



US00D875968S

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

(10) **Patent No.:** **US D875,968 S**

(45) **Date of Patent:** **** Feb. 18, 2020**

(54) **PIPETTE TIP SHEET ASSEMBLY**

(71) Applicant: **Biotix, Inc.**, San Diego, CA (US)
(72) Inventors: **Scott Edward Curry**, Carlsbad, CA (US); **Arta Motadel**, San Diego, CA (US); **Peter Paul Blaszcak**, San Diego, CA (US)
(73) Assignee: **BIOTIX, INC.**, San Diego, CA (US)

(**) 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)

Primary Examiner — Susan Bennett Hattan

Assistant Examiner — Rebecca Tsehaye

(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;

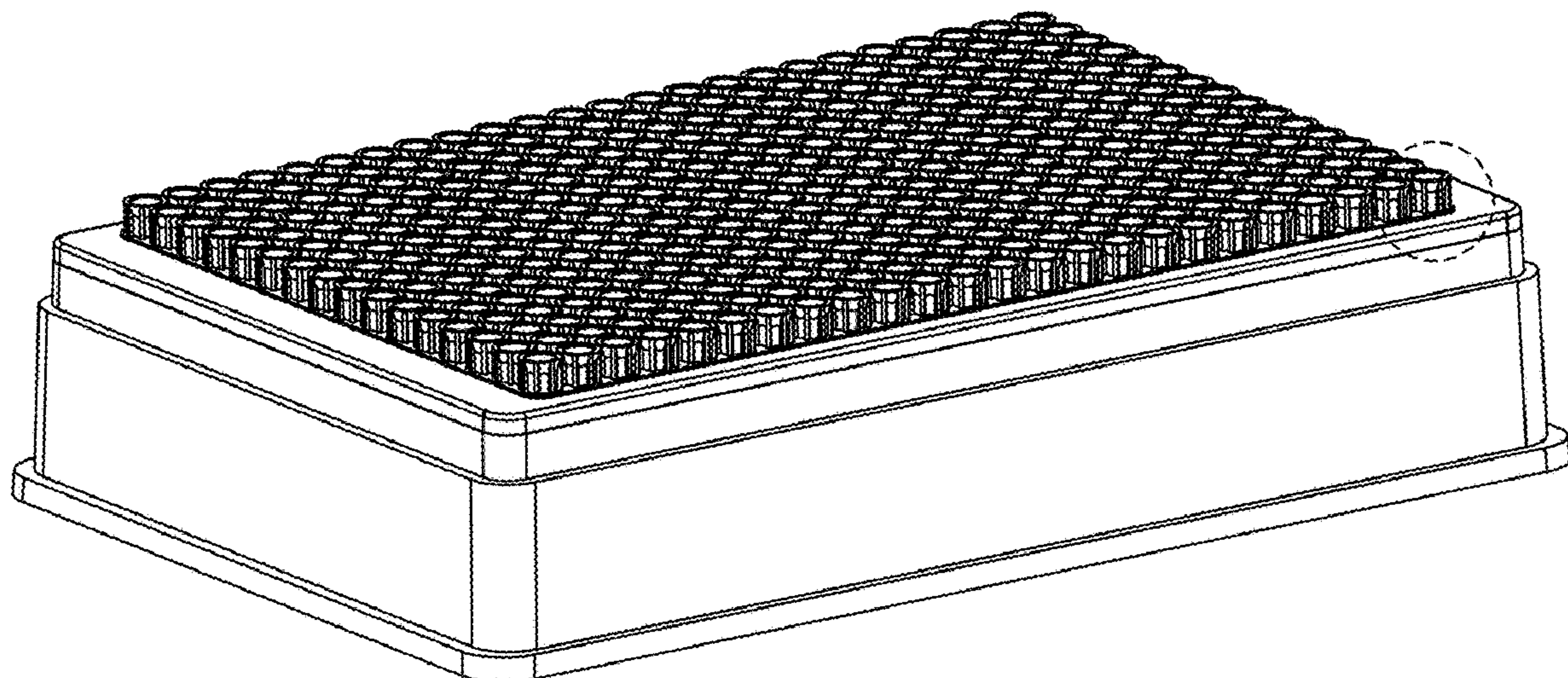
FIG. 7 is a long side view of the assembly shown in FIG. 1;

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.

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

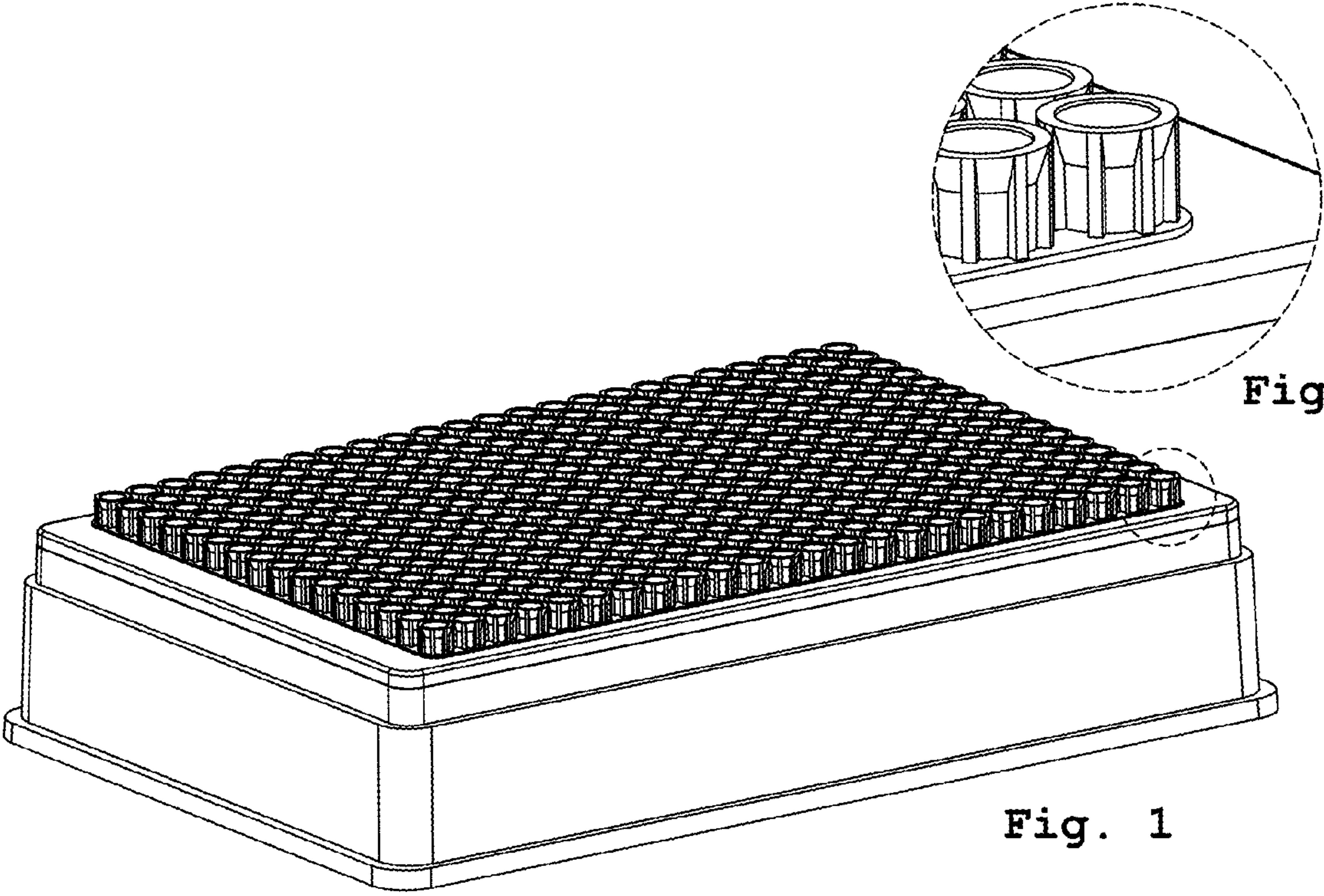


Fig. 2

Fig. 1

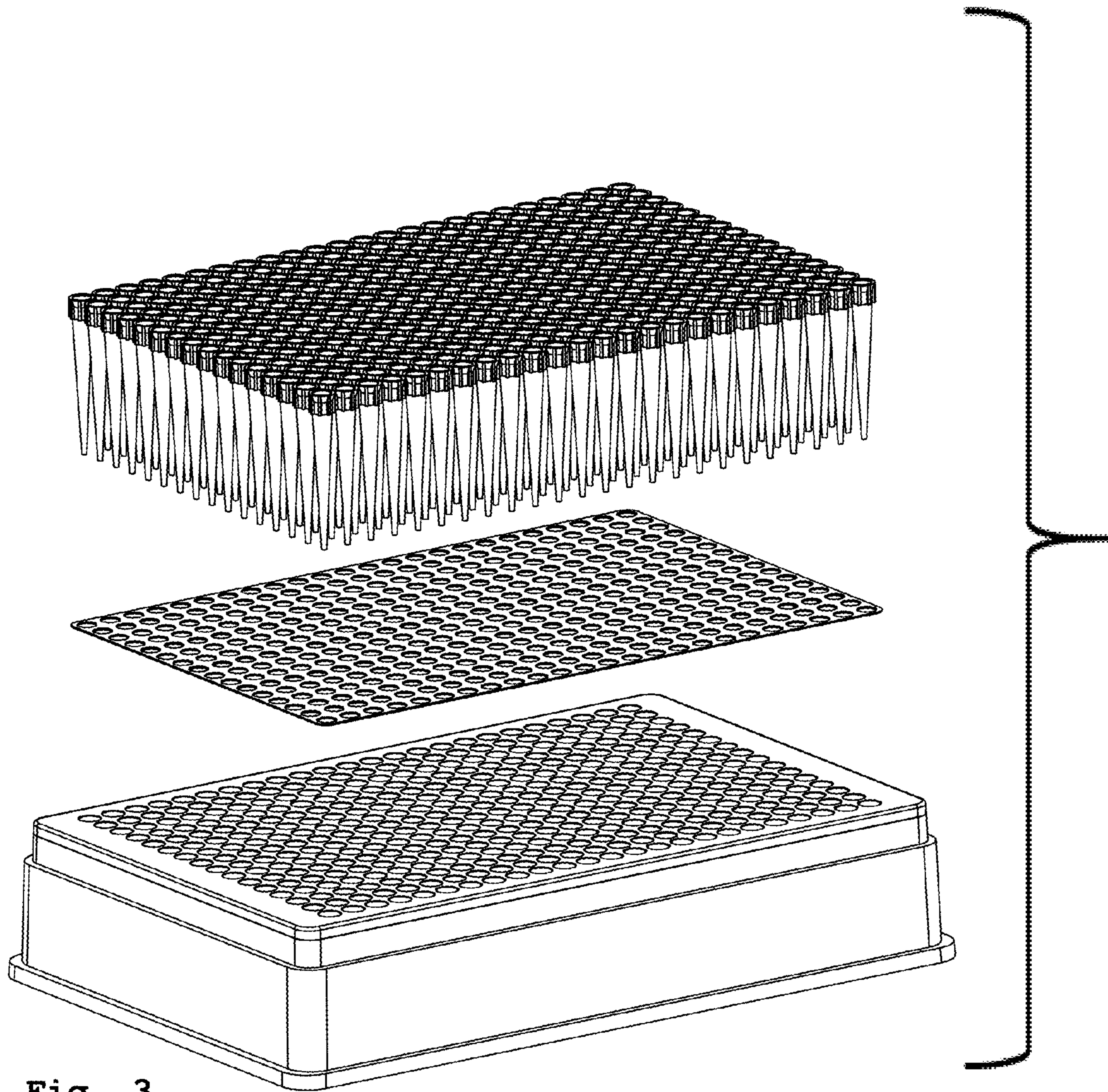


Fig. 3

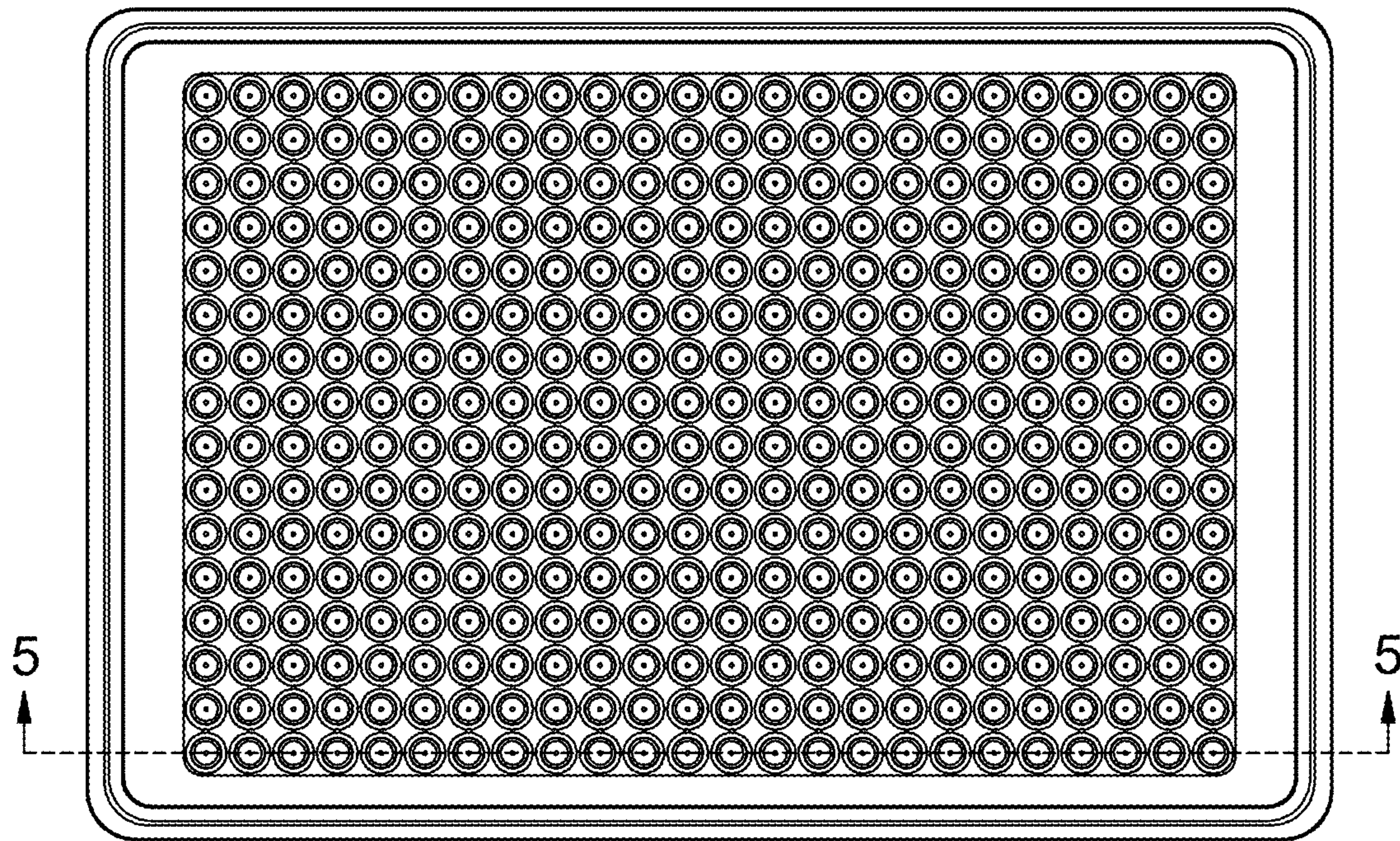


Fig. 4

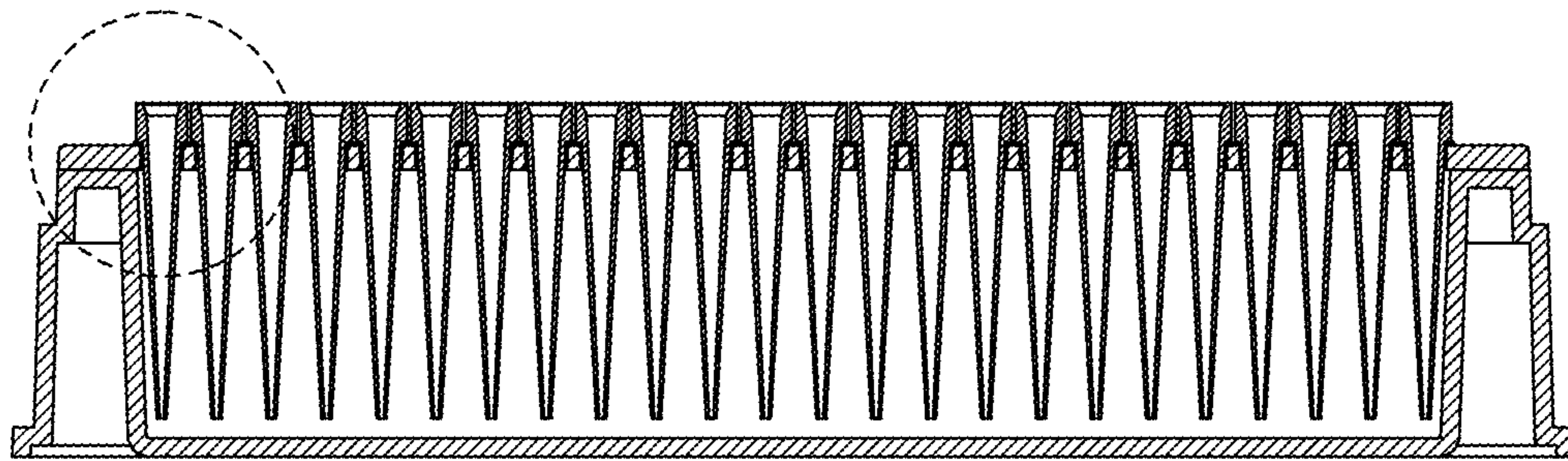


Fig. 5

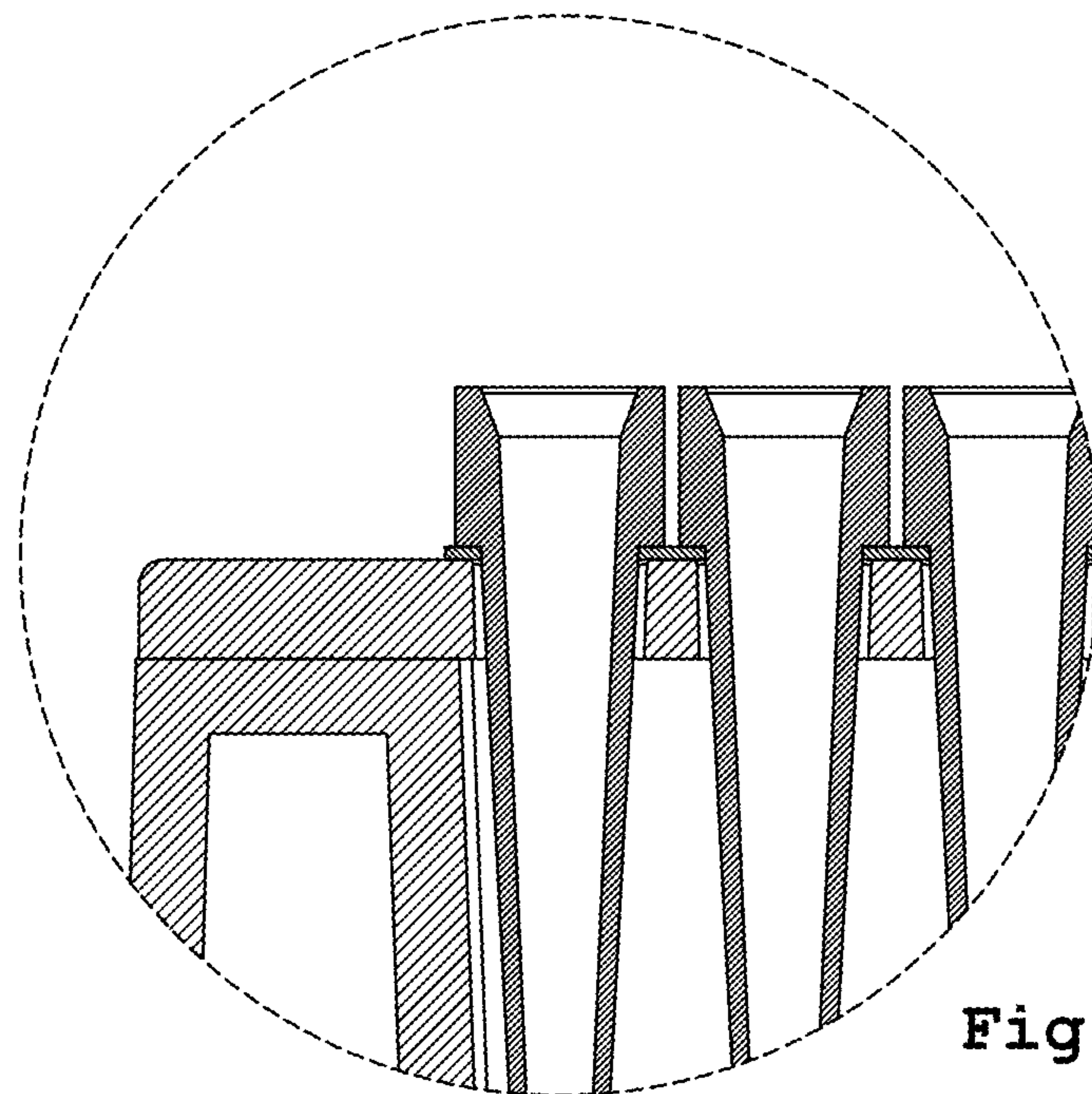


Fig. 6

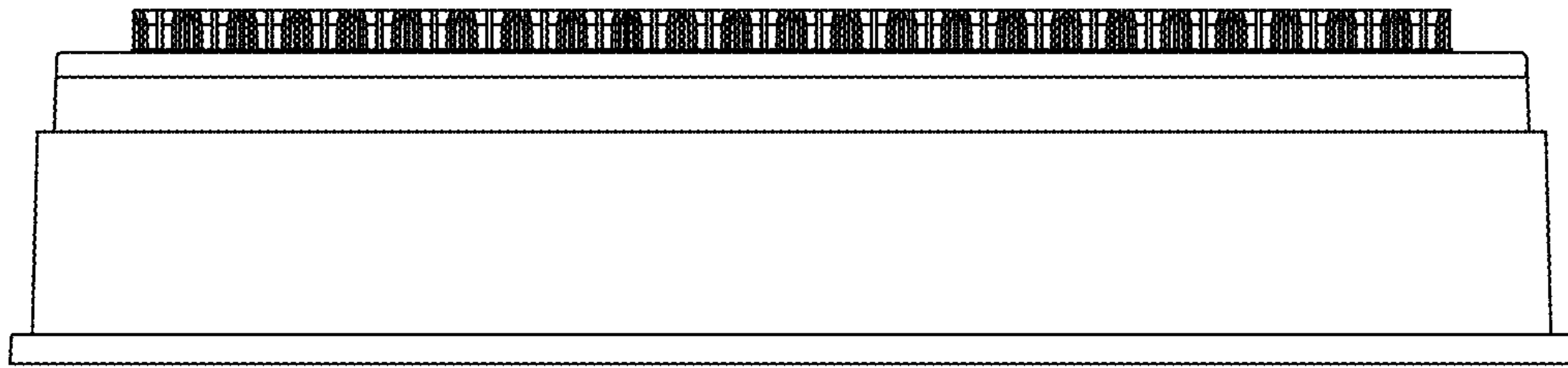


Fig. 7

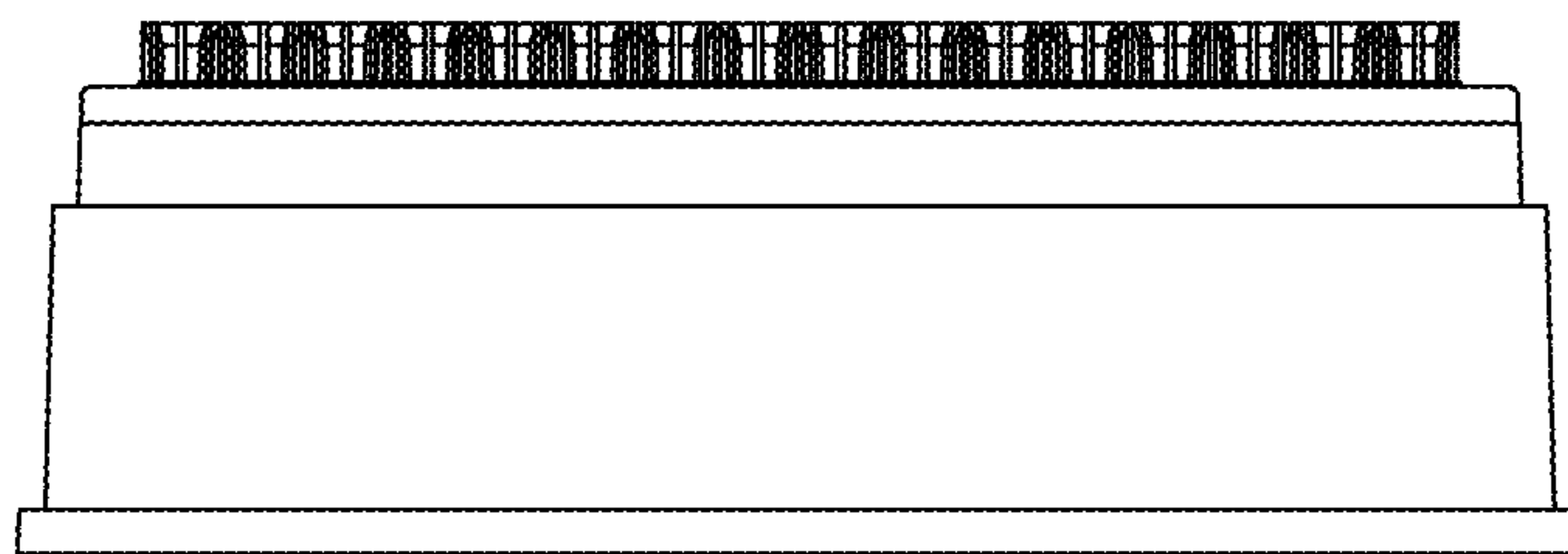


Fig. 8

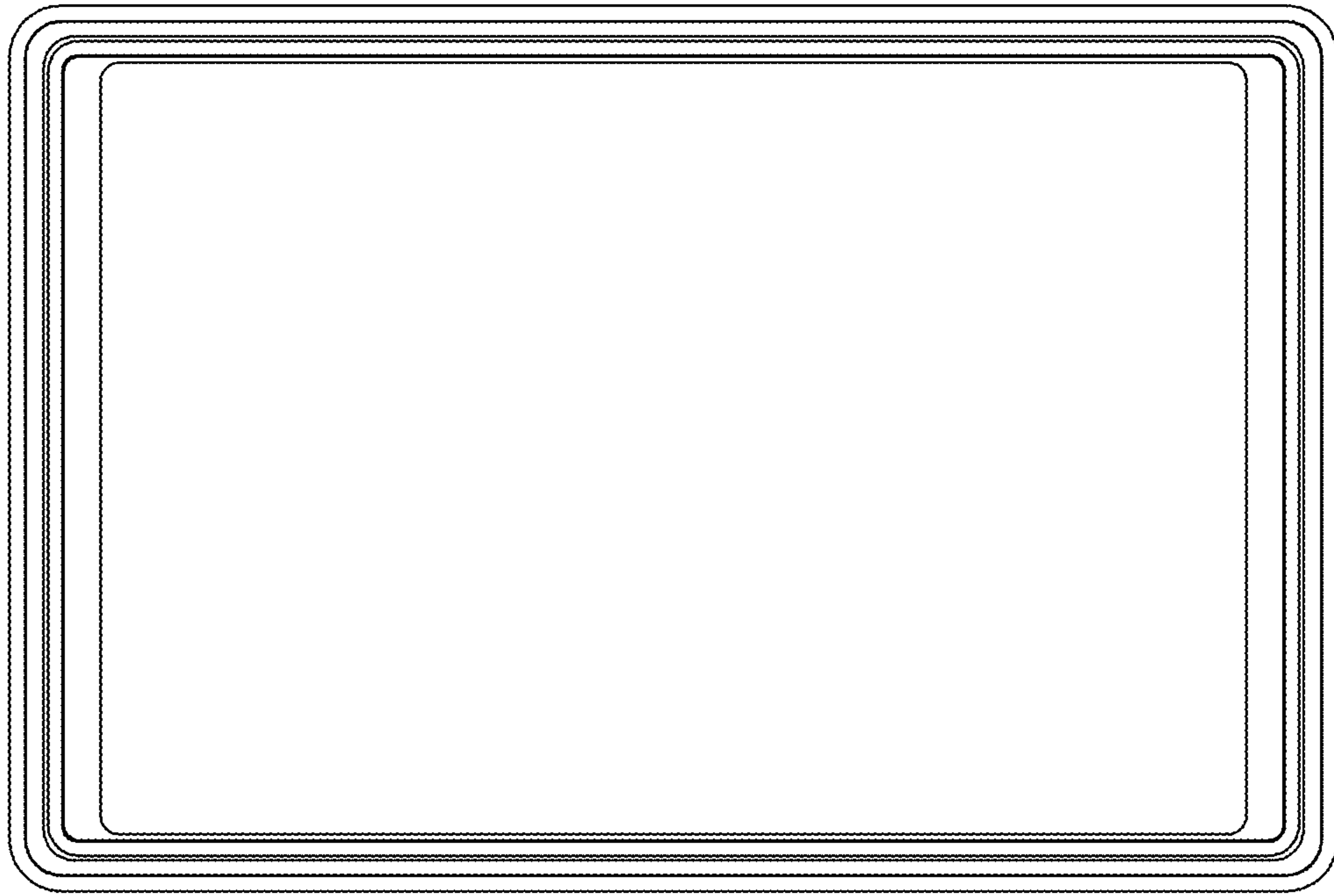


Fig. 9

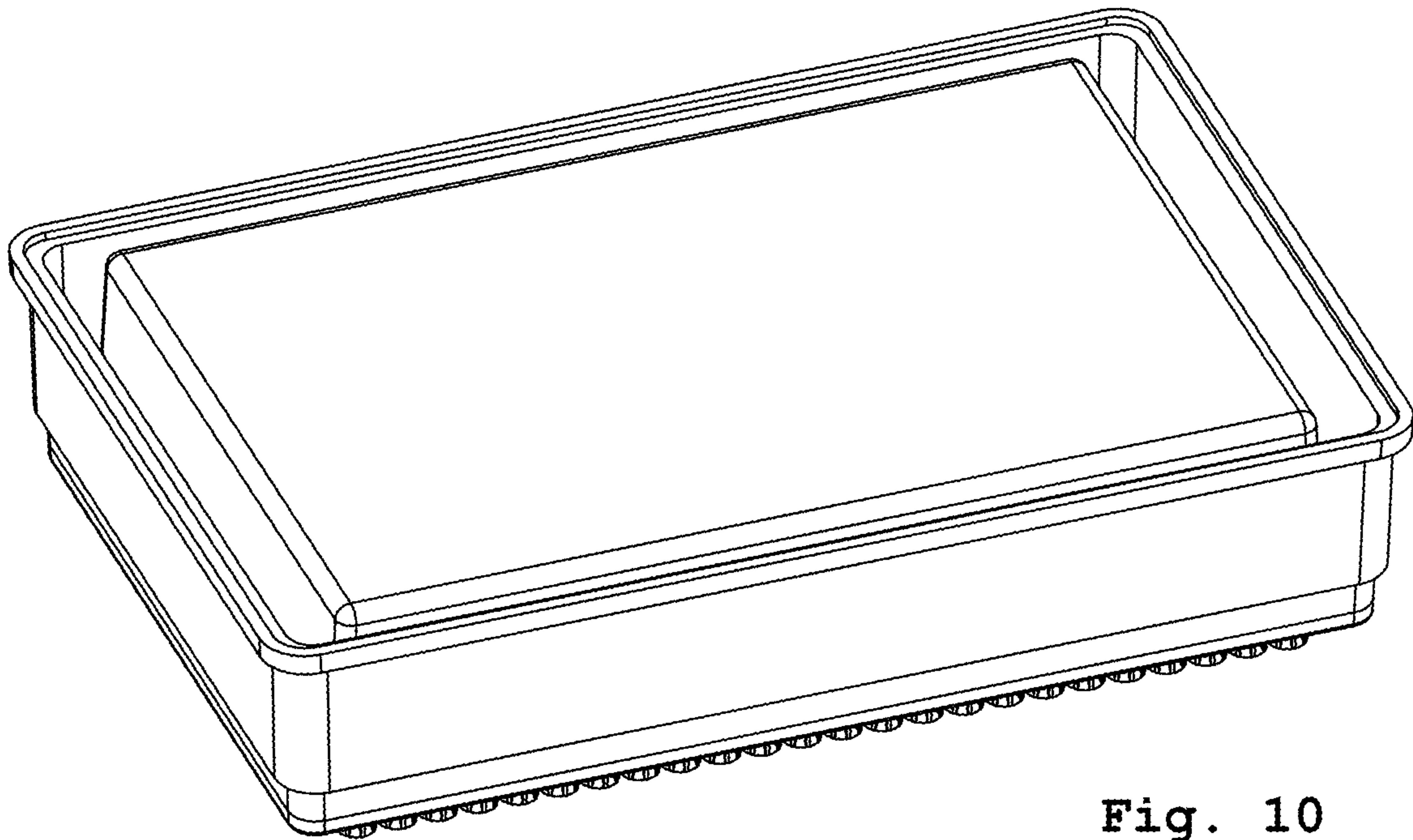


Fig. 10