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Liu et al.

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(54) **PLUG**

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(CN)

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

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

(52) **U.S. Cl.**
USPC **D13/137.4**

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D13/139.4, 139.5, 139.6, 139.7, 139.8,
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D13/158, 159, 184, 199, 103, 107, 108
CPC H01R 13/00; H01R 13/03; H01R 13/04;
H01R 13/10; H01R 13/35; H01R 13/44;
H01R 13/453; H01R 13/4534; H01R
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13/6666; H01R 13/6675; H01R 13/7135;
H01R 31/02; H01R 31/06; H01R 31/065
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,983,407 A * 9/1976 Shott H01R 29/00
307/146
D297,231 S * 8/1988 Rasnake D10/80
D307,579 S * 5/1990 Layne D13/137.3
D425,860 S * 5/2000 Goto D13/133
D448,734 S * 10/2001 Nakashima D13/153
D466,867 S * 12/2002 Krobusek D13/137.4
D479,826 S * 9/2003 Verfuert D13/146
D549,651 S * 8/2007 Mancari D13/138.2

D592,141 S * 5/2009 Mancari D13/139.1
D602,434 S * 10/2009 Mancari D13/139.1
D635,515 S * 4/2011 Atwell D13/138.2
D720,300 S * 12/2014 Lee D13/153

(Continued)

FOREIGN PATENT DOCUMENTS

CN 305645034 * 3/2020
CN 306321189 * 2/2021
CN 306915034 * 11/2021

OTHER PUBLICATIONS

“30 Amp to 30 Amp RV Adapter Cord with Locking Connector Plug, GearIT 30Amp Male to 30Amp Female Dogbone RV Trailer Camper, NEMA TT-30P to L5-30R, STW 10 Gauge Heavy Duty Electrical Power—12in, 1ft”, first available Jan. 18, 2020. Amazon.com [https://www.amazon.com/dp/B07ZL4XQ4Q] (Year: 2020).*

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Assistant Examiner — Seth David Kumpf

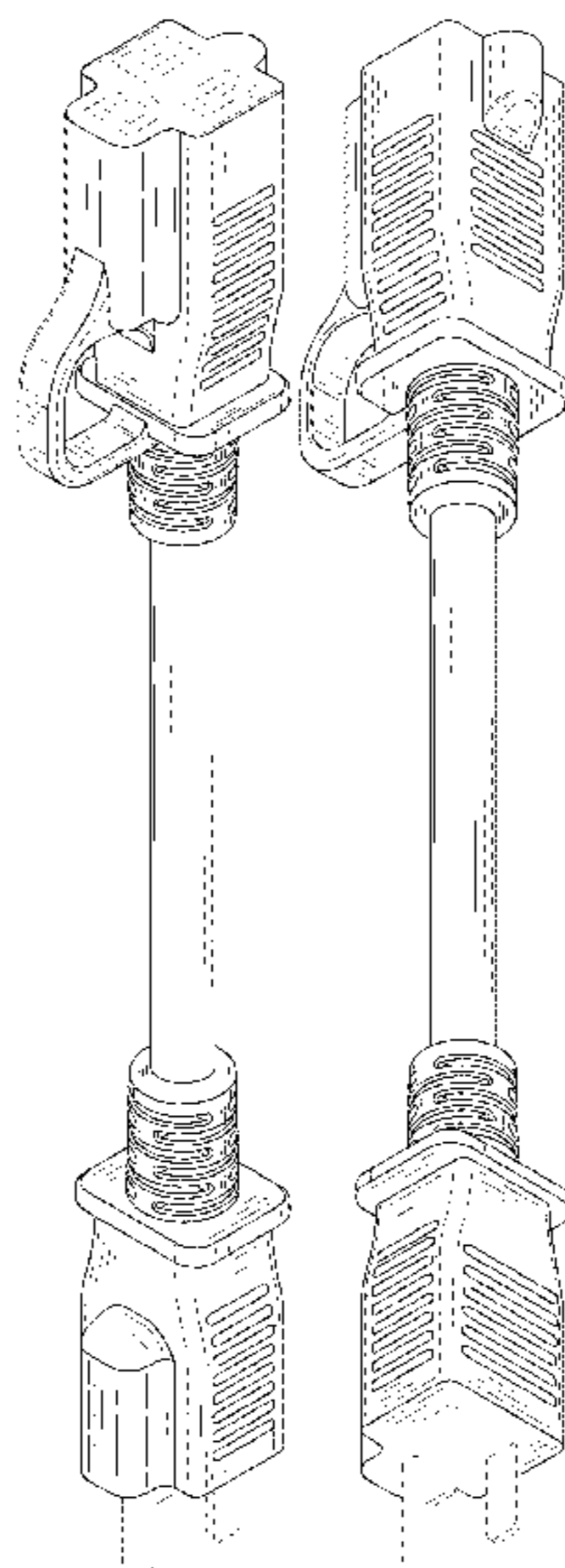
(57) **CLAIM**

The ornamental design for a plug, as shown and described.

DESCRIPTION

FIG. 1 is a first perspective view of a plug showing our new design;
FIG. 2 is a second perspective view thereof;
FIG. 3 is a front view thereof;
FIG. 4 is a back view thereof;
FIG. 5 is a left side view thereof;
FIG. 6 is a right side view thereof;
FIG. 7 is a top view thereof; and,
FIG. 8 is a bottom view thereof.
The broken lines shown in the drawings depict portions of the plug in which the design is embodied that form no part of the claimed design.

1 Claim, 8 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D726,114 S * 4/2015 Nook D13/133
D737,774 S * 9/2015 Zhu D13/138.1
D843,322 S * 3/2019 Faul D13/139.8
D852,748 S * 7/2019 Liu D13/138.2
D903,599 S * 12/2020 Hansen D13/133
D914,609 S * 3/2021 Mi D13/137.4
D922,327 S * 6/2021 Tao D13/137.2

OTHER PUBLICATIONS

“Camco (55165) Heavy Duty RV Dogbone Electrical Adapter with Innovative 180 Degree Bend Design and Easy PowerGrip Handle—15 Amp Male to 30 Amp Female, 12", Black”, first available Sep. 14, 2005. Amazon.com [<https://www.amazon.com/dp/B000BUU5YA>] (Year: 2005).*

“CircleCord 30 Amp to 15 Amp 110 RV Adapter Cord, NEMA 5-15P Male to TT-30R Female Electrical Power Dogbone with Grip Handle, Heavy Duty STW 10 Gauge for RV Trailer Camper”, first available Dec. 26, 2020. Amazon.com [<https://www.amazon.com/dp/B08RBKQ1JG>] (Year: 2020).*

“ParkPower by Marinco 50 Amp, 125/250V Locking W/Sealing Collar Male Plug to 50 Amp, 125/250V Locking Female Side Yellow Right Angle Adapter”, first available Nov. 12, 2009. Amazon.com [<https://www.amazon.com/dp/B002XLHNAY>] (Year: 2009).*

* cited by examiner

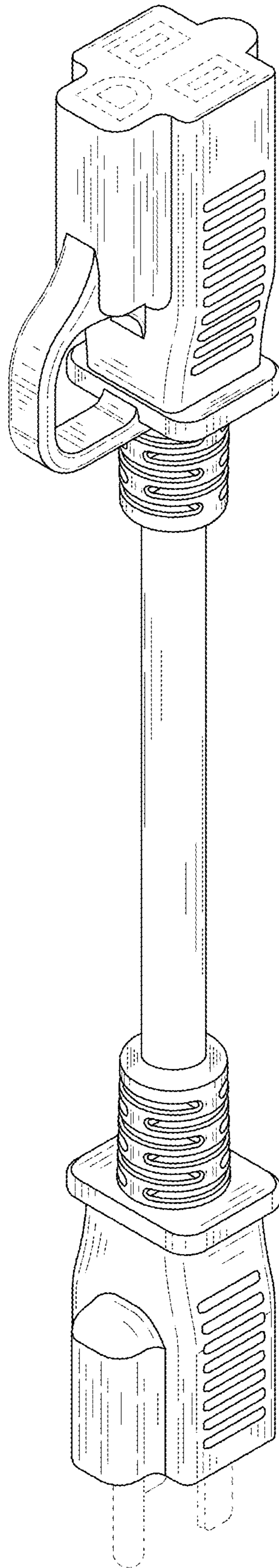


FIG. 1

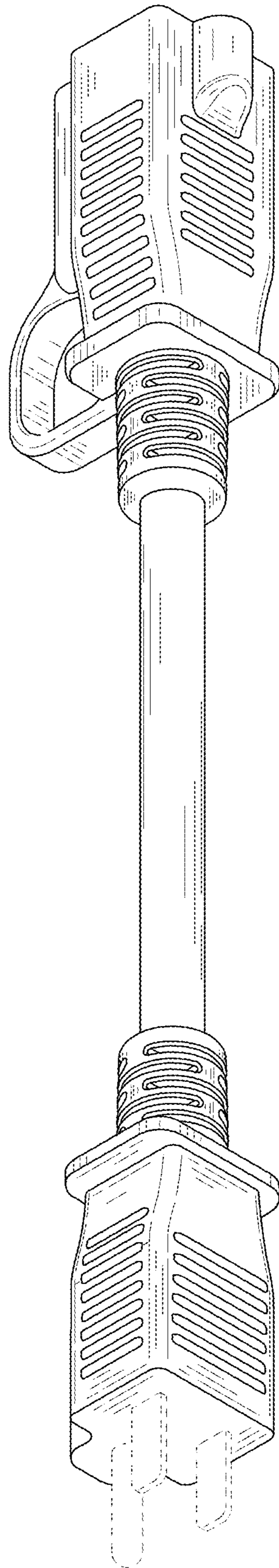


FIG. 2

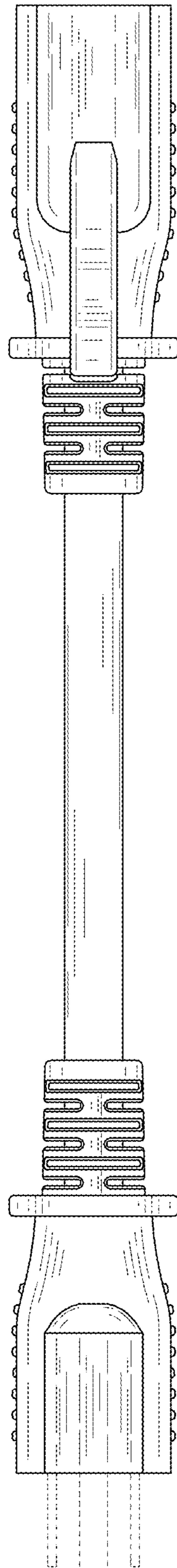


FIG. 3

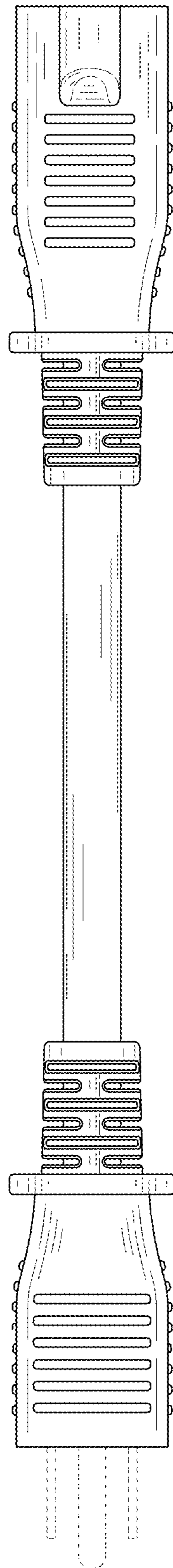


FIG. 4

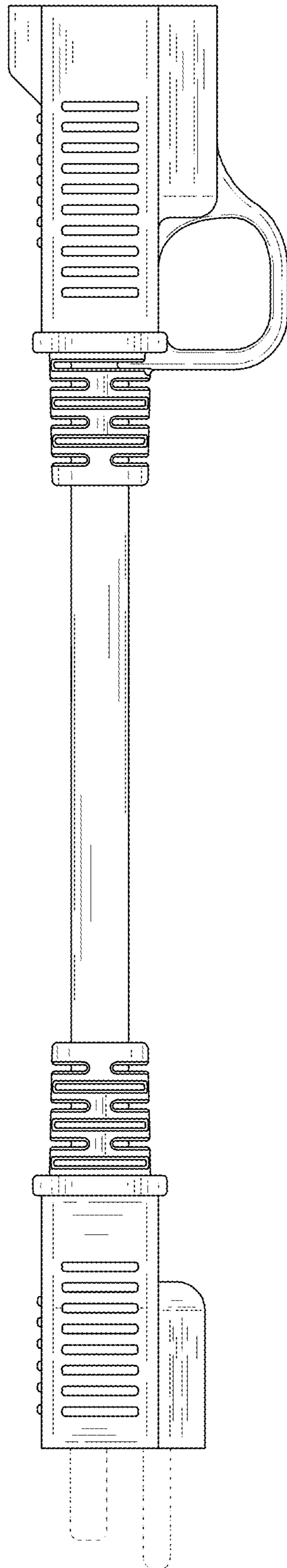


FIG. 5

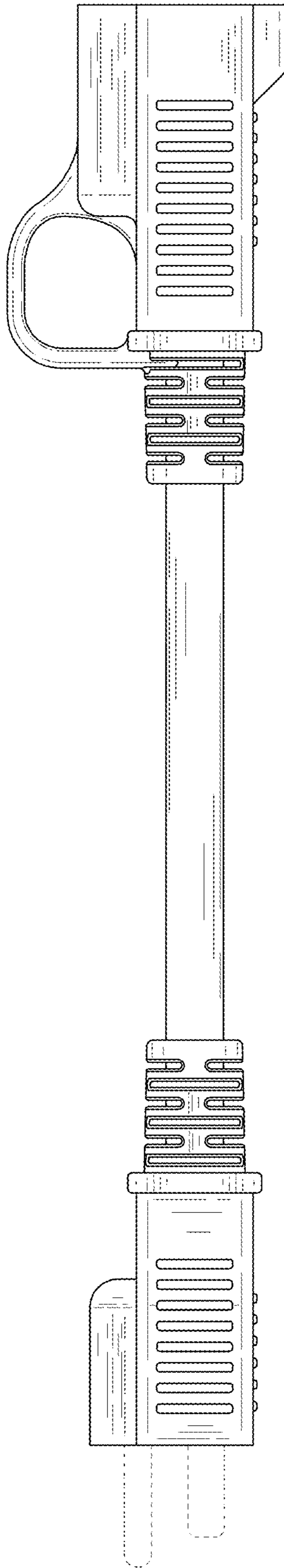


FIG. 6

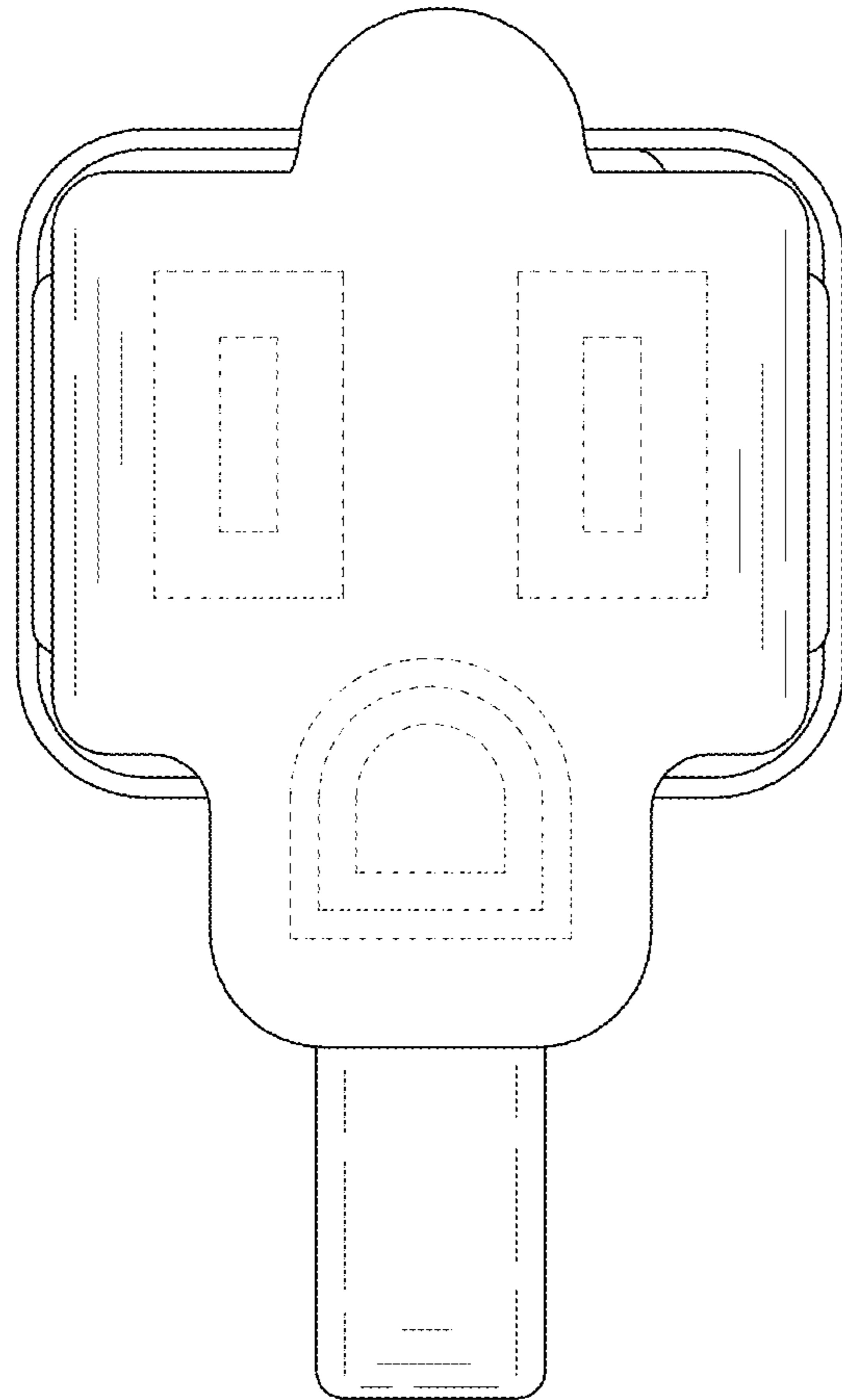


FIG. 7

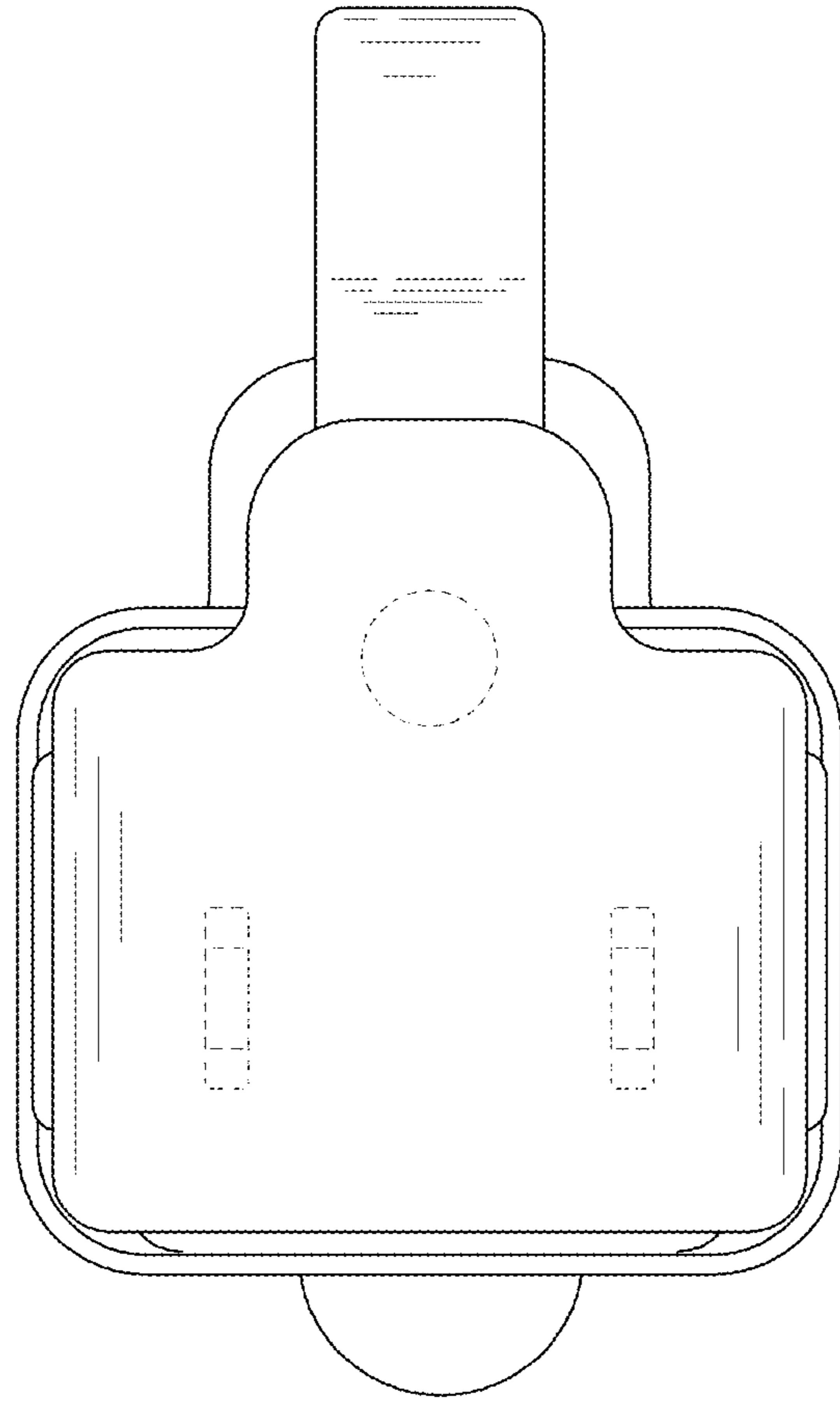


FIG. 8