



US00D905272S

(12) **United States Design Patent** (10) **Patent No.:** **US D905,272 S**  
**Curry et al.** (45) **Date of Patent:** **\*\* Dec. 15, 2020**

(54) **PIPETTE TIP RETENTION 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.: **29/684,691**

(22) Filed: **Mar. 22, 2019**

**Related U.S. Application Data**

(60) Division of application No. 29/548,015, filed on Dec. 9, 2015, now Pat. No. Des. 849,962, 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, 108, 113, 114, 121, 133, 184, D24/186, 216, 222-233 (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**

CN 1642651 A 7/2005  
EP 1110613 6/2001  
(Continued)

**OTHER PUBLICATIONS**

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.  
(Continued)

*Primary Examiner* — Vy N Koenig  
(74) *Attorney, Agent, or Firm* — Grant IP, Inc.

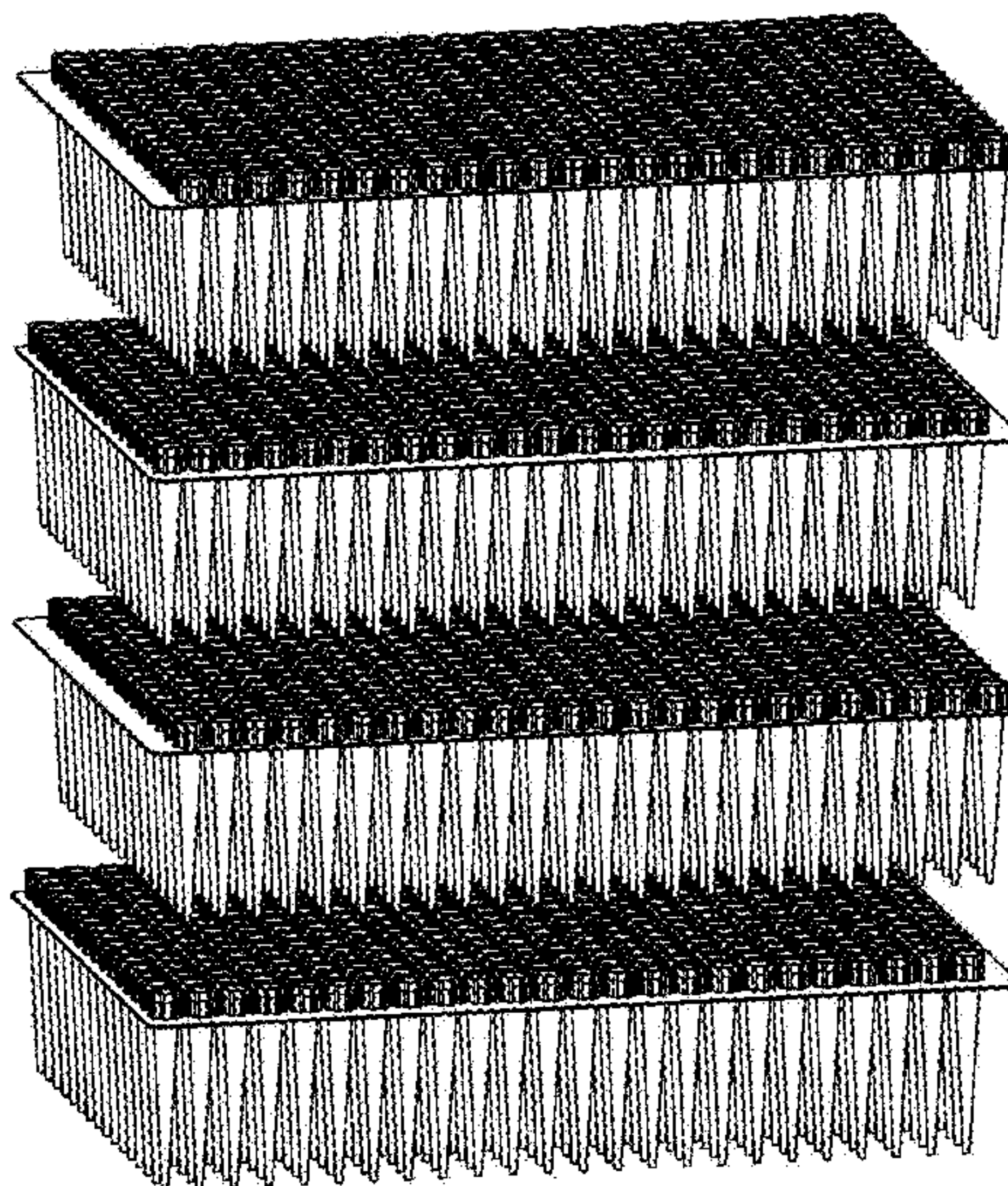
(57) **CLAIM**

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

**DESCRIPTION**

FIG. 1 is a top perspective exploded view of the pipette tip retention sheet assembly showing our new design, comprising multiple units of the pipette tip retention sheet assembly shown in FIG. 4 to FIG. 6;  
FIG. 2 is a top perspective view thereof in a stacked orientation;  
FIG. 3 is an enlarged view of the portion delineated by a broken circle shown in FIG. 2;  
FIG. 4 is a top view of one pipette tip sheet assembly containing one pipette tip retention sheet and pipette tips in an array of pipette tips retained in holes of the sheet, shown separately to reveal aspects of the design that may not be apparent in the other views;  
FIG. 5 is a long side view thereof;  
FIG. 6 is a short side view thereof;  
FIG. 7 is a top view of a sheet that forms part of the pipette tip retention sheet assembly of FIG. 4, having hole-to-edge offsets of varying widths, shown separately to reveal aspects of the design that may not be apparent in the other views;  
FIG. 8 is a long side view thereof;  
FIG. 9 is a short side view thereof; and,  
FIG. 10 is a top perspective view thereof.

**1 Claim, 5 Drawing Sheets**





**Related U.S. Application Data**

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

- (58) **Field of Classification Search**  
 CPC ..... B01F 13/0025; B01J 2219/00292; B01J 2220/64; B01L 3/14; B01L 3/508-50825; B01L 3/52-523

See application file for complete search history.

- (56) **References Cited**

U.S. PATENT DOCUMENTS

4,130,978 A 12/1978 Cohen  
 D264,810 S 6/1982 Voltmann  
 4,349,109 A 9/1982 Scordato et al.  
 D271,239 S 11/1983 Lemieux et al.  
 4,511,534 A 4/1985 Bennett, Jr. et al.  
 D282,208 S 1/1986 Lowry  
 D283,162 S 3/1986 Godsey  
 4,577,760 A 3/1986 Ranin et al.  
 4,676,377 A 6/1987 Rainin et al.  
 5,000,921 A 3/1991 Hanaway et al.  
 5,156,811 A 10/1992 White  
 D332,145 S 12/1992 Wada et al.  
 D337,165 S 7/1993 Malinoff  
 5,255,979 A 10/1993 Ferrari  
 5,324,482 A 6/1994 Scaramella  
 5,366,088 A 11/1994 Hill et al.  
 5,392,914 A 2/1995 Lemieux et al.  
 5,441,702 A 8/1995 Lemieux  
 5,487,872 A 1/1996 Hafeman et al.  
 5,487,997 A 1/1996 Stolp  
 D369,415 S 4/1996 Boulton et al.  
 5,612,000 A 3/1997 Lemieux  
 5,779,984 A 7/1998 Kelly  
 5,882,603 A 3/1999 Taggart  
 D411,308 S 6/1999 Pandey et al.  
 D414,271 S 9/1999 Mendoza  
 6,007,779 A 12/1999 Lemieux et al.  
 D420,142 S 2/2000 Ballin et al.  
 D420,743 S 2/2000 Monks  
 6,019,225 A 2/2000 Kalmakis et al.  
 6,164,449 A 12/2000 Lahti  
 D439,673 S 3/2001 Brophy et al.  
 D441,091 S 4/2001 Day  
 6,238,626 B1 5/2001 Higuchi  
 6,286,678 B1 9/2001 Petrek  
 D448,854 S 10/2001 Kuiper et al.  
 D452,740 S 1/2002 Brennan et al.  
 6,426,047 B1 7/2002 Hamel et al.  
 D461,554 S 8/2002 Lafond et al.  
 D464,734 S 10/2002 Berna et al.  
 D466,219 S 11/2002 Wynschenk et al.  
 6,517,782 B1 2/2003 Horner et al.  
 6,534,015 B1 3/2003 Viot et al.  
 6,706,244 B1 3/2004 Holden et al.  
 6,805,840 B1\* 10/2004 Tajima ..... B01L 3/0231  
 210/695  
 6,875,405 B1 4/2005 Mathus et al.  
 7,060,226 B1 6/2006 Jessop et al.  
 D529,622 S 10/2006 Hadjis et al.  
 D533,948 S 12/2006 Schaub et al.  
 D534,658 S 1/2007 Bargh  
 7,169,361 B2 1/2007 Arnold et al.  
 7,187,286 B2 3/2007 Morris et al.  
 7,220,590 B2 5/2007 Moritz et al.  
 D556,338 S 11/2007 Coulling et al.  
 D556,339 S 11/2007 Coulling et al.  
 D562,463 S 2/2008 Berndt et al.  
 7,335,337 B1 2/2008 Smith

D574,505 S 8/2008 Muller-Cohn et al.  
 D576,208 S 9/2008 Quercetti  
 7,459,128 B2 12/2008 Karg et al.  
 D593,207 S 5/2009 Ayliffe  
 D598,566 S 8/2009 Allaer  
 7,628,960 B2 12/2009 Ruddock  
 D608,013 S 1/2010 Coulling et al.  
 D632,404 S 2/2011 Karpiloff  
 D632,803 S 2/2011 Motadel et al.  
 7,906,075 B2 3/2011 Ueda  
 7,968,056 B2 6/2011 Stockwell  
 8,088,593 B2 1/2012 Burd et al.  
 D654,186 S 2/2012 Park et al.  
 D657,473 S 4/2012 Miyashita et al.  
 8,148,168 B2 4/2012 Gjerde et al.  
 D673,294 S 12/2012 Motadel  
 D673,296 S 12/2012 Fry et al.  
 D675,748 S\* 2/2013 Hilligoss ..... D24/230  
 D677,400 S 3/2013 Blaettler  
 D679,025 S 3/2013 Motadel et al.  
 D679,830 S 4/2013 May et al.  
 8,453,838 B2 6/2013 Hill  
 8,460,622 B2 6/2013 Motadel  
 8,470,265 B2 6/2013 Motadel et al.  
 D690,027 S 9/2013 Motadel  
 8,590,736 B2 11/2013 Motadel  
 D697,227 S 1/2014 Motadel  
 D699,370 S 2/2014 Motadel et al.  
 D699,371 S 2/2014 Williams et al.  
 D699,859 S 2/2014 Motadel  
 D702,854 S 4/2014 Nakahana  
 D707,847 S 6/2014 Motadel et al.  
 D709,718 S 7/2014 Snyder  
 8,790,578 B2 7/2014 Wohlstadter  
 8,795,606 B2 8/2014 Motadel et al.  
 D724,236 S 3/2015 Motadel  
 9,089,845 B2 7/2015 Motadel et al.  
 D745,698 S 12/2015 Hage et al.  
 9,238,227 B2 1/2016 Motadel  
 9,302,262 B2 4/2016 Motadel  
 9,464,739 B2 10/2016 Chiang et al.  
 9,511,364 B2 12/2016 Andersin  
 9,579,656 B2 2/2017 Finneran  
 9,623,171 B2 4/2017 Okihara  
 D804,050 S 11/2017 Coulling et al.  
 9,878,330 B2 1/2018 Motadel  
 D815,753 S 4/2018 Curry et al.  
 D824,535 S 7/2018 Curry  
 D833,031 S 11/2018 Curry et al.  
 10,137,453 B2 11/2018 Curry et al.  
 10,258,992 B2 4/2019 Curry  
 D848,638 S\* 5/2019 Sims ..... D24/226  
 D849,962 S\* 5/2019 Curry ..... D24/227  
 10,300,488 B2 5/2019 Motadel et al.  
 D865,216 S 10/2019 Curry et al.  
 D875,968 S 2/2020 Curry et al.  
 2003/0064508 A1 4/2003 Kwasnoski et al.  
 2003/0129089 A1 7/2003 Arnold et al.  
 2003/0152494 A1 8/2003 Moritz et al.  
 2004/0033168 A1 2/2004 Hughes  
 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  
 2010/0221151 A1 9/2010 Motadel et al.  
 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  
 2013/0161226 A1 6/2013 Motadel et al.



(56)

**References Cited**

## U.S. PATENT DOCUMENTS

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.  
 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 95/08392 3/1995  
 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.fishersci.se/shop/products/axygen-robotic-pipetter-tips-15/p-4356795>, Jul. 27, 2019.

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

Office Action dated Aug. 7, 2019 in Design U.S. Appl. No. 29/654,517, filed Jun. 25, 2018.

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.

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 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 on 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.

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.

(56)

**References Cited**

OTHER PUBLICATIONS

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

“Office Action dated Mar. 11, 2020 in U.S. Appl. No. 15/543,224, filed Jul. 12, 2017 and published as US 2018-0117595 on May 3, 2018”, 8 pages.

“Office Action dated May 4, 2020 in in U.S. Appl. No. 15/543,224, filed Jul. 12, 2017 and published as US 2018-0117595 on May 3, 2018”, 5 pages.

“International Search Report and Written Opinion dated May 18, 2016 in International Patent Application No. PCT/2015/064784, filed on Dec. 9, 2015”, 21 pages.

“Office Action dated Oct. 10, 2019 in U.S. Appl. No. 29/684,691, filed Mar. 22, 2019”, 5 pages.

Office Action dated Aug. 24, 2020 in U.S. Appl. No. 29/719,779, filed Jan. 7, 2020, 6 pages.

Office Action dated Sep. 3, 2020 in U.S. Appl. No. 16/899,466, filed Jun. 11, 2020, 16 pages.

\* cited by examiner



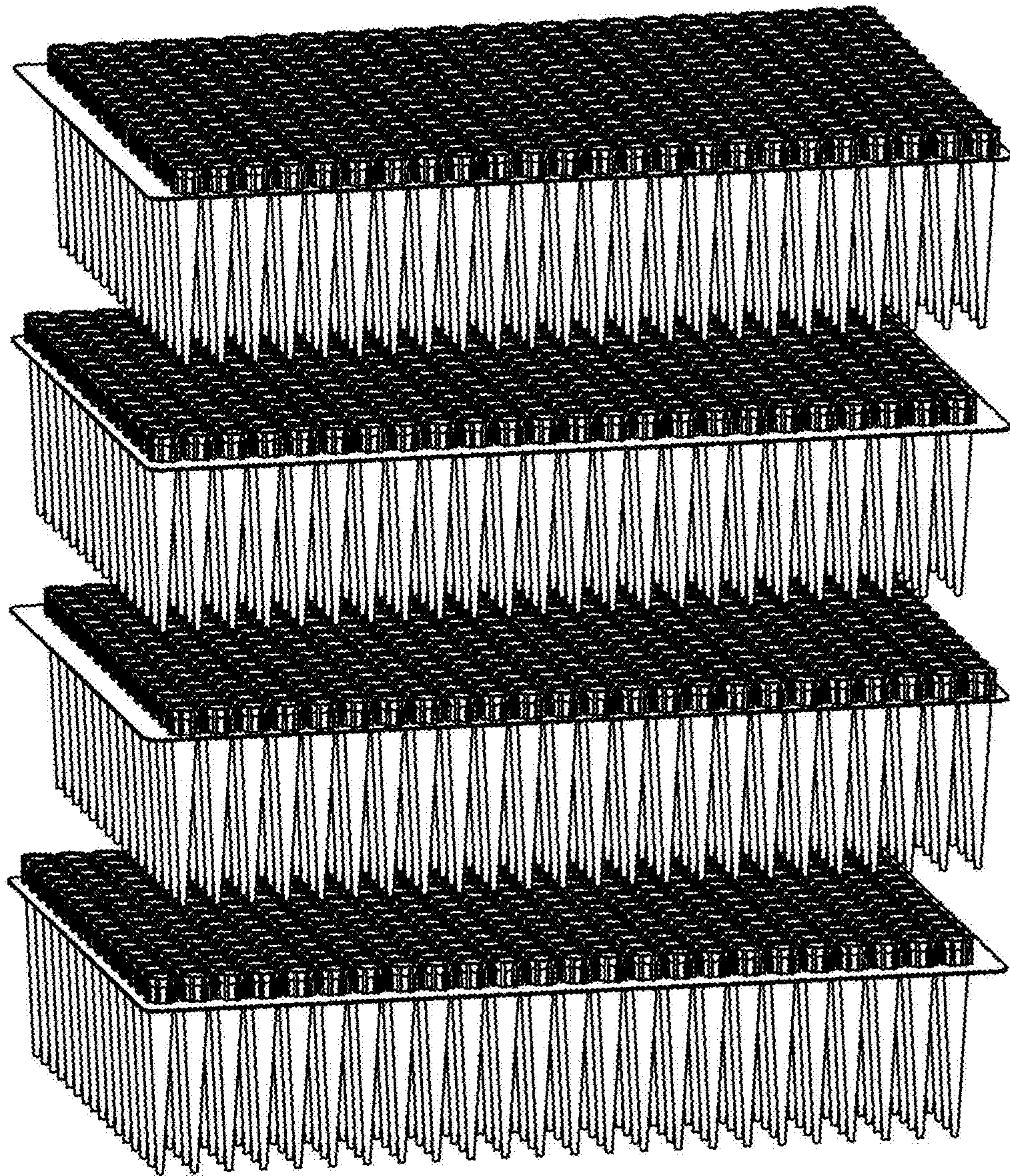


Fig. 1



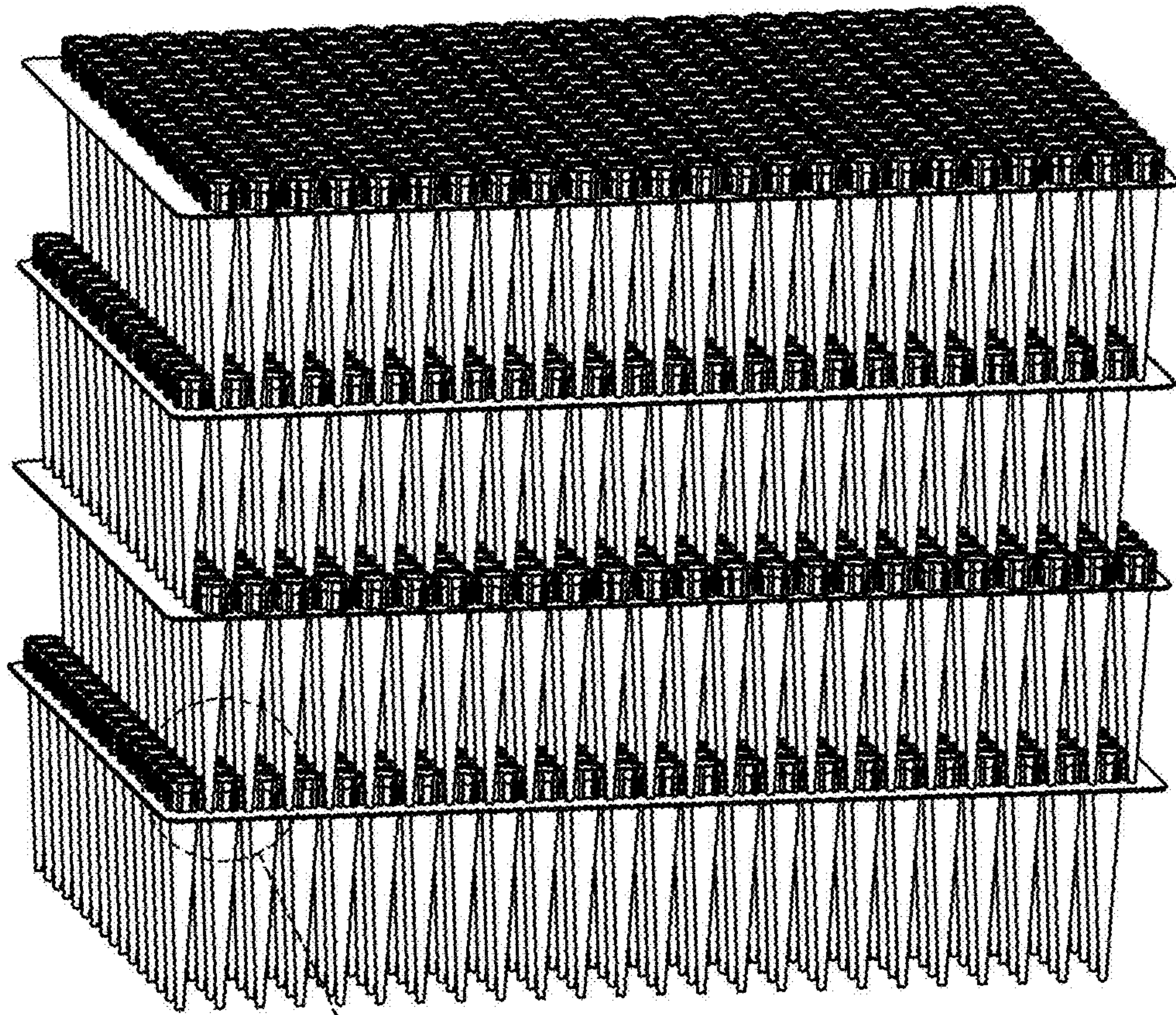


Fig. 2

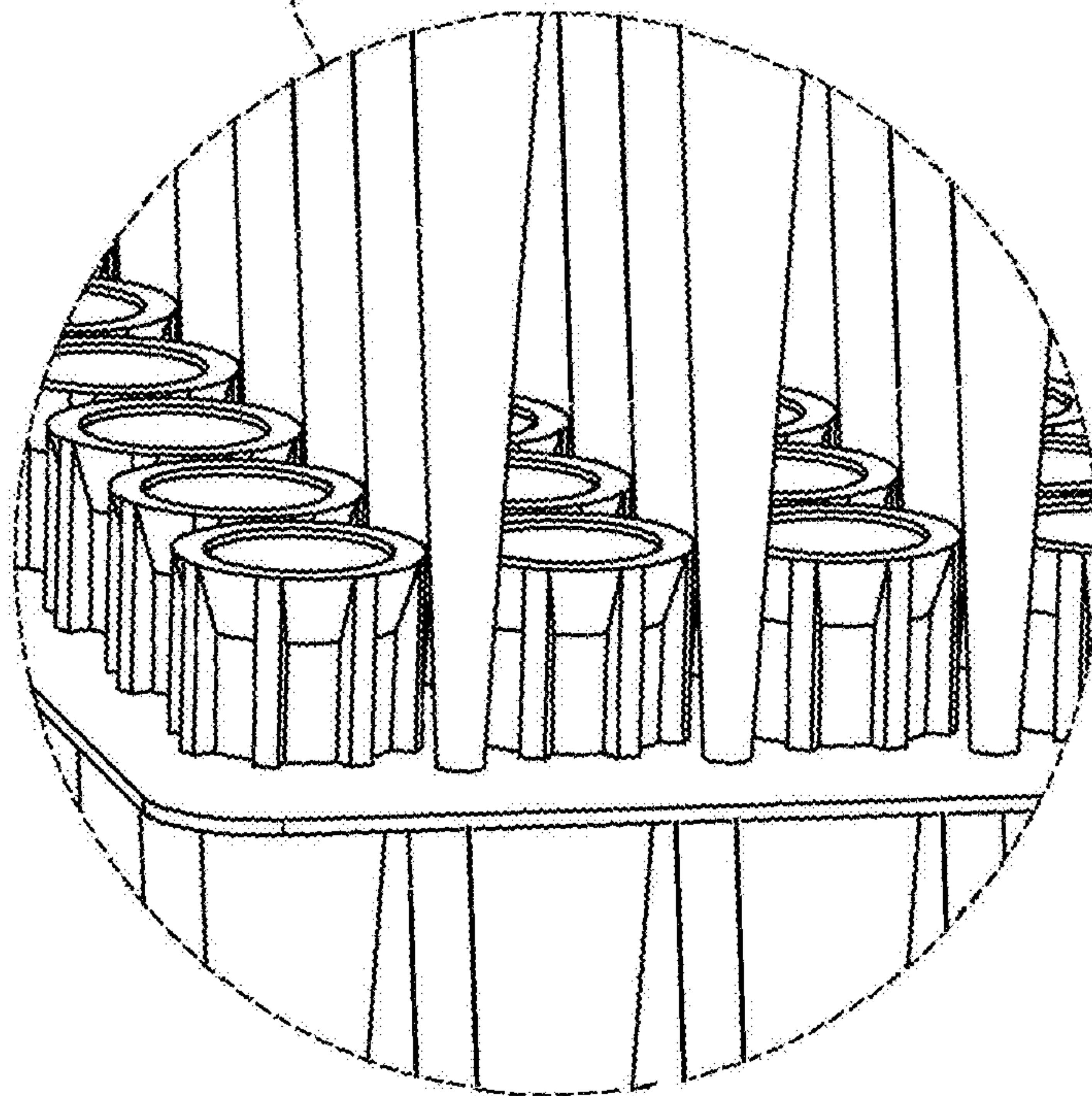


Fig. 3



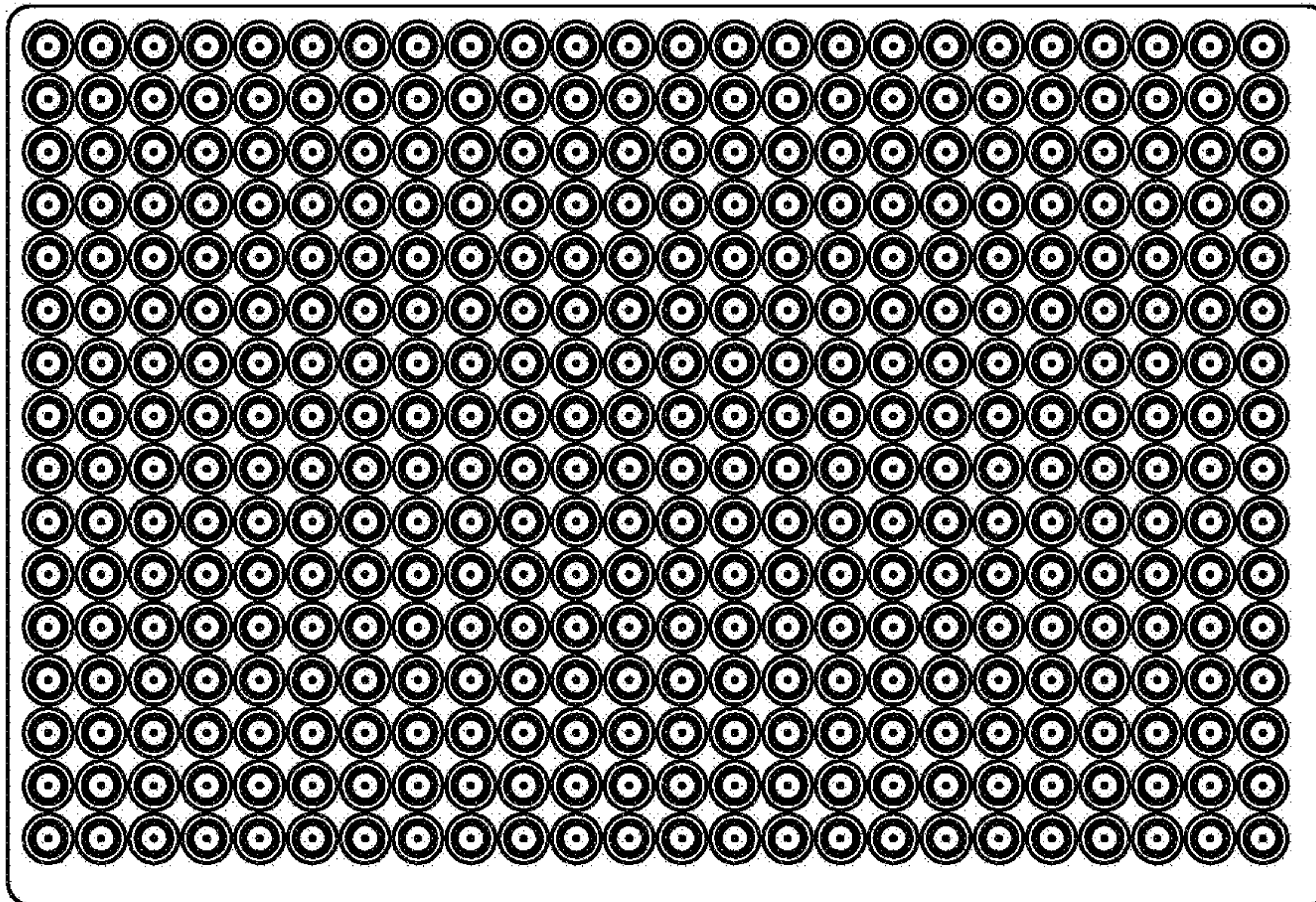


Fig. 4

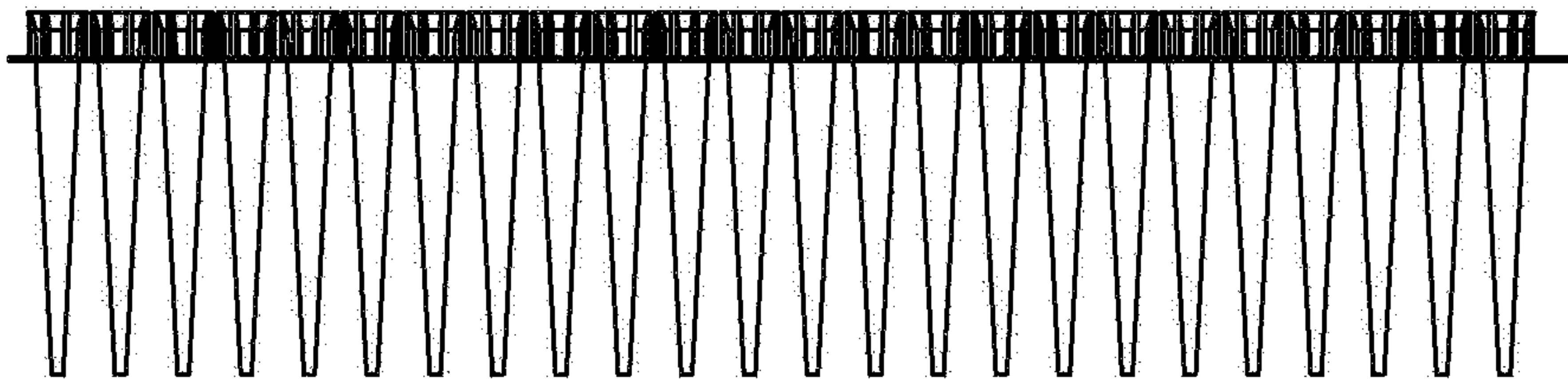


Fig. 5

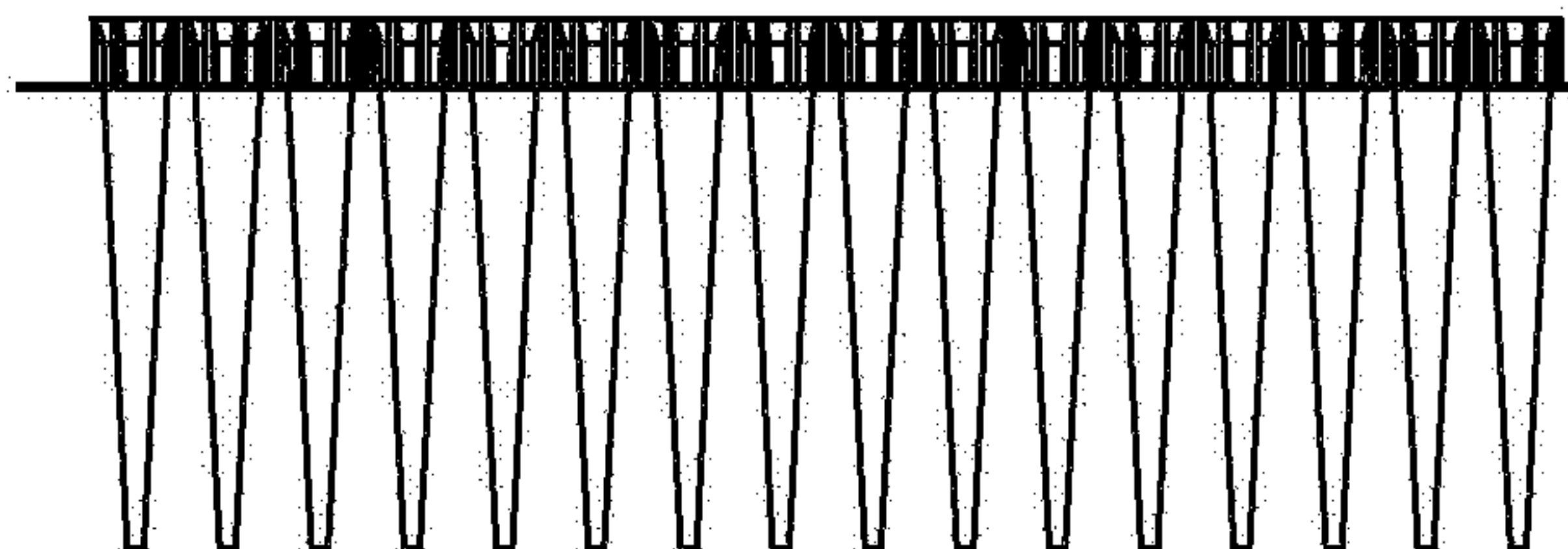


Fig. 6

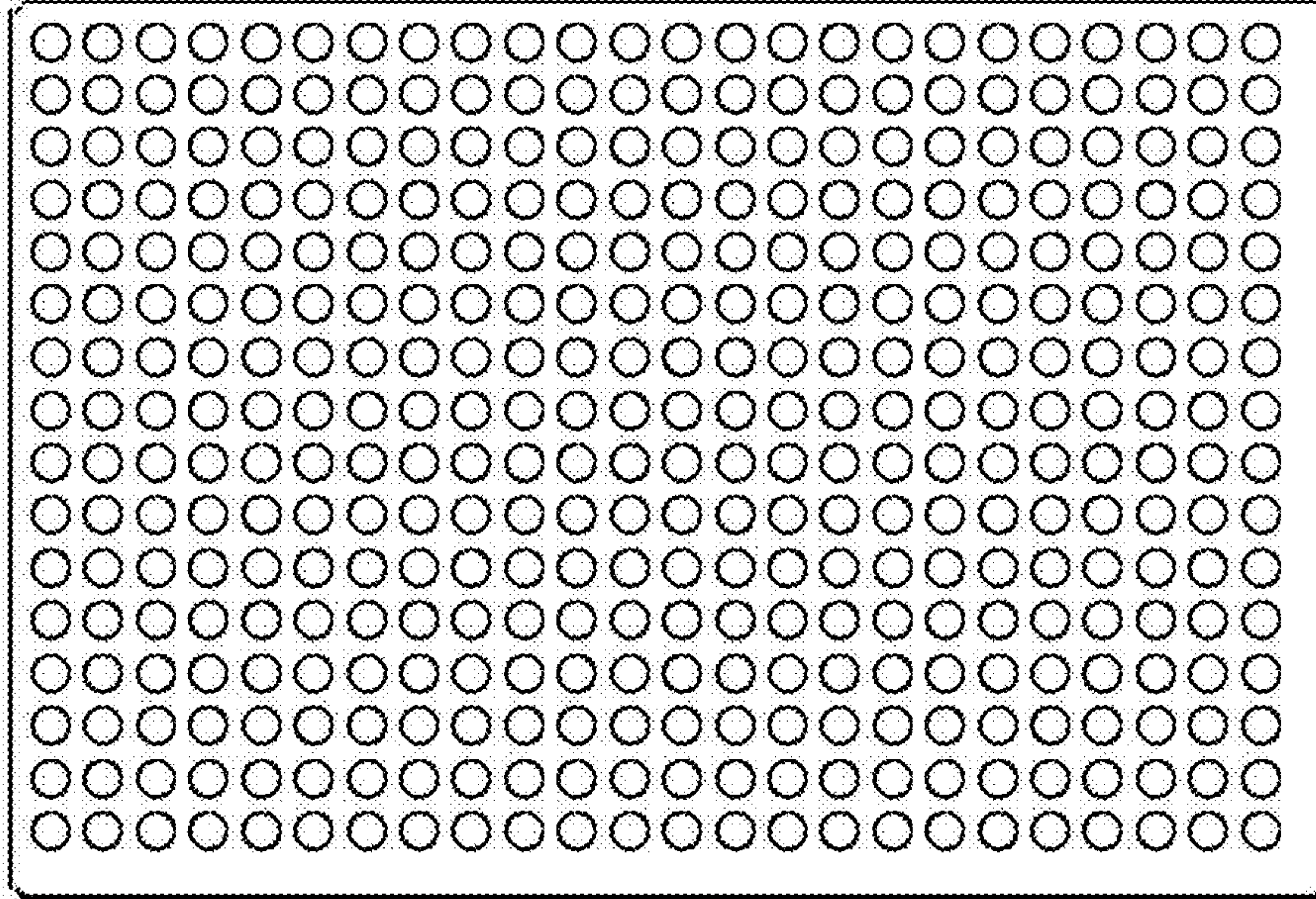


Fig. 7



Fig. 8



Fig. 9



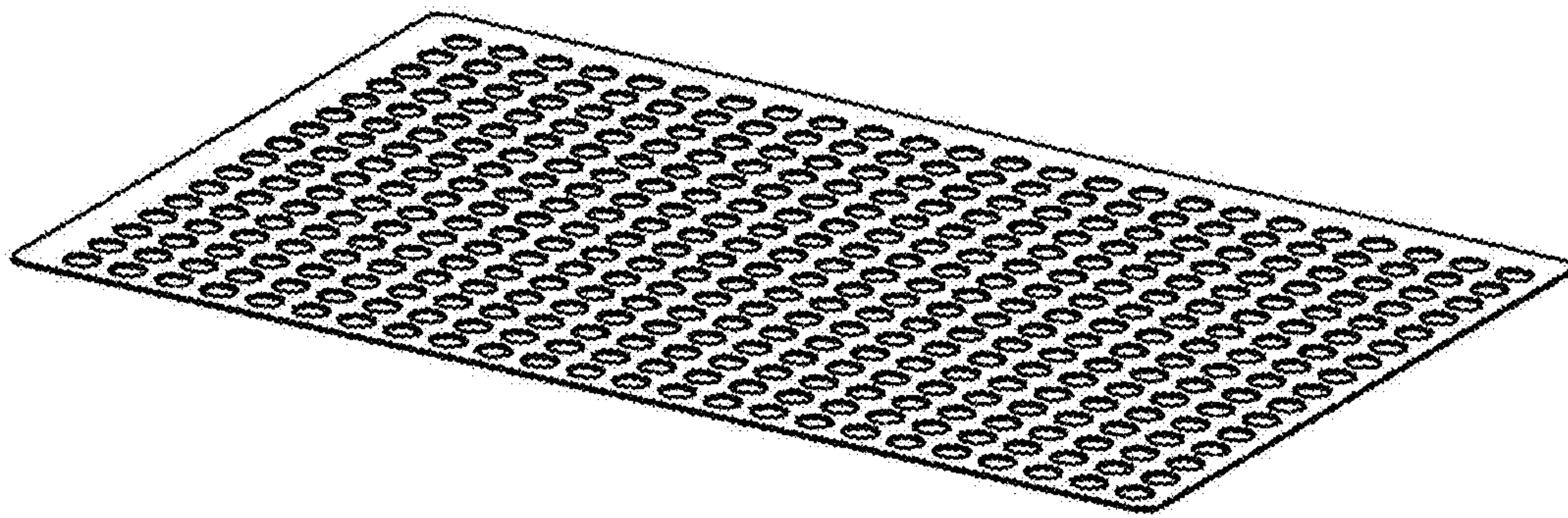


Fig. 10