



US00D943732S

(12) **United States Design Patent** (10) **Patent No.:** **US D943,732 S**
Shauver et al. (45) **Date of Patent:** **** Feb. 15, 2022**

(54) **MEDICAL FLUID TRANSFER SYSTEM**
(71) Applicant: **ICU Medical, Inc.**, San Clemente, CA (US)
(72) Inventors: **Erik Scott Shauver**, Tustin, CA (US); **Thomas F. Fangrow**, Mission Viejo, CA (US)

D236,163 S 7/1975 Manno
4,005,710 A 2/1977 Zeddies et al.
4,084,606 A 4/1978 Mittleman
4,187,890 A 2/1980 Stach et al.
4,190,048 A 2/1980 Sampson
4,262,671 A 4/1981 Kersten
4,306,705 A 12/1981 Svensson
(Continued)

(73) Assignee: **ICU Medical, Inc.**, San Clemente, CA (US)
(**) Term: **15 Years**

FOREIGN PATENT DOCUMENTS

CN 1707379 12/2005
CN 101244297 8/2008
(Continued)

(21) Appl. No.: **29/760,752**
(22) Filed: **Dec. 3, 2020**

OTHER PUBLICATIONS

U.S. Appl. No. 15/933,954, filed Mar. 23, 2018, Lopez et al.
(Continued)

Related U.S. Application Data

(62) Division of application No. 29/722,642, filed on Jan. 31, 2020, now Pat. No. Des. 905,228, which is a division of application No. 29/695,207, filed on Jun. 17, 2019, now Pat. No. Des. 874,644, which is a division of application No. 29/571,547, filed on Jul. 19, 2016, now Pat. No. Des. 851,745.

Primary Examiner — Lilyana Bekic
(74) *Attorney, Agent, or Firm* — Knobbe Martens Olson & Bear, LLP

(51) **LOC (13) Cl.** **24-01**
(52) **U.S. Cl.**
USPC **D24/108**
(58) **Field of Classification Search**
USPC D24/107–108, 111, 169, 231–232
CPC A61J 1/20; A61J 1/2003
See application file for complete search history.

(57) **CLAIM**

The ornamental design for a medical fluid transfer system, as shown and described.

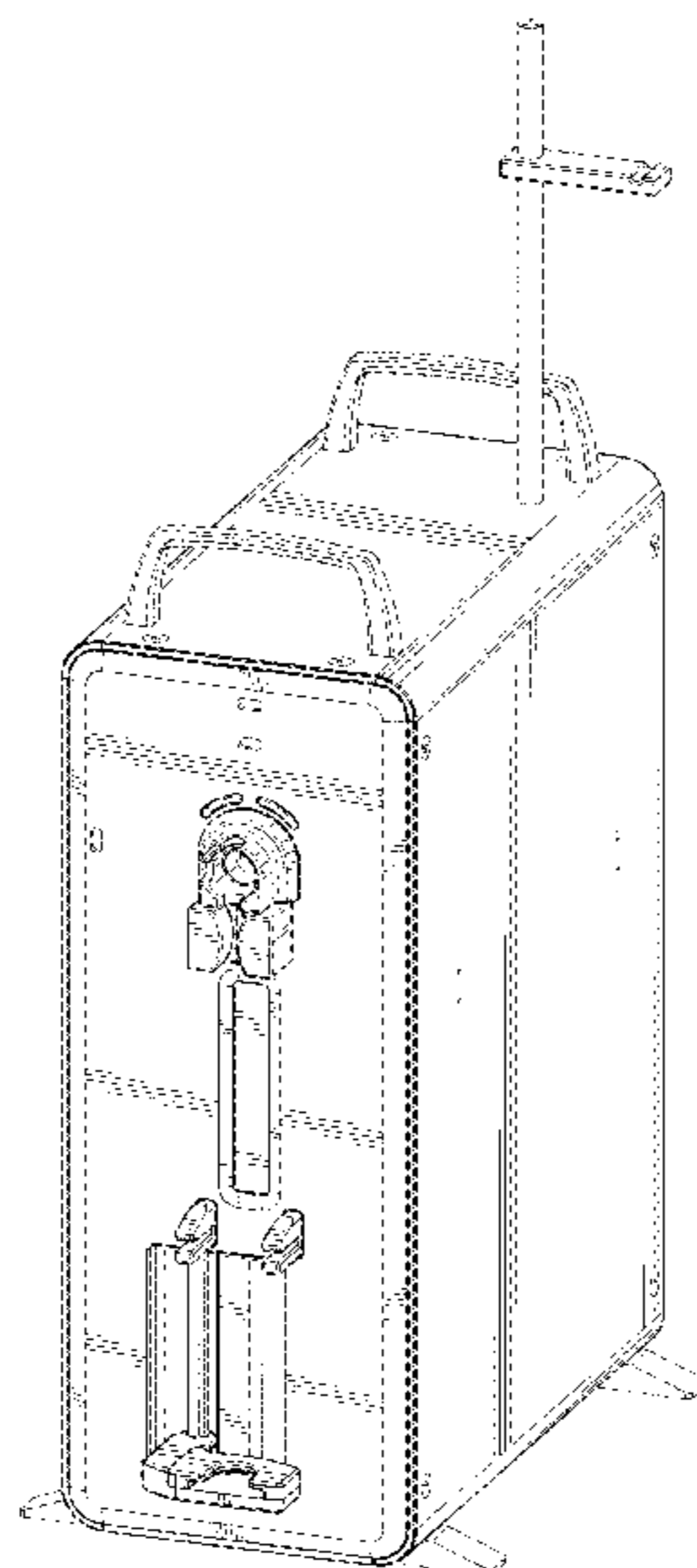
DESCRIPTION

FIG. 1 is a front perspective view of a medical fluid transfer system with various features shown in broken lines; FIG. 2 is a front view thereof; FIG. 3 is a back view thereof; FIG. 4 is a left side view thereof; FIG. 5 is a right side view thereof; FIG. 6 is a top view thereof; and, FIG. 7 is a bottom view thereof. The broken lines in the figures depict portions of the medical fluid transfer system that form no part of the presently claimed design.

(56) **References Cited**
U.S. PATENT DOCUMENTS

1,923,501 A 8/1933 Perry
3,157,201 A 11/1964 Littmann
3,344,785 A 10/1967 Hamilton
D222,956 S 2/1972 Sato
D222,957 S 2/1972 Sato

1 Claim, 6 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2020/0289370 A1 9/2020 Lopez
 2020/0297581 A1 9/2020 Lopez
 2021/0002008 A1* 1/2021 Min A61M 1/3693
 2021/0121363 A1* 4/2021 Oda B65B 3/30

WO WO 2015/077184 5/2015
 WO WO 2015/077466 5/2015
 WO WO 2015/122921 8/2015
 WO WO 2016/010909 1/2016
 WO WO 2017/096072 6/2017
 WO WO 2018/009996 1/2018
 WO WO 2018/022640 2/2018
 WO WO 2019/018195 1/2019

FOREIGN PATENT DOCUMENTS

CN 106860003 A 6/2017
 CN 107198658 A 9/2017
 CN 108210332 A 6/2018
 DE 202 16 791 U 2/2003
 DE 20 2004 014 868 11/2004
 EP 0 521 460 B1 9/1995
 EP 0 974 330 1/2000
 EP 1 533 597 5/2005
 EP 1 563 819 8/2005
 EP 1 997 471 12/2008
 EP 3 375 427 A1 9/2018
 JP S55-156750 11/1980
 JP 55-173339 12/1980
 JP 56-95247 A 8/1981
 JP 62-189072 A 8/1987
 JP 06-343706 12/1994
 JP 10-118158 A 5/1998
 JP 2001-190689 A 7/2001
 JP 2002-238979 A 8/2002
 JP 2002-355318 12/2002
 JP 2003-144546 5/2003
 JP 2003-199823 7/2003
 JP 2003-225305 A 8/2003
 JP 2004-049497 2/2004
 JP 2007-14618 A 1/2007
 JP 2007-215775 A 8/2007
 KR 10-1095961 B1 12/2011
 KR 10-1574194 B1 12/2015
 WO WO 1997/14493 4/1997
 WO WO 1998/23353 6/1998
 WO WO 1999/19012 4/1999
 WO WO 1999/63547 12/1999
 WO WO 2000/41751 7/2000
 WO WO 2001/03757 1/2001
 WO WO 2001/039874 6/2001
 WO WO 2002/04065 1/2002
 WO WO 2005/041846 5/2005
 WO WO 2005/110007 11/2005
 WO WO 2005/123162 12/2005
 WO WO 2007/033013 3/2007
 WO WO 2007/061424 5/2007
 WO WO 2007/062315 5/2007
 WO WO 2007/079305 7/2007
 WO WO 2007/148708 12/2007
 WO WO 2008/051998 5/2008
 WO WO 2008/052140 5/2008
 WO WO 2008/128074 10/2008
 WO WO 2008/144447 11/2008
 WO WO 2009/060419 5/2009
 WO WO 2009/130147 10/2009
 WO WO 2010/111546 9/2010
 WO WO 2011/002853 1/2011
 WO WO 2011/012313 2/2011
 WO WO 2011/014525 2/2011
 WO WO 2011/058545 5/2011
 WO WO 2011/058548 5/2011
 WO WO 2011/091542 8/2011
 WO WO 2011/091543 8/2011
 WO WO 2011/104711 9/2011
 WO WO 2011/104712 9/2011
 WO WO 2011/150037 12/2011
 WO WO 2012/119225 9/2012
 WO WO 2013/096911 6/2013
 WO WO 2014/122643 8/2014
 WO WO 2014/126473 8/2014
 WO WO 2014/177347 11/2014
 WO WO 2014/181320 11/2014
 WO WO 2015/029020 3/2015

OTHER PUBLICATIONS

U.S. Appl. No. 29/571,547, filed Jul. 19, 2016, Shauver et al.
 U.S. Appl. No. 29/586,575, filed Dec. 5, 2016, Fangrow.
 Abbott Laboratories, "Abbott MedNet Software," Installation and User Guide in 156 pages, Copyright 2006. (Part 1—pp. 1-78).
 Abbott Laboratories, "Abbott MedNet Software," Installation and User Guide in 156 pages, Copyright 2006. (Part 2—pp. 79-156).
 Abbott "Plum A+," System Operating Manual (For use with List 11971-04) in 85 pages, May 2001.
 Autotec 50, from KRZ, Dec. 6, 2007.
 B. Braun Medical Inc. Two-Bag Irrigation Set, Two Non-vented Spikes, dated Jul. 2012, in 1 page.
Baxa Corp. v. McGaw Inc. 981 F. Supp. 1348 (1997), Memorandum Opinion and Order, 14 pages.
 BioExpert International Inc., Company overview, credentials for Rabih Jamaledine, Nabil Kereknawi, and Danica Robillard Corso, copyright 2010 BioExpert International Inc. in 3 pages [retrieved on Jan. 6, 2015; Publication Date Unknown]; accessed on the world wide web at <http://bioexpert.ca/about.html>.
 Burrows, et al., "Intravenous (IV) Fluidmaker IV. A Disposable Device for Preparation of Sterile Water for Injection In a Field Setting," Fort Detrick, US Army Biomedical Research & Development Laboratory, Sep. 1991. <https://apps.dtic.mil/dtic/tr/fulltest/u2/a247385.pdf>.
 Cato (Computer Aided Therapy For Oncology)—Reference Manual—Vienna, May 2005, 255 pgs.
 Clearlink Needleless IV Access System, dated Aug. 2007, in 2 pages.
 CytoCare, by Health Robotics, Brochure, Date Unknown, downloaded on May 25, 2012 from <http://www.health-robotics.com/smartedit/downloads/en/cytocare7.pdf>, 6 pages.
 European Extended Search Report, re EP Application No. 16871522, dated Jun. 7, 2019.
 Exacta-Mix 2400, from Baxa, which appears to have a date of 2007, 2 pages.
 Flickinger, Bruce, "Misperceptions Cloud the Issue of Sterile Drug Compounding," Jun. 2007.
 Fox, Brent I., "Pharmacy Automation and Technology: Automated Intravenous Preparation: Robots for the Pharmacy," Hospital Pharmacy, vol. 44, Mar. 2009, pp. 255-257.
 Grifols International, S.A., "PHOCUS Rx, Remote IV Compounding Validation" product brochure and "Product Description Sheet" in 13 pages [Publication Date unknown but may be May 29, 2013].
 Healthmark, "Hospital Medication Preparation, Packaging and Dispensing" in 1 page [retrieved on Jan. 6, 2015; Publication Date Unknown]; accessed on the world wide web at <http://www.healthmark.ca/2-en-Hospital-Medication-Preparation-Packaging-and-Dispensing.html>.
 Healthmark, "Hospital Medication Preparation, Packaging and Dispensing," Chemo Drug Preparation/Administration in 2 pages [retrieved on Jan. 6, 2015; Publication Date Unknown]; accessed on the world wide web at http://www.healthmark.ca/2-36-88-Chemo-Drug-Preparation-Administration_en.html.
 Healthmark, "Hospital Medication Preparation, Packaging and Dispensing," Chemosphere, Sterile Chemo Compounding (Isolator) in 1 page [retrieved on Jan. 6, 2015; Publication Date Unknown]; accessed on the world wide web at http://www.healthmark.ca/2-36-10-ChemoSphere_en.html?ProductID=244.
 Healthmark, "Hospital Medication Preparation, Packaging and Dispensing," Oncology Preparation and Administration in 1 page [retrieved on Jan. 6, 2015; Publication Date Unknown]; accessed on the world wide web at <http://www.healthmark.ca/2-36-10-COMPANY-PROFILEHospital-en.html>.

(56)

References Cited

OTHER PUBLICATIONS

Healthmark, "Hospital Medication Preparation, Packaging and Dispensing," Phocus—RX (Camera Verification System), Remote Rx Checking of admixtures in 2 pages [retrieved on Jan. 6, 2015; Publication Date Unknown]; accessed on the world wide web at http://www.healthmark.ca/2-36-10-PHOCUS-Rx-Camera-Verification-System-_en.html?ProductID=229.

Healthmark, "New Product Items" in 1 page [retrieved on Jan. 6, 2015; Publication Date Unknown]; accessed on the world wide web at <http://www.healthmark.ca/home.html>.

Healthmark, "Introducing the Precifill Dispensing Pump" product brochure in 2 pages [Publication Date Unknown].

Hospira, "Hospira MedNet Software Suite," IT Implementation Training Guide in 143 pages, Copyright 2006.

Hospira, "LifeCare PCA with Hospira MedNet Software," LifeCare PCA Technical Service Manual in 208 pages, Published 2007. (Part 1—pp. 1-104).

Hospira, "LifeCare PCA with Hospira MedNet Software," LifeCare PCA Technical Service Manual in 208 pages, Published 2007. (Part 2—pp. 105-208).

Integra Brochure, from Eurospital, Brochure acquired in Mar. 2012. International Invitation to Pay Additional Fees (with cited art), re PCT Application No. PCT/US16/64467, dated Jan. 25, 2017.

International Preliminary Report on Patentability, re PCT Application No. PCT/US 16/64467, dated Jun. 5, 2018.

International Search Report and Written Opinion, re PCT Application No. PCT/US 16/64467, dated Apr. 5, 2017.

ISO/Tech Design, QC, Canada, "CHEMOSPHERE," product brochure, in 2 pages [Publication Date Unknown].

Machine transcription generated by YouTube taken from a video titled, "RIVA Robotic IV Automation," available at <https://www.youtube.com/watch?v=GbLIBNMPv9Y>, as allegedly published on Sep. 11, 2006.

Neo Care Medical Products: Product Catalog, dated Jun. 2008, in 38 pages.

Pinnacle TPN Management System, from B Braun, downloaded May 5, 2009 from <http://www.bbraunusa.com/index.cfm?uuiid=7386ADF065B05CD0D22AF700339AA4092>, 1 page.

"Precifill," Trademark search (TESS) in 1 page, [retrieved on Jan. 6, 2015; Application Filing Date of Sep. 30, 2011]; accessed on the world wide web at <http://tmsearch.uspto.gov/bin/showfield?f=doc&state=4807:gz67gx.3.1>.

Product detail for "NAMIC® Closed Fluid Systems" from Navilyst Medical, downloaded on May 11, 2010 from <http://www.navilystmedical.com/Products/index.cfm/19>, 2 pages.

Product detail for "RapidFill™ Automated Syringe Filler," from Baxa, downloaded on Mar. 31, 2010 from <http://www.baxa.com/PharmacyProducts/AutomatedFillingSystems/ProductDetail/?id=B1>, 2 pages.

Product detail for "Summit Medical DirectFlow" micro infusion extension set from Summit Medical Technologies, downloaded on May 10, 2010 from <http://summitmedtech.com/p6line.php>, 1 page.

Richard Anders, "RIVA Robotic IV Automation," available at <https://www.youtube.com/watch?v=GbLIBNMPv9Y>, as allegedly published Sep. 11, 2006.

Riva, downloaded in Apr. 2009 from <http://www.rivasystem.com>, 6 pages.

SmartSite Safety Disposables, with copyright notice dated 2004.

Smith, "Lifesaving Cancer Drugs May Put Workers' Lives at Risk," downloaded on Jul. 12, 2010 from <http://www.msnbc.msn.com/id/38114586/ns/health-cancer>, 7 pages.

Spiros—Closed Male Connector, published Jan. 22, 2008.

Technical Data sheet for Analog Amplifiers Type VA, models V8-C and V8-D, STM Sensors dated Dec. 2007, 4 pages.

Technical Data sheet for Through Beam Sensors Type G2, 1480 nm, STM Sensors dated Dec. 2009, 2 pages.

Technical Data sheet for Through Beam Sensors Type G2, 645 nm, STM Sensors dated Sep. 2008, 2 pages.

User Guide for medOC 1xx Basic, Neo Care Medical Products GmbH, Version Jun. 2008, 23 pages.

User Manual for medOC 3xx /6xx /8xx, Neo Care Medical Products GmbH, Version May 2008, 44 pages.

* cited by examiner

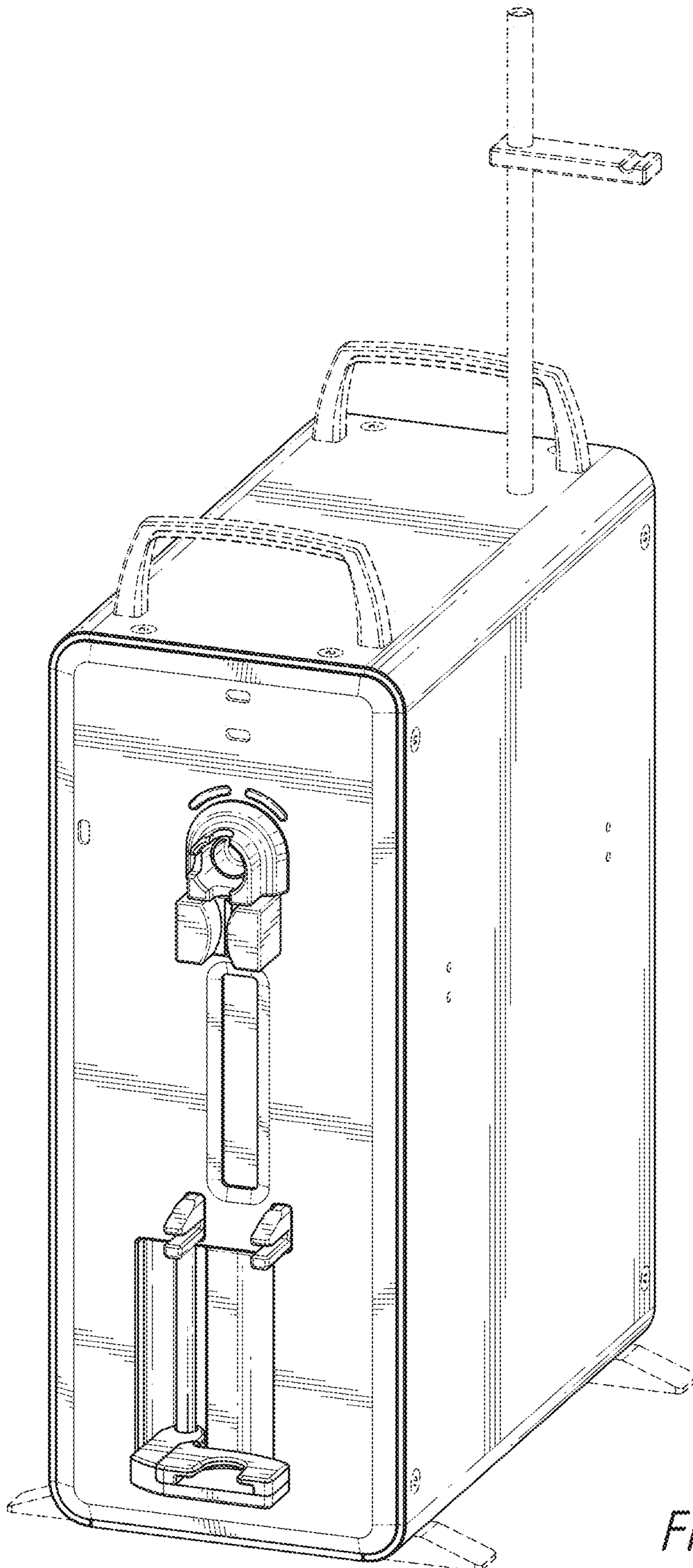


FIG. 1

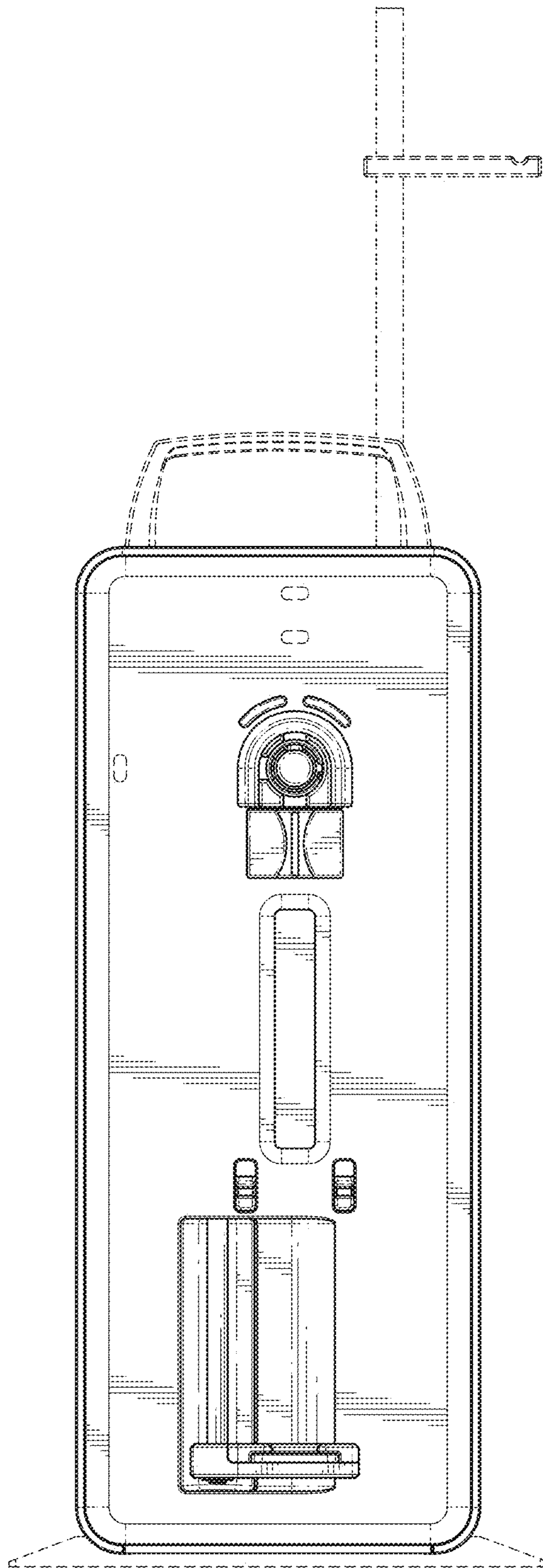


FIG. 2

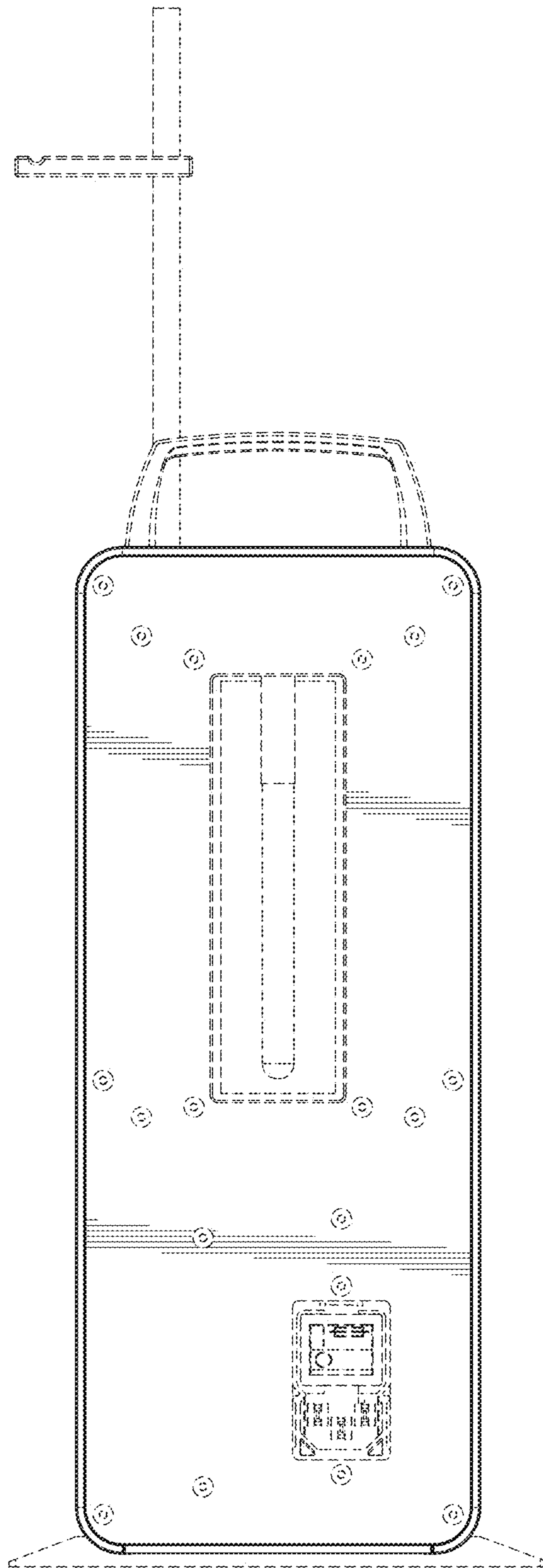


FIG. 3

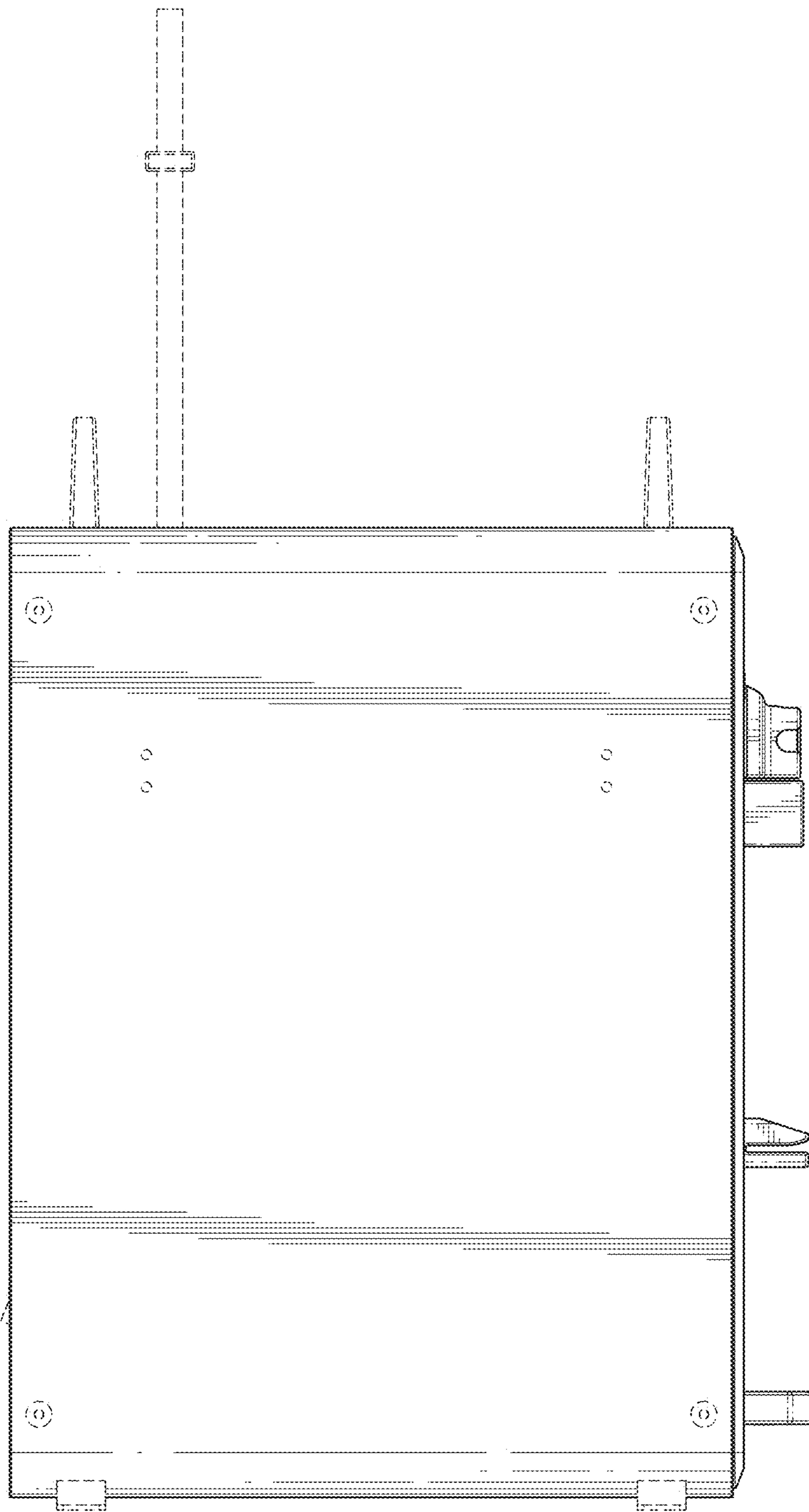


FIG. 4

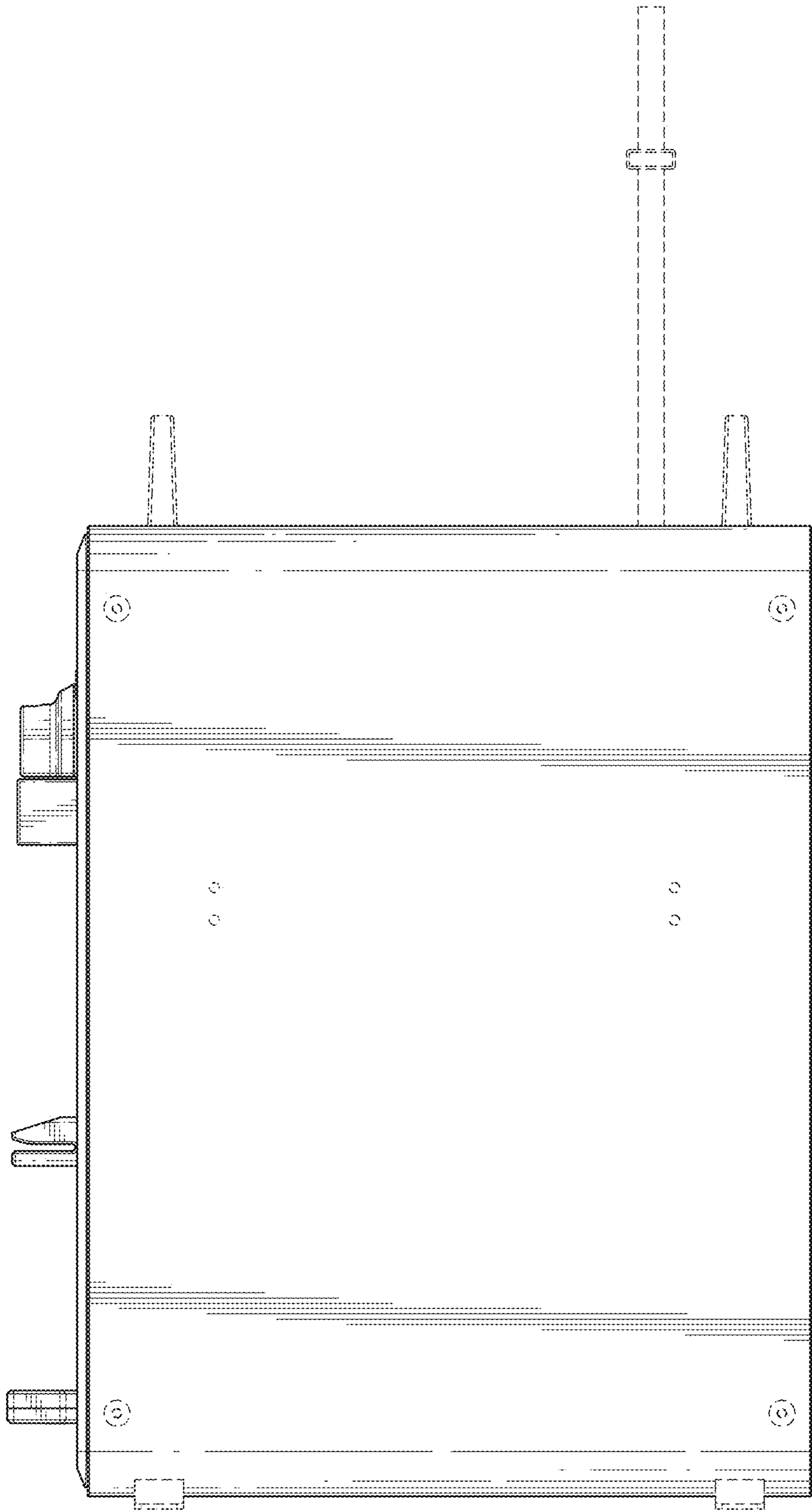


FIG. 5

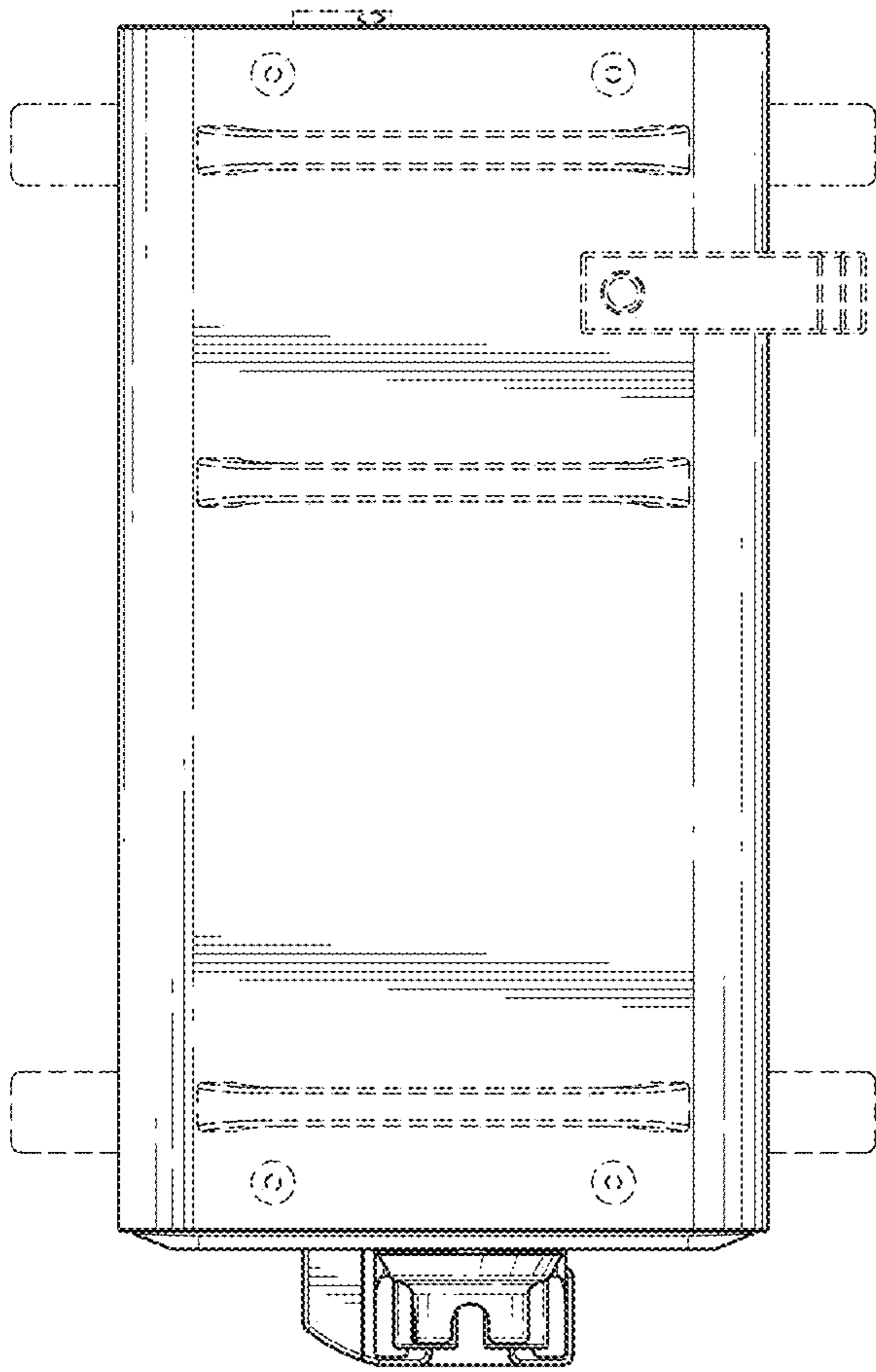


FIG. 6

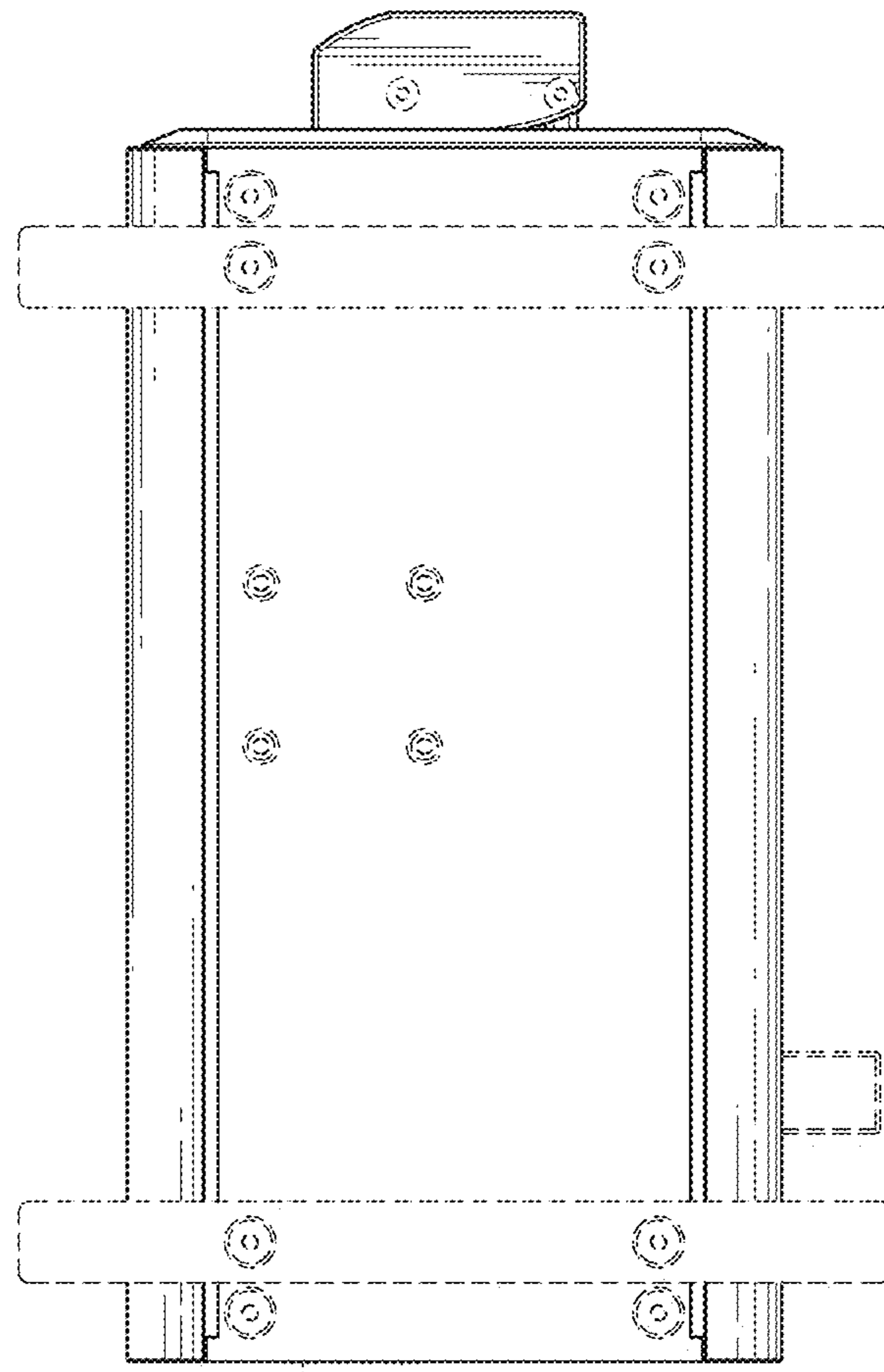


FIG. 7