



US00D827841S

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

(10) **Patent No.:** **US D827,841 S**
(45) **Date of Patent:** **** Sep. 4, 2018**

(54) **ULTRASONIC SENSOR**

FOREIGN PATENT DOCUMENTS

- (71) Applicant: **Panasonic Intellectual Property Management Co., Ltd.**, Osaka-shi, Osaka (JP)
- (72) Inventors: **Naoki Tanaka**, Mie (JP); **Masahiko Hashimoto**, Kanagawa (JP); **Takuya Iwamoto**, Kanagawa (JP); **Katsu Takeda**, Mie (JP); **Takuji Watanabe**, Mie (JP); **Kenji Sano**, Mie (JP)
- (73) Assignee: **PANASONIC INTELLECTUAL PROPERTY MANAGEMENT CO., LTD.**, Osaka (JP)

CN 302779584 S 4/2014
Primary Examiner — Ian Simmons
Assistant Examiner — Mark Cavanna
 (74) *Attorney, Agent, or Firm* — Brinks Gilson & Lione

(**) Term: **15 Years**

(21) Appl. No.: **29/570,697**

(22) Filed: **Jul. 11, 2016**

(30) **Foreign Application Priority Data**

Jan. 22, 2016 (JP) 2016-001174
 Jan. 22, 2016 (JP) 2016-001175
 Jan. 22, 2016 (JP) 2016-001176

(51) **LOC (11) Cl.** **24-01**

(52) **U.S. Cl.**
USPC **D24/187**

(58) **Field of Classification Search**
USPC D24/186–187, 200; D10/47, 50, 78, 81,
D10/85, 106.6; D3/302; D9/443, 446,
D9/454

(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,614,406 A * 10/1952 Carpenter B65D 25/20
 220/718
 D329,355 S * 9/1992 Yagi D7/534

(Continued)

(57) **CLAIM**

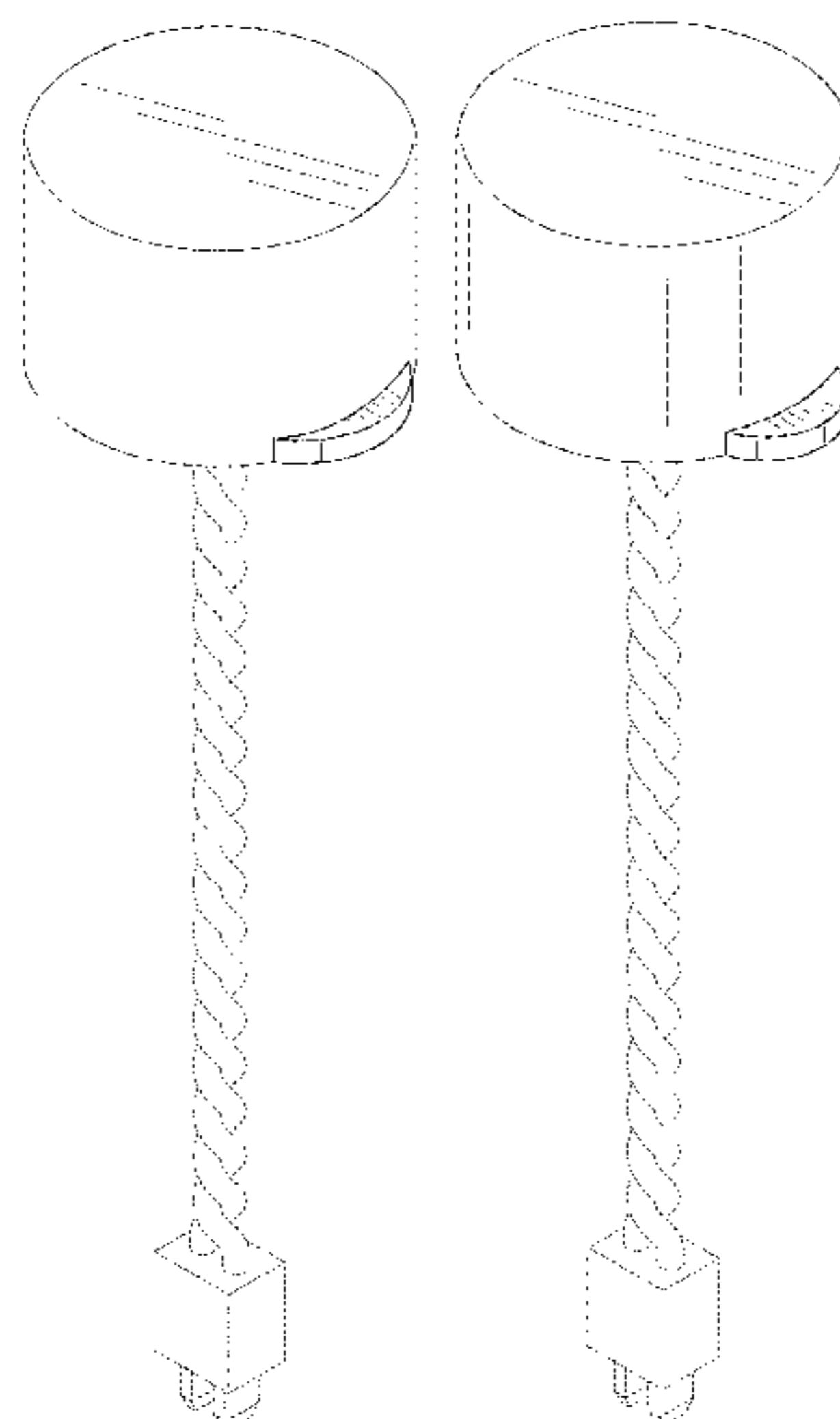
We claim the ornamental design for an ultrasonic sensor, as shown and described.

DESCRIPTION

FIG. 1 is a front and top perspective view of an ultrasonic sensor showing a first embodiment of the present invention; 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.
 FIG. 8 is a front and top perspective view of an ultrasonic sensor showing a second embodiment of the present invention; FIG. 9 is a front view thereof; FIG. 10 is a rear view thereof; FIG. 11 is a left side view thereof; FIG. 12 is a second side view thereof; FIG. 13 is a top view thereof; and FIG. 14 is a bottom view thereof.
 FIG. 15 is a front and top perspective view of an ultrasonic sensor showing a third embodiment of the present invention; FIG. 16 is a front view thereof; FIG. 17 is a rear view thereof; FIG. 18 is a right side view thereof; FIG. 19 is a left side view thereof; FIG. 20 is a top view thereof; and FIG. 21 is a bottom view thereof.

The broken lines shown represent unclaimed subject matter and form no part of the claimed design.

1 Claim, 21 Drawing Sheets



(58) **Field of Classification Search**

CPC A61B 1/00142; A61B 1/0052; A61B 17/22004; A61B 17/22012; A61B 17/2202; A61B 17/320068; A61B 17/320092; A61B 17/3403; A61B 5/02007; A61B 5/6842; A61B 8/00; A61B 8/06; A61B 8/08; A61B 8/0825; A61B 8/0833; A61B 8/0841; A61B 8/0858; A61B 8/0875; A61B 8/10; A61B 8/12; A61B 8/14; A61B 8/42; A61B 8/4209; A61B 8/4272; A61B 8/4281; A61B 8/4405; A61B 8/4411; A61B 8/4427; A61B 8/4444; A61B 8/445; A61B 8/4455; A61B 8/4461; A61B 8/4483; A61B 8/4488; A61B 8/4494; A61B 8/463; A61B 8/546; A61N 7/00; A61N 7/02; A61N 7/022; B65D 23/065; B65D 25/20

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D336,596 S * 6/1993 Osgood D7/608
 D339,958 S * 10/1993 Olsen D9/454
 5,277,324 A * 1/1994 Cash B65D 23/065
 215/275
 D350,300 S * 9/1994 Browning D10/106.2
 D359,451 S * 6/1995 Dees D9/454
 D365,247 S * 12/1995 Sokolski D7/510

D371,485 S * 7/1996 Hickey D9/443
 D384,281 S * 9/1997 Wong D9/443
 D384,282 S * 9/1997 Wong D9/443
 D386,683 S * 11/1997 Wong D9/443
 5,740,804 A * 4/1998 Cerofolini A61B 8/12
 600/459
 5,779,639 A * 7/1998 Yeung A61B 8/4461
 600/446
 D413,532 S * 9/1999 Atterbury D10/47
 D417,339 S * 12/1999 Miller D9/443
 D470,428 S * 2/2003 Kryskowski D10/85
 D481,258 S * 10/2003 Brady D7/412
 D490,902 S * 6/2004 Pitzen D24/200
 D519,860 S * 5/2006 Bugbee D10/47
 D522,499 S * 6/2006 Marcichow D14/225
 D544,795 S * 6/2007 Reed D9/454
 7,251,843 B2 * 8/2007 Malloy A47K 11/12
 4/144.1
 D559,677 S * 1/2008 Laib D3/302
 D584,613 S * 1/2009 Yan D9/454
 D585,740 S * 2/2009 Wilson D9/454
 D603,050 S 10/2009 Chen
 D606,399 S * 12/2009 Scuturio D9/446
 D622,154 S * 8/2010 Vishab D9/454
 D623,546 S * 9/2010 Nishikawa D10/106.6
 D623,547 S 9/2010 Nishikawa et al.
 D629,526 S * 12/2010 Ladwig D24/187
 D676,745 S * 2/2013 MacNeill D9/443
 D684,863 S * 6/2013 Snyder D9/454
 D744,276 S * 12/2015 Olin D7/392.1
 D783,422 S * 4/2017 Kashimoto D10/50
 2014/0276082 A1 * 9/2014 Janicki A61B 8/4444
 600/461

* cited by examiner

FIG. 1

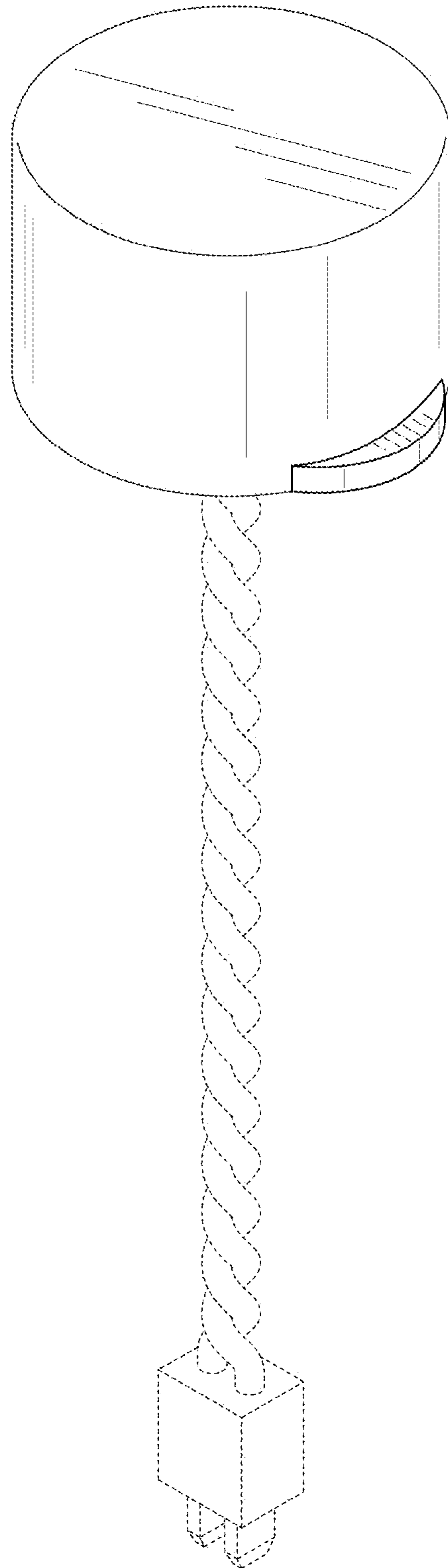


FIG. 2

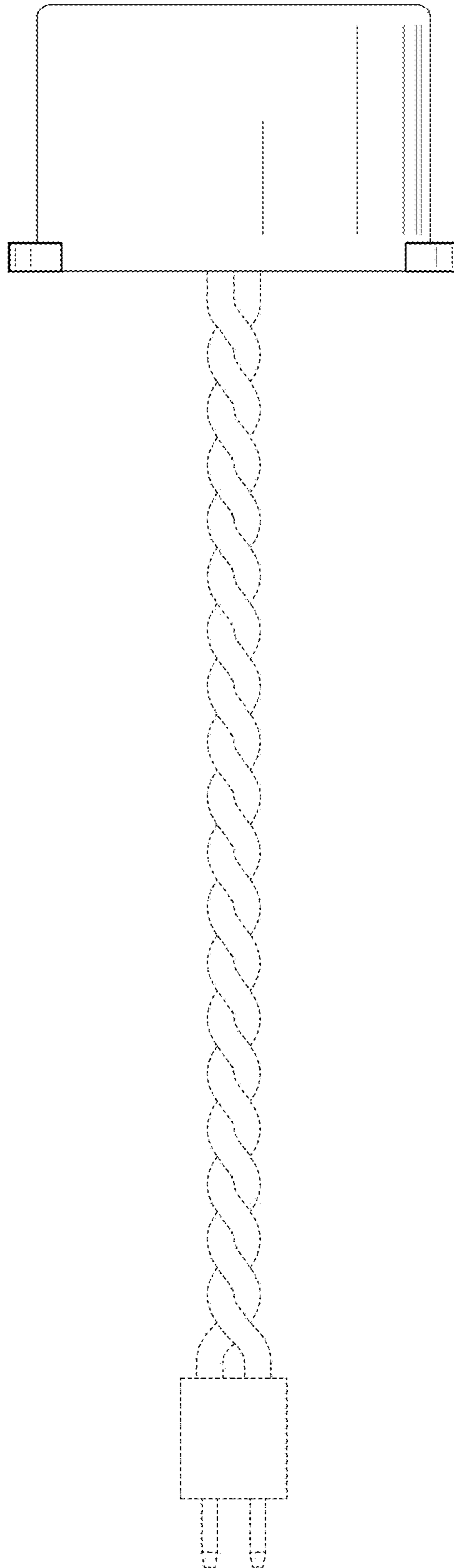


FIG. 3

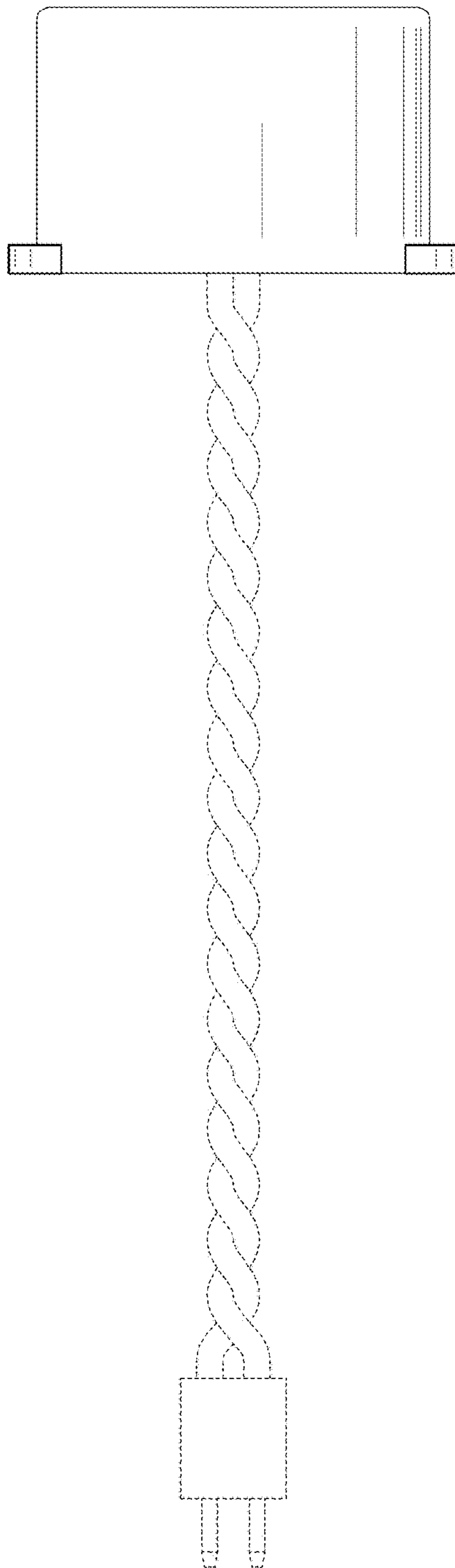


FIG. 4

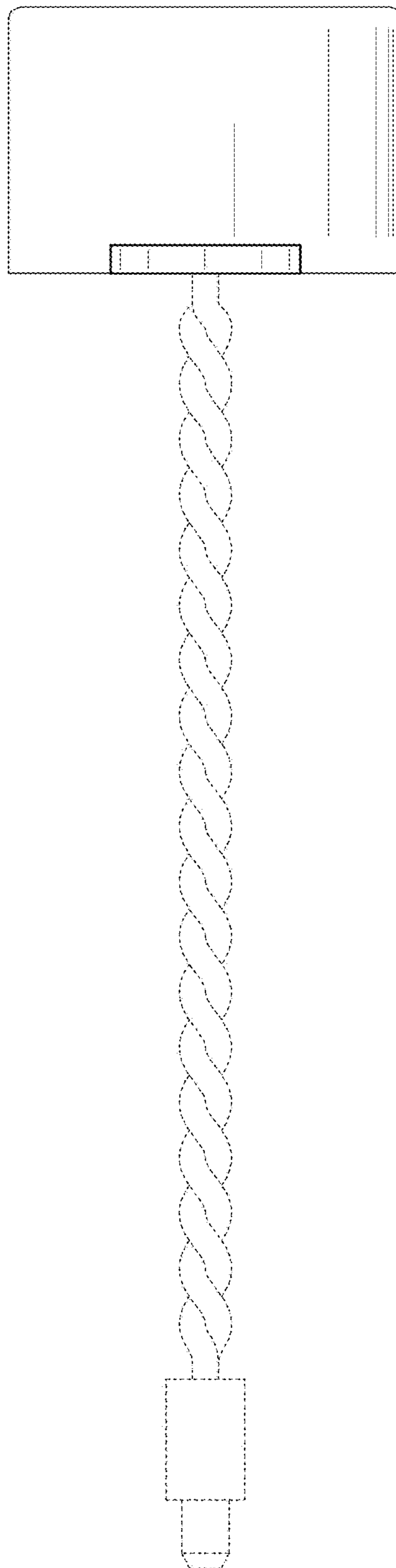


FIG. 5

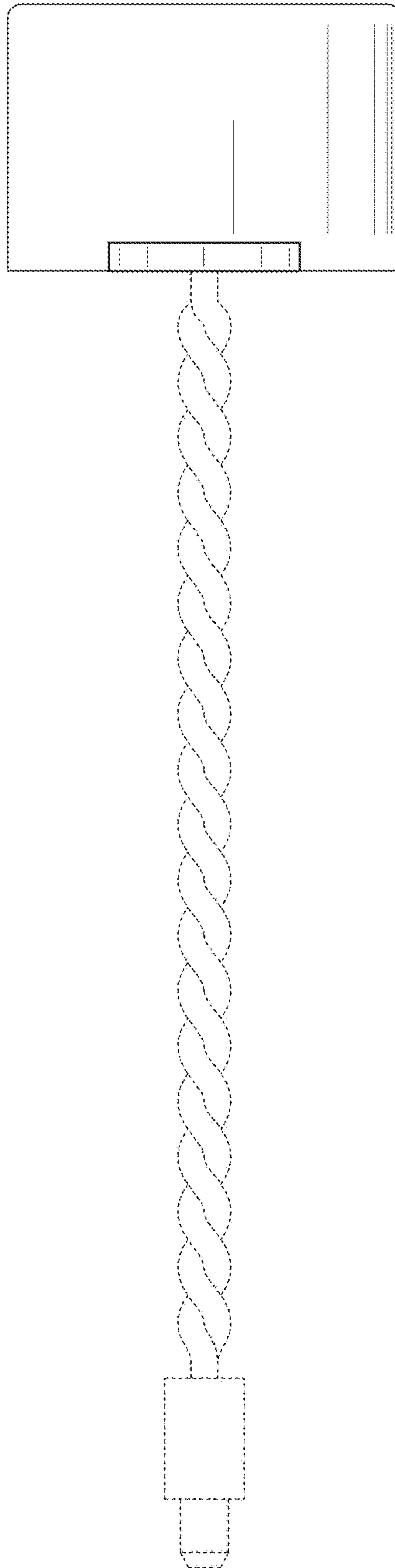


FIG. 6

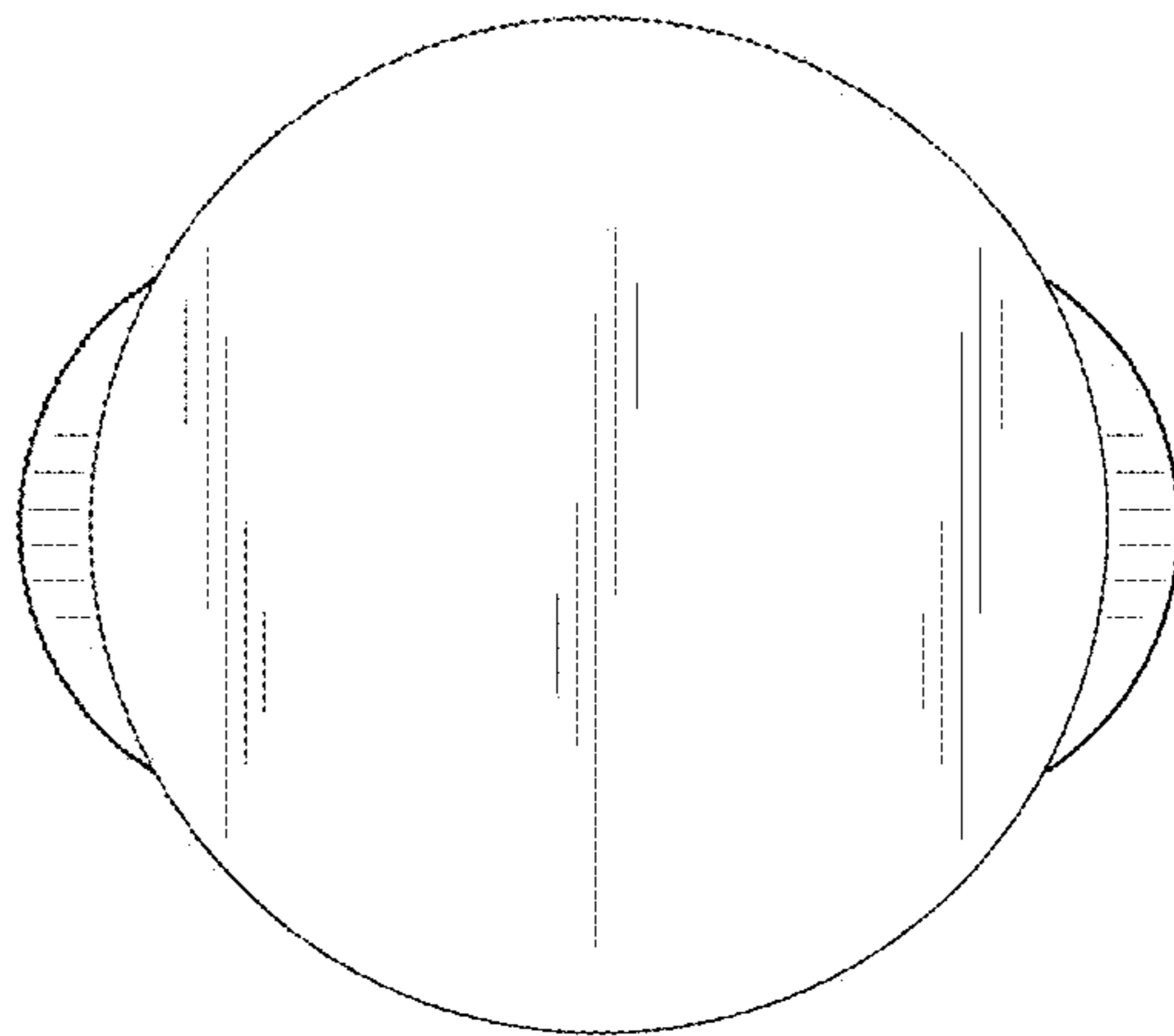


FIG. 7

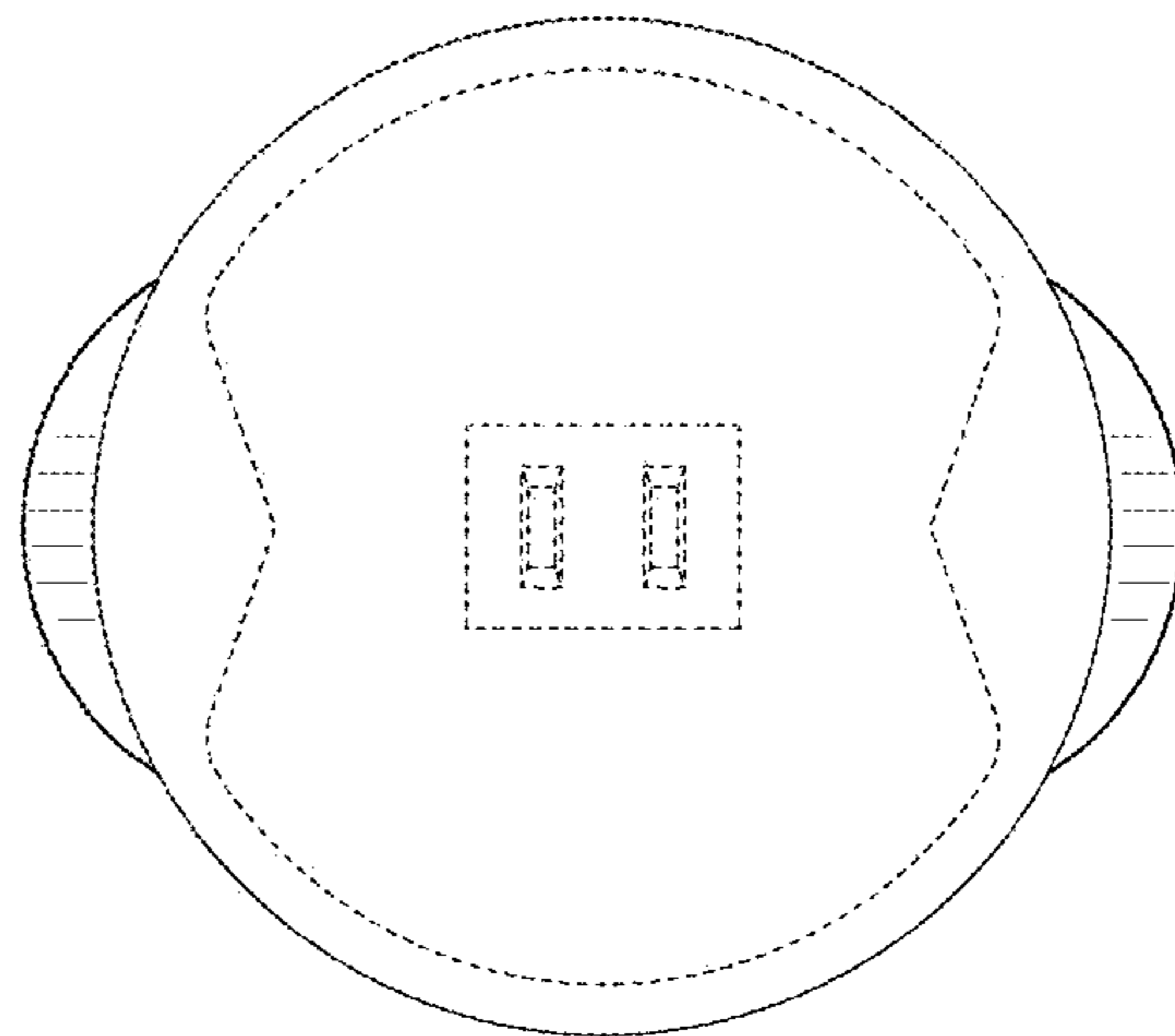


FIG. 8

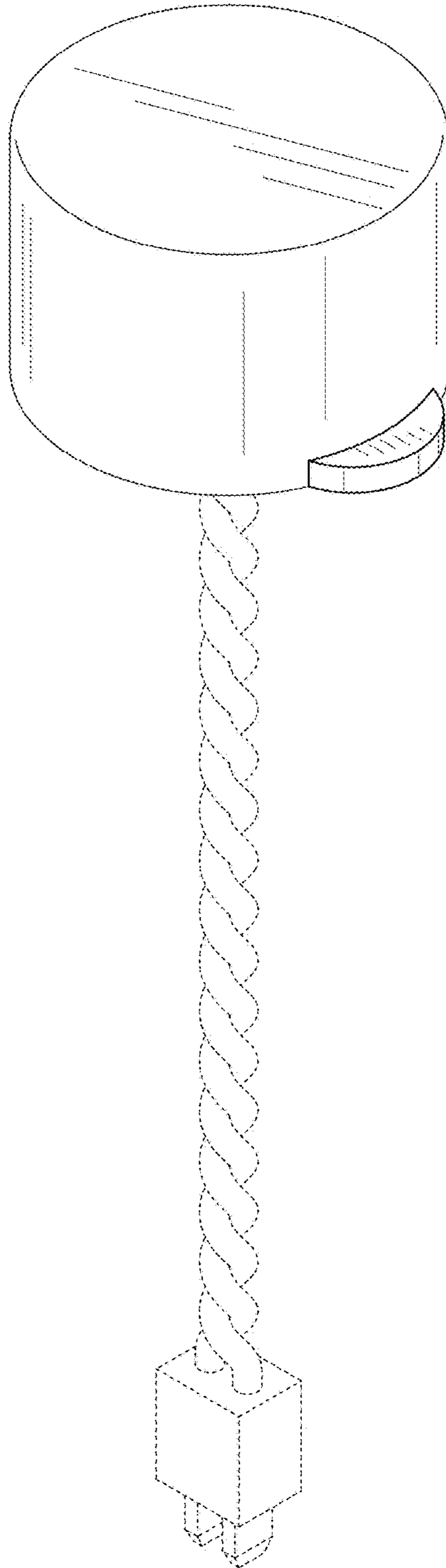


FIG. 9

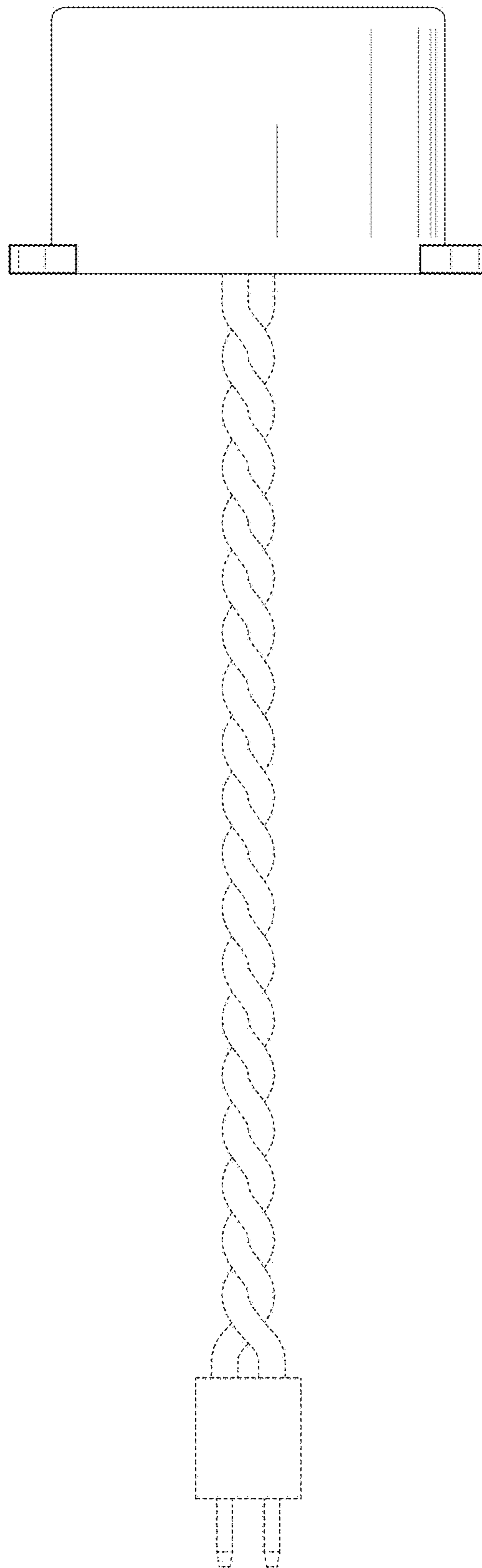


FIG. 10

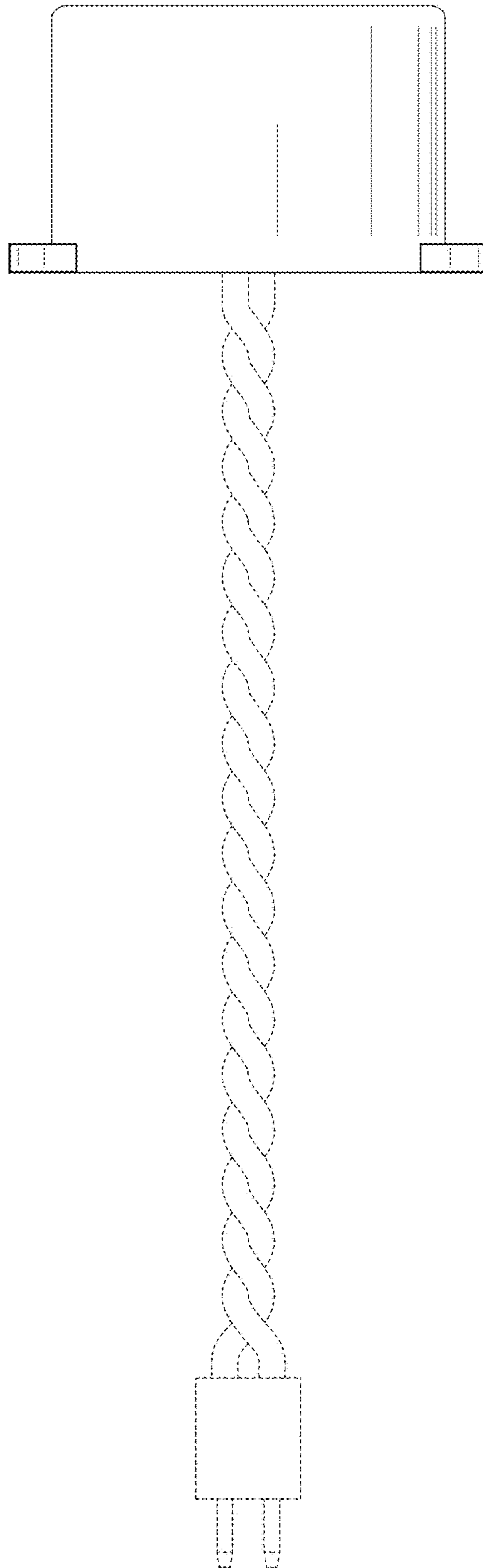


FIG. 11

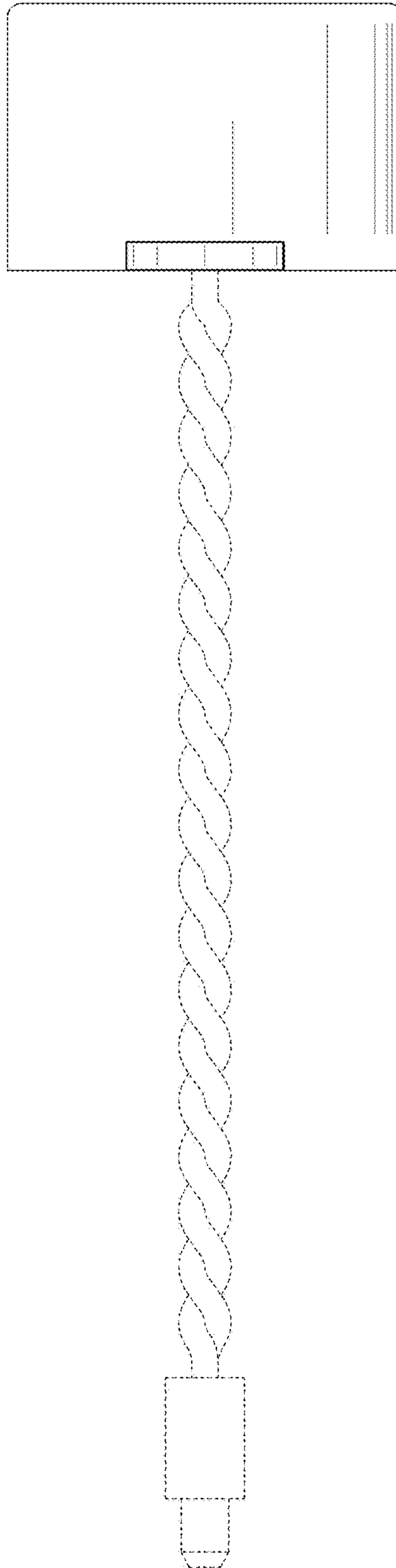


FIG. 12

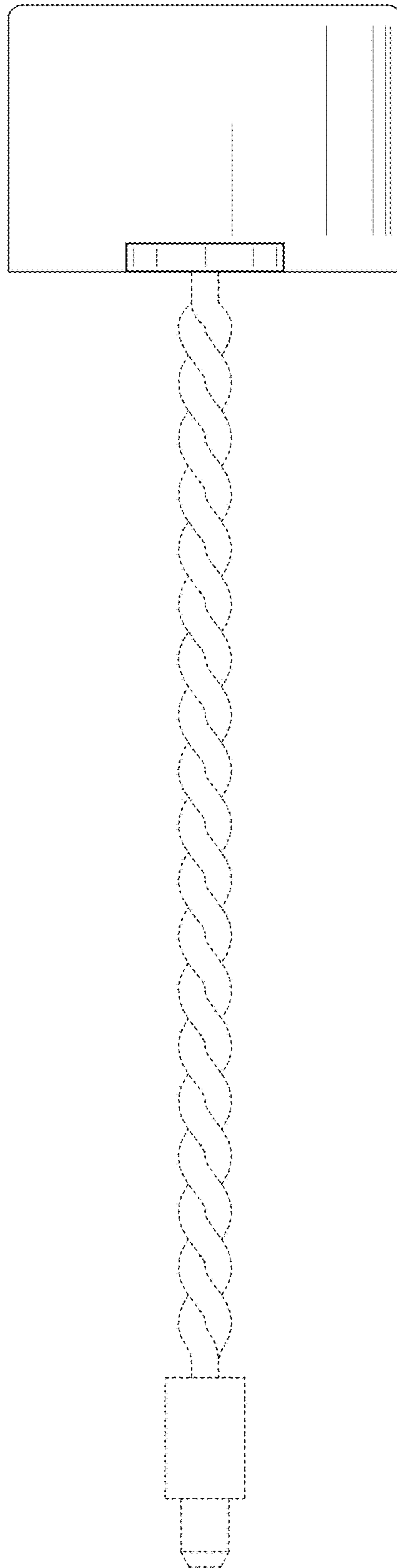


FIG. 13

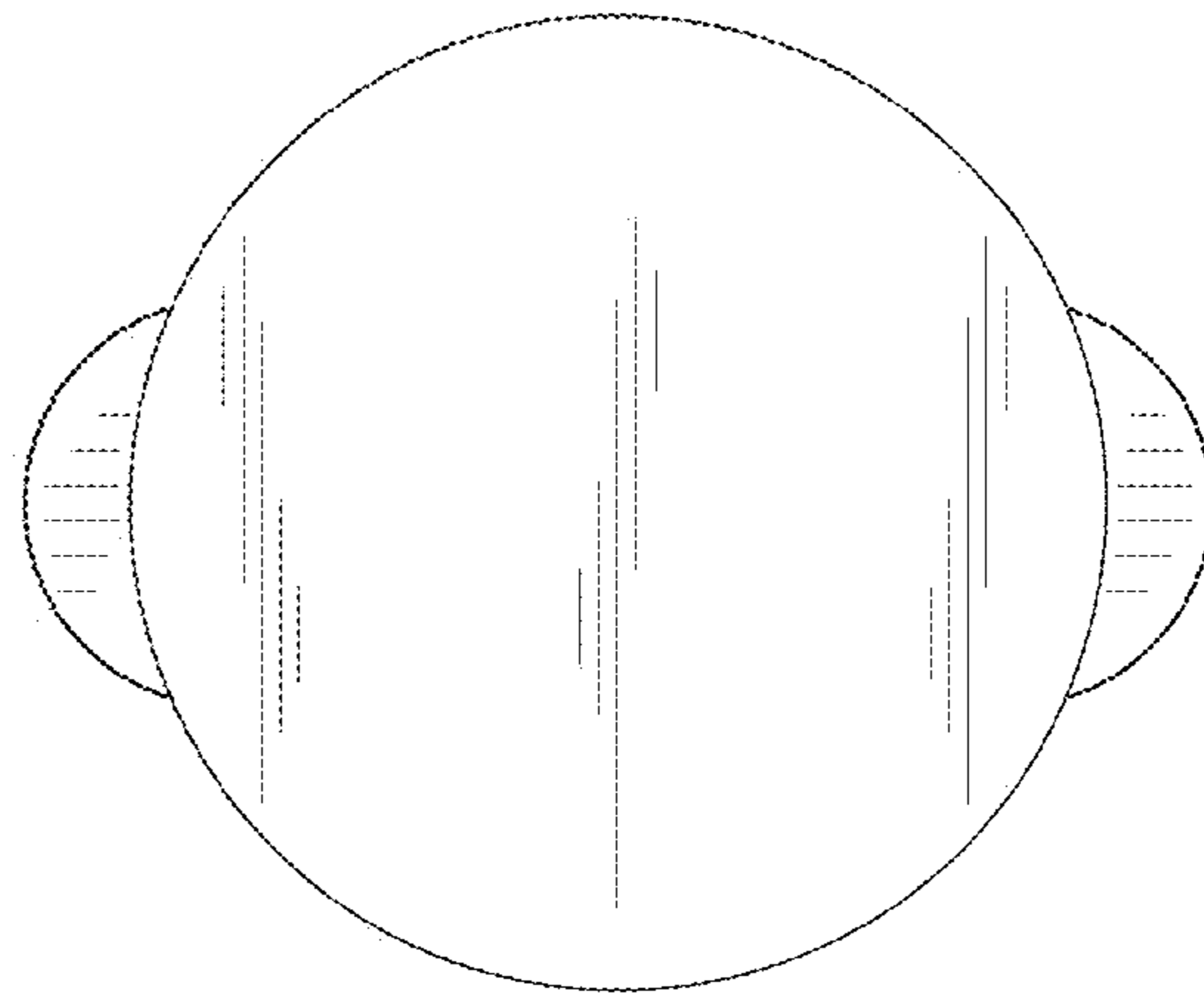


FIG. 14

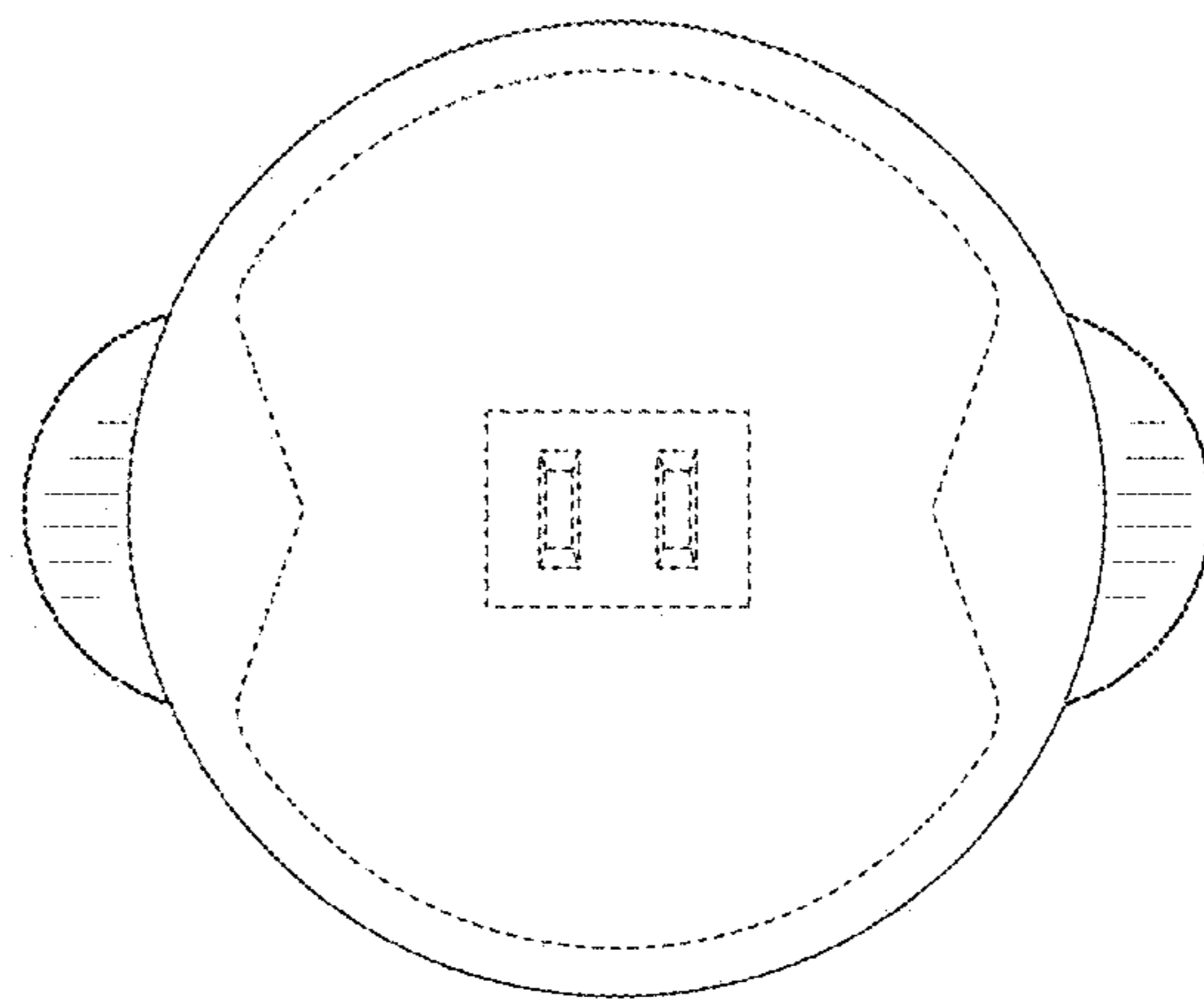


FIG. 15

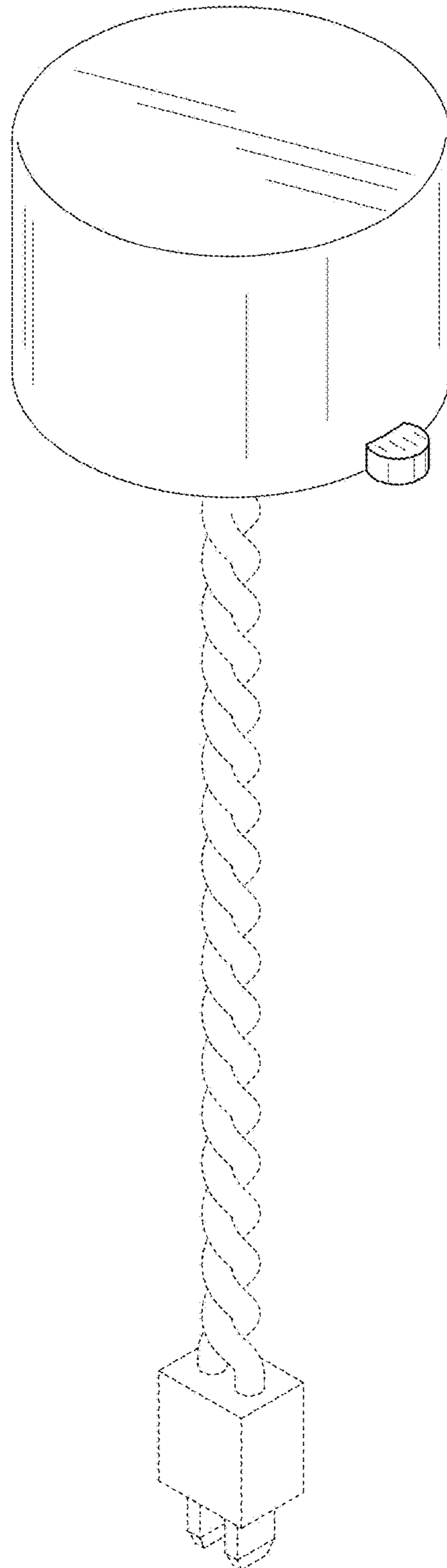


FIG. 16

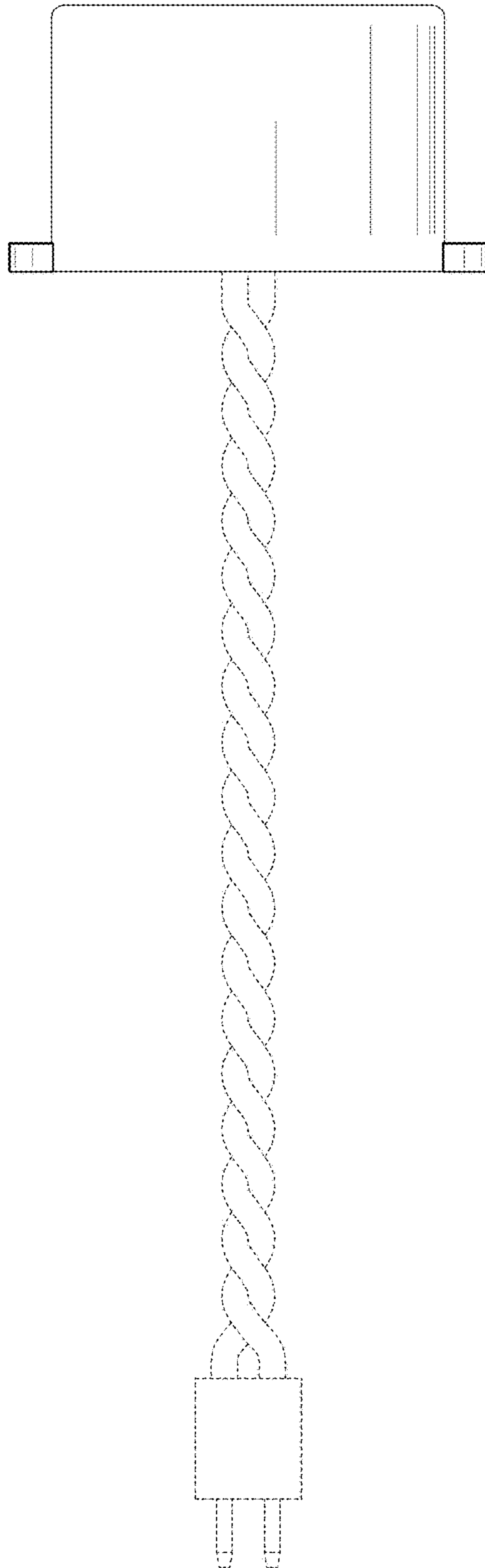


FIG. 17

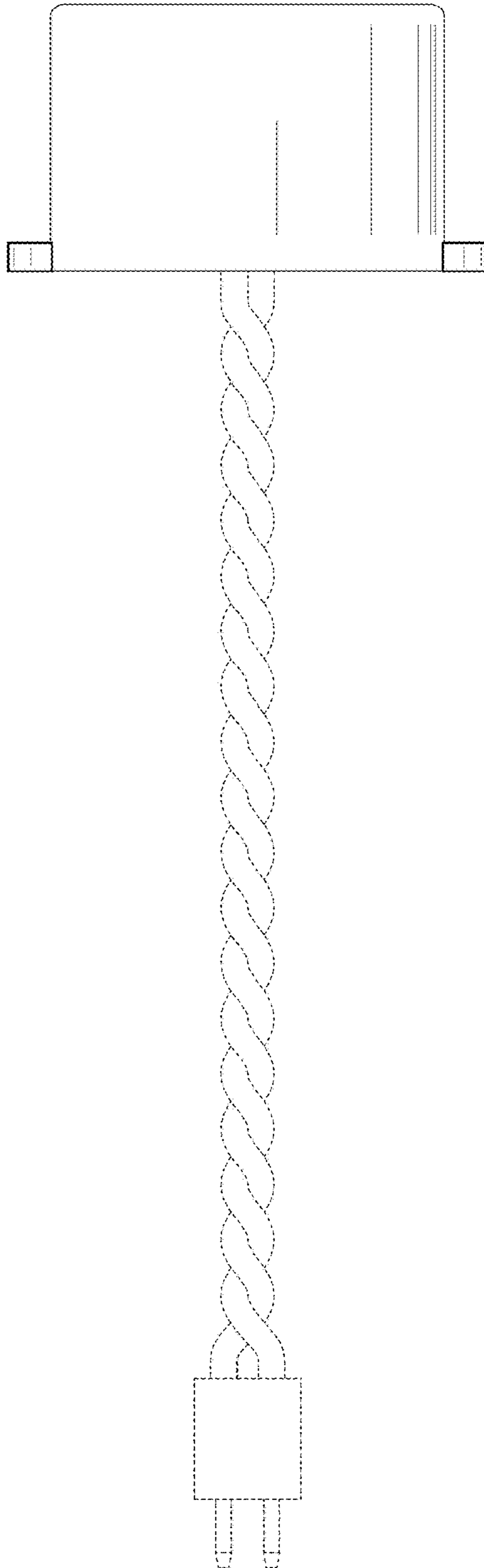


FIG. 18

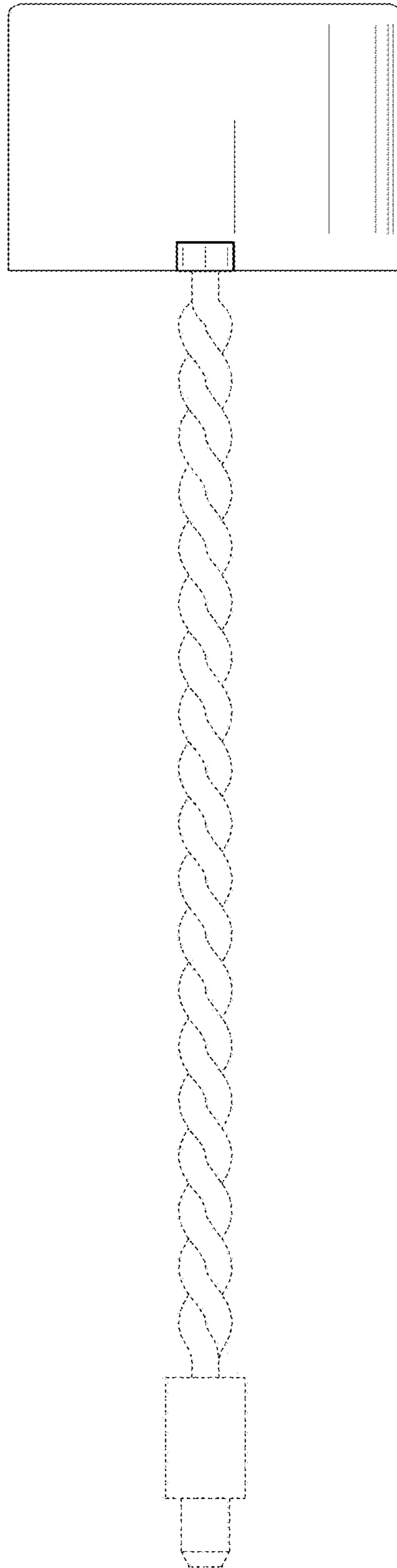


FIG. 19

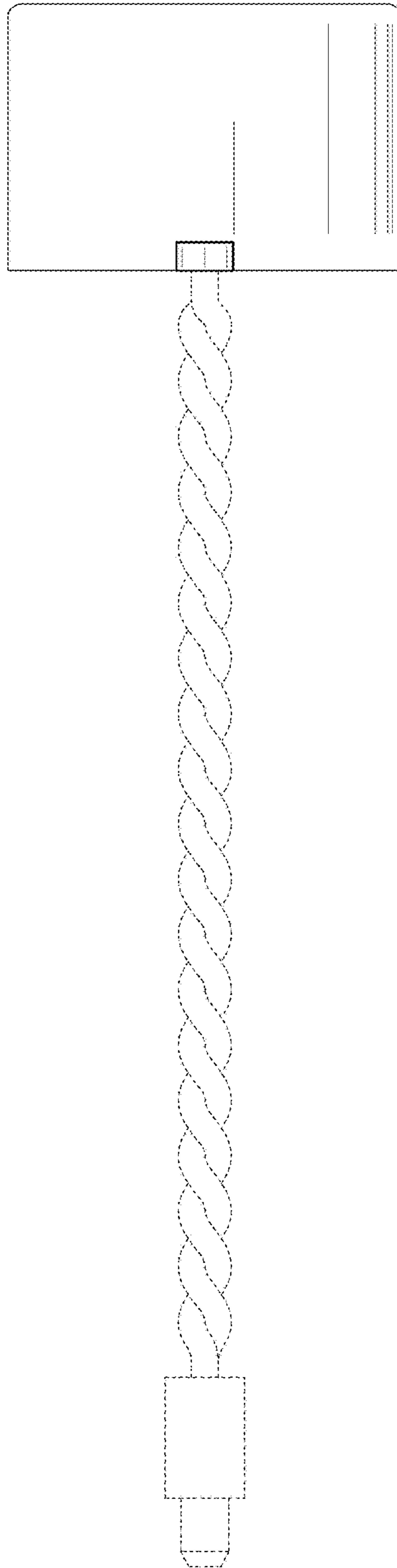


FIG. 20

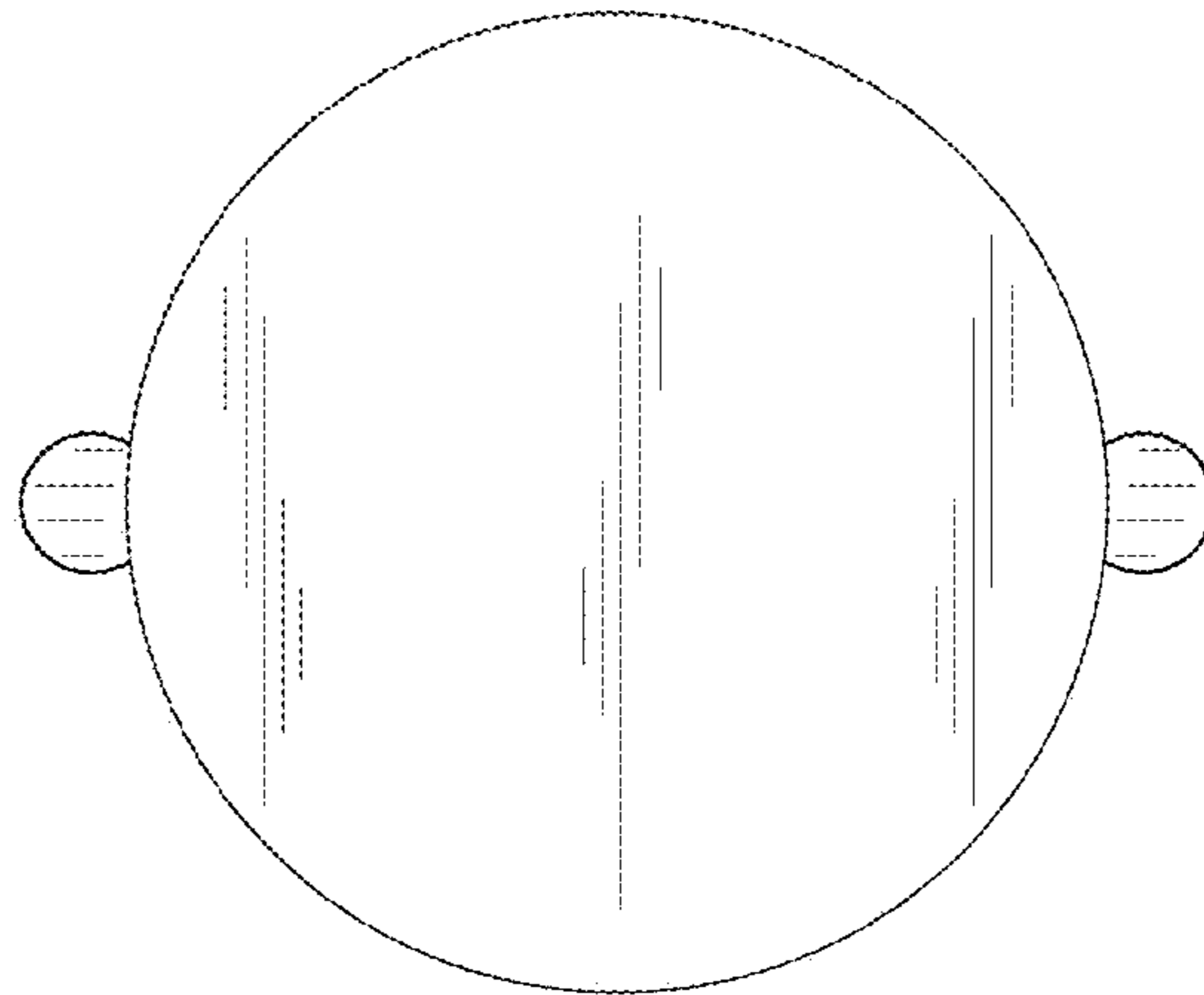


FIG. 21

