.

Bioexpress Tip Eject. [online] Retrieved Jul. 19, 2018 from URL: [https://www.bioexpress.com/assetsvc/asset/en\\_US/id/11301722/contents](https://www.bioexpress.com/assetsvc/asset/en_US/id/11301722/contents).

Office Action dated Aug. 27, 2018 in U.S. Appl. No. 15/852,620, filed Dec. 22, 2017.

Office Action dated Aug. 27, 2018 in U.S. Appl. No. 29/548,015, filed Dec. 9, 2015.

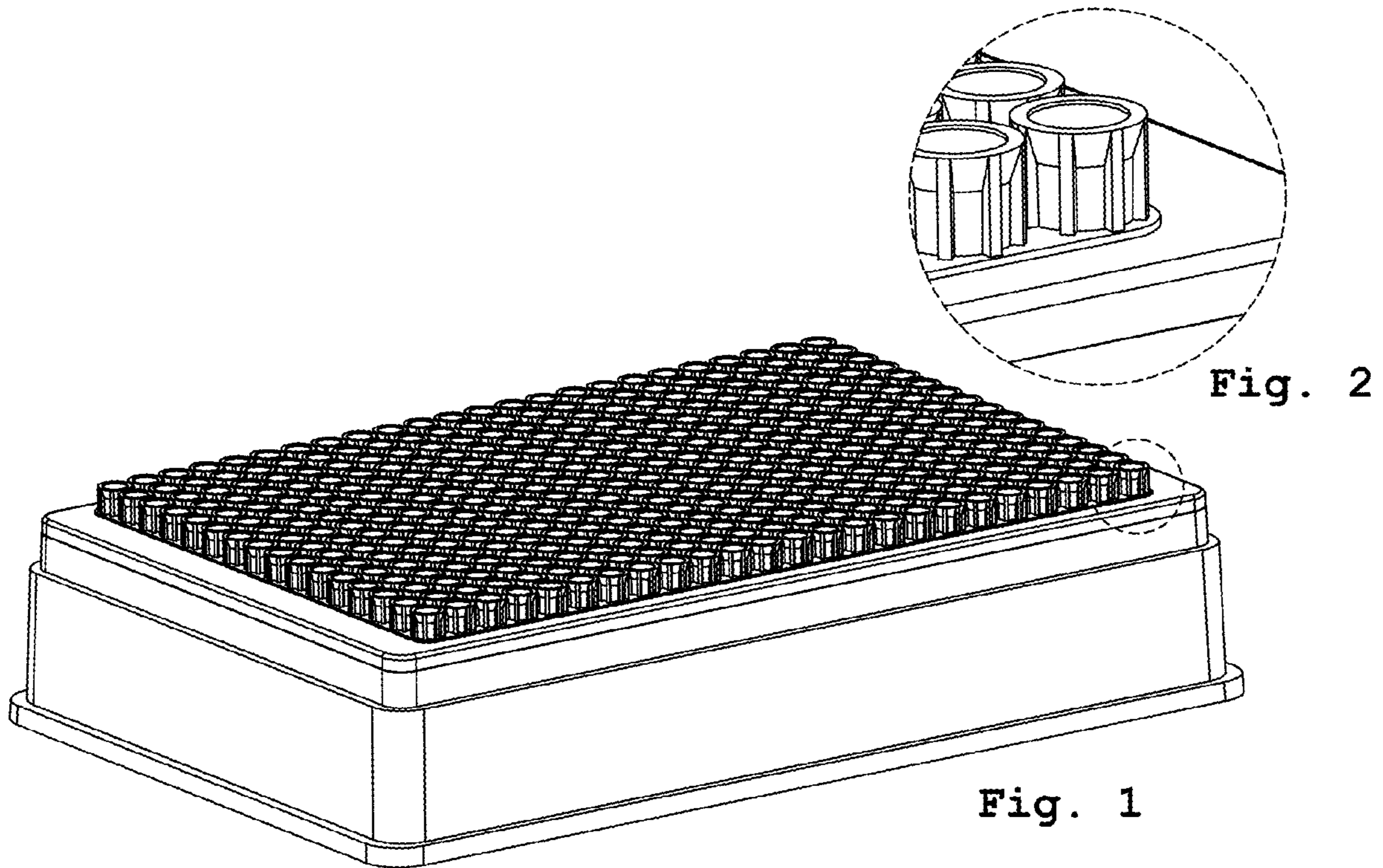
Office Action dated Sep. 17, 2018 in U.S. Appl. No. 29/592,989, filed Feb. 3, 2017.

Office Action dated Apr. 11, 2019 in U.S. Appl. No. 15/543,224, filed Jul. 12, 2017 and published as US 2018-0117595 on May 3, 2018.

Office Action dated Jun. 13, 2019 in U.S. Appl. No. 29/592,989, filed Feb. 3, 2017.

Office Action dated Sep. 5, 2019 in U.S. Appl. No. 15/543,224, filed Jul. 12, 2017 and published as US 2018-0117595 on May 3, 2018.

\* cited by examiner



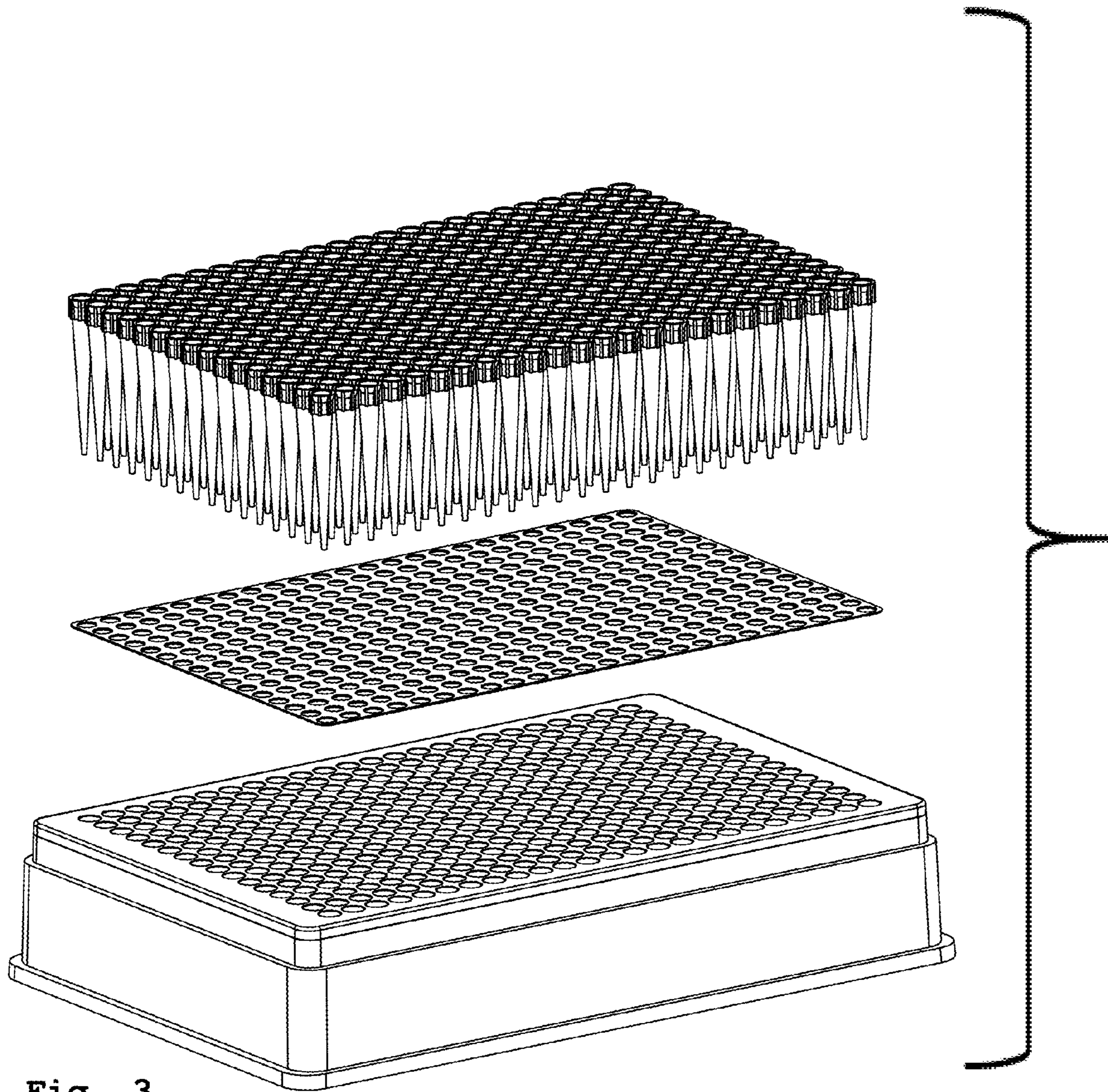


Fig. 3

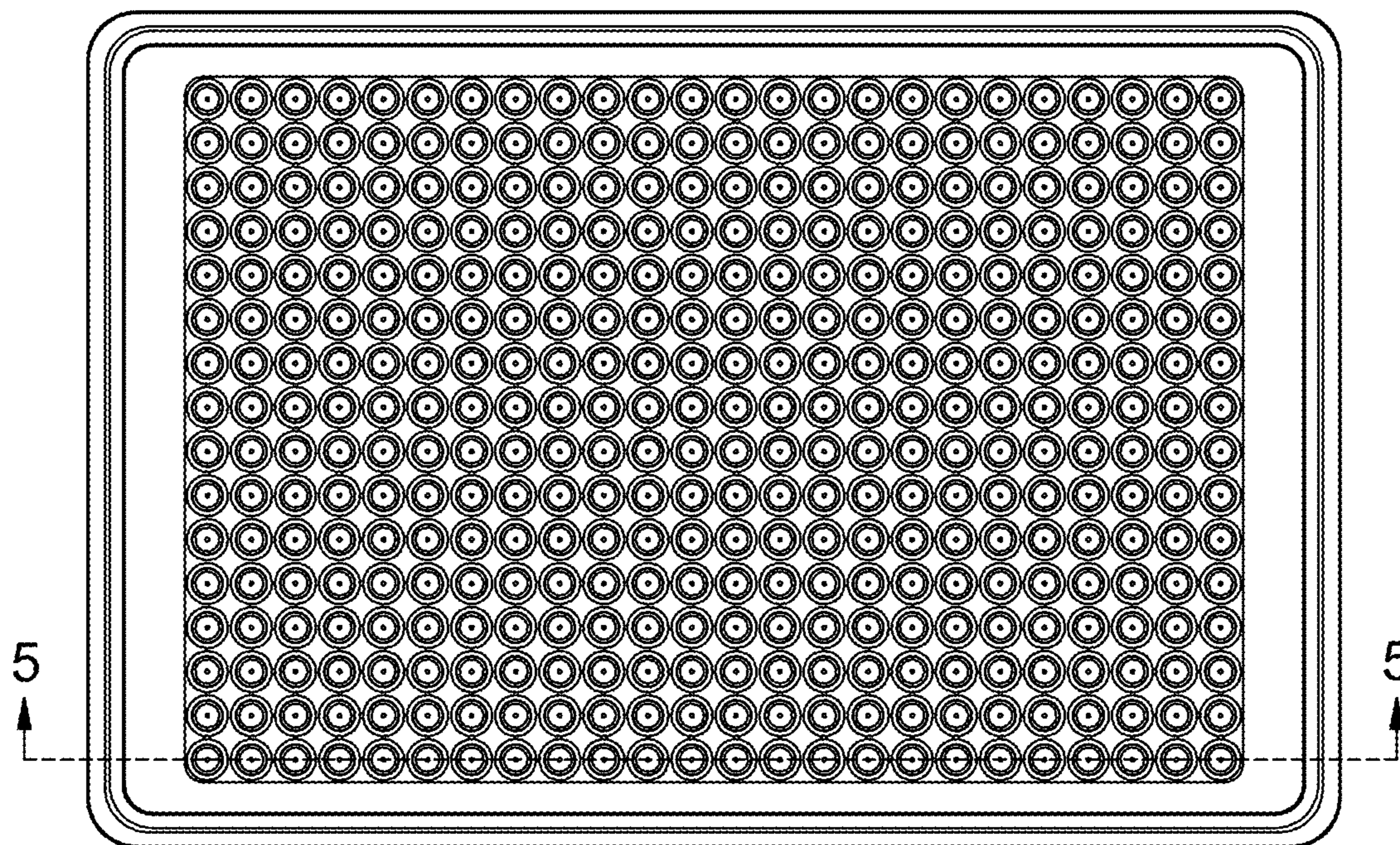


Fig. 4

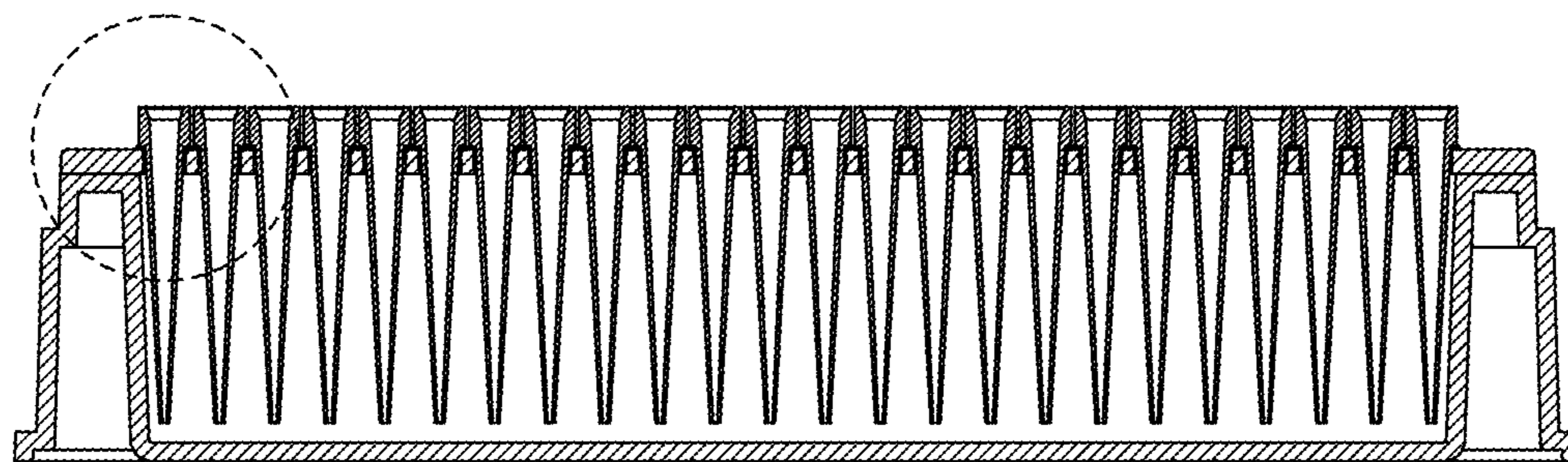


Fig. 5

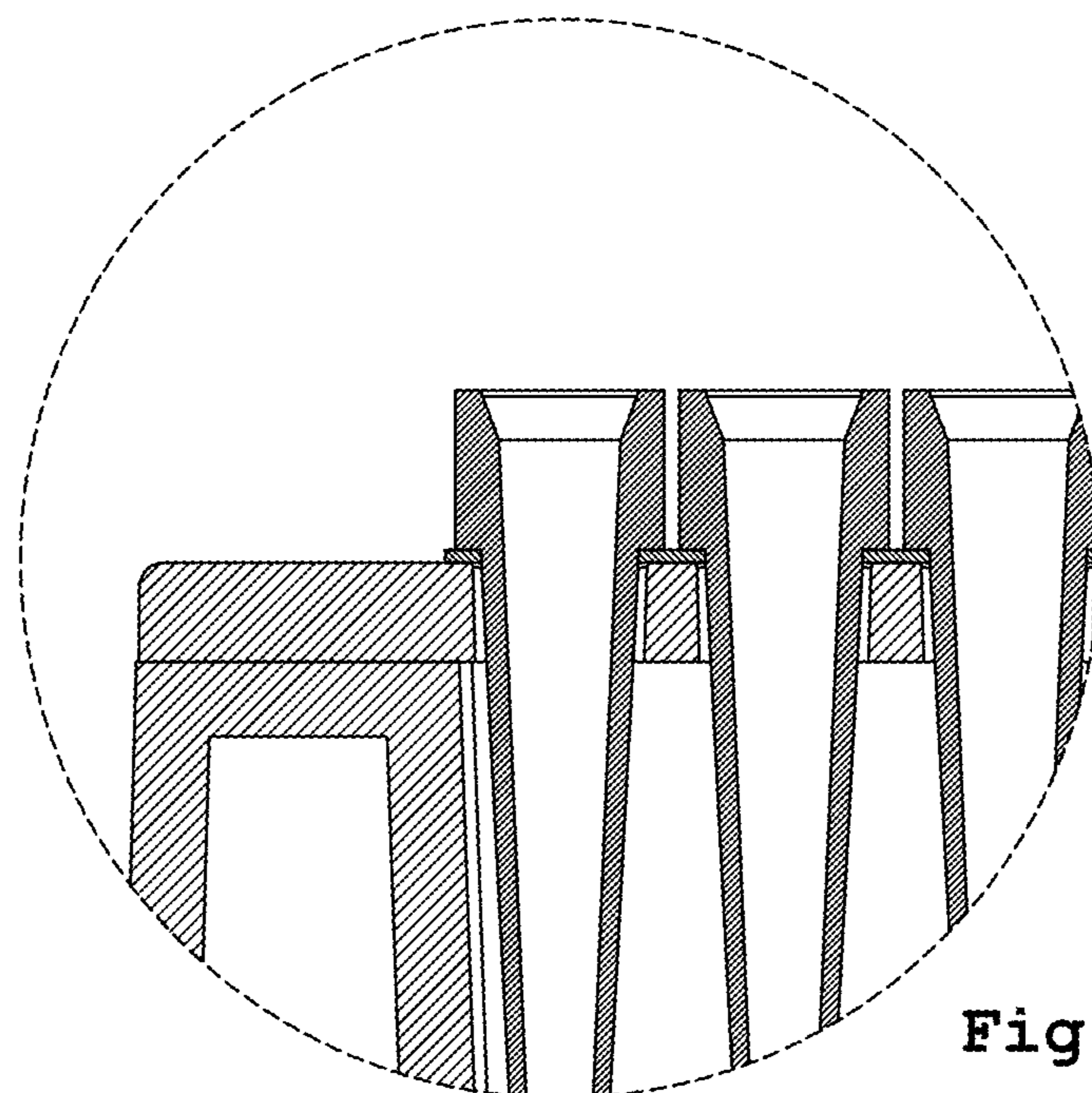


Fig. 6

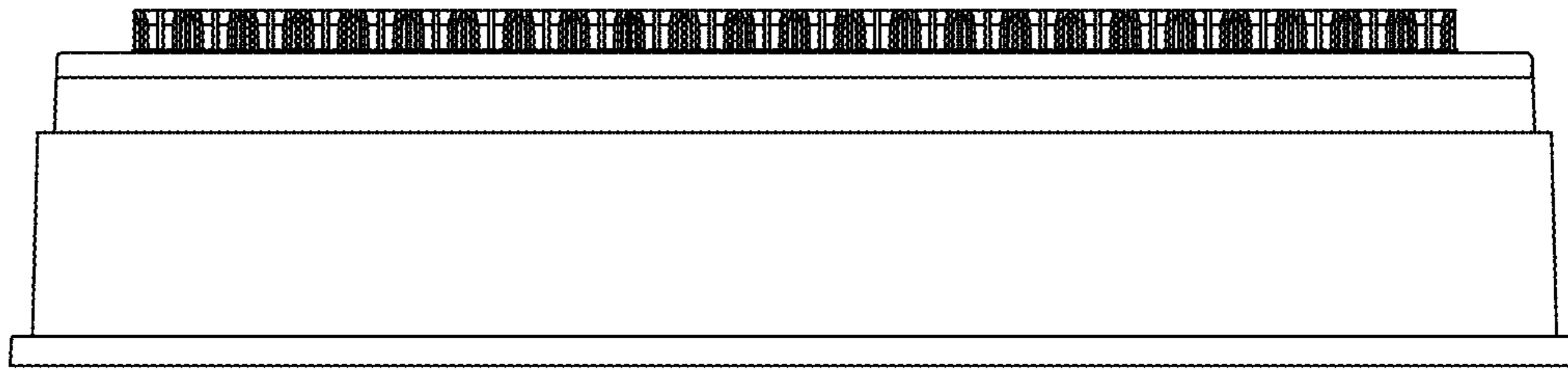


Fig. 7

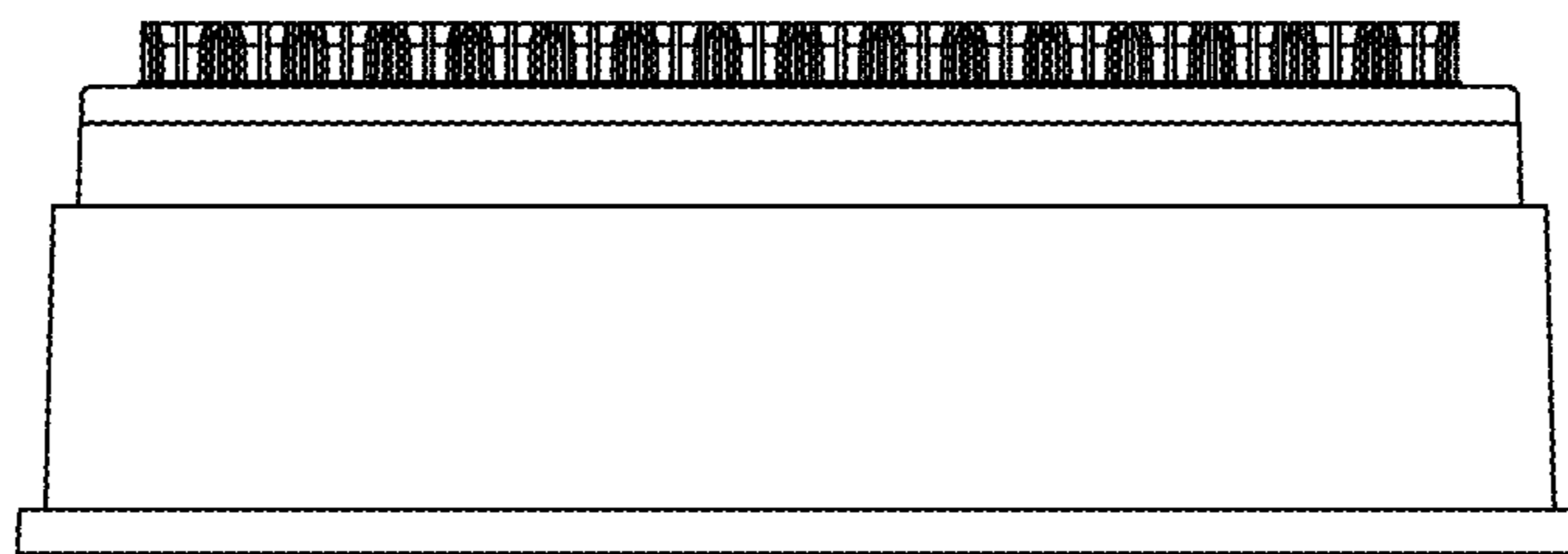


Fig. 8

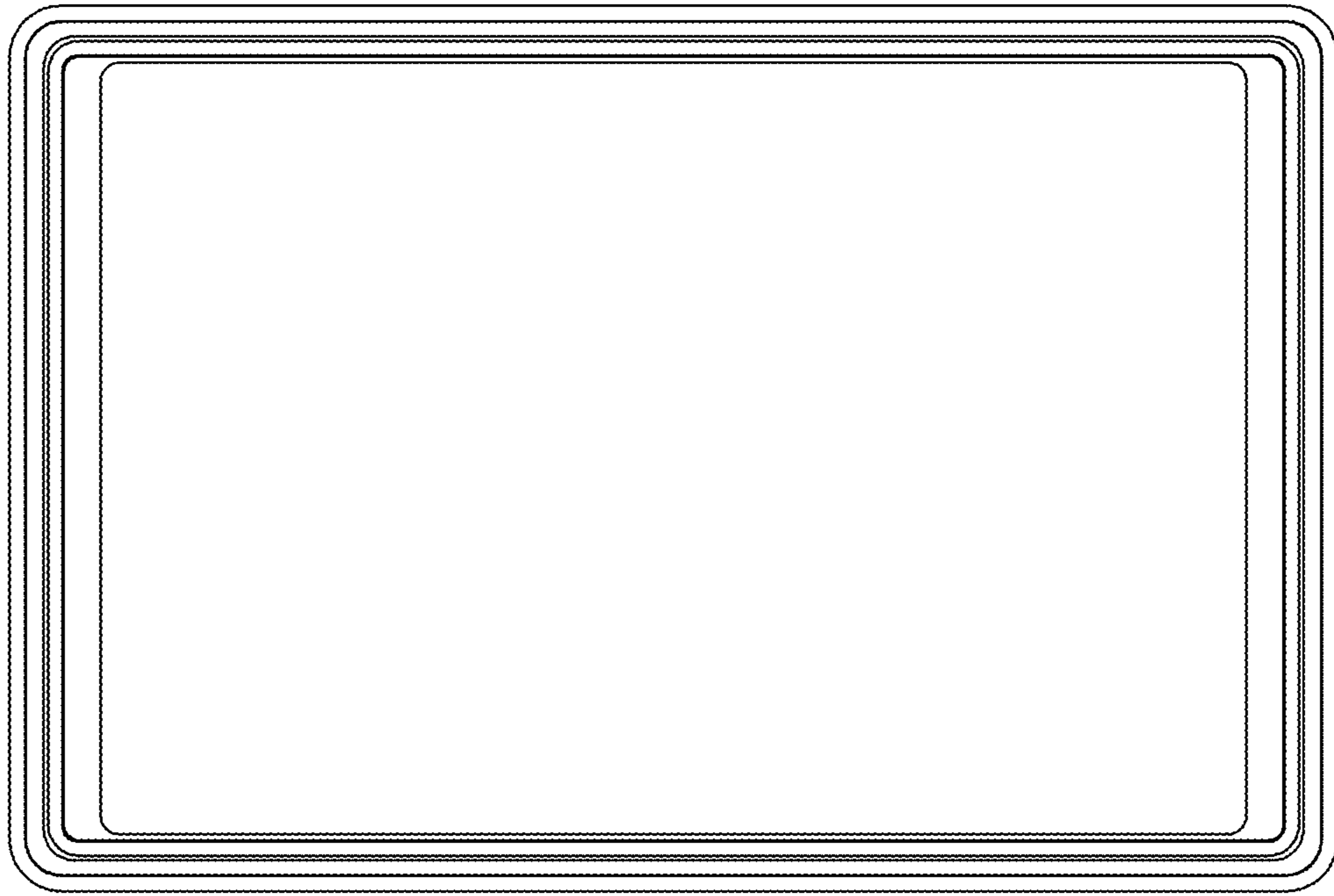


Fig. 9

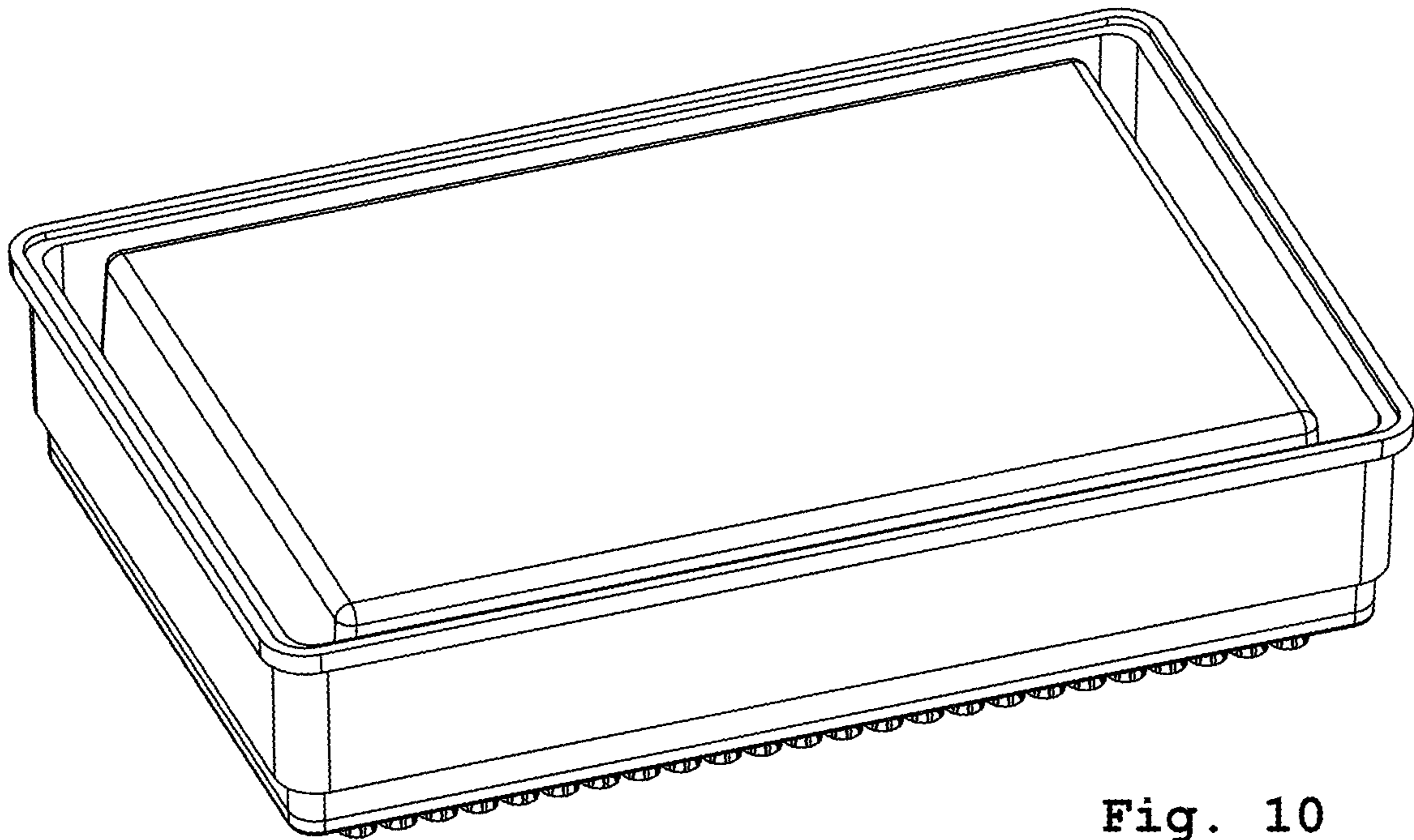


Fig. 10