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

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(54) **ELECTROBLOTTING APPARATUS**
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(73) Assignee: **Life Technologies Corporation**, Carlsbad, CA (US)

5,273,906 A 12/1993 Shultz et al.
D351,910 S * 10/1994 Anderson et al. D24/169
5,356,772 A 10/1994 Chan
5,445,723 A 8/1995 Camacho
5,449,446 A 9/1995 Verma et al.
5,482,613 A 1/1996 Boquet
5,582,702 A 12/1996 Cabilly et al.

(Continued)

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

JP 2002-257721 9/2002
WO WO2005/094539 10/2005

(Continued)

(21) Appl. No.: **29/456,029**

OTHER PUBLICATIONS

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Bio-Rad Laboratories, "Western Blotting Overview", <https://www.bio-rad.com>, Feb. 26, 2012.

(51) **LOC (10) Cl.** **24-01**

(52) **U.S. Cl.**
USPC **D24/233**; D13/110

(Continued)

(58) **Field of Classification Search**
USPC D24/144, 231, 232, 233, 234, 107, 216,
D24/230; 204/450, 451, 456, 461, 462, 465,
204/466, 554, 600, 606, 607, 608, 612, 615,
204/616, 619, 621; 422/63, 64, 67; D10/75,
D10/78, 81; 436/43; D13/101, 110, 123,
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Primary Examiner — Derrick Holland
Assistant Examiner — Jennifer O King
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CPC A61B 6/4405; G01N 2223/419; G01N
23/046; G01N 27/4473
See application file for complete search history.

(57) **CLAIM**
The ornamental design for an electroblotting apparatus, as shown and described.

(56) **References Cited**

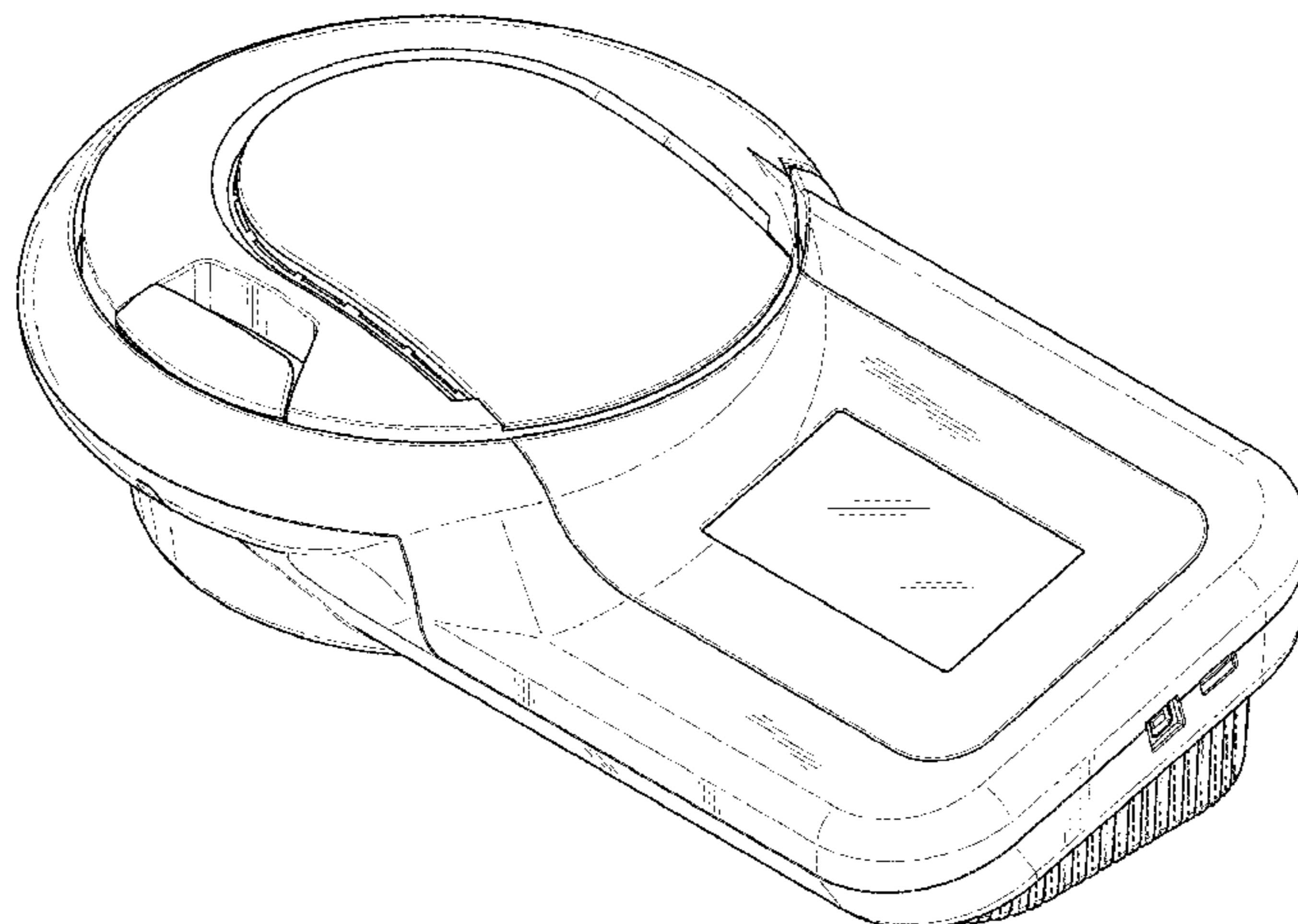
DESCRIPTION

U.S. PATENT DOCUMENTS

3,879,280 A 4/1975 Peterson et al.
4,139,440 A 2/1979 Chrambach et al.
4,452,901 A 6/1984 Gordon et al.
4,589,965 A 5/1986 Kreisher
4,622,124 A 11/1986 Kreisher et al.
4,840,714 A 6/1989 Littlehales
4,889,606 A 12/1989 Dyson et al.
5,013,420 A 5/1991 Schuette
5,173,159 A 12/1992 Dutertre
5,256,772 A 10/1993 Ohtomo

FIG. 1 is a perspective view of an electroblotting apparatus;
FIG. 2 is a right side view thereof;
FIG. 3 is a left side view thereof;
FIG. 4 is a front view thereof;
FIG. 5 is a back view thereof;
FIG. 6 is a top view thereof; and,
FIG. 7 is a bottom view thereof.
The broken lines shown represent unclaimed subject matter and form no part of the claimed design.

1 Claim, 7 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D378,782 S * 4/1997 LaBarbera et al. D24/232
 D381,748 S * 7/1997 Matsuda et al. D24/169
 D393,314 S * 4/1998 Meisner et al. D24/169
 5,738,244 A * 4/1998 Charlton et al. 221/26
 5,922,186 A 7/1999 Shukla et al.
 6,007,691 A 12/1999 Klock, Jr.
 6,162,338 A 12/2000 Updyke et al.
 6,284,117 B1 9/2001 Smolko et al.
 6,379,516 B1 4/2002 Cabilly et al.
 D457,646 S * 5/2002 Hool et al. D24/232
 6,409,774 B1 6/2002 Kerschmann et al.
 6,592,734 B2 7/2003 Chen
 6,602,661 B1 8/2003 Knezevic et al.
 D581,823 S * 12/2008 Mori et al. D10/81
 D618,353 S * 6/2010 Sanga D24/177
 8,173,002 B2 5/2012 Margalit et al.
 8,268,149 B2 9/2012 Margalit et al.
 D671,851 S * 12/2012 Treharne et al. D10/81
 8,394,250 B2 3/2013 Margalit
 D681,231 S * 4/2013 Steinhauer et al. D24/232
 D681,232 S * 4/2013 Benarieh et al. D24/232
 8,608,930 B2 12/2013 Margalit et al.
 D702,852 S * 4/2014 Podhasky et al. D24/216
 D719,276 S * 12/2014 Ryan et al. D24/232
 2002/0012920 A1 1/2002 Gardner et al.
 2002/0089658 A1 7/2002 Seville et al.
 2002/0110806 A1 8/2002 Merril et al.
 2002/0157953 A1 10/2002 Chen
 2004/0050699 A1 3/2004 Goncalves
 2005/0000811 A1 1/2005 Luka
 2005/0009036 A1 1/2005 Montesclaros et al.
 2005/0082168 A1 4/2005 Kang et al.
 2005/0121325 A1 6/2005 Updyke et al.
 2005/0230255 A1 10/2005 Sumner et al.
 2006/0144708 A1 7/2006 Kitzler et al.
 2006/0272946 A1 * 12/2006 Margalit et al. 204/614
 2009/0026079 A1 1/2009 Margalit et al.
 2009/0183989 A1 7/2009 Yang et al.

2009/0209040 A1 * 8/2009 Flora et al. 436/43
 2010/0044229 A1 2/2010 Margalit et al.
 2011/0229373 A1 * 9/2011 Asakura 422/63

FOREIGN PATENT DOCUMENTS

WO WO2006/091525 8/2006
 WO WO2007/126506 11/2007
 WO WO2010/006318 4/2010

OTHER PUBLICATIONS

Daban, "Fluorescent labeling of proteins with Nile red and 2-methoxy-2,4-diphenyl-3(2H)-furanone: Physicochemical basis and application to the rapid staining of sodium dodecyl sulfate polyacrylamide gels and Western blots", *Electrophoresis*, vol. 22, 2001, 874-880.
 Genscript Corporation, One-Step Western Blot Kit_www.genscript.com/western_tech.html, Jan. 18, 2008.
 Genscript Corporation, One-Step Western Kit, Technical Manual No. 0184, Version Apr. 3, 2007.
 International Application No. PCT/US2006/005933, International Search Report and Written Opinion mailed Sep. 12, 2007.
 International Application No. PCT/US2009/050333, International Search Report, Feb. 26, 2010.
 International Application No. PCT/US2009/050333, International Preliminary Report mailed Mar. 20, 2011.
 Kurien et al., "Protein Blotting: a review", *Journal of Immunological Methods*, vol. 274, No. 1-2, Mar. 1, 2003, 1-15.
 Life Technologies, *NativePAGE Running Buffer Kit*, downloaded <http://products.invitrogen.com/ivgn/product/BN2007> on Mar. 16, 2013.
 Pachulski et al., Production of Tablet-Like Solid Bodies Without Pressure by Sol-Gel Processes, *Letters in Drug Design and Discovery*, 2007, 78-81.
 U.S. Appl. No. 11/357,416, Office Action mailed May 28, 2009.
 U.S. Appl. No. 12/171,880, Office Action mailed Jul. 8, 2009.
 Zeng et al., "Polyethylene Glycol Significantly Enhances the Transfer of Membrane Immunoblotting Analytical Biochemistry", vol. 189, 1990, 197-201.

* cited by examiner

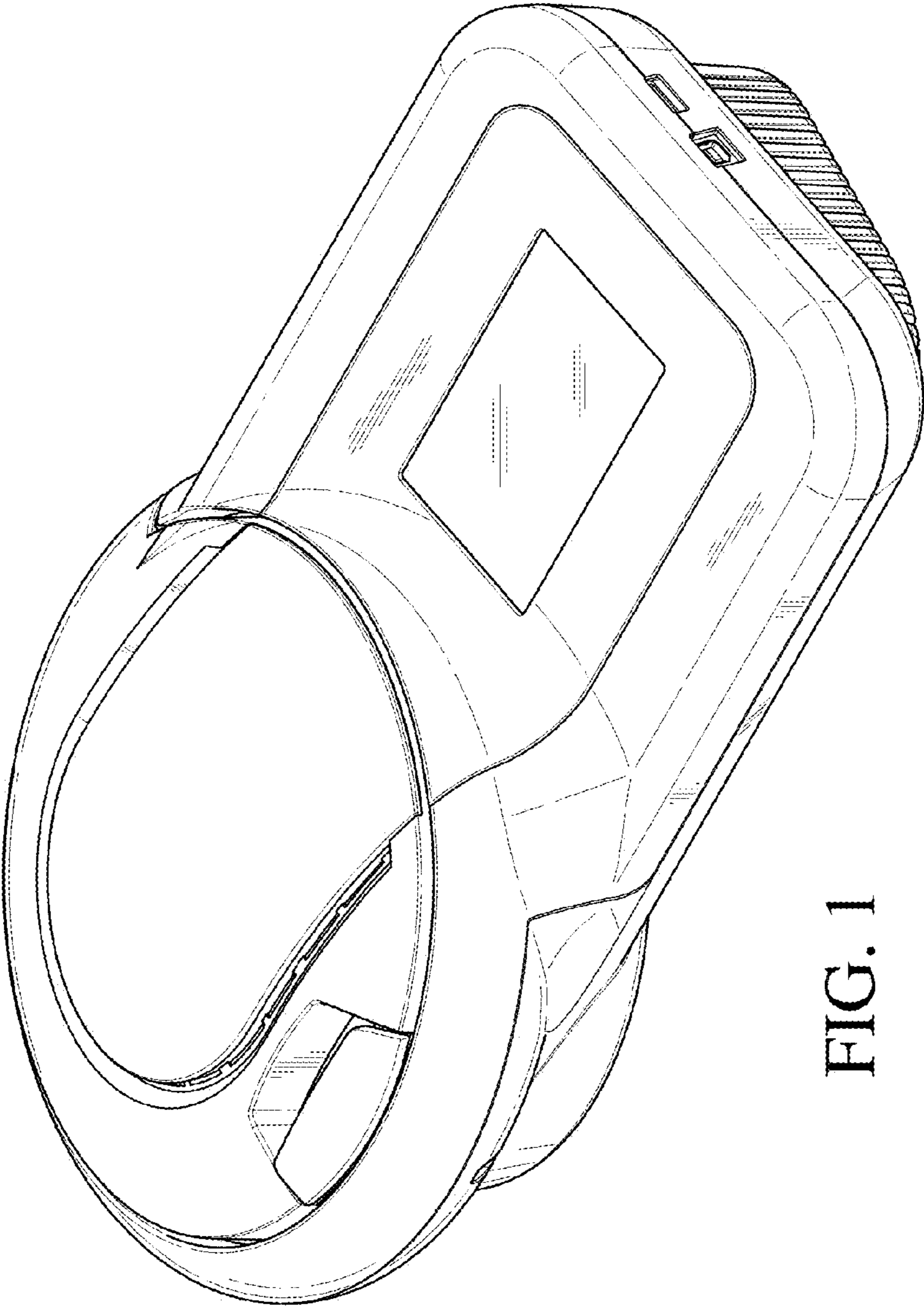


FIG. 1

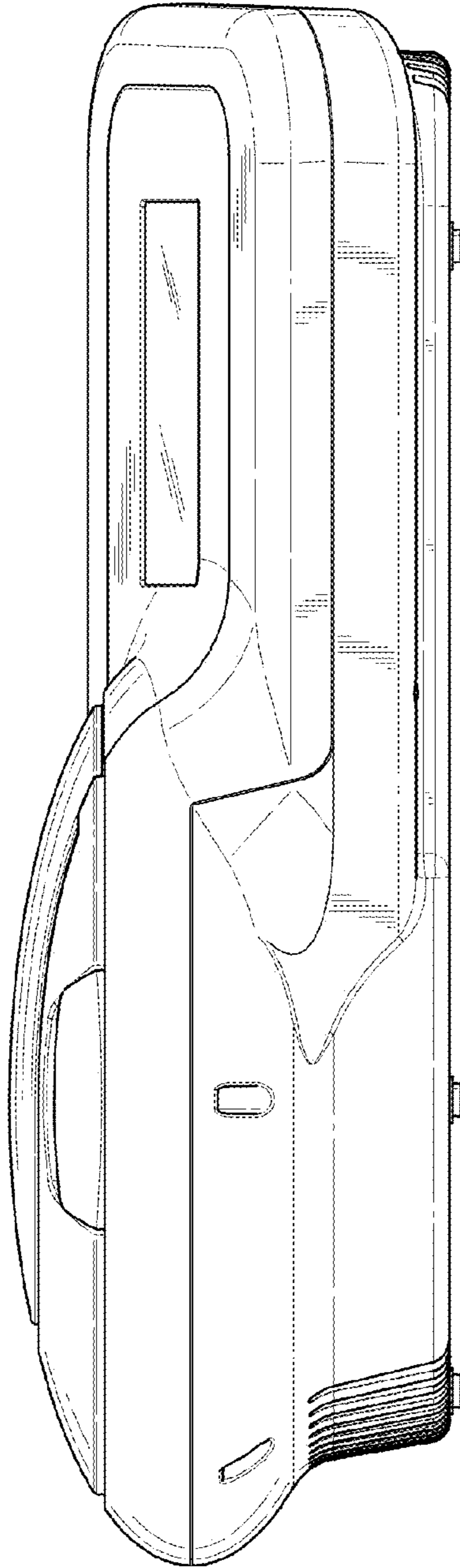


FIG. 2

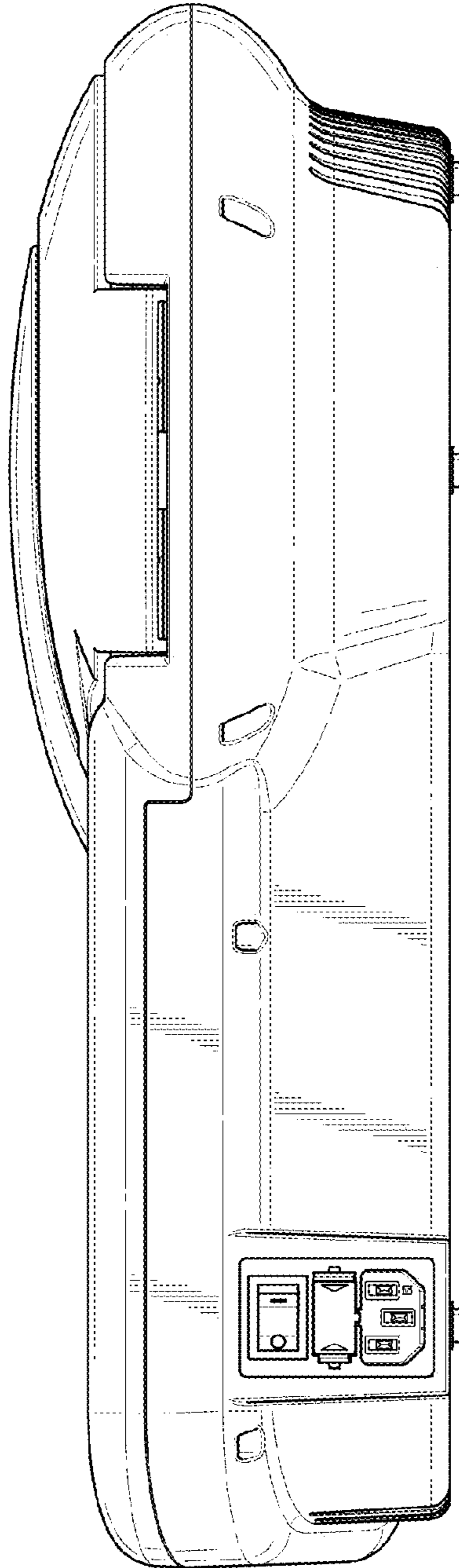


FIG. 3

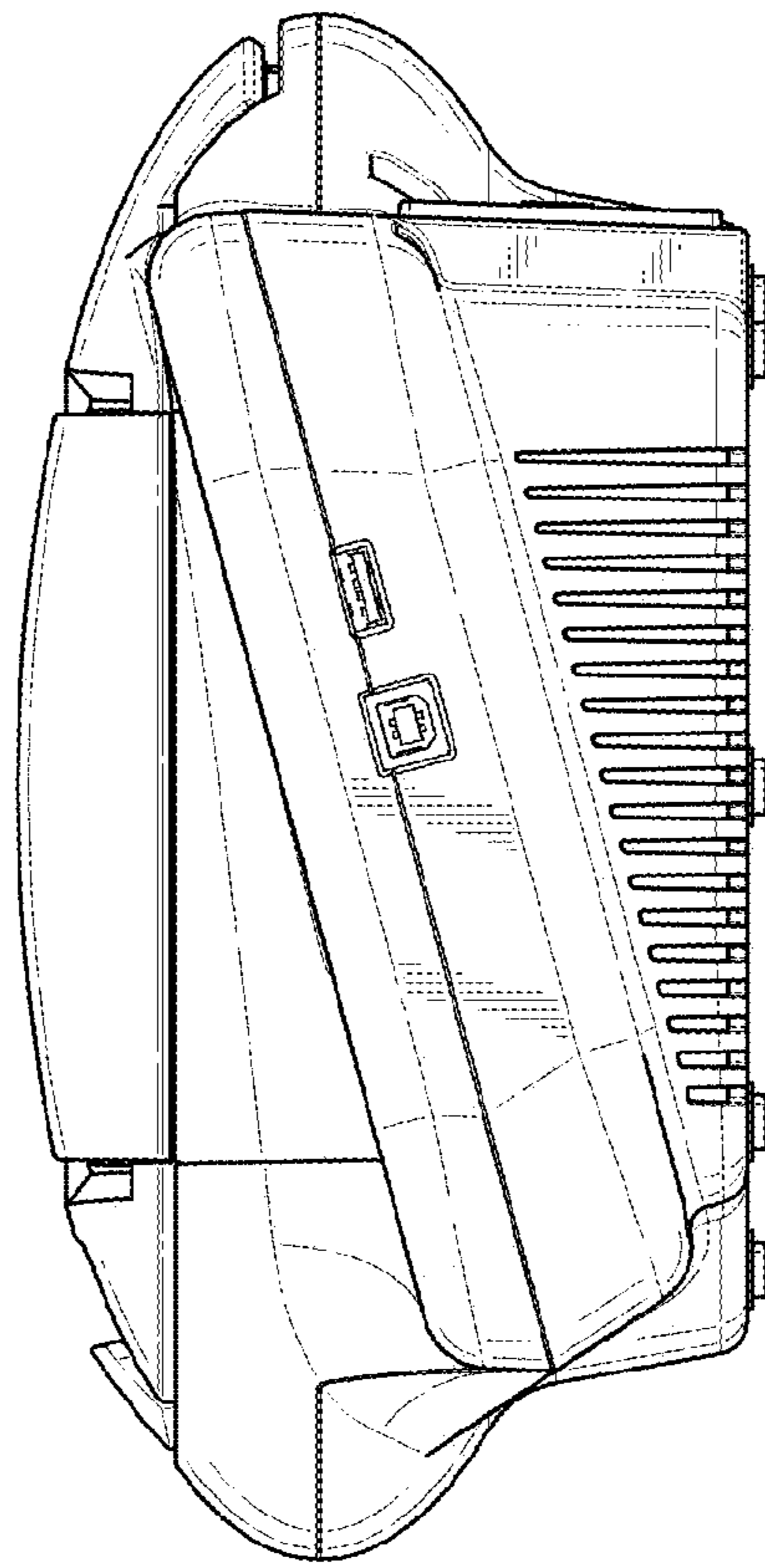


FIG. 4

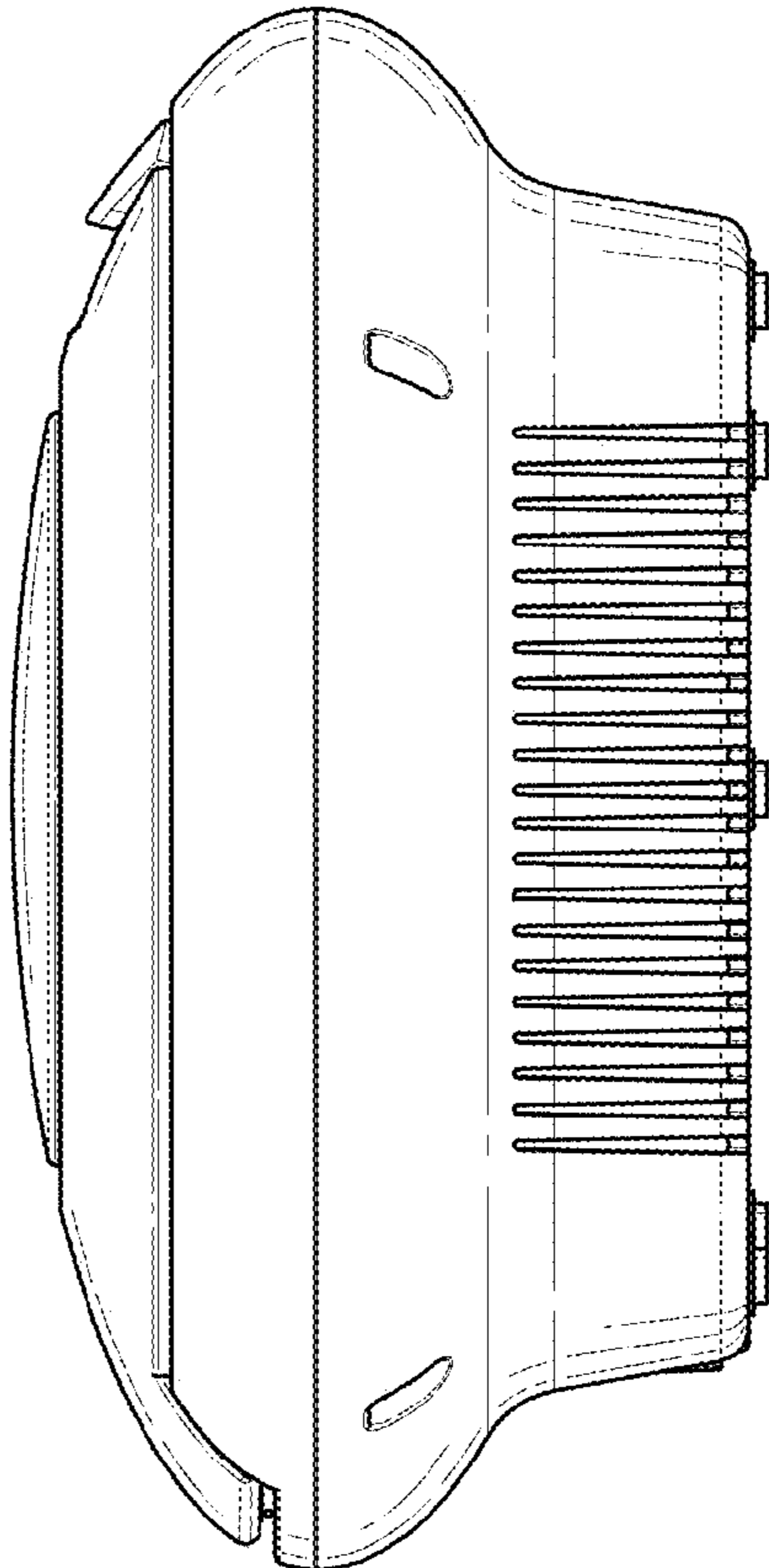


FIG. 5

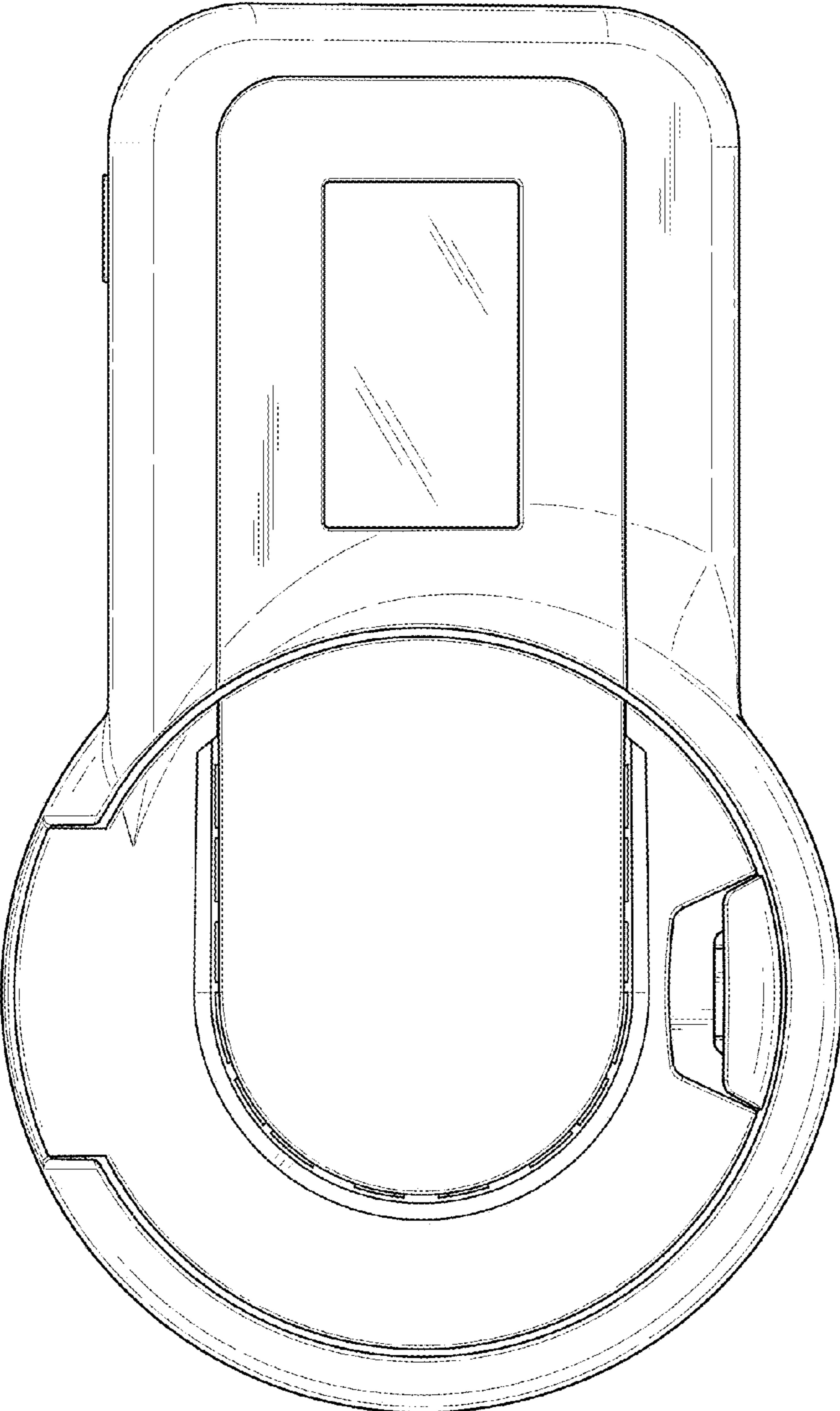


FIG. 6

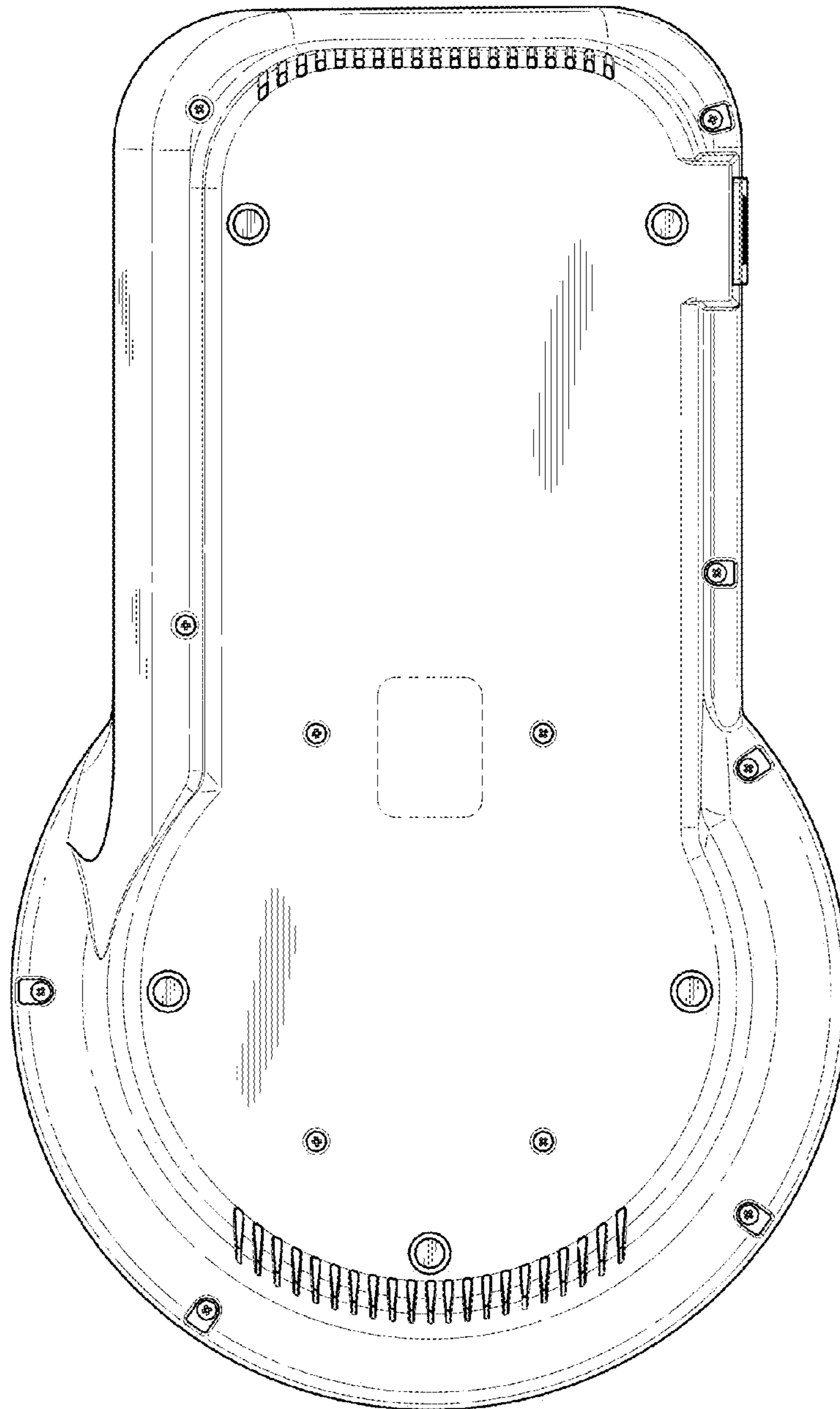


FIG. 7