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(12) **United States Design Patent** (10) **Patent No.:** **US D911,961 S**
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(54) **BATTERY CONTAINER**

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D3/303, 284, 295; D24/227-230, 224;
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D19/84
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Y02E 60/50; H01M 2/02; H01M 2/022;
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H02J 7/1423;

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(56) **References Cited**

U.S. PATENT DOCUMENTS

2,926,809 A * 3/1960 Studler B65D 81/133
217/30
3,813,987 A * 6/1974 Minnennan F42B 39/26
86/44

(Continued)

FOREIGN PATENT DOCUMENTS

CN 1317602 A 10/2001
CN 1446120 A 10/2003

(Continued)

OTHER PUBLICATIONS

Amazon.com: Frankford Arsenal Perfect Fit Reloading Tray . . .
Date First Available of May 30, 2013. Retrieved from the internet
at <<https://www.amazon.com/Frankford-Arsenal-Perfect-Reloading-Convenient/dp/B0063GT8BM/>>, Sep. 11, 2020. 1 page. (Year: 2013).*

(Continued)

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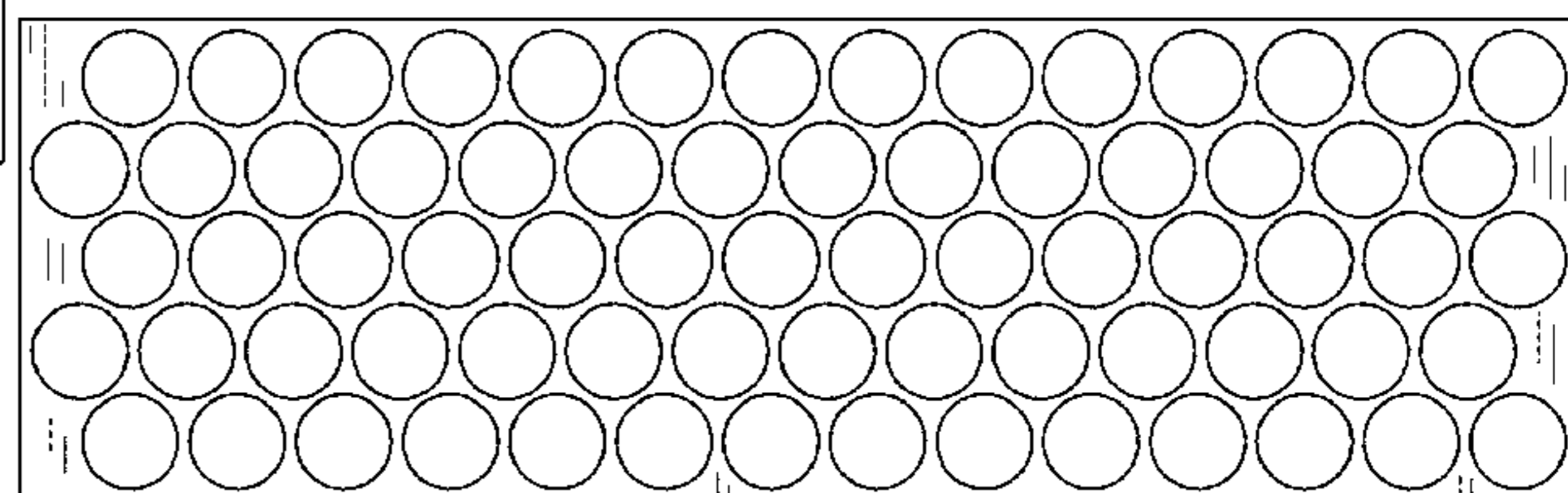
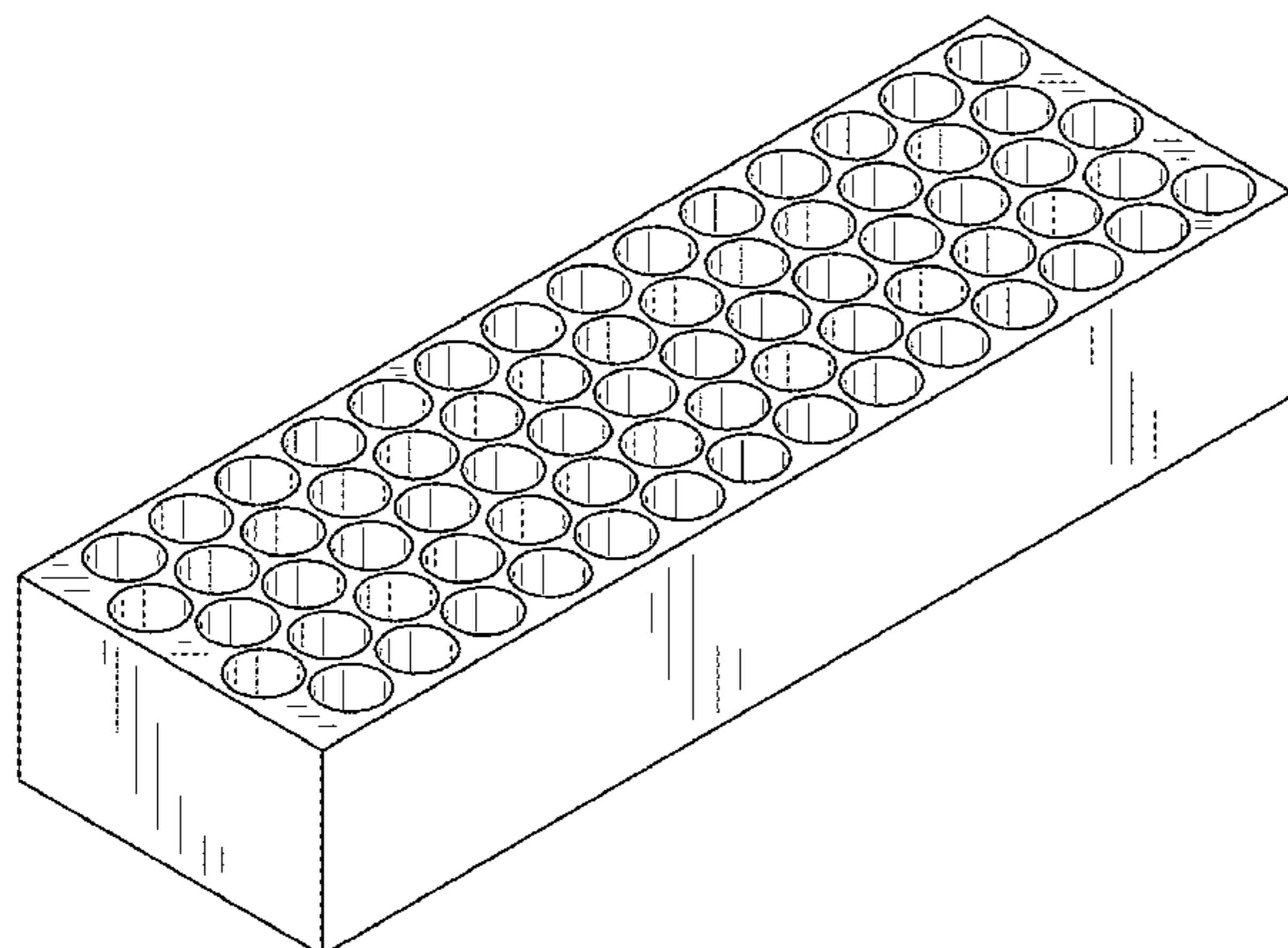
(57) **CLAIM**

The ornamental design for a battery container, as shown.

DESCRIPTION

FIG. 1 is a perspective view of a battery container;
FIG. 2 is a front view thereof;
FIG. 3 is a rear view thereof;
FIG. 4 is a right side view thereof;
FIG. 5 is a left side view thereof;
FIG. 6 is a top view thereof; and,
FIG. 7 is a bottom view thereof.

1 Claim, 4 Drawing Sheets



(58) **Field of Classification Search**
 CPC H02J 7/025; H02J 7/0042; H02J 7/0044;
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 See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,926,899 A 12/1975 Nordberg
 4,154,462 A 5/1979 Golden et al.
 4,181,643 A 1/1980 Kreibich et al.
 D256,081 S * 7/1980 Patterson D3/311
 4,259,198 A 3/1981 Kreibich et al.
 D274,789 S * 7/1984 Brown D9/758
 D274,885 S * 7/1984 Joice D9/758
 4,487,316 A * 12/1984 Calhoun A45D 6/00
 206/443

 4,505,953 A 3/1985 Chen et al.
 4,708,812 A 11/1987 Hatfield
 4,756,958 A 7/1988 Bryant et al.
 4,851,291 A 7/1989 Vigo et al.
 4,871,615 A 10/1989 Vigo et al.
 4,908,166 A 3/1990 Salyer
 4,908,238 A 3/1990 Vigo et al.
 5,120,349 A 6/1992 Stewart et al.
 5,156,911 A 10/1992 Stewart
 5,254,354 A 10/1993 Stewart
 5,254,380 A 10/1993 Salyer
 D349,814 S * 8/1994 Crisp D3/319
 5,366,801 A 11/1994 Bryant et al.
 D359,126 S * 6/1995 Hovatter D24/227
 5,432,210 A 7/1995 Bogan
 5,433,953 A 7/1995 Tsuei et al.
 5,487,872 A * 1/1996 Hafeman B01L 3/5085
 250/372

 D369,415 S * 4/1996 Boulton D24/224
 5,565,132 A 10/1996 Salyer
 5,589,194 A 12/1996 Tsuei et al.
 D380,611 S * 7/1997 Mancusi D13/119
 5,718,835 A 2/1998 Momose et al.
 5,804,297 A 9/1998 Colvin et al.
 5,814,407 A 9/1998 Richard et al.
 5,866,663 A 2/1999 Brookhart et al.
 D407,243 S * 3/1999 Thoesen D12/425
 5,885,475 A 3/1999 Salyer
 5,897,952 A 4/1999 Vigo et al.
 5,929,164 A 7/1999 Zhang
 D414,271 S * 9/1999 Mendoza D24/224
 5,969,070 A 10/1999 Waymouth et al.
 5,985,309 A 11/1999 Edwards et al.
 6,001,904 A 12/1999 Matzinger et al.
 6,004,662 A 12/1999 Buckley
 6,015,570 A 1/2000 Tucci et al.
 D420,743 S * 2/2000 Monks D24/224
 6,025,287 A 2/2000 Hermann
 6,039,804 A * 3/2000 Kim C30B 7/00
 117/206

 6,040,085 A 3/2000 Cheu et al.
 6,063,312 A 5/2000 Mannheimer
 6,169,142 B1 1/2001 Nakano et al.
 6,207,738 B1 3/2001 Zuckerman et al.
 D448,249 S * 9/2001 DeCastro D7/605
 6,319,599 B1 11/2001 Buckley
 6,379,753 B1 4/2002 Soane et al.
 6,380,336 B1 4/2002 Soane et al.
 6,387,492 B2 5/2002 Soane et al.
 6,408,256 B1 6/2002 Hittle et al.
 D461,554 S * 8/2002 Lafond D24/227
 D463,031 S * 9/2002 Slomski D24/216
 6,468,689 B1 10/2002 Al-Hallaj et al.
 6,472,476 B1 10/2002 Soane et al.

6,485,530 B1 11/2002 Soane et al.
 6,497,732 B1 12/2002 Soane et al.
 6,497,733 B1 12/2002 Ware, Jr. et al.
 6,503,976 B2 1/2003 Zuckerman et al.
 6,517,648 B1 2/2003 Bouchette et al.
 6,517,933 B1 2/2003 Soane et al.
 6,544,594 B2 4/2003 Linford et al.
 6,566,466 B1 5/2003 Zajackowski
 6,566,544 B1 5/2003 Waymouth et al.
 6,599,327 B2 7/2003 Soane et al.
 6,607,564 B2 8/2003 Soane et al.
 6,607,994 B2 8/2003 Soane et al.
 6,617,267 B2 9/2003 Soane et al.
 6,617,268 B1 9/2003 Offord et al.
 6,620,515 B2 9/2003 Feng et al.
 6,644,395 B1 11/2003 Bergin
 6,660,667 B2 12/2003 Zuckerman et al.
 6,679,924 B2 1/2004 Ware, Jr. et al.
 6,699,266 B2 3/2004 Lachenbruch et al.
 6,716,526 B2 4/2004 Weston et al.
 6,787,624 B2 9/2004 Coates et al.
 6,793,856 B2 9/2004 Hartmann et al.
 6,815,486 B2 11/2004 Bhagwagar et al.
 6,822,062 B2 11/2004 Mackenzie et al.
 6,830,782 B2 12/2004 Kanazawa
 6,855,410 B2 2/2005 Buckley
 6,855,422 B2 2/2005 Magill et al.
 6,921,431 B2 7/2005 Evans et al.
 6,942,944 B2 9/2005 Al-Hallaj et al.
 7,053,163 B1 5/2006 Tian et al.
 7,074,490 B2 7/2006 Feng et al.
 7,081,501 B2 7/2006 Okawa et al.
 7,105,047 B2 9/2006 Simmons et al.
 7,119,154 B2 10/2006 Coates et al.
 7,135,424 B2 11/2006 Worley et al.
 D534,658 S * 1/2007 Bargh D24/229
 7,160,612 B2 1/2007 Magill et al.
 D540,711 S * 4/2007 Howard D11/155
 7,205,067 B2 4/2007 Godevais et al.
 7,241,497 B2 7/2007 Magill et al.
 7,244,497 B2 7/2007 Hartmann et al.
 7,268,243 B2 9/2007 Coates et al.
 7,270,910 B2 9/2007 Yahnker et al.
 7,300,994 B2 11/2007 Coates et al.
 D574,506 S * 8/2008 Monks D24/224
 7,433,794 B1 10/2008 Berdichevsky et al.
 7,464,455 B2 12/2008 Du et al.
 D592,996 S * 5/2009 Howard D11/155
 7,560,523 B2 7/2009 Coates et al.
 7,569,630 B2 8/2009 Ma et al.
 7,666,500 B2 2/2010 Magill et al.
 7,685,697 B2 3/2010 Du et al.
 7,790,283 B2 9/2010 Hartmann et al.
 7,790,810 B2 9/2010 Coates et al.
 7,812,064 B2 10/2010 Odell et al.
 D628,450 S * 12/2010 Kulzer D7/701
 7,879,933 B2 2/2011 Hanssen
 7,931,979 B2 4/2011 Choi et al.
 7,952,326 B2 5/2011 Johnson et al.
 D639,447 S * 6/2011 Karpiloff D24/230
 D653,026 S * 1/2012 Kelly D3/217
 8,130,496 B2 3/2012 Dong et al.
 8,221,910 B2 7/2012 Hartmann et al.
 D666,419 S * 9/2012 Riedesel D3/313
 8,273,474 B2 9/2012 Al-Hallaj et al.
 8,404,341 B2 3/2013 Hartmann et al.
 8,492,042 B2 7/2013 Givens et al.
 8,587,945 B1 11/2013 Hartmann et al.
 D695,078 S * 12/2013 Hertaus D7/600.1
 D697,227 S * 1/2014 Motadel D24/227
 D699,370 S * 2/2014 Motadel D24/229
 D699,371 S * 2/2014 Williams D24/230
 8,758,925 B2 6/2014 Choi et al.
 8,963,497 B2 2/2015 Yang et al.
 8,997,332 B2 4/2015 Du et al.
 D729,550 S * 5/2015 Williams D6/675
 9,099,762 B2 8/2015 Yang et al.
 9,112,248 B2 8/2015 Johnson et al.
 9,151,545 B2 10/2015 Soukhajak et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

D768,873 S * 10/2016 Stedman D24/227
D780,522 S * 3/2017 Howell D7/605
D787,702 S * 5/2017 Kawamura D24/227
D793,799 S * 8/2017 Dunne D7/357
D808,540 S * 1/2018 Johns D24/227
D809,575 S * 2/2018 Ishizaki D15/136
D825,775 S * 8/2018 Muller D24/230
D826,425 S * 8/2018 Muller D24/230
D826,426 S * 8/2018 Muller D24/230
D833,031 S * 11/2018 Curry D24/227
D833,489 S * 11/2018 Ishizaki D15/136
D834,624 S * 11/2018 Ishizaki D15/136
D839,326 S * 1/2019 Ishizaki D15/136
D840,053 S * 2/2019 Kamees D24/230
D849,962 S * 5/2019 Curry D24/227
D854,707 S * 7/2019 Jakobsen D24/230
D867,614 S * 11/2019 Jones D24/227
D868,289 S * 11/2019 Muller D24/230
D868,996 S * 12/2019 Muller D24/230
D873,170 S * 1/2020 Cooley A01G 9/0295
D875,272 S * 2/2020 Muller D24/224
D882,818 S * 4/2020 Leimkuehler D24/227
D887,890 S * 6/2020 Liu D11/155
2007/0020512 A1 * 1/2007 Wakuda B65D 71/70
2012/0211492 A1 * 8/2012 Kelly B65D 85/187
2019/0372069 A1 * 12/2019 Lee H01M 2/10
2020/0014006 A1 * 1/2020 Oliveira H01M 2/1094
2020/0220122 A1 * 7/2020 Haertel H01M 2/1077

FOREIGN PATENT DOCUMENTS

CN 1252025 C 4/2006
CN 101189385 A 5/2008
DE 19826712 A1 12/1999
DE 19913353 A1 9/2000
DE 19957900 A1 6/2001
EP 0092269 A1 10/1983
EP 1275769 A1 1/2003
EP 1484378 A1 12/2004
EP 1783169 A2 5/2007
EP 1871948 A2 1/2008
EP 2181481 A1 5/2010
ES 2298056 A1 5/2008
FR 2691969 A1 12/1993
JP 05-163485 A 12/1991
JP 04163370 A 6/1992
JP 04219349 B2 8/1992
JP 5005215 A2 1/1993
JP 05156570 A2 6/1993
JP 05156576 A 6/1993
JP 5214672 A2 8/1993
JP 5239716 A 9/1993
JP 05331754 A 12/1993
JP 6041818 A2 2/1994
JP 06200417 A2 7/1994
JP 06234840 A2 8/1994
JP 07053917 A 9/1996
JP 08246227 A 9/1996
JP 08311716 A1 11/1996
JP 11247069 A2 9/1999
JP 11350240 A2 12/1999
JP 2000313895 A 11/2000
JP 2001172866 A2 6/2001
JP 2002087953 A 3/2002
JP 2002317329 A 10/2002
JP 2002348780 A2 12/2002
JP 2003020568 A2 1/2003
JP 2003027337 A2 1/2003
JP 2003520871 A 7/2003
JP 2003246931 A 9/2003
JP 2003268358 A2 9/2003

JP 2003268359 A 9/2003
JP 2003268679 A2 9/2003
JP 2003293223 A2 10/2003
JP 2004003087 A 1/2004
JP 2004011032 A2 1/2004
JP 2004026971 A 1/2004
JP 2004027189 A2 1/2004
JP 2004043676 A 2/2004
JP 2004510068 A 4/2004
JP 2004161885 A2 6/2004
JP 2004324023 A 11/2004
JP 2005036097 A2 2/2005
JP 2005503497 A 2/2005
JP 2007137971 A2 6/2007
JP 2008522056 A 6/2008
JP 537028 T2 9/2008
JP 2009524542 A 7/2009
KR 20040071118 8/2004
PT 0103265 A 10/2006
TW 587110 B 5/2004
WO 9324534 A1 12/1993
WO 9825710 A1 6/1998
WO 09825710 A1 6/1998
WO 9833761 A1 8/1998
WO 9949124 A2 9/1999
WO 0106054 A1 1/2001
WO 0135511 A2 5/2001
WO 0154809 A1 8/2001
WO 0212607 A2 2/2002
WO 0224789 A2 3/2002
WO 2003027365 A1 4/2003
WO 03076547 A1 9/2003
WO 2004007631 A1 1/2004
WO 2004098767 A1 11/2004
WO 2005017247 A2 2/2005
WO 2005040300 A1 6/2005
WO 2005097935 A1 10/2005
WO 2006005491 A1 1/2006
WO 2006013165 A1 2/2006
WO 2006098851 A2 9/2006
WO 2006117702 A2 11/2006
WO 2007040395 A1 4/2007
WO 2007082559 A1 7/2007
WO 2007130709 A2 11/2007
WO 2008014164 A1 1/2008
WO 2008041191 A2 4/2008
WO 2008061885 A2 5/2008
WO 2008135208 A1 11/2008
WO 2010008908 A1 1/2010
WO 2010008909 A1 1/2010
WO 2010008910 A1 1/2010
WO 2010142502 A1 12/2010
WO 2012121848 A2 9/2012
WO 2014107498 A1 7/2014
WO 2014192723 A1 12/2014
WO 2014197675 A2 12/2014
WO 2015035406 A1 3/2015
WO 2015058376 A1 4/2015
WO 2015095107 A1 6/2015
WO 2015102708 A2 7/2015
WO 2005117232 A2 12/2015

OTHER PUBLICATIONS

Amazon.com: MTM Universal Ammo Loading Tray. Customer Question Date of Mar. 2, 2014. Retrieved from the internet at <<https://www.amazon.com/MTM-Universal-Ammo-Loading-Tray/dp/B0013RD6OQ/>>, Sep. 11, 2020. 1 page. (Year: 2014).*

Amazon.com: Steve's Gift Shoppe Solid Walnut Reloading Tray . . . Date First Available of Nov. 6, 2015. Retrieved from the internet at <<https://www.amazon.com/Solid-Walnut-Reloading-Tray-357/dp/B017NG9EM8/>>, Sep. 11, 2020. 1 page. (Year: 2015).*

Dupont, "Dupont Nucrel," 2012, Retrieved from http://www2.dupont.com/Nucrel/en_US/ downloaded Jul. 10, 2012, p. 2.

Zhuo, Wang, "Chinese Office Action Re Application No. 200980132232. X," dated Jun. 13, 2014, p. 15.

(56)

References Cited

OTHER PUBLICATIONS

- Clariant, "Welcome to Textile Chemicals: Sanitized Silver," Retrieved from <http://www.clariant.com/C12571C400483A/vwWebPagesByID>, Aug. 30, 2012, p. 1.
- Dow, "Dow Elastomers: Versify Product Selection Guide," Retrieved from http://www.dow.com/elastomers/lit/versify_lit.htm, Aug. 2010, p. 4.
- Zweifel, Hans, Effect of Stabilization of Polypropylene During Processing and Its Influence on Long-Term Behavior Under Thermal Stress, 1996, American Chemical Society, p. 12.
- Exxonmobil, "Vistamaxx 6202 Propylene-Based Elastomer," Jul. 12, 2012, Retrieved from <http://www.exxonmobilchemical.com/Chem-English/brands/vistamaxx-propylene-based-elastomers-grades-and-datasheets.aspx>, p. 2.
- Hartmann, Mark. "Specification Re. U.S. Appl. No. 12/185,908," Aug. 5, 2008, p. 44.
- Lee, Geun-Wan, "Korean Office Action Re Application No. 2014-0716979," dated Feb. 13, 2015, p. 10.
- Zalba, B., et al., "Review on Thermal Energy Storage With Phase Change: Materials, Heat Transfer Analysis, and Applications," 2003, pp. 3185-3191.
- Neugeboren, Craig, "Response to Office Action Re. U.S. Appl. No. 12/174,607," dated Sep. 23, 2011, p. 13.
- Pinfa, "Innovative Flame Retardants in E&E Applications," Jun. 2009, p. 36.
- Dixon, K.W., "Decomposition Rates of Organic Free Radical Initiators," Apr. 15, 2003, p. 78.
- Rose, J. M., et al, "Living Polymerization of Olefins With an Diimine Ni(II) Catalyst: Formation of Well-Defined Ethylene-Propylene Copolymers Through Controlled Chain-Walking," Dec. 2, 2005, p. 2.
- Watson, M.D., et al., "Ethylene/Vinyl Acetate Copolymers Via Acyclic Diene Metathesis Polymerization. Examining the Effect of 'Long' Precise," Jun. 24, 2000, pp. 5411-5417.
- Sanitized, "Silica/Quat Sanitized T 99-19," Aug. 30, 2012, Retrieved from <http://www.sanitized.com/en/business-partners/trademark-products/active-ingredients/silicaquat-t-99-19.html>, p. 2.
- Alkan, C., et al., "Polyurethanes as Solid-Solid Phase Change Materials for Thermal Energy Storage," Sep. 8, 2011, p. 9.
- Sperling, L.H., "Interpenetrating Polymer Networks," 2004, p. 40.
- Stephens, C.H., "Comparison of Propylene/Ethylene Copolymers Prepared With Different Catalysts," Oct. 3, 2005, p. 8.
- Su, J.C., et al., "A Novel Solid-Solid Phase Change Heat Storage Material With Polyurethane Block Copolymer Structure," Aug. 9, 2005, p. 7.
- Sumitomo Seika Chemicals Co, Ltd., "Peo Water-Soluble Thermoplastic Resin," Oct. 4, 2012, https://www.sumitomoseika.co.jp/documents/pc_PEO_applications.pdf Retrieved from, p. 1.
- Sworen, J.C., "Modeling Linear-Low Density Polyethylene: Copolymers Containing Precise Structures," 2004, p. 219.
- TIPO, "Taiwan Office Action Re Application No. 095108055," dated Jul. 3, 2012, p. 10.
- Thomson Research Associates, "Adding Value Through Antimicrobial Product Protection: Ultra-Fresh—Time Tested Performance," Jul. 12, 2012, Retrieved from <http://www.ultra-fresh.com/home.php>, p. 2.
- Vasile, C., et al, "Practical Guide to Polyethylene," 2005, p. 188.
- Krebs, Hans-Ulrich, "Polymer Thin Films," n.d., p. 20.
- Wagner, N.L., et al., "Random Block Copolymers Via Segment Interchange Olefins Metathesis," 2008, p. 6.
- Wang, Daisy, "Response to Taiwan Office Action Re Application No. 095108055," dated Jan. 17, 2013, p. 8.
- Hexion Specialty Chemicals, "Heloxly Modifier 68 Technical Data Sheet", 2005, p. 4, Published in: US.
- Hu, Ji, et al, "Study on Phase Change Characteristics of PET-PEG Copolymers", "Journal of Macromolecular Science", Feb. 23, 2006, pp. 615-621, vol. B:Physics, No. 45, Published in: US.
- Hutchison, et al., "Photoinitiation of Vinyl Polymerization by Aromatic Carbonyl Compounds", Jul. 23, 1973, p. 38, Published in: UK.
- Idemitsu Technofine Co., Ltd., "Specification for Airtechno Fabric", Known to exist as early as Jan. 18, 2010, p. 3.
- Ineos Oxide, "Methoxy Polyethylene Glycols Technical Data Sheet", Nov. 3, 2015, p. 4.
- Ivin, K.J., et al., "Olefin Metathesis and Metathesis Polymerization", 1997, p. 184, Publisher: Academic Press, Published in: US.
- Jenkem Technology USA, "PEG Products", Retrieved from <http://www.jenkemusa.com/products>, Nov. 4, 2015, p. 7.
- Matsunami, Yumiko, "Japanese Office Action re Application No. 2011-518769", dated Jan. 27, 2015, p. 10, Published in: JP.
- Masashi, Inoue, "Japanese Office Action re Application No. 2008-552584", dated Jan. 29, 2013, p. 5, Published in: JP.
- Hayashi, Yasushi, "Japanese Office Action re Application No. 2011-508662", dated Mar. 11, 2014, p. 8, Published in: JP.
- Ryuichirou, Kawano, "Japanese Office Action re Application No. 2013-504882", dated Mar. 11, 2014, p. 5, Published in: JP.
- Yamazaki, T., "Japanese Office Action re Application No. 2011-518770", dated May 29, 2013, p. 9, Published in: JP.
- Kaga Naoto, "Japanese Office Action re Application No. 2013-086016", dated Jun. 23, 2015, p. 4, Published in: JP.
- Matsumoto, Hiroshi, "Japanese Office Action re Application No. 2014-196365", dated Jul. 24, 2015, p. 8, Published in: JP.
- Ieki, Masami, "Japanese Office Action re Application No. 2013-161059", dated Jul. 29, 2014, p. 6, Published in: JP.
- Miyazaki, Daisuke, "Japanese Office Action re Application No. 2013-086016", dated Aug. 5, 2014, p. 6, Published in: JP.
- Yoshizawa, Eiichi, "Japanese Office Action re Application No. 2011-518769", dated Aug. 25, 2015, p. 6, Published in: JP.
- Ichinomiya, Rie, "Japanese Office Action re Application No. 2008-500731", dated Sep. 10, 2013, p. 4, Published in: JP.
- Aoki, et al, "Japanese Office Action re Application No. 2008-552584", dated Oct. 4, 2011, p. 5, Published in: JP.
- Ichinomiya, Rie, "Japanese Office Action re Application No. 2008-500731", dated Oct. 16, 2012, p. 12, Published in: JP.
- Kawano, Ryuchiro, "Japanese Office Action re Application No. 2013-504882", dated Nov. 18, 2014, p. 6, Published in: JP.
- Nakamura, Yusuke, "Japanese Office Action re Application No. 2012-539986", dated Dec. 2, 2014, p. 10, Published in: JP.
- Neugeboren, Craig, "Response to Japanese Office Action re Application No. 2008-552584", dated Apr. 3, 2012, Published in: US.
- Percival, Shane, "Response to Japanese Office Action re Application No. 2008-500731", dated Apr. 12, 2012, p. 10, Published in: JP.
- Ichinomiya, Rie, "Response Japanese Office Action re Application No. 2008-500731", dated Apr. 16, 2013, p. 19, Published in: JP.
- Koga, Tetsuji, "Response to Japanese Office Action re Application No. 2011-518770", dated Nov. 7, 2013, p. 2, Published in: JP.
- Seiwa, "Response to Japanese Office Action re Application No. 2013-086016", dated Feb. 4, 2015, p. 4, Published in: JP.
- Seiwa, "Response to Japanese Office Action re Application No. 2014-003397", dated May 28, 2015, p. 3, Published in: JP.
- Koga, Tetsuji, "Response to Japanese Office Action re Application No. 2011-518769", dated Jun. 3, 2014, p. 14, Published in: JP.
- Fukui, M., "Japanese Office Action re Application No. 2011-518769", dated Nov. 28, 2013, p. 12, Published in: JP.
- Fukui, M., "Japanese Office Action re Application No. 2011-518771", dated Nov. 28, 2013, p. 8, Published in: JP.
- Ichinomiya, Rie, "Japanese Office Action re Patent Application No. 2008-500731", dated Oct. 5, 2012, p. 12, Published in: JP.
- Kakuchi, et al., "Chiral Polymers", "Encyclopedia of Polymer Science and Technology", 2009, p. 32, Publisher: John Wiley & Sons, Inc., Published in: US.
- Outlast, "Klimeo Competitive Fabric and Outlast Testing Results", Jan. 15, 2003, p. 55.
- Lee, Jae-Woong, "Korean Office Action re Application No. 2013-7027992", dated Feb. 6, 2014, p. 13, Published in: KR.
- Lee, Jae-Woong, "Korean Office Action re Application No. 2008-7020916", dated Apr. 26, 2013, p. 12, Published in: KR.
- Geun-Wan, Lee, "Korean Office Action re Application No. 2014-7016979", Aug. 14, 2014, p. 5, Published in: KR.
- Shim, Yoo-Bong, "Korean Office Action re Application No. 2007-7023012", dated Aug. 22, 2012, Published in: KR.
- Kraton Performance Polymers, Inc., "Kraton Polymers", Known to exist as early as Oct. 19, 2012, p. 3.

(56)

References Cited

OTHER PUBLICATIONS

- Kumar, A., "Morphology, Crystallization and Melting Behavior of Statistical Copolymers of Propylene with Ethylene, 1-Butene, 1-Hexen", "Dissertation for Virginia Polytechnic Institute and State University", Jun. 21, 2001, p. 129, Publisher: Va. Poly. Inst., Published in: US.
- Kuraray Co., Ltd., "What is Septon?", 2004, p. 1.
- Laysan Bio, Inc., "Products", Retrieved from http://laysanbio.com/index.php?submenu=Products&src=gendocs&link=Products_new&category=Main&gclid=CMHF1fOf989CFYM-aQodp80BKg, Nov. 4, 2015, p. 2.
- Mulcahy, Peter D., "Office Action Re. U.S. Appl. No. 11/078,656", dated Jan. 5, 2012, p. 12, Published in: US.
- Neugeboren, Craig, "Response to Office Action Re. U.S. Appl. No. 11/342,279", dated Feb. 8, 2010, p. 14, Published in: US.
- Boyle, Robert C., "Office Action Re. U.S. Appl. No. 12/174,607", dated Feb. 14, 2011, p. 17, Published in: US.
- Boyle, Robert C., "Office Action Re. U.S. Appl. No. 12/486,396", dated Feb. 17, 2012, p. 15, Published in: US.
- Boyle, Robert C., "Office Action Re. U.S. Appl. No. 12/486,396", dated Feb. 27, 2014, p. 19, Published in: US.
- Salvatore, Lynda, "Office Action Re. U.S. Appl. No. 13/235,676", dated Mar. 4, 2013, p. 10, Published in: US.
- Boyle, Robert C., "Office Action Re. U.S. Appl. No. 12/486,396", dated Mar. 8, 2011, p. 10, Published in: US.
- Mulcahy, Peter D., "Office Action Re. U.S. Appl. No. 11/078,656", dated Mar. 29, 2013, p. 25, Published in: US.
- Xiaowei, Gao, "Chinese Office Action re Application No. 201080066869.6", dated May 11, 2015, p. 10, Published in: CN.
- Chengcong, Jia, "Chinese Office Action re Application No. 200980132232.X", dated Jun. 4, 2013, p. 7, Published in: CN.
- Zonghua, Ren, "Chinese Office Action re Application No. 201080066869.6", dated Jul. 1, 2014, p. 13, Published in: CN.
- Zonghua, Ren, "Chinese Office Action re Application No. 200780003506.6", dated Jul. 9, 2010, p. 14, Published in: CN.
- Chengcong, Jia, "Chinese Office Action re Application No. 200980132054.0", dated Aug. 7, 2014, p. 7, Published in: CN.
- Zonghua, Ren, "Chinese Office Action re Application No. 200780003506.6", dated Aug. 31, 2011, p. 8, Published in: CN.
- Haiqing, Li, "Chinese Office Action re Application No. 201210440162.8", dated Sep. 16, 2014, p. 12, Published in: CN.
- Chengcong, Jia, "Chinese Office Action re Application No. 200980132232.X", dated Nov. 1, 2012, p. 53, Published in: CN.
- Zonghua, Ren, "Response to Chinese Office Action re Application No. 200780003506.6", dated Jan. 20, 2011, p. 6, Published in: CN.
- Neugeboren, Craig, "Response to Chinese Office Action dated Apr. 28, 2012 re Application No. 300780003506.6", Aug. 21, 2012, p. 3, Published in: US.
- Neugeboren, Craig, "Response to Chinese Office Action dated Aug. 31, 2011 re Application No. 300780003506.6", Oct. 26, 2011, p. 3, Published in: US.
- Neugeboren, Craig, "Response to Chinese Office Action dated Jul. 9, 2010 re Application No. 300780003506.6", Dec. 21, 2010, p. 5, Published in: US.
- Huang, Shuhui, "Response to Chinese Office Action re Application No. 2012104401628", dated Mar. 31, 2015, p. 8, Published in: CN.
- Chengcong, Jia, "Response to Chinese Office Action re Application No. 200980132054.0", dated Apr. 24, 2014, p. 6, Published in: CN.
- Zonghua, R., "Response to Chinese Office Action re Patent Application No. 200680007727.6", dated Jun. 4, 2012, p. 7, Published in: CN.
- Thermofisher, "Overview of Crosslinking and Protein Modification", Known to exist as early as Feb. 15, 2018, p. 1.
- Merriam-Webster, "Definitions of Polyether, Crosslink, and Polyol", Known to exist as early as Feb. 15, 2018, p. 3.
- Domski, G.J., et al., "Living alkene polymerization: New methods for the precision synthesis of polyolefins", "Prog. Polym. Sci.", Nov. 2006, p. 30-92, vol. 32, No. (2007), Publisher: Elsevier Ltd., Published in: US.
- Dow, "Dow Elastomers: Engage Product Selection Guide", Retrieved from http://www.dow.com/elastomers/lit/engage_lit.html, Mar. 2012, p. 4, Publisher: The Dow Chemical Company, Published in: US.
- Dow, "Dow Elastomers: Affinity Product Selection Guide", Retrieved from http://www.dow.com/elastomers/lit/affinity_lit.htm, Nov. 2010, p. 4, Publisher: The Dow Chemical Company, Published in: US.
- Dow Corning, "Dow Corning 8650 Polymer and Dow Corning BY16/876 Product Information Sheet", May 6, 2005, p. 2, Published in: US.
- Dupont, "DuPont Elvaloy resins", Retrieved from http://www2.dupont.com/Elvaloy/en_US, Oct. 19, 2012, p. 1, Publisher: DuPont, Published in: US.
- Eldridge, J.E., et al., "Studies of the Cross-Linking Process in Gelatin Gels. III. Dependence of Melting Point on Concentration and Molecular Weight", Nov. 1954, p. 992-995, vol. 58, Publisher: U. Wis., Published in: US.
- Schwalm, Reinhold, "US Coatings—Basics, Recent Development and New Applications", 2007, p. 316, Publisher: Elsevier Science.
- Chen, Changzhong et al., "Synthesis and performances of novel solid-solid phase change materials", Dec. 2, 2014, p. 9, Publisher: Applied Energy, Published in: CN.
- Dupont, "Elvaloy AC Resins", Retrieved from http://www2.dupont.com/Elvaloy/en_US/products/elvaloy_ac_resins.html, 2012, p. 2, Publisher: DuPont, Published in: US.
- Masson, Patrick, "Communication pursuant to Article 94(3) EPC re Application No. 06 735 750.9-2102", dated Feb. 8, 2012, p. 3, Published in: EP.
- Lorenz, M., "Response to Communication Pursuant to Article 94(3) EPC", dated Aug. 13, 2012, p. 21, Published in: EP.
- Lorenz, Markus, "Response to EP Office Action re Application No. 08022533.7", dated Nov. 16, 2010, p. 29, Published in: EP.
- Lorenz, Markus, "Response to European Office Action re Application No. 08022532.9", dated Nov. 16, 2010, p. 22, Published in: EP.
- U.S. Environmental Protection Agency, "Ultra Violet and Electron Beam (UV/EB) Cured coatings, Inks, and Adhesives", Jul. 2001, p. 99, Published in: US.
- Masson, Patrick, "European Office Action re Application No. 10 182 697.2-1302", dated Nov. 18, 2013, p. 3, Published in: EP.
- Hollender, C., "European Search Report re Application No. 08 02 2532", dated Dec. 4, 2009, p. 6, Published in: DE.
- Hollender, C., "European Search Report re Application No. 09798539", dated Jun. 5, 2014, p. 4, Published in: EP.
- Hollender, C., "Extended European Search Report re Appl. No. PCT/US2009/048551", dated Jun. 13, 2014, p. 8, Published in: EP.
- Hollender, C., "Extended European Search Report re Application No. PCT/US2009/048555", dated Jun. 25, 2014, p. 8, Published in: EP.
- Hollender, C., "European Search Report re Application No. 08022533.7", dated Dec. 4, 2009, p. 7, Published in: EP.
- Hartmann, Mark, "Declaration of Mark Hartmann Under 37 C.F.R. 1.132", Feb. 11, 2011, p. 10, Published in: US.
- Magrizo, Simeon, "European Search Report re Application No. 12754849.3", dated Jul. 21, 2015, p. 7, Published in: EP.
- Exxonmobil, "Specialty Elastomers: Exact elastomers", Retrieved from <http://www.exxonmobilchemical.com/Chem-English/brands/exact-elastomers.aspx?ln=productservices>, Known to exist as early as Jul. 10, 2012, p. 1, Publisher: ExxonMobil Chemical, Published in: US.
- Fan, W., et al., "Alternating Stereospecific Copolymerization of Ethylene and Propylene with Metallocene Catalysts", "J. Am. Chem. Soc.", Sep. 8, 2001, p. 9555-9563, vol. 2001, No. 123, Publisher: Am. Chem. Soc'y, Published in: US.
- Feldman, Dorel, "Polymer Nanocomposites: Flammability", Jun. 2013, p. 10 Published in: CA.
- Flack, et al., "A mathematical model for spin coating of polymer resists", 1984, p. 9.
- Fujita T., et al., "Polymerization of Alkenes", "Comprehensive Organometallic Chemistry III", 2007, p. 691-734, No. 11.20, Publisher: Elsevier, Ltd.
- Galbraikh, et al., "Chemical Transformations of Cellulose", Oct. 11, 1973, p. 44, Published in: RU.

(56)

References Cited

OTHER PUBLICATIONS

- Goodman, et al., "Stereochemistry of Polymers and Biopolymers", "Polytechnic School of Brooklyn", 1966, p. 27, Publisher: Polymer Research Institute, Published in: US.
- Halosource Corporate, "Applications", Retrieved from <http://www.haloshield.com/how/applications>, Aug. 30, 2012, p. 1, Publisher: HaloSource, Inc., Published in: US.
- Hartmann, et al, Specification for related U.S. Appl. No. 12/174,607, filed Jul. 16, 2008, p. 71, Published in: US.
- Hartmann, et al, Specification for related U.S. Patent Application No. 12/174,609, Jul. 16, 2008, p. 68 Published in: US.
- Hartmann, et al, "Specification of U.S. Appl. No. 11/078,656", Mar. 11, 2005, p. 41, Published in: US.
- Hartmann, et al, "Specification of U.S. Appl. No. 13/040,692", Mar. 4, 2011, p. 64, Published in: US.
- Aldrich Chemical Co., "Olefin Metathesis", "ChemFiles", 2009, p. 12, vol. 9, No. 6, Publisher: sigma-adrich.com, Published in: US.
- Meisei Chemical Works, Ltd, "Water-Soluble Thermoplastics", Retrieved from http://www.meisei-chem.co.jp/english/products/alkox/alkox_er.html, Jan. 1, 2015, p. 4.
- Atiqullah, M., et al., "Synthesis of Functional Polyolefins using Metallocenes: A Comprehensive Review", "Polymer Reviews, downloaded Aug. 30, 2012", Apr. 19, 2010, p. 178-230, vol. 50, No. 2, Publisher: King Fand University of Petroleum & Minerals, Published in: US.
- BASF, INC., "Specification Sheet for Laromer Grades", Sep. 2007, p. 4, Published in: US.
- Baughman, T.W., "Functionalized Ethylene Copolymers and Materials Via Olefin Metathesis Polymerization", "Dissertation to the University of Florida", 2006, p. 204 Publisher: U. FLA., Published in: US.
- Berda, Eric B., "ADMET Amphiphiles", "Dissertation to the University of Florida", 2008, p. 149, Publisher: U. FLA., Published in: US.
- Broadpharm, "PEG Linkers", Retrieved from <http://www.broadpharm.com/products.php?gclid=CPC3rbqd98gCFQaOaQodQBMOKA>, Nov. 4, 2015, p. 1.
- Clariant, "Your Universally Applicable Polymer: Functional Chemicals Division", 2007, p. 36, Publisher: Clariant International Ltd, Functional Chemicals Division, Published in: CH.
- Clariant International, Ltd, "Raw Material Selection of Polyurethanes", Jan. 1, 2014, p. 4.
- Clariant, "Colour Chronicle", "Colour Chronicle 2", Oct. 2011, p. 28, No. 2, Publisher: Clariant Chemicals (India) Limited Publication, Published in: IN.
- Chengcong, Jia, "Chinese Office Action re Application No. 200980132054.0," dated Jan. 16, 2014, p. 7, Published in: CN.
- Chengcong, Jia, "Chinese Office Action re Application No. 200980132239.1", dated Jan. 23, 2014, p. 6, Published in: CN.
- Jianfei, Cao, "Chinese Office Action re Patent Application No. 200680007727.6", dated Feb. 21, 2012, p. 8, Published in: CN.
- Chengcong, Jia, "Chinese Office Action re Application No. 200980132239.1", dated Mar. 5, 2013, p. 22, Published in: CN.
- Chengcong, Jia, "Chinese Office Action re Application No. 200980132054.0", dated Apr. 23, 2013, p. 22, Published in: CN.
- Zonghua, Ren, "Chinese Office Action re Application No. 200780003506.6", dated Apr. 28, 2012, p. 7, Published in: CN.
- Otero, Vanessa L., "Response to United States Office Action Re. U.S. Appl. No. 15/014,624", dated Dec. 11, 2017, p. 11, Published in: US.
- Young, Lee W., "Invitation to Pay Additional Fees re Application No. PCT/US16/16360", Apr. 14, 2016, p. 2, Published in: WO.
- Young, Lee W., "International Search Report and Written Opinion re Application No. PCT/US16/16360", Jun. 10, 2016, p. 18, Published in: WO.
- Jackson, Monique R., "United States Office Action Re. U.S. Appl. No. 14/614,236", dated Feb. 10, 2017, p. 75, Published in: US.
- Jackson, Monique R., "United States Office Action Re. U.S. Appl. No. 14/614,236", dated Aug. 24, 2017, p. 25, Published in: US.
- Otero, Vanessa L., "Response to United States Office Action Re. U.S. Appl. No. 14/614,236", dated Nov. 24, 2017, p. 10, Published in: US.
- Otero, Vanessa L., "Response to United States Office Action Re. U.S. Appl. No. 14/614,236", dated Jun. 12, 2017, p. 14, Published in: US.
- Young, Lee W., "Invitation to Pay Additional Fees re Application No. PCT/US16/16358", Apr. 7, 2016, p. 2, Published in: WO.
- Young, Lee W., "International Search Report and Written Opinion re Application No. PCT/US16/16358", dated Jun. 10, 2016, p. 14, Published in: WO.
- Neugeboren, Craig, "Preliminary Amendment Re. U.S. Appl. No. 12/193,296", dated Jun. 28, 2011, p. 6, Published in: US.
- Young, Lee W., "International Search Report and Written Opinion re Application No. PCT/US07/61081", dated Jul. 21, 2008, p. 12, Published in: PCT.
- Nickitas-Etienne, Athina, "International Preliminary Report on Patentability re Application No. PCT/US09/048548", dated Jan. 18, 2011, p. 8, Published in: CH.
- Young, Lee W., "International Search Report and Written Opinion re Application No. PCT/US09/48548", dated Oct. 30, 2009, p. 15, Published in: US.
- Beijer, Gijsbertus, "International Preliminary Report on Patentability re Application No., PCT/US09/04550", dated Jan. 18, 2011, p. 8, Published in: WO.
- Young, Lee W., "International Search Report and Written Opinion re Application No. PCT/US09/4550", dated Oct. 8, 2009, p. 10, Published in: US.
- Beijer, Gijsbertus, "International Preliminary Report on Patentability re Application No. PCT/US09/048551", dated Jan. 18, 2011, p. 5, Published in: WO.
- Young, Lee W., "International Search Report and Written Opinion re Application No. PCT/US09/48551", dated Oct. 8, 2009, p. 12, Published in: US.
- Honda, Masashi, "International Preliminary Report on Patentability re Application No. PCT/US09/048555", dated Jan. 18, 2011, p. 6, Published in: WO.
- Young, Lee W., "International Search Report and Written Opinion re Application No. PCT/US09/048555", dated Oct. 30, 2009, p. 12, Published in: US.
- Honda, Masashi, "International Preliminary Report on Patentability re Application No. PCT/US09/048557", dated Jan. 18, 2011, Published in: WO.
- Young, Lee W., "International Search Report and Written Opinion re Application No. PCT/US09/048557", dated Oct. 6, 2009, p. 11, Published in: US.
- Nakamura, Yukari, "International Preliminary Report on Patentability re Application No. PCT/US10/058351", dated Apr. 16, 2010, p. 7, Published in: WO.
- Young, Lee W., "International Search Report and Written Opinion re Application No. PCT/US12/25234", dated May 30, 2012, p. 8, Published in: PCT.
- Hartmann, M. et al., "Specification for related PCT Patent Application No. PCT/US07/71373 filed", Jun. 15, 2012, Published in: PCT.
- Wong, Kathy, "International Search Report and Written Opinion re Application No. PCT/US10/058351", dated Feb. 24, 2011, Published in: AU.
- Wittmann-Regis, Agnes, "International Preliminary Report on Patentability re Application No. PC/TUS2012/025234", dated Feb. 13, 2014, p. 6, Published in: CH.
- Meng, Q., et al., "A Temperature-Regulating Fiber made of PEG-Based Smart Copolymer", "Solar Energy Materials & Solar Cells", 2008, p. 1245-1252, No. 92, Publisher: Elsevier B.V.
- Piel, C., "Polymerization of Ethene and Ethene-co-a-Olefin: Investigations on Short-and Long-Chain Branching and Structure-Propor", "Dissertation to the University of Hamburg", 2005, p. 159 Publisher: U. Hamburg, Published in: DE.
- Doring et al., "Innovative Flame Retardants in E&E Applications", "2nd Edition", Jun. 2009, p. 36, Publisher: Phosphorus, Inorganic & Nitrogen Flame Retardants Association.
- Rakotomalala, et al, "Recent Developments in Halogen Free Flame Retardants for Epoxy Resins for Electrical and Electronic Applica-

(56)

References Cited

OTHER PUBLICATIONS

tions”, 2010, p. 28, Publisher: Institute of Technical Chemistry, Karlsruhe Institute of Technology, Published in: DE.

Neugeboren, Craig A., “Response to Office Action Re. U.S. Appl. No. 12/486,396”, dated Jan. 2, 2014, p. 8, Published in: US.

Rojas, G., “ADMET Linear-Low Density Polyethylene: Synthesis, Characterization and Thermal Behavior of Precisely and Irregularly Se”, “Dissertation to the University of Florida”, 2008, p. 198 Publisher: U. FLA., Published in: US.

Neugeboren, Craig A., “Response to Office Action Re. U.S. Appl. No. 13/525,676”, dated Feb. 25, 2014, p. 10, Published in: US.

Neugeboren, Craig A., “Response to Office Action Re. U.S. Appl. No. 11/078,656”, dated Mar. 2, 2012, p. 11, Published in: US.

Neugeboren, Craig A., “Response to Office Action re Application No. 12/185,908”, dated May 1, 2013, p. 15, Published in: US.

Gruber, Stephen S., “Response to Office Action Re. U.S. Appl. No. 13/040,692”, dated May 6, 2013, p. 12, Published in: US.

Nuegeboren, Craig A., “Response to Office Action Re. U.S. Appl. No. 13/525,676”, dated Jun. 20, 2013, p. 8, Published in: US.

Gruber, Stephen S., “Response to Office Action Re. U.S. Appl. No. 11/078,656”, dated Jul. 30, 2013, p. 18, Published in: US.

Gruber, Stephen S., “Response to Office Action Re. U.S. Appl. No. 13/040,692”, dated Sep. 18, 2013, p. 9, Published in: US.

Gruber, Stephen S., “Response to Office Action Re. U.S. Appl. No. 11/078,656”, dated Oct. 15, 2012, p. 15, Published in: US.

Gruber, Stephen S., “Office Action Re. U.S. Appl. No. 11/078,656”, dated Dec. 12, 2013, p. 8, Published in: US.

Gruber, Stephen S., “Response to office Action Re. U.S. Appl. No. 13/786,813”, dated Dec. 13, 2013, p. 12, Published in: US.

Zonghua, Ren, “Response to Chinese Office Action re Application No. 200680007727.6”, dated Jun. 21, 2010, p. 12, Published in: CN.

Aoki, Atsushi, “Response to Japanese Office Action re Application No. 2008500731”, dated Apr. 24, 2012, p. 6, Published in: JP.

Koreana Patent Firm, “Response to Korean Office Action re Application No. 2007-7023012”, dated Feb. 20, 2013, p. 2, Published in: KR.

Neugeboren, Craig A., “Response to Office Action Re. U.S. Appl. No. 11/078,656”, dated Dec. 19, 2011, p. 11, Published in: US.

Neugeboren, Craig A., “Response to Restriction Requirement and Amendment re Aug. 10, 2010 Office Action, U.S. Appl. No. 12/174,607”, dated Dec. 9, 2010, p. 7, Published in: US.

Percival, Shane, “Response to Jul. 5, 2012 Office Action re Taiwan Patent Application No. 095108055”, dated Dec. 26, 2012, p. 6, Published in: US.

Rhodia PPMC, “Tolonate and Rhodocoat Product Specifications”, Jun. 2004, p. 4, Published in: US.

Mulcahy, Peter D., “Office Action Re. U.S. Appl. No. 11/078,656”, dated Mar. 31, 2014, p. 31, Published in: US.

Boyle, Robert C., “Office Action Re. U.S. Appl. No. 12/174,609”, dated Apr. 6, 2011, p. 35, Published in: US.

KIPO, “Korean Office Action re Application No. 2007-7023012”, dated Apr. 23, 2013, p. 11 Published in: KR.

Salvatore, Lynda, “Office Action Re. U.S. Appl. No. 12/185,908”, dated Apr. 26, 2012, p. 7, Published in: US.

Ohara, Brian R., “United States Office Action Re. U.S. Appl. No. 15/014,624”, dated Aug. 10, 2017, p. 107, Published in: US.

Gugliotta, Nicole T., “Office Action Re. U.S. Appl. No. 13/779,035”, dated Jun. 1, 2015, p. 9, Published in: US.

Salvatore, Lynda, “Office Action Re. U.S. Appl. No. 12/185,908”, dated Jun. 9, 2014, p. 50, Published in: US.

Salvatore, Lynda, “Office Action Re. U.S. Appl. No. 12/762,119”, dated Jun. 10, 2011, p. 29, Published in: US.

Gugliotta, Nicole, “Office Action Re. U.S. Appl. No. 11/342,279”, dated Jun. 11, 2010, p. 28, Published in: US.

Mulcahy, Peter D., “Office Action Re. U.S. Appl. No. 11/078,656”, dated Jun. 13, 2012, p. 19, Published in: US.

Boyle, Robert C., “Office Action Re. U.S. Appl. No. 12/174,607”, dated Jun. 14, 2013, p. 39, Published in: US.

Boyle, Robert C., “Office Action Re. U.S. Appl. No. 12/174,609”, dated Jun. 17, 2013, p. 42, Published in: US.

Boyle, Robert C., “Office Action Re. U.S. Appl. No. 12/486,396”, dated Jul. 2, 2013, p. 25, Published in: US.

Salvatore, Lynda, “Office Action Re. U.S. Appl. No. 13/525,676”, dated Jul. 17, 2014, p. 14, Published in: US.

Rea, Christine, “Office Action Re. U.S. Appl. No. 13/040,692”, dated Jul. 18, 2013, p. 86, Published in: US.

Gugliotta, Nicole T., “Office Action Re. U.S. Appl. No. 11/342,279”, dated Aug. 6, 2009, p. 18, Published in: US.

Gugliotta, Nicole, “Office Action Re. U.S. Appl. No. 12/193,296”, dated Aug. 8, 2012, p. 23, Published in: US.

Boyle, Robert C., “Office Action Re. U.S. Appl. No. 12/174,607”, dated Aug. 10, 2010, p. 9, Published in: US.

Boyle, Robert C., “Office Action Re. U.S. Appl. No. 12/174,609”, dated Aug. 11, 2010, p. 22, Published in: US.

Salvatore, Lynda, “Office Action Re. U.S. Appl. No. 12/185,908”, dated Aug. 16, 2013, p. 13, Published in: US.

Boyle, Robert C., “Office Action Re. U.S. Appl. No. 12/486,396”, dated Sep. 9, 2011, p. 48, Published in: US.

Gugliotta, Nicole, “Office Action Re. U.S. Appl. No. 11/342,279”, dated Sep. 16, 2011, p. 28, Published in: US.

Gugliotta, Nicole, “Office Action Re. U.S. Appl. No. 12/193,296”, dated Sep. 19, 2011, p. 19, Published in: US.

Mosser, Kathleen M., “Office Action Re. U.S. Appl. No. 12/908,303”, dated Sep. 23, 2011, p. 16, Published in: US.

Salvatore, Lynda, “Office Action Re. U.S. Appl. No. 13/525,676”, dated Sep. 25, 2013, p. 61, Published in: US.

Mulcahy, Peter D., “Office Action Re. U.S. Appl. No. 11/078,656”, dated Sep. 27, 2011, p. 19, Published in: US.

Salvatore, Lynda, “Office Action Re. U.S. Appl. No. 12/185,908”, dated Nov. 8, 2012, p. 36, Published in: US.

Mulcahy, Peter D., “Office Action Re. U.S. Appl. No. 11/078,656”, dated Dec. 4, 2013, p. 10, Published in: US.

Rea, Christine, “Office Action Re. U.S. Appl. No. 13/040,692”, dated Dec. 6, 2012, p. 50, Published in: US.

Boyle, Robert C., “Office Action Re. U.S. Appl. No. 12/174,607”, dated Dec. 13, 2010, p. 2, Published in: US.

Gugliotta, Nicole T., “Office Action Re. U.S. Appl. No. 11/342,279”, dated Dec. 27, 2010, p. 49, Published in: US.

Boyle, Robert C., “Office Action Re. U.S. Appl. No. 12/174,607”, dated Sep. 23, 2011, p. 21, Published in: US.

Neugeboren, Craig, “Response to Office Action Re. U.S. Appl. No. 12/486,396”, dated Jan. 9, 2012, p. 8, Published in: US.

Neugeboren, Craig, “Response to Office Action Re. U.S. Appl. No. 12/174,609”, dated Feb. 11, 2011, p. 20, Published in: US.

Neugeboren, Craig A., “Response to Office Action Re. U.S. Appl. No. 12/185,908”, dated Feb. 11, 2014, p. 15, Published in: US.

Neugeboren, Craig, “Response to Office Action Re. U.S. Appl. No. 12/193,296”, dated Mar. 19, 2012, p. 20, Published in: US.

Neugeboren, Craig, “Response to Office Action Re. U.S. Appl. No. 12/185,908”, dated May 29, 2012, p. 8, Published in: US.

Neugeboren, Craig, “Response to Office Action Re. U.S. Appl. No. 11/342,279”, dated Jun. 23, 2011, p. 11, Published in: US.

Neugeboren, Craig, “Response to Office Action Re. U.S. Appl. No. 12/174,607”, dated Jul. 28, 2011, p. 20, Published in: US.

Neugeboren, Craig, “Response to Office Action Re. U.S. Appl. No. 12/174,609”, dated Aug. 4, 2011, p. 20, Published in: US.

Neugeboren, Craig, “Response to Office Action Re. U.S. Appl. No. 12/486,396”, dated Aug. 5, 2011, p. 2, Published in: US.

Neugeboren, Craig, “Response to Office Action Re. U.S. Appl. No. 12/486,396”, dated Aug. 17, 2012, p. 6, Published in: US.

Gruber, Stephen S., “Response to Office Action Re. U.S. Appl. No. 12/193,296”, dated Nov. 8, 2012, p. 8, Published in: US.

Neugeboren, Craig, “Response to office Action Re. U.S. Appl. No. 12/762,119”, dated Nov. 28, 2011, p. 12, Published in: US.

Neugeboren, Craig, “Response to Office Action Re. U.S. Appl. No. 12/174,607”, dated Dec. 13, 2011, p. 13, Published in: US.

Neugeboren, Craig, “Response to Office Action Re. U.S. Appl. No. 12/174,607”, dated Dec. 21, 2010, p. 7, Published in: US.

Oakley, G. W., “Solid-State Olefin Metathesis”, “Dissertation for the University of Florida”, 2004, p. 157, Publisher: U. FLA., Published in: US.

(56)

References Cited

OTHER PUBLICATIONS

Mohri, Mineko, "International Preliminary Report on Patentability Re. Application No. PCT/US2016/016360", dated Aug. 17, 2017, p. 15, Published in: CH.

Ohara, Brian R., "United States Office Action Re U.S. Appl. No. 15/014,624", dated Feb. 15, 2018, p. 23, Published in: US.

* cited by examiner

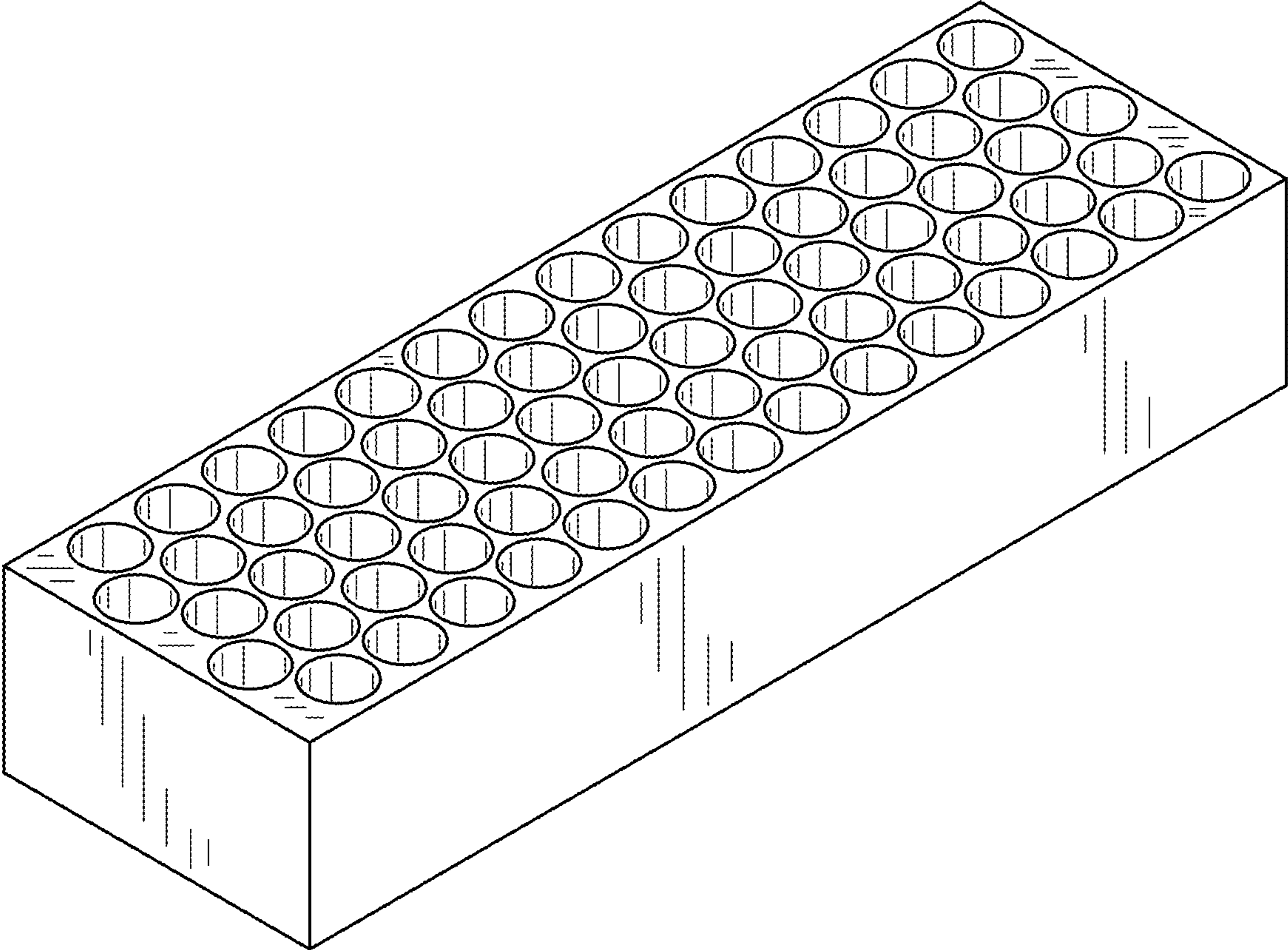


FIG.1

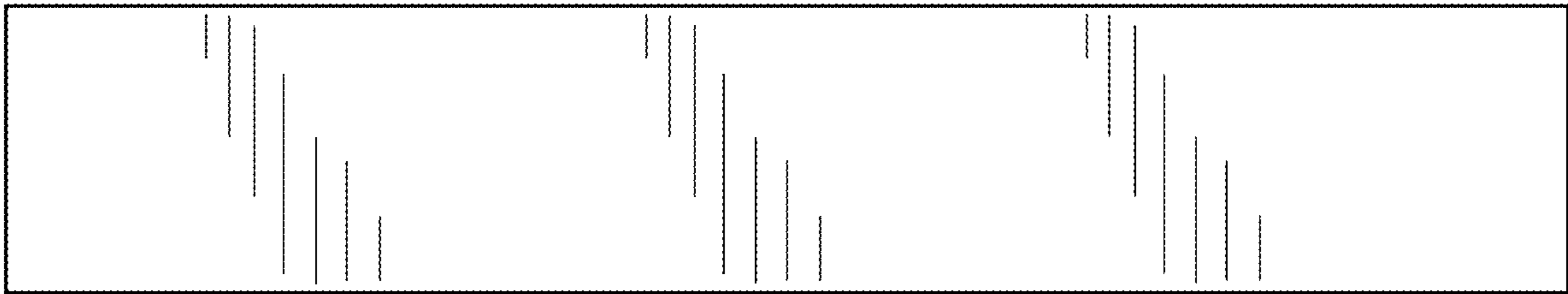


FIG.2

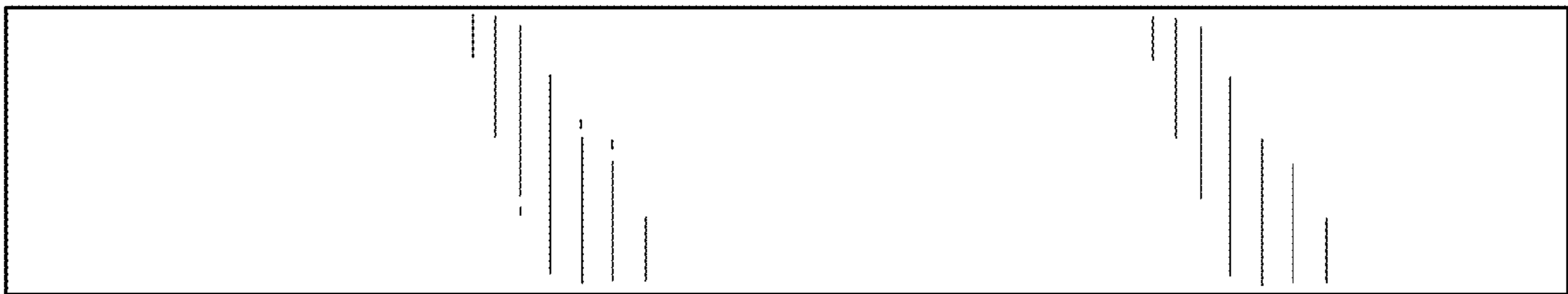


FIG.3

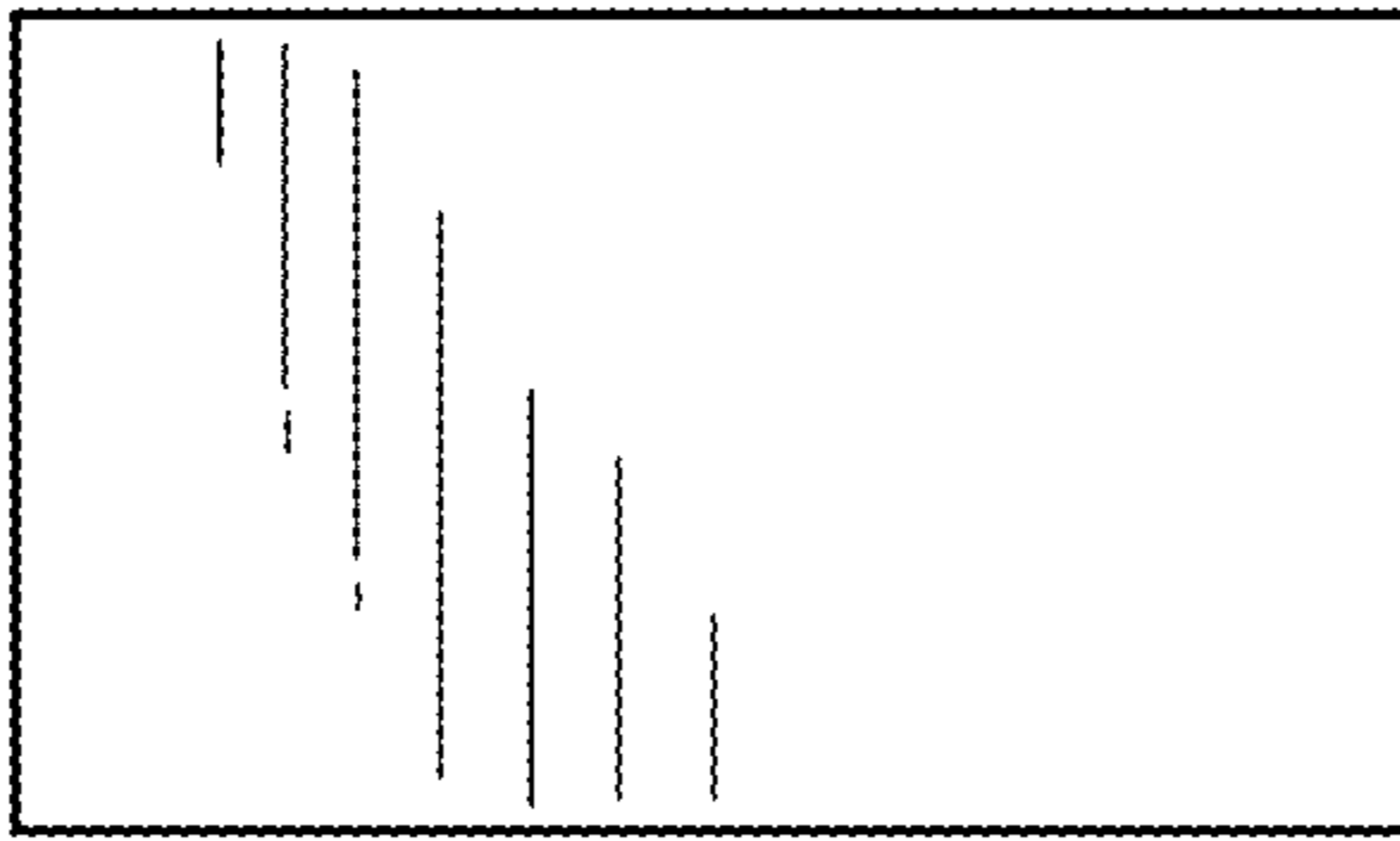


FIG. 4



FIG. 5

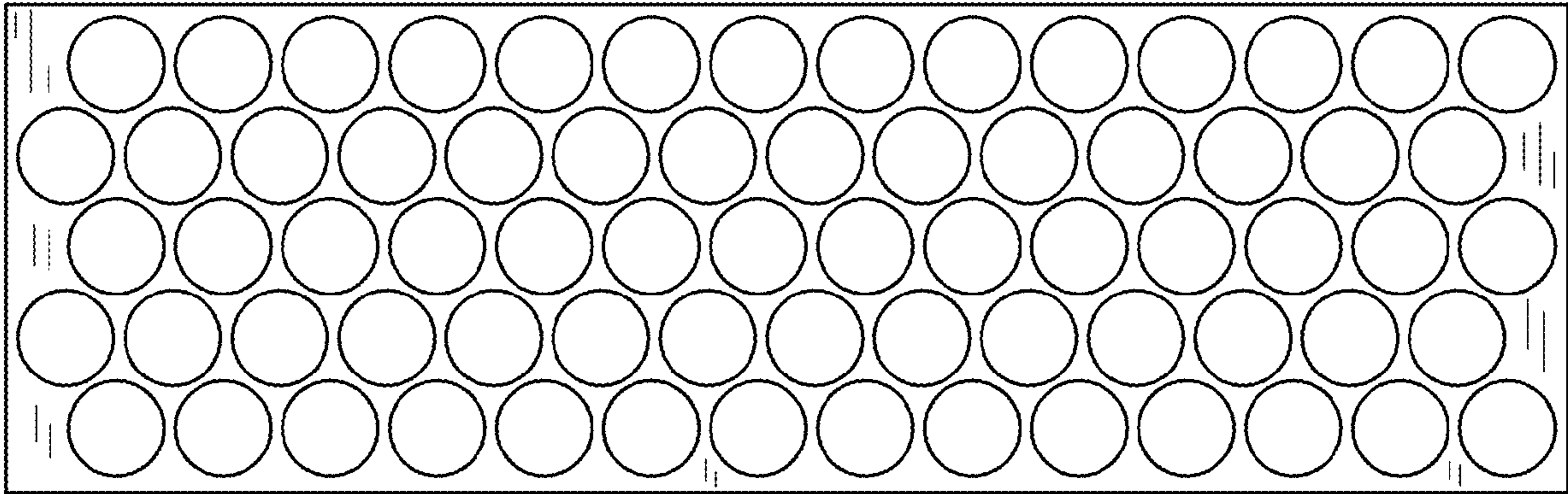


FIG. 6

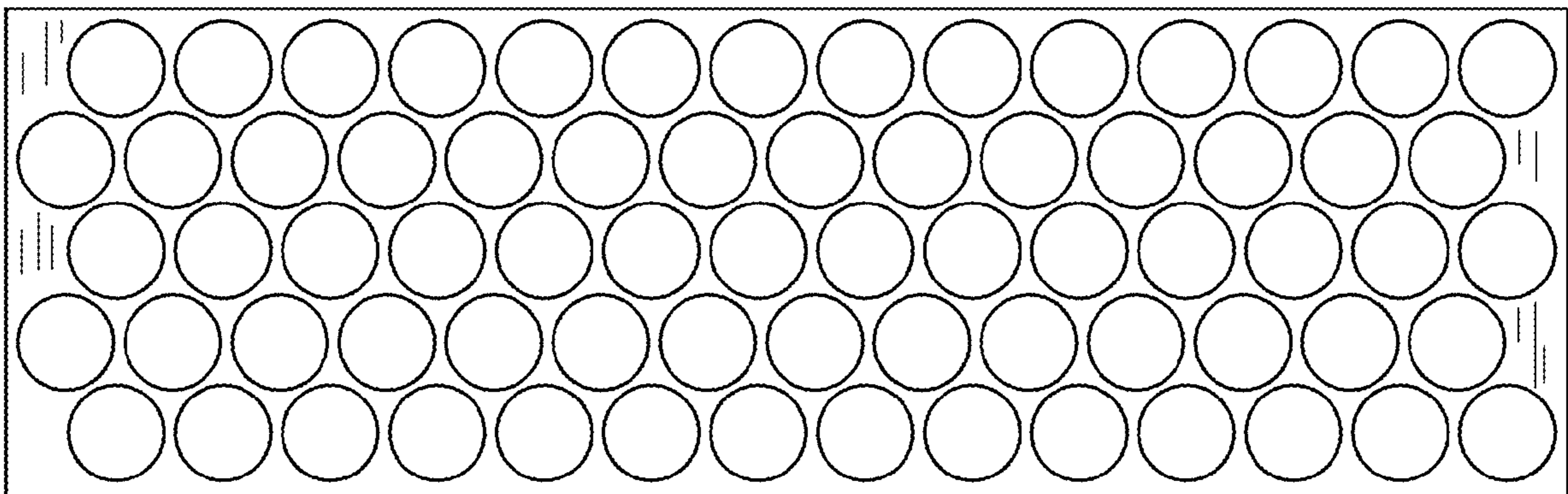


FIG. 7