



US00D736370S

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

(10) **Patent No.:** **US D736,370 S**

(45) **Date of Patent:** **** Aug. 11, 2015**

(54) **MEDICAL PUMP**

2001/0044602 A1* 11/2001 Angersbach et al. 604/151
2003/0217962 A1 11/2003 Childers et al.
2011/0184383 A1 7/2011 Hasegawa

(71) Applicant: **DEKA Products Limited Partnership,**
Manchester, NH (US)

(Continued)

(72) Inventors: **Erik N. Sabin,** Goffstown, NH (US);
Jesse T. Bodwell, Manchester, NH (US)

FOREIGN PATENT DOCUMENTS

WO WO2006/086723 A2 8/2006
WO WO2009/055639 A2 4/2009

(73) Assignee: **DEKA Products Limited Partnership,**
Manchester, NH (US)

(Continued)

(**) Term: **14 Years**

OTHER PUBLICATIONS

(21) Appl. No.: **29/457,522**

International Search Report & Written Opinion, dated Nov. 7, 2013,
received in International patent application No. PCT/US2013/
042350 (K66WO) 18 pgs.

(22) Filed: **Jun. 11, 2013**

(Continued)

(51) **LOC (10) Cl.** **24-02**

(52) **U.S. Cl.**
USPC **D24/111**

(58) **Field of Classification Search**
USPC D24/107, 108, 111, 169, 186; D15/7-9;
128/DIG. 1, DIG. 12, DIG. 13; 604/67,
604/151-155
CPC A61M 1/00; A61M 5/145; F04B 43/09;
F04B 43/10
See application file for complete search history.

Primary Examiner — Ian Simmons

Assistant Examiner — Richelle G Shelton

(74) *Attorney, Agent, or Firm* — James D. Wyninegar, Jr.

(57) **CLAIM**

The ornamental design for a medical pump, as shown and
described.

DESCRIPTION

(56) **References Cited**

U.S. PATENT DOCUMENTS

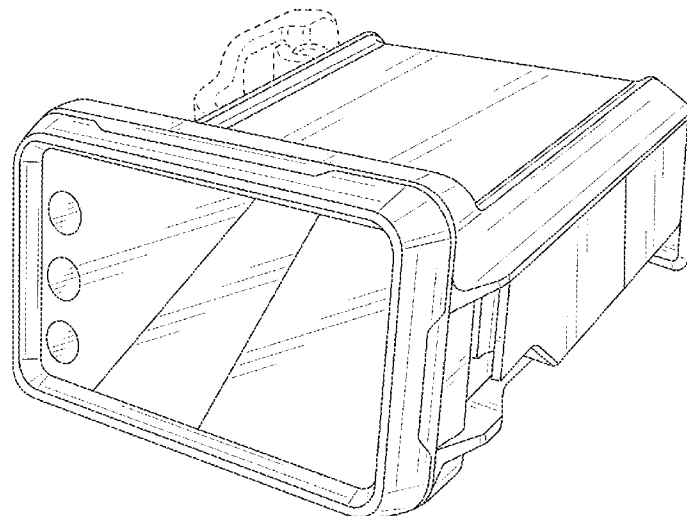
D309,662 S * 7/1990 Gorton D24/111
5,256,157 A * 10/1993 Samiotes et al. 604/246
D348,730 S * 7/1994 Walker et al. D24/111
D360,259 S 7/1995 Ijiri et al.
5,482,446 A 1/1996 Williamson et al.
5,637,095 A * 6/1997 Nason et al. 604/135
5,681,285 A * 10/1997 Ford et al. 604/151
D446,860 S 8/2001 Mezière et al.
D556,910 S 12/2007 Reihanifam et al.
D576,281 S 9/2008 Reihanifam et al.
8,256,984 B2 9/2012 Fathallah et al.
D669,096 S * 10/2012 Katsura D15/7

FIG. 1 is a front, top and right side perspective view of a
medical pump showing my new design;
FIG. 2 is rear, top and right side perspective view thereof;
FIG. 3 is a top plan view thereof;
FIG. 4 is a bottom plan view thereof;
FIG. 5 is a front elevational view thereof;
FIG. 6 is a rear elevational view thereof;
FIG. 7 is a right side elevational view thereof; and,
FIG. 8 is a left side elevational view thereof.

The ornamental design which is claimed is shown in solid
lines in the drawings.

The broken line showing of a portion of the article forms no
part of the claimed design.

1 Claim, 6 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2012/0209197	A1 *	8/2012	Lanigan et al.	604/152
2012/0266964	A1 *	10/2012	West et al.	137/1
2013/0053820	A1 *	2/2013	Estes et al.	604/504
2013/0184676	A1	7/2013	Kamen	
2013/0191513	A1	7/2013	Kamen	
2013/0204188	A1	8/2013	Kamen	

FOREIGN PATENT DOCUMENTS

WO	WO2013/095459	A1	6/2013
WO	WO2013/096718	A2	6/2013

OTHER PUBLICATIONS

International Search Report & Written Opinion, dated Oct. 1, 2013, received in International patent application No. PCT/US2012/071490 (J76WO) 20 pgs.

AAMI and FDA, Infusing Patients Safely: Priority Issues from the AAMI/FDA Infusion Device Summit, Symposium, Oct. 5-6, 2010, pp. 1-48, AAMI, Arlington, VA, USA., www.aami.org.

Fresenius Kabi AG, Agilia® Product Line, 1 pg., Sep. 24, 2013, Germany, www.fresenius-kabi.com/5316.htm.

Fresenius Kabi AG, Alyx™, 1 pg., Sep. 24, 2013, Germany, www.fresenius-kabi.com/8825.htm.

Fresenius Kabi AG, Amicus™, 2 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/8823.htm.

Fresenius Kabi AG, Amika®, 2 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/8934.htm.

Fresenius Kabi AG, Applix Smart, 2 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/2202.htm.

Fresenius Kabi AG, Applix Vision, 2 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/2224.htm.

Fresenius Kabi AG, Aurora™, 2 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/8829.htm.

Fresenius Kabi AG, Autopheresis-C™, 2 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/8827.htm.

Fresenius Kabi AG, C.A.T.S Plus, 2 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/2246.htm.

Fresenius Kabi AG, COM.TEC®, 2 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/2306.htm.

Fresenius Kabi AG, CompoGuard®, 3 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/2308.htm.

Fresenius Kabi AG, CompoLab TS, 1 pg., Sep. 24, 2013, Germany, www.fresenius-kabi.com/6921.htm.

Fresenius Kabi AG, Compomat® G4, 2 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/2320.htm.

Fresenius Kabi AG, CompoMat® G5 & CompoSure, 3 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/6931.htm.

Fresenius Kabi AG, Injectomat Agilia, 2 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/8173.htm.

Fresenius Kabi AG, Injectomat MC Agilia, 2 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/6195.htm.

Fresenius Kabi AG, Injectomat TIVA Agilia, 2 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/6197.htm.

Fresenius Kabi AG, Orchestra® Base Intensive, 2 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/1669.htm.

Fresenius Kabi AG, Orchestra® Base Primea, 2 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/1676.htm.

Fresenius Kabi AG, Orchestra® Module DPS, 2 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/1699.htm.

Fresenius Kabi AG, Orchestra® Module DPS+, 2 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/1707.htm.

Fresenius Kabi AG, Orchestra® Module DPS Visio, 2 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/1714.htm.

Fresenius Kabi AG, Orchestra® Module MVP MS, 2 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/1682.htm.

Fresenius Kabi AG, Orchestra® Module MVP PT, 2 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/1691.htm.

Fresenius Kabi AG, Orchestra® Module MVP ST, 2 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/2026.htm.

Fresenius Kabi AG, Pilot Enteral, 2 pgs., Sep. 24, 2013, Germany, www.fresenius-kabi.com/2238.htm.

"Alaris Syringe Pumps," Technical Service Manual, 2006, Cardinal Health Inc., accessed at http://frankshospitalworkshop.com/equipment/documents/infusion_pumps/service_manuals/Cardinal_Alaris_-_Service_Manual.pdf.

"Asena GH Syringe Pump with Gaurdrails Safety Software," Directions for Use, 2003, Alaris Medical Systems, accessed at http://videor.ch.org.au/bme_rch/IPB1453N01.pdf on Apr. 16, 2014.

"Alaris GP Volumetric Pump," Technical Service Manual, 2008, Cardinal Health Inc., accessed at http://frankshospitalworkshop.com/equipment/documents/infusion_pumps/service_manuals/CardinalHealth_Alaris_GP_-_Service_manual.pdf on Apr. 16, 2014.

"Alaris GW Volumetric Pump," Directions for Use, 2011, Carefusion Corporation, accessed at <http://www.care-fusion-products.com/assets/supportdocs/DFUs/1000DF00440.pdf> on Apr. 16, 2014.

"Gemini PC-2 Volumetric Infusion Pump/Controller," Operator's Manual, 1994, IMED Corporation, accessed at <http://www.triumphmed.com/manuals/GEMINI-PC-2v3.44.pdf> on Apr. 16, 2014.

"Gemini PC-4 Volumetric Infusion Pump/Controller," Maintenance Manual, Nov. 1, 1995, IMED Corporation, accessed at http://frankshospitalworkshop.com/equipment/documents/infusion_pumps/service_manuals/Imed_Gemini_PC-4_Infusion_Pump_-_Service_manual.pdf on Apr. 16, 2014.

Photograph of a pump product by Carefusion Corporation, Alaris PC, accessed at <http://www.carefusion.com/medical-products/infusion/devices/> on Apr. 16, 2014.

"Alaris PC Unit, Models 8000 and 8015" and "Alaris Pump Module, Model 8100," Technical Service Manual, Mar. 2007, Cardinal Health, Inc., accessed at http://frankshospitalworkshop.com/equipment/documents/infusion_pumps/service_manuals/CardinalHealth_Alaris_8100_-_Service_manual.pdf on Apr. 16, 2014.

"Alaris SE Pump Models 7130/7131 and 7230/7231," Directions for Use, Nov. 2010, Carefusion Corporation, accessed at http://www.carefusion.com/pdf/Infusion/clinical_documentation/user_manuals/12155838.pdf on Apr. 16, 2014.

"Volumetric Infusion Pump Argus 707 V," Service Manual, Mar. 28, 2006, Argus Medical AG, accessed at http://www.helse-mr.no/ftp/eqspubli/legemiddelprosessen/docs/doc_15163/attachments/Argus%20707%20infusionspumpe.pdf on Apr. 16, 2014.

"Volumetric Infusion Pump Argus 708 V," Service Manual, Mar. 28, 2006, Argus Medical AG, accessed at http://www.internetmed.com/sites/default/files/Argus_708_-_Service_manual.pdf on Apr. 16, 2014.

"Auto Syringe AS40A Model AS40A Infusion Pump," Operation Manual, 1993, Baxter Healthcare Corporation, accessed at <http://www.triumphmed.com/manuals/BAXTER-AS40A.pdf> on Apr. 16, 2014.

"Auto Syringe AS50 Model AS50 Infusion Pump," Operator's Manual, May 2002, Baxter Healthcare Corporation, accessed at http://www.lhsc.on.ca/Health_Professionals/CCTC/eduquiz/as50.pdf on Apr. 16, 2014.

"Colleague Volumetric Infusion Pump" and "Colleague 3 Volumetric Infusion Pump," Global Service Manual, 2004, Baxter Healthcare Corporation, accessed at http://frankshospitalworkshop.com/equipment/documents/infusion_pumps/service_manuals/Baxter_Colleague_-_Service_manual.pdf on Apr. 16, 2014.

"Colleague CX Volumetric Infusion Pump," Addendum to Operator's Manual, 2001, Baxter Healthcare Corporation, accessed at <http://www.triumphmed.com/manuals/Baxter-Colleague-CX.pdf> on Apr. 16, 2014.

"Flo-Gard 6301 Dual Channel Volumetric Infusion Pump," Operator's Manual, 1999, Baxter Healthcare Corporation, accessed at <http://www.meql.com/Manuals/Baxter-6301-Operators-Manual.pdf> on Apr. 16, 2014.

"Sigma Spectrum," Operator's Manual, May 15, 2008, Sigma International, accessed at <http://www.meql.com/Manuals/Sigma-Spectrum-User-Manual.pdf> on Apr. 16, 2014.

(56)

References Cited

OTHER PUBLICATIONS

“Sigma International Model Spectrum Infusion Pump,” Service Manual, Aug. 2008, SIGMA International, Inc., accessed at <http://photos.medwrench.com/equipmentManuals/3519-3759.pdf> on Apr. 17, 2014.

Photograph of a pump product by Smiths Medical, CADD-Solis Ambulatory Infusion Pump, accessed at <http://www.smiths-medical.com/catalog/ambulatory-pumps-sets/cadd-ambulatory-infusion-pumps/cadd-solis/cadd-solis-ambulatory-infusion.html> on Apr. 16, 2014 (image on website at least as early as Nov. 16, 2008).

“Production Engineering—Medical Equipment Division”, Images on website since at least Sep. 17, 2008, PEMED, accessed at <http://www.pemed.com/surgery/pumps/pumps.htm> on Apr. 18, 2014.

“Curlin 6000 CMS Ambulatory Infusion System,” 2008, B. Braun Medical Inc., accessed at <http://zivotbezstrevca.cz/wp-content/uploads/2013/10/Curlin-6000-male.pdf> on Apr. 16, 2014.

“Delphia IVantage Volumetric Ambulatory Infusion System,” 2006, Delphia Corporation, accessed at <https://delphi.com/shared/pdf/ppd/medical/IVantage-Volumetric-Ambulatory-Infusion-Product-Sheet.pdf> on Apr. 16, 2014.

“Syringe Pumps Range when accuracy matters,” Smiths Medical International Ltd, accessed at http://www.smiths-medical.com/upload/products/pdf/SMI_syringe_pumps_range9.pdf on Apr. 16, 2014 (file on website at least as early as Oct. 21, 2007).

“Model 500 and Micro 505 Volumetric Infusion Pump,” Instruction Manual, 2002, Graseby Medical Limited, accessed at <http://isurplus.com.au/manuals/Graseby%20500%20&%203000%20Infusion%20Pump%20User%20Manual.pdf> on Apr. 16, 2014.

“Micro Macro Plum XL with DataPort,” System Operating Manual, Aug. 1997, Abbott Laboratories, accessed at <http://www.elitemedicalmall.com/manuals/Abbott-PLUM-XLwDATAPORT.pdf> on Apr. 16, 2014.

“LifeCare 4100 PCA Plus II Infuser with Microgram Delivery,” System Operating Manual, Oct. 1996, Abbott Laboratories, accessed at <http://www.meql.com/Manuals/Abbott-PCA-II-Plus-User-Manual.pdf> on Apr. 16, 2014.

“Gemstar,” Technical Service Manual, May 2007, Hospira, Inc., accessed at http://frankshospitalworkshop.com/equipment/documents/infusion_pumps/service_manuals/Abbott_Gemstar_-_Service_Manual.pdf on Apr. 16, 2014.

“LifeCare 5000 Plum Concurrent Flow Infusion System with DataPort,” System Operating Manual, Jul. 1998, Abbott Laboratories, accessed at <http://www.meql.com/Manuals/Abbott-Plum-5000-User-Manual.pdf> on Apr. 16, 2014.

“Plum XL 3 Multi-Line Infusion System,” System Operating Manual, Jan. 1997, Abbott Laboratories, accessed at <http://www.elitemedicalmall.com/manuals/Abbott-PLUM-XL-3.pdf> on Apr. 16, 2014.

“Abbott Plum A+,” System Operating Manual, May 2001, Abbott Laboratories, accessed at <http://www.elitemedicalmall.com/manuals/Abbott-Plum-A+-Op-Manual.pdf> on Apr. 16, 2014.

“Symbiq Infusion System with Hospira MedNet Software,” Nov. 2006, Hospira, accessed at http://www.hospira.ca/english/_docs/P06-0589_Symbiq_Sets.pdf on Apr. 18, 2014.

Photographs of pump product by Hospira, Symbiq, taken Jan. 5, 2007, accessed at http://www.design-concepts.com/wp-content/themes/wpremix3/images/dcimages/portfolio/hospira_symbiq_02.jpg;

http://www.design-concepts.com/wp-content/themes/wpremix3/images/dcimages/portfolio/hospira_symbiq_03.jpg;

http://www.design-concepts.com/wp-content/themes/wpremix3/images/dcimages/portfolio/hospira_symbiq_04.jpg on Apr. 18, 2014.

“Monitors flex their muscles, hospitals reap rewards,” May 2007, Julie E. Williamson, accessed at <http://www.hponline.com/inside/2007-05/0705-or-monitors.html> on Apr. 18, 2014.

“Medication Management Systems,” p. 19, Sep. 2006, Hospira, accessed at http://media.corporate-ir.net/media_files/irol/17/175550/presentations/hsp0906.pdf on Apr. 17, 2014.

“Medfusion 2001 Syringe Pump,” Operations Manual, Oct. 1996, Medexinc, accessed at <http://www.triumphmed.com/manuals/MEDFUSION-2001.pdf> on Apr. 16, 2014.

“Operations Manual for Medfusion 2010 Syringe Pump,” Oct. 1996, Medexinc, accessed at <http://www.triumphmed.com/manuals/MEDFUSION-2010.pdf> on Apr. 16, 2014.

“3850 MRidium MRI Infusion System,” Operation Manual, 2006, IRadimed Corporation, accessed at http://www.iradimed.com/en-us/technical_support/MRidium%201124-3A.pdf on Apr. 16, 2014.

“Sabratek 3030 Volumetric Infusion Pump,” Operation Manual, 1996, Sabratek Corporation, accessed at <http://www.triumphmed.com/manuals/Sabratek-3030-Op-Manual.pdf> on Apr. 16, 2014.

Photograph of pump products by Abbott, Abbott Lifecare III and Abbott Lifecare 4, accessed at <http://www.msdistibutors.com/biomed/meh/LIFECARE.HTM> on Apr. 16, 2014 (image on website at least as early as Mar. 6, 2001).

“Perfusor compact,” Service Manual, approved by B. Braun on Mar. 16, 2006 and created on Mar. 17, 2006, B. Braun, accessed at http://frankshospitalworkshop.com/equipment/documents/infusion_pumps/service_manuals/B.Braun_Perfusor_Compact_-_Service_manual.pdf on Apr. 16, 2014.

“B. Braun Space,” created Oct. 19, 2004, B. Braun Melsungen Ag, accessed at http://info.bbraun.ee/Extranet/Infusionipumbad/Tutvustavad%20materjalid/Perfusor-space-tehniline_data.pdf on Apr. 16, 2014.

“LifeCare PCA for use with Hospira MedNet Software,” System Operating Manual, Jan. 2006, Hospira, accessed at <http://www.meql.com/Manuals/Abbott-Hospira-PCA-III-Mednet-User-Manual.pdf> on Apr. 16, 2014.

“Omni-flow 4000 Plus IV Medication Management System,” System Operating Manual, Aug. 1996, Abbott Laboratories, accessed at <http://www.elitemedicalmall.com/manuals/Abbott-Omniflow-Op-Manual.pdf> on Apr. 16, 2014.

Photograph of pump product by Kendall, SCD Model 5325, accessed at <http://www.msdonline.com/biomed/meh/kendall.htm> on Apr. 16, 2014 (image on website at least as early as Nov. 29, 2006).

Photograph of pump product by Abbott, Provider 5500 Ambulatory Pump, accessed at <http://www.msdistibutors.com/BioMed/MEH/abbottpt.htm> (image on website at least as early as Mar. 6, 2001).

“Model AP12 Single—Syringe Pump,” Mediaid Inc., created Feb. 15, 2008, accessed at http://www.mediaidinc.com/Brochures/M-AP12_IndiOval_English_HR.pdf on Apr. 17, 2014.

“Syringe Pumps AP 12 / 22,” Operating Manual, created Jan. 11, 2007, Ascor S. A. , accessed at http://www.ascor.com.pl/eng/pdf/AP12_AP22_OM36_070111_GB.pdf on Apr. 18, 2014.

“Biomedical Rental Equipment—Enteral Pumps and Accessories,” created Oct. 13, 2003, MSD, accessed at http://www.msdistibutors.com/Drill_Downs/enteral%20pumps%20and%20accessories.pdf on Apr. 17, 2014, p. 4/5.

* cited by examiner

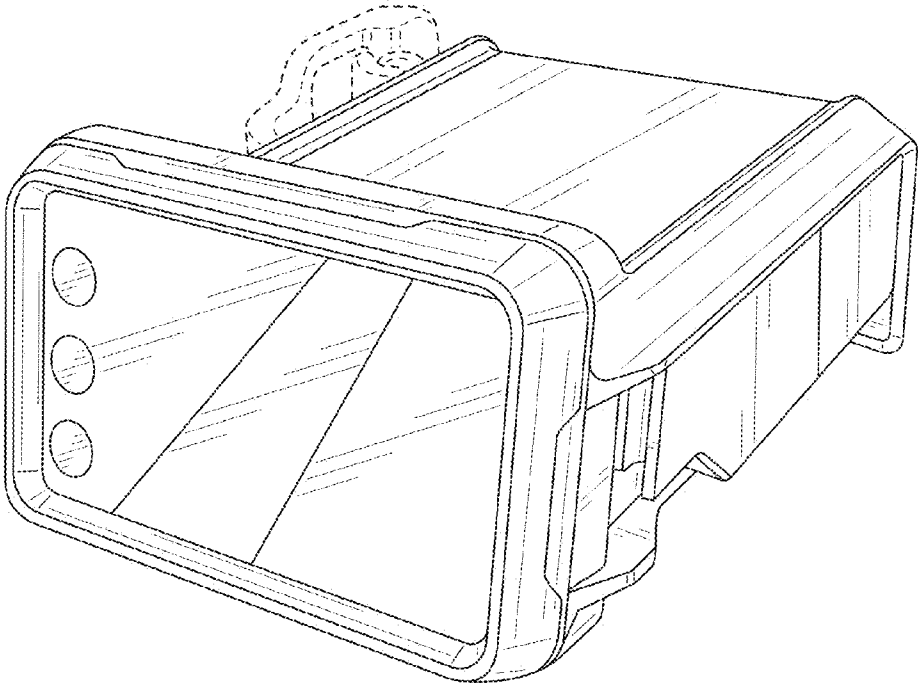


FIG. 1

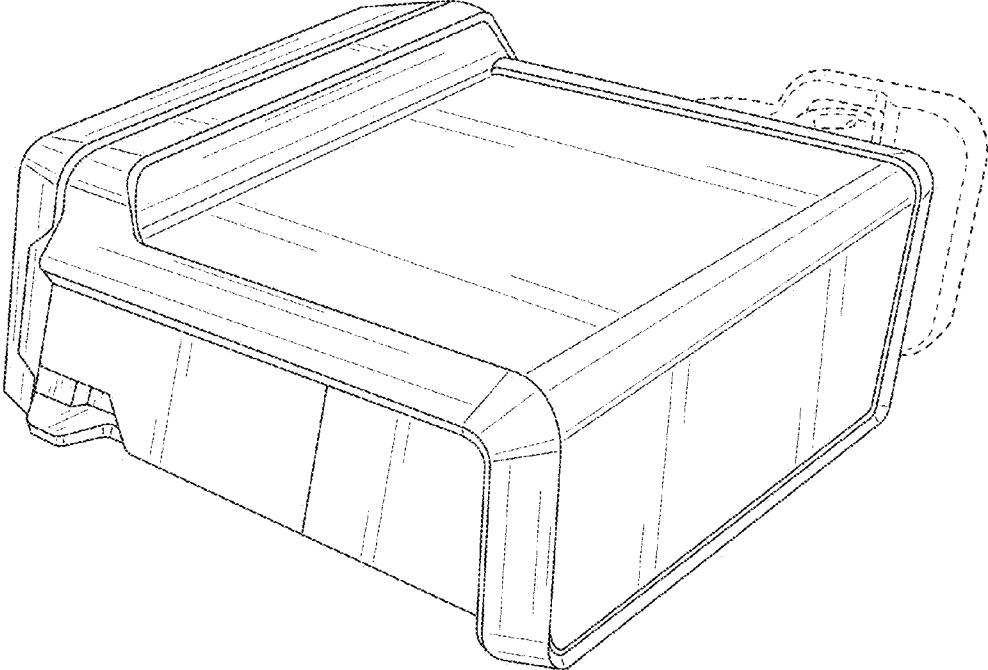


FIG. 2

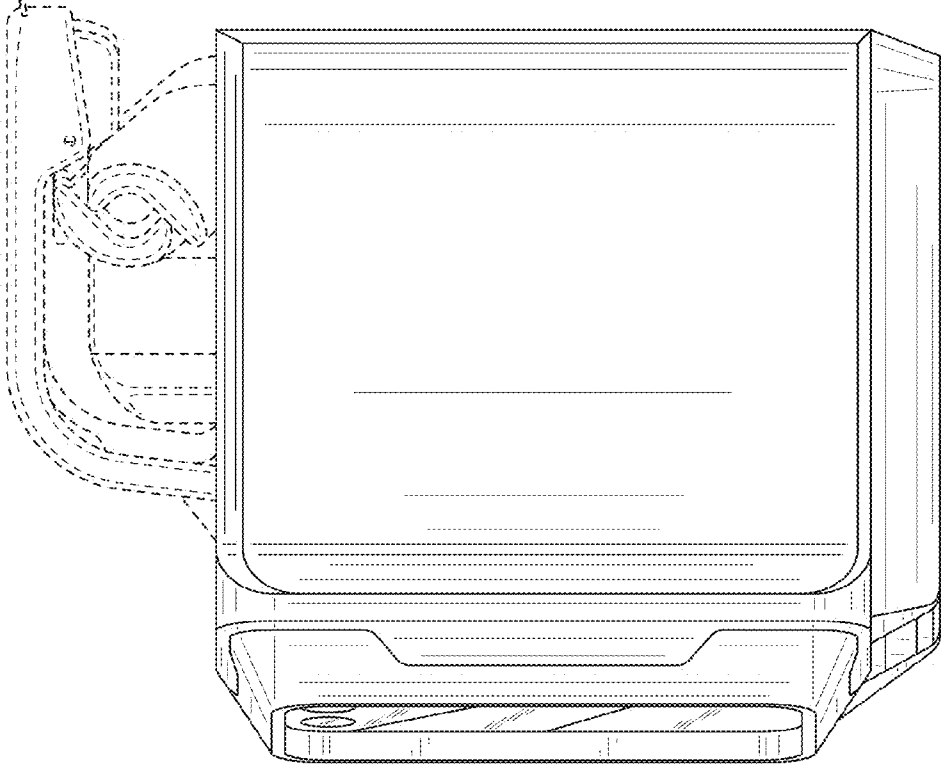


FIG. 3

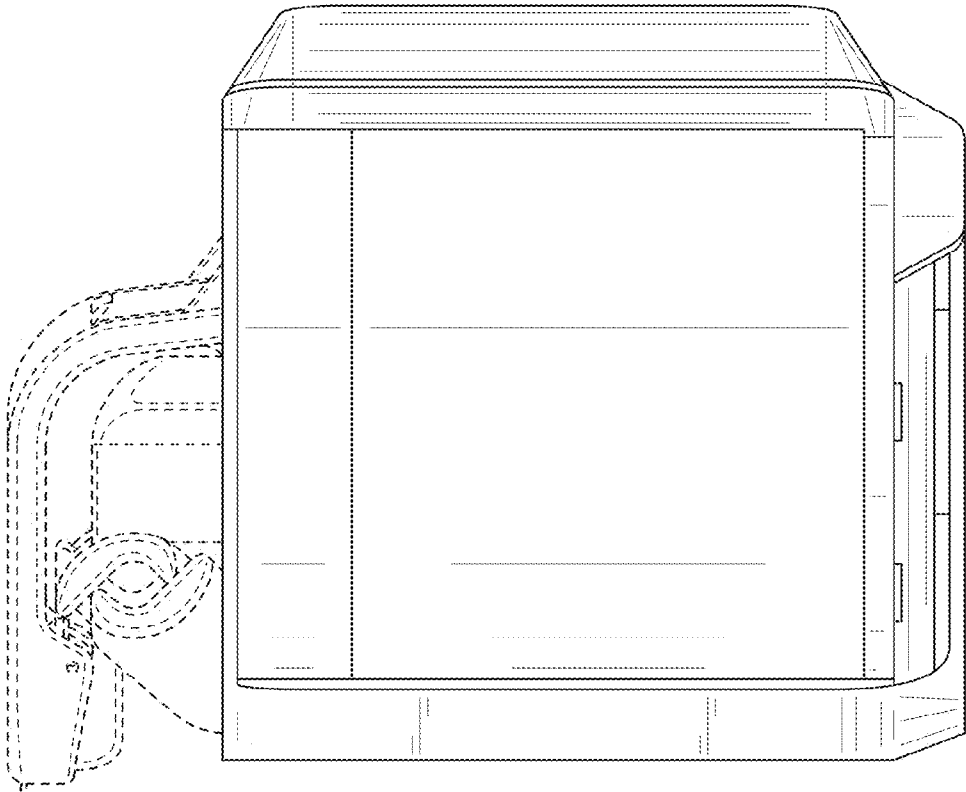


FIG. 4

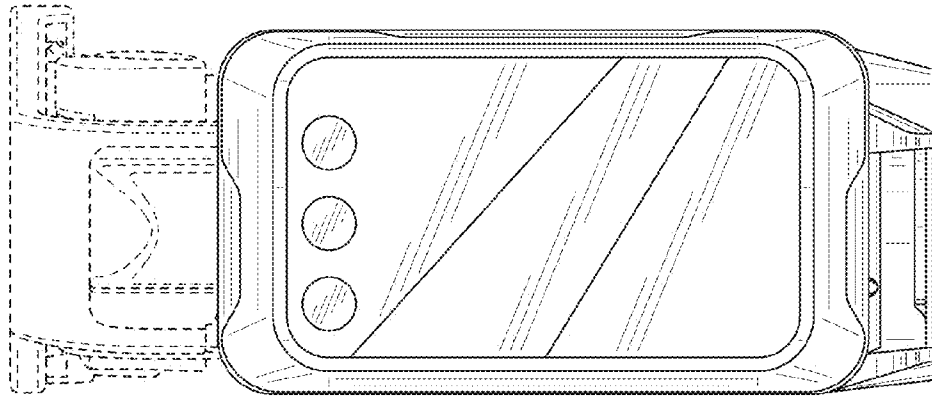


FIG. 5

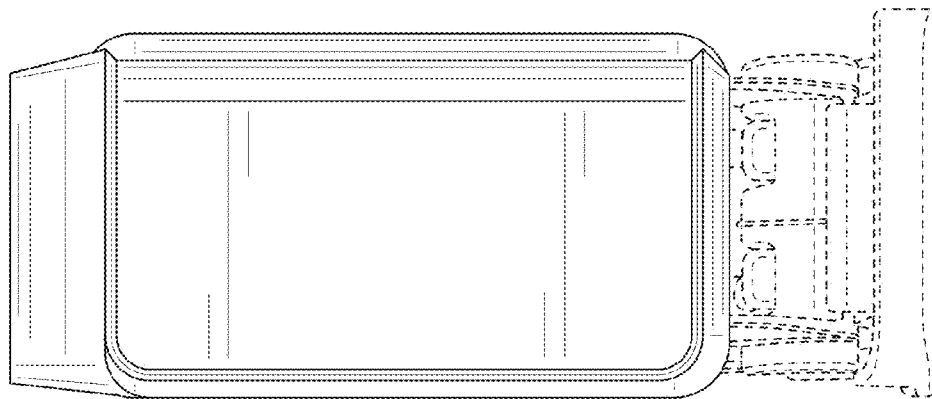


FIG. 6

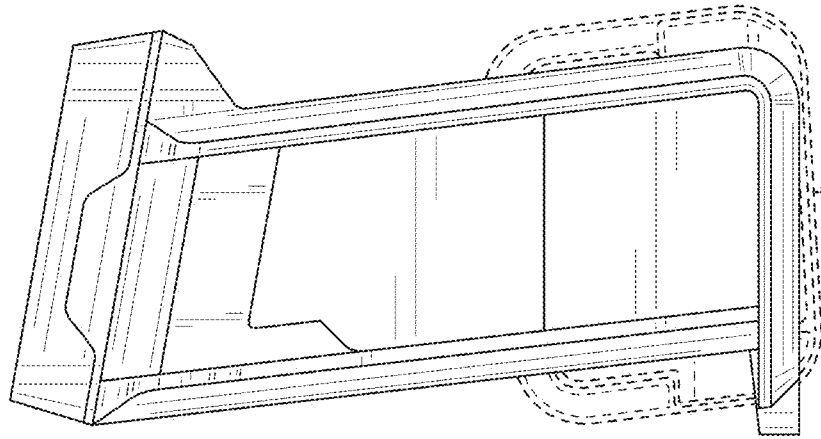


FIG. 7

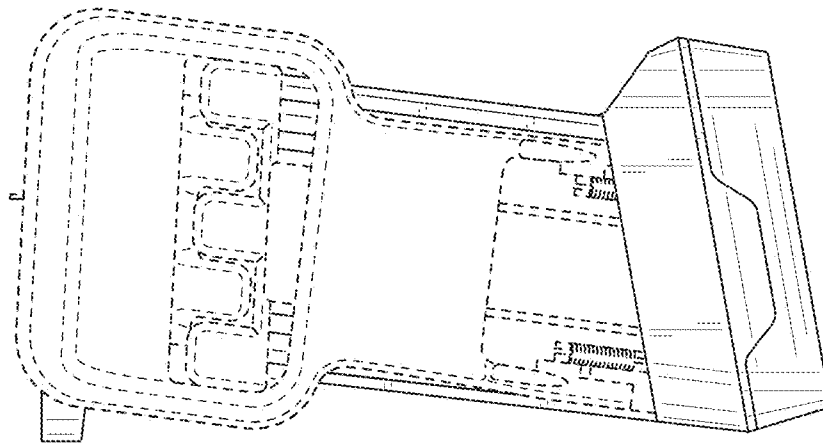


FIG. 8