



US00D765031S

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

(10) **Patent No.:** **US D765,031 S**

(45) **Date of Patent:** **** Aug. 30, 2016**

(54) **DISTRIBUTED CONTROL SYSTEM
MODULE**

(71) Applicant: **ABB Technology AG**, Zurich (CH)

(72) Inventors: **David Mielnik**, Painesville, OH (US);
John Piunno, Painesville, OH (US);
Thomas Heilman, Wickliffe, OH (US);
Richard Ogorek, Sagamore hills, OH
(US); **Mike J. Maczuzak**, Bratenahl,
OH (US); **Krzysztof Miedza**, Bay
Village, OH (US); **Daniel J. Morgan**,
Cleveland, OH (US)

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

(21) Appl. No.: **29/516,338**

(22) Filed: **Jan. 30, 2015**

(51) **LOC (10) Cl.** **13-03**

(52) **U.S. Cl.**
USPC **D13/123**

(58) **Field of Classification Search**
USPC D13/110, 123, 133, 154, 162, 173, 184,
D13/199; D14/125, 142, 240, 242, 348,
D14/353, 358
CPC H02M 7/003; H05K 5/02; H05K 7/14;
H05K 5/00; H05K 7/02; G02B 6/3897;
G02B 6/4453; G06F 1/18; G06F 1/1632;
G06F 1/16; G06F 13/409; H01H 33/66;
H02K 19/365; H01R 9/22
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D290,694 S 7/1987 Shimizu et al.
D307,740 S 5/1990 Shibayama et al.
D309,598 S 7/1990 Ohsawa et al.
D325,900 S 5/1992 Shimizu et al.
D345,137 S 3/1994 Thomas
D345,144 S 3/1994 Thomas
D352,275 S * 11/1994 Crawley D13/122
D358,369 S 5/1995 Shimizu et al.

D368,252 S 3/1996 Nakai
D375,084 S 10/1996 Hamada
D394,642 S 5/1998 Bender
D394,842 S 6/1998 Kellstedt, Jr. et al.
D400,180 S 10/1998 Shimizu
D402,965 S 12/1998 Bender
D409,566 S * 5/1999 Roman D10/49
D413,578 S * 9/1999 Larson D13/152

(Continued)

OTHER PUBLICATIONS

ABB LTD.,Symphony Plus Control:PN1800 Harmony Plant Net-
work (PN800) Interface, User Manual, Aug. 2013, 2VAA001719
Revision A, Zurich, Switzerland.

(Continued)

Primary Examiner — Thomas Johannes

Assistant Examiner — Shawn T Gingrich

(74) *Attorney, Agent, or Firm* — Taft Stettinius & Hollister
LP

(57) **CLAIM**

The ornamental design of a distributed control system
module, substantially as shown and described.

DESCRIPTION

FIG. 1 is a front and left side perspective view of a
distributed control system module in accordance with the
present invention;

FIG. 2 is a front and right side perspective view of the
distributed control system module in FIG. 1;

FIG. 3 is a front elevation view thereof;

FIG. 4 is a top plan view thereof;

FIG. 5 is a right side elevation view thereof;

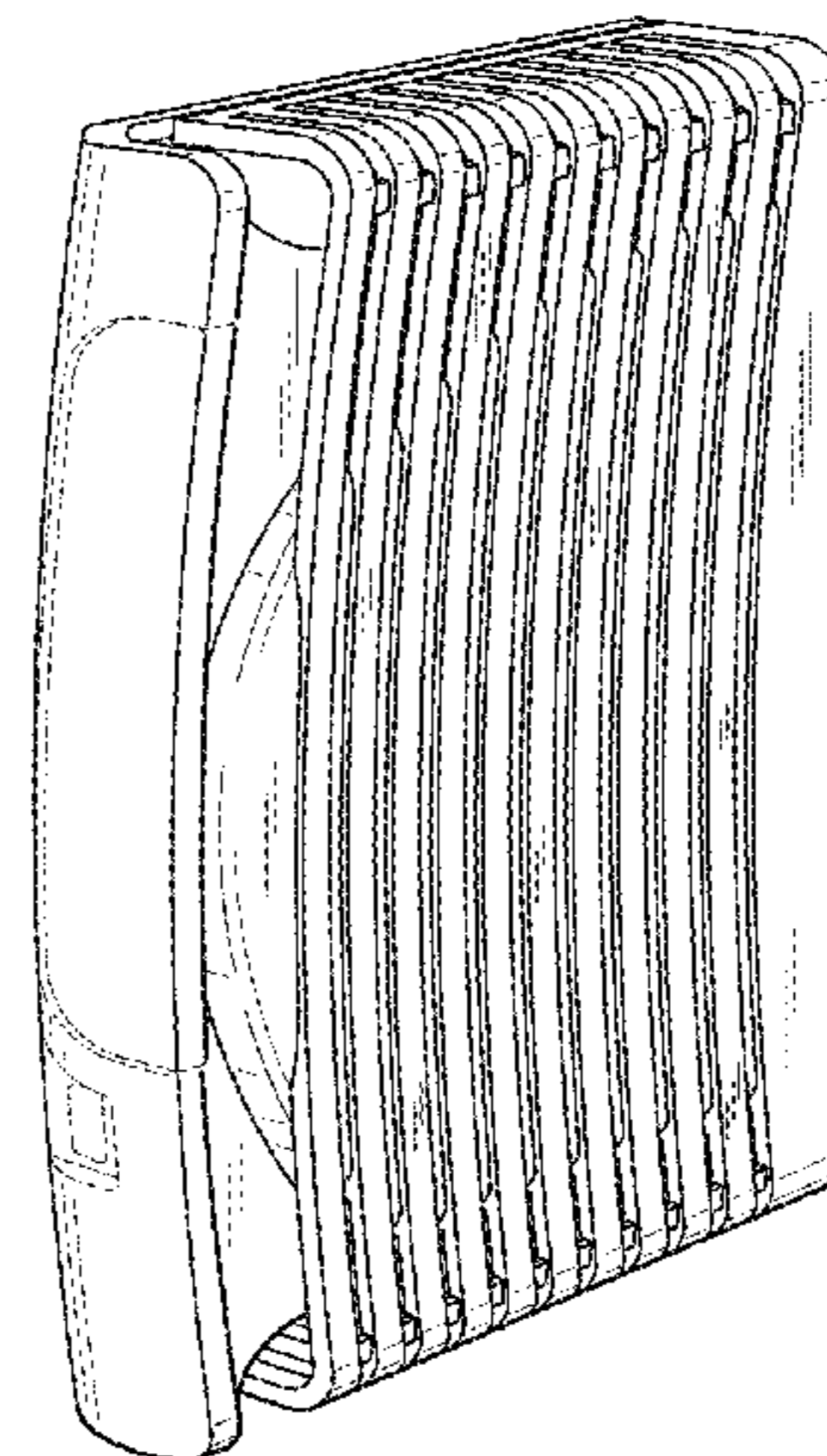
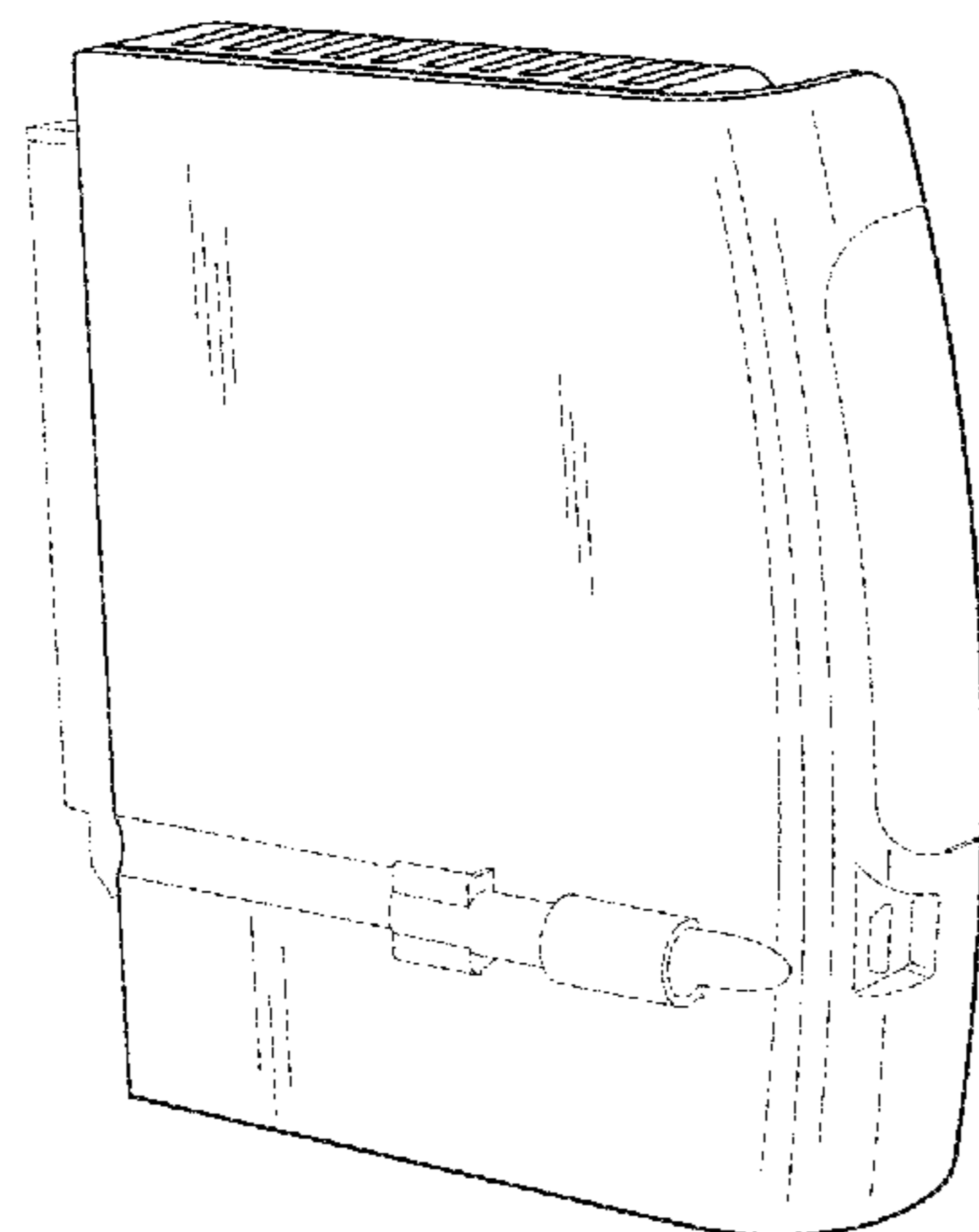
FIG. 6 is a left side elevation view thereof;

FIG. 7 is a rear elevation view thereof; and,

FIG. 8 is a bottom plan view thereof.

The features shown in broken lines in the various Figs. are
for illustrating environmental structure and form no part of
the claimed design.

1 Claim, 3 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

5,984,734 A 11/1999 Piper et al.
 D418,115 S 12/1999 Shimizu et al.
 6,008,985 A 12/1999 Lake et al.
 D418,483 S 1/2000 Shimizu et al.
 6,033,257 A 3/2000 Lake et al.
 6,033,268 A 3/2000 Piper et al.
 D422,967 S * 4/2000 Ishida D13/123
 D428,600 S 7/2000 Futami et al.
 6,097,303 A 8/2000 Lunz et al.
 D433,381 S 11/2000 Talesfore
 6,172,875 B1 1/2001 Suzuki et al.
 6,185,095 B1 2/2001 Helot et al.
 D442,923 S 5/2001 Raspotnig
 6,257,936 B1 7/2001 Strandberg
 D452,486 S 12/2001 Gardiner
 6,418,027 B1 7/2002 Suzuki et al.
 6,456,495 B1 9/2002 Wieloch et al.
 D477,814 S 7/2003 Droulin et al.
 D478,322 S 8/2003 Droulin et al.
 D480,369 S 10/2003 Droulin et al.
 D482,005 S 11/2003 Droulin et al.
 D488,133 S 4/2004 Droulin et al.
 D494,142 S 8/2004 Schön
 D512,696 S 12/2005 Nurmi et al.
 D524,760 S 7/2006 Ohlwine et al.
 D529,453 S 10/2006 Schurr et al.
 D532,378 S 11/2006 Kesler
 D552,549 S * 10/2007 Hsu D13/133
 D563,902 S 3/2008 Radau et al.
 D563,903 S 3/2008 Radau et al.
 D588,552 S 3/2009 Radau et al.
 D603,349 S 11/2009 Liu
 D609,195 S 2/2010 Yamashita et al.
 D621,792 S 8/2010 Miller et al.

D642,167 S 7/2011 Brandt et al.
 D658,598 S 5/2012 Ling et al.
 D659,650 S 5/2012 Kang
 D661,254 S 6/2012 Grunwald et al.
 D669,060 S 10/2012 Huang
 D703,642 S 4/2014 Gao et al.
 D735,667 S * 8/2015 Mielnik D13/123
 D749,065 S * 2/2016 Zetsu D14/242
 D752,565 S * 3/2016 Olivier D14/242

OTHER PUBLICATIONS

ABB INC., Symphony Plus I/O: Binary Input, User Manual, Apr. 2012, 2VAA000595-102, Wickliffe, Ohio.
 ABB LTD., Symphony Plus Control: HA1805 and HAO805 Hart (TM) Analog Input/Output Modules, User Manual, Aug. 2013, 2VAA001714 Revision A, Zurich, Switzerland.
 ABB LTD., Symphony Plus Control: HPC800 Harmony Process Controller, User Manual, Aug. 2013, 2VAA001586 Revision A, Zurich, Switzerland.
 Square D, I/O Interface Modules Catalog, Dec. 1994, 8501CT9401, Raleigh, North Carolina.
 Emerson Process Management, Delta V Product Data Sheet, S-series SX Controller, Jan. 2013, pp. 1-6 www.DeltaV.com.
 Horner APG, Smartmod Modbus I/O Parameter Configuration Utility for use with XLe, MAN0849-01, Apr. 17, 2007, pp. 1-6, www.heapg.com.
 Horner APG, SmartMod Analog Output Module, HE359DAC201-0-10V 14-Bit Resolution, ECN#950, May 8, 2009, pp. 1-2, www.heapg.com.
 Horner APG, OCS Operator Control Station, All-in-One Control Solution for Industrial Applications, Copyright 2009, whole document, Ireland, www.horner-apg.com.
 Sauro, Din Rail Boxes, Contenitori, Feb 22, 2007, pp. 222-235, SAURO s.r.l. www.sauro.net Italy.

* cited by examiner

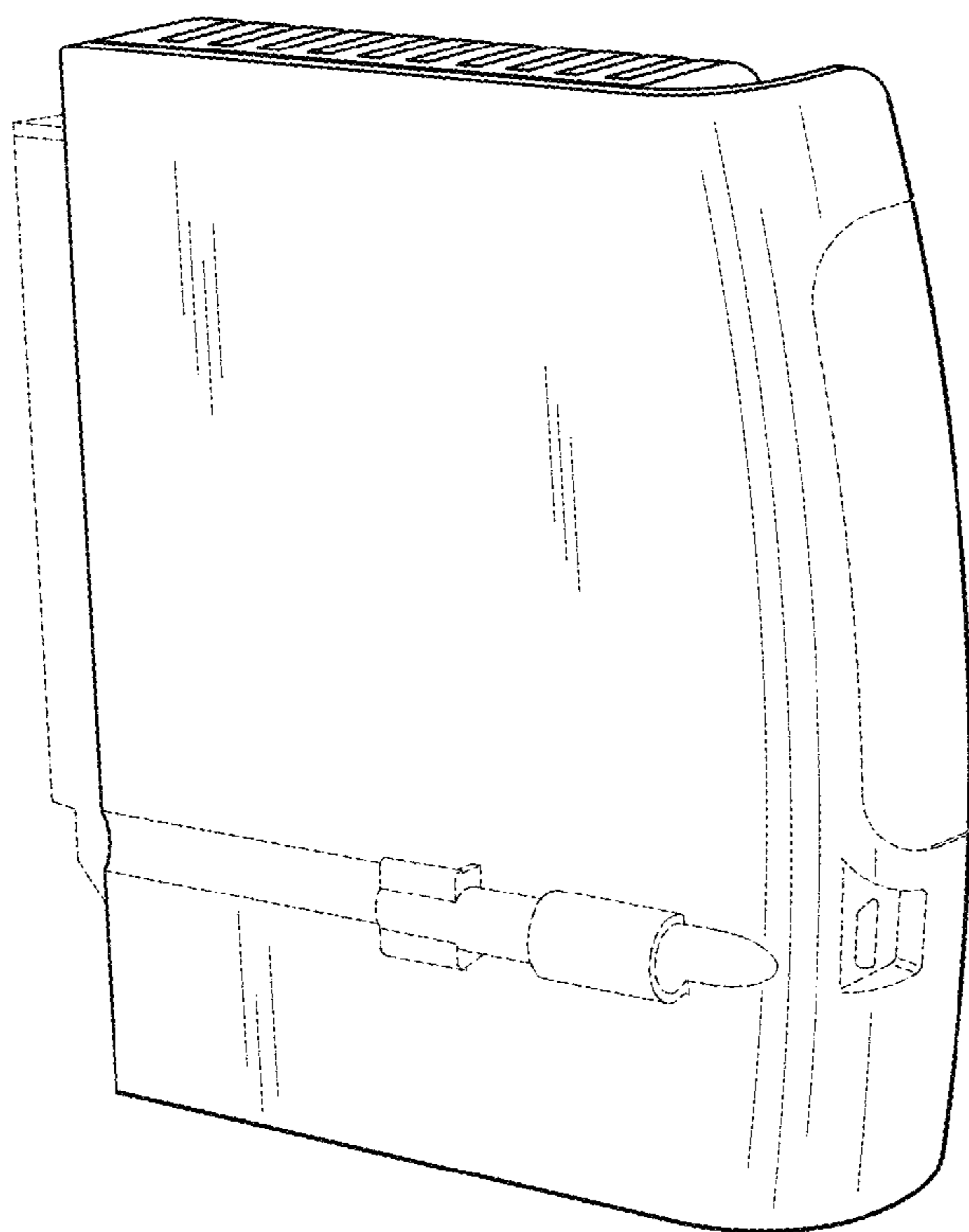


FIG. 1

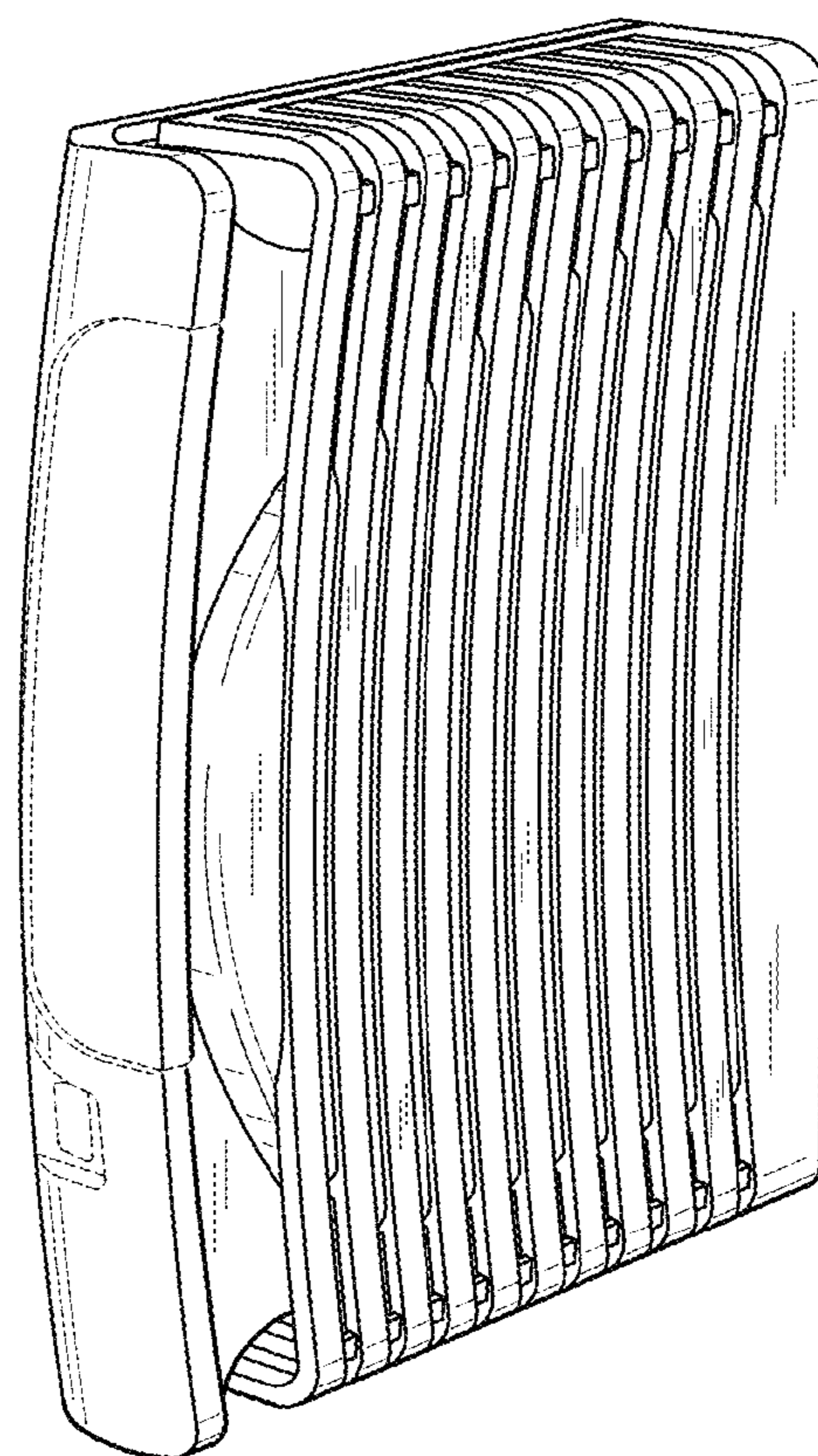


FIG. 2

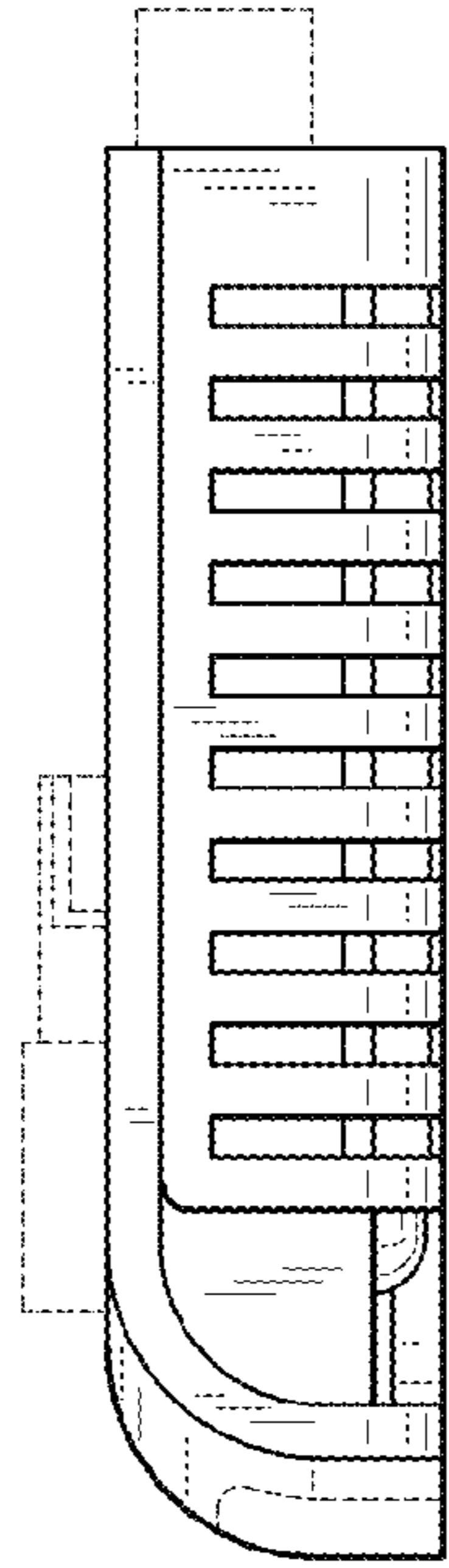


FIG. 4

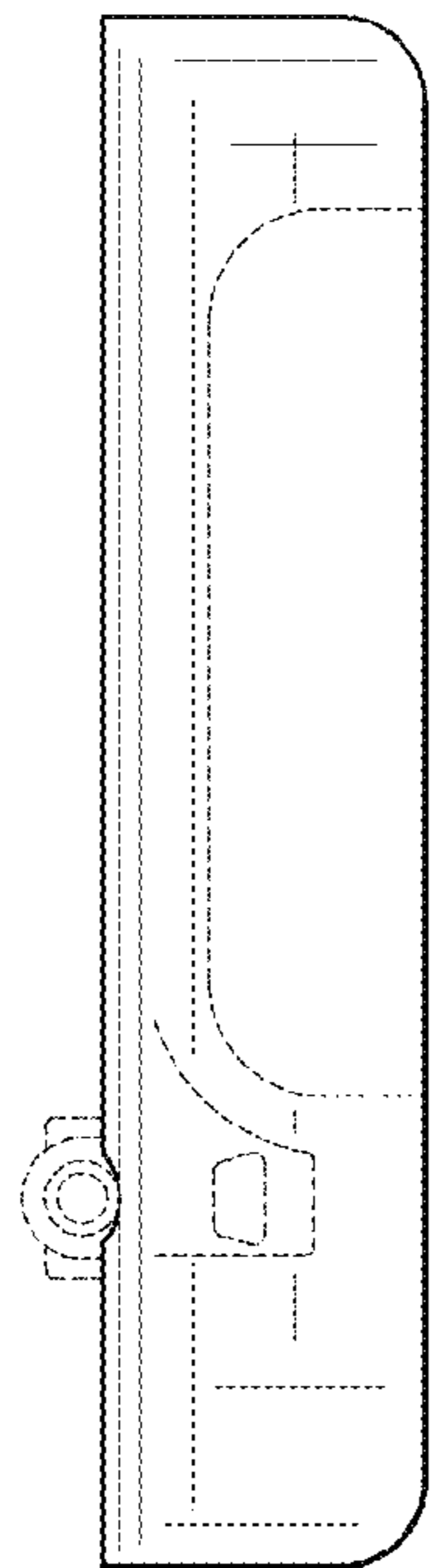


FIG. 3

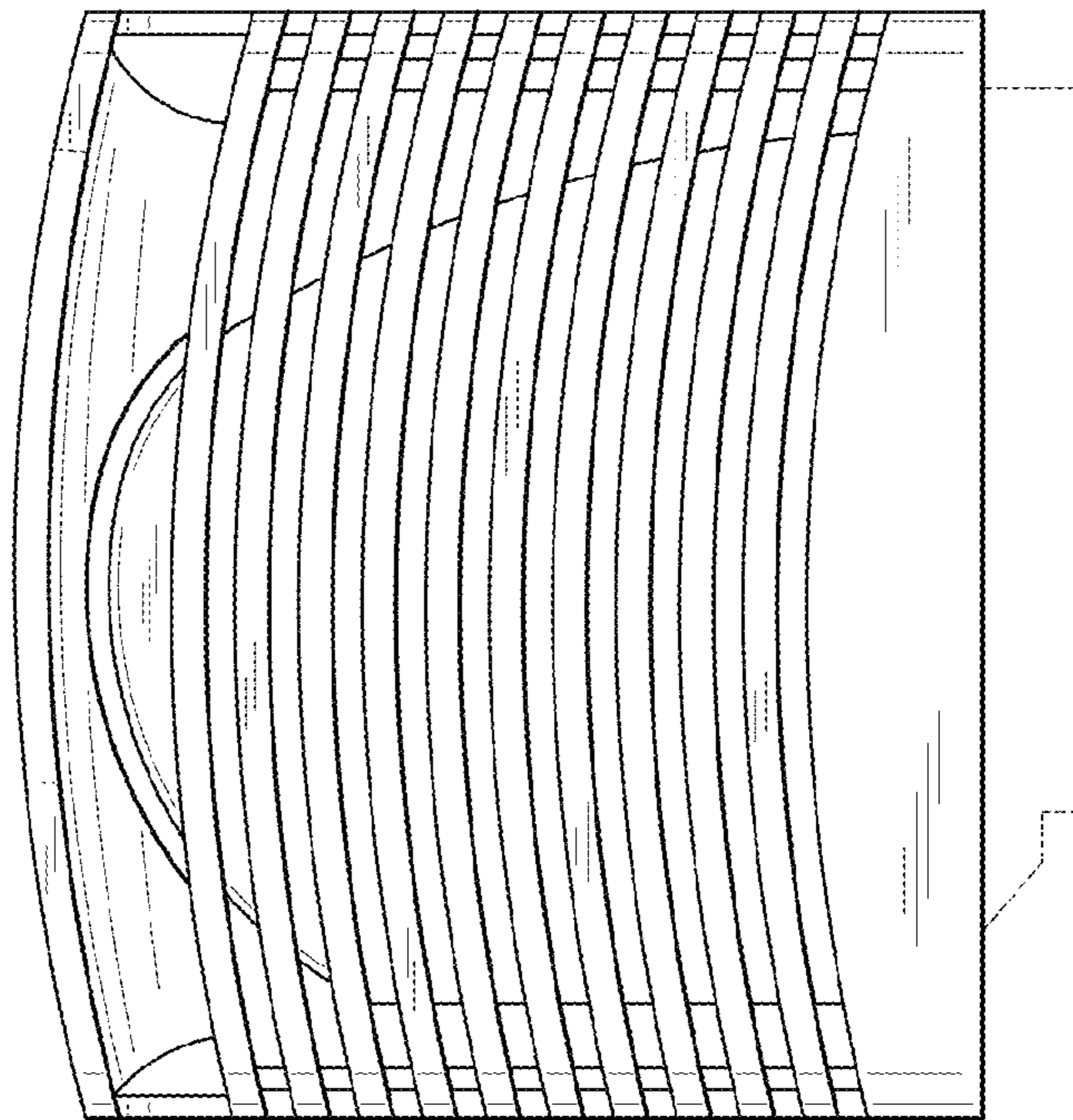


FIG. 5

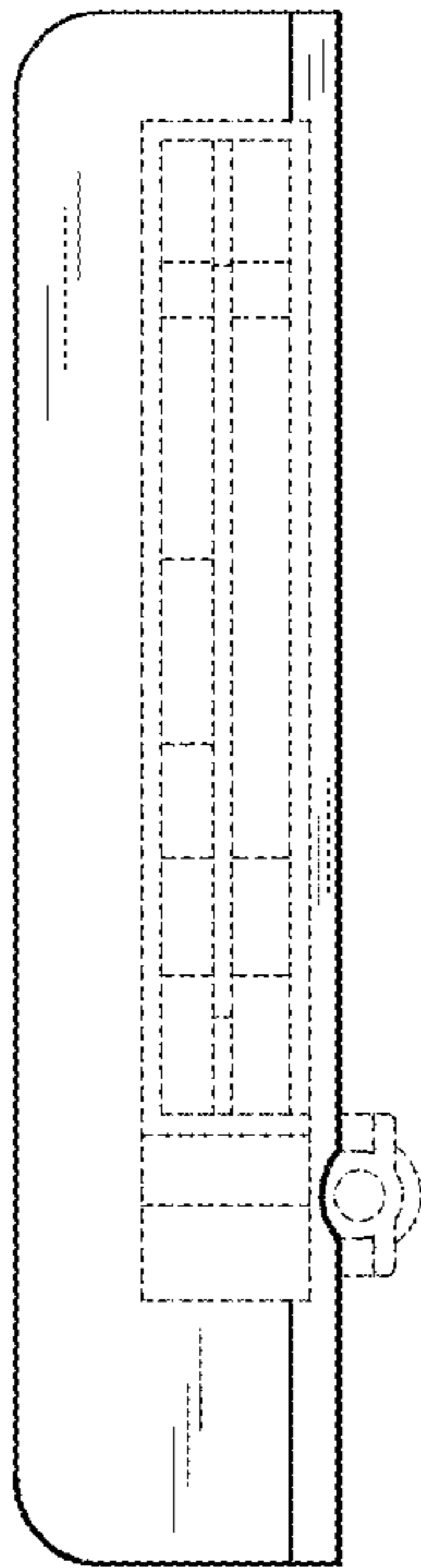


FIG. 7

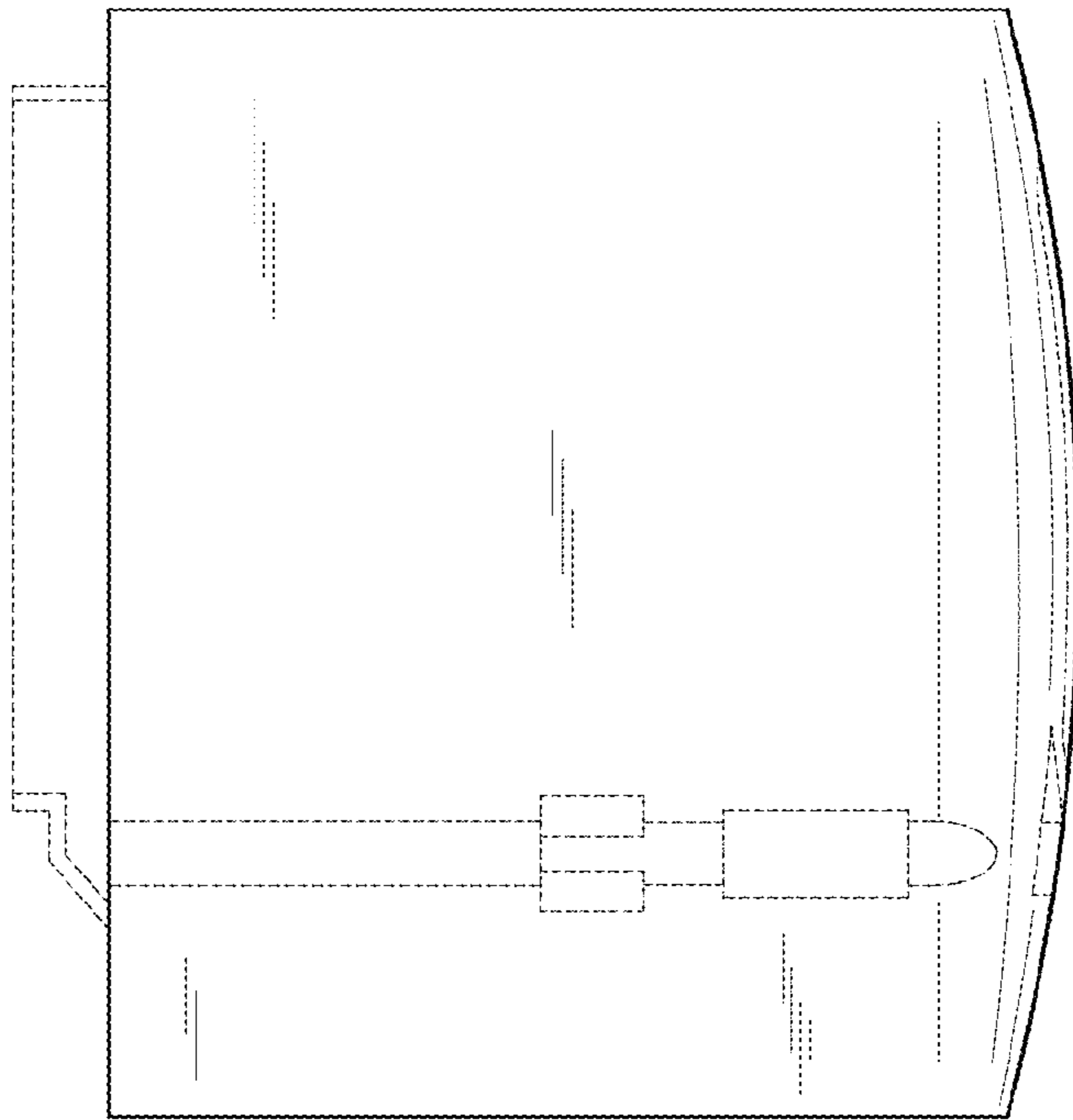


FIG. 6

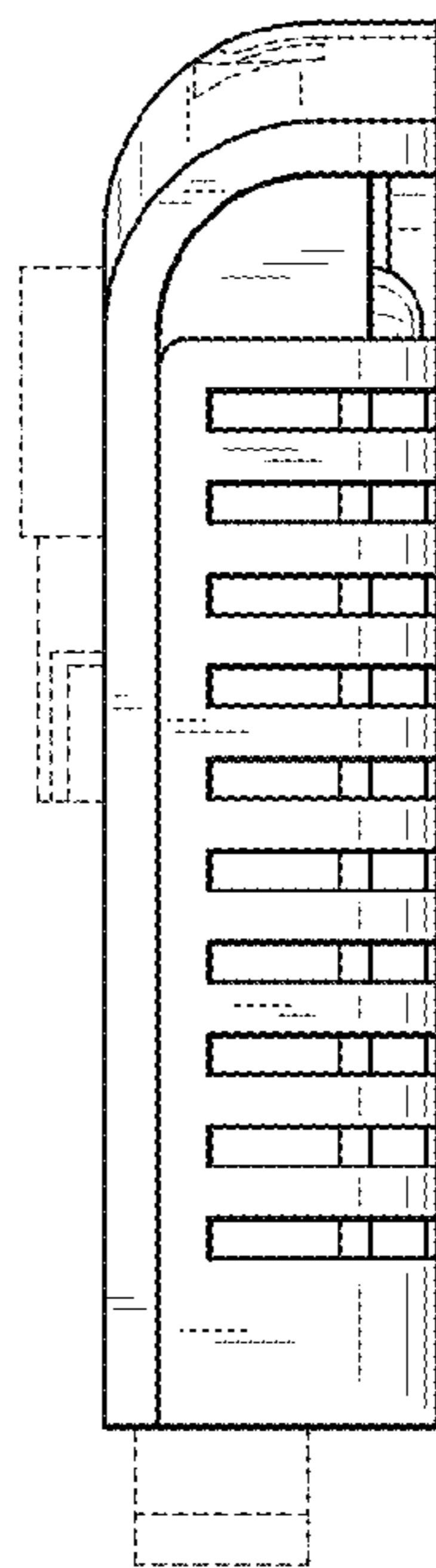


FIG. 8