



US00D817361S

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

(10) **Patent No.:** **US D817,361 S**
(45) **Date of Patent:** **** May 8, 2018**

(54) **CENTRIFUGAL PUMP**

(71) Applicant: **FLOW CONTROL LLC**, Beverly, MA (US)

(72) Inventors: **Francisco Carrillo Weber**, Irvine, CA (US); **Humberto V. Meza**, Trabuco Canyon, CA (US)

(73) Assignee: **Flow Control LLC**, Beverly, MA (US)

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

(21) Appl. No.: **29/592,375**

(22) Filed: **Jan. 30, 2017**

(51) **LOC (11) Cl.** **15-02**

(52) **U.S. Cl.**
USPC **D15/7**

(58) **Field of Classification Search**

USPC D15/7-9; D23/231, 232, 225; 417/60, 417/235, 265, 321, 355, 358, 363, 359, 417/410.1, 415-416, 405, 900, 269, 539; 60/408, 412; 184/26-37; 415/140-147; 123/495, 509; 137/565.34
CPC F02M 37/04; F02M 37/14; F04B 53/92; F04B 1/005; F04B 25/00; F04B 35/00; F04B 37/00; F04B 39/00; F04B 27/00; F04B 19/20; F04D 13/06; F04D 29/22; F04D 29/046; F04D 29/2266

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D229,235 S * 11/1973 Bunch D15/7
D236,756 S * 9/1975 Franzen D15/7
D328,602 S * 8/1992 Peterson D15/7
D339,143 S * 9/1993 Whitley, II D15/7

(Continued)

Primary Examiner — Ralf Seifert

(74) *Attorney, Agent, or Firm* — Ware, Fressola, Maguire & Barber LLP

(57) **CLAIM**

We claim the ornamental design of a centrifugal pump, as shown and described herein.

DESCRIPTION

FIG. 1 is a top front perspective view of a centrifugal pump having an output port, according to some embodiments of the present invention;

FIG. 2 is a bottom back perspective view of the centrifugal pump shown in FIG. 1;

FIG. 3 is a front view of centrifugal pump shown in FIG. 1;

FIG. 4 is a back view of the centrifugal pump shown in FIG. 1.

FIG. 5 is a side view of the centrifugal pump shown in FIG. 1;

FIG. 6 is a corresponding side view of the centrifugal pump shown in FIG. 1;

FIG. 7 is a top view of the centrifugal pump shown in FIG. 1; and

FIG. 8 is a bottom view of the centrifugal pump shown in FIG. 1.

FIG. 9 is a top front perspective view of a centrifugal pump showing a second embodiment of our new design;

FIG. 10 is a bottom back perspective view of the centrifugal pump shown in FIG. 9;

FIG. 11 is a front view of centrifugal pump shown in FIG. 9;

FIG. 12 is a back view of the centrifugal pump shown in FIG. 9.

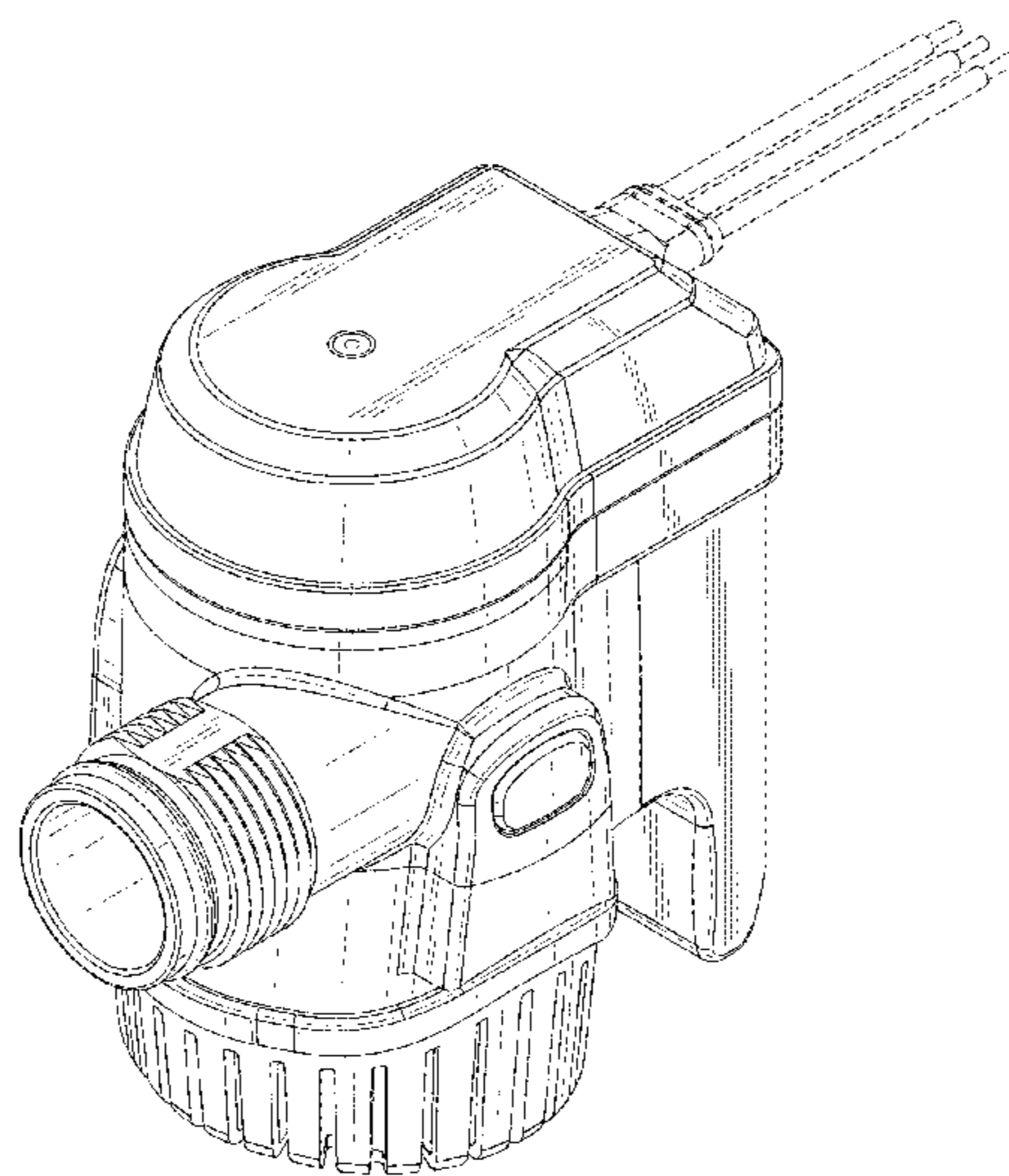
FIG. 13 is a side view of the centrifugal pump shown in FIG. 9;

FIG. 14 is a corresponding side view of the centrifugal pump shown in FIG. 9;

FIG. 15 is a top view of the centrifugal pump shown in FIG. 9; and,

FIG. 16 is a bottom view of the centrifugal pump shown in FIG. 9.

1 Claim, 14 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D435,049 S	*	12/2000	Tsai	D15/7
D445,804 S	*	7/2001	Tsai	D15/7
D479,722 S	*	9/2003	Poon	D15/7
D541,818 S	*	5/2007	Rhea	D15/7
D553,646 S	*	10/2007	Wu	D15/7
D565,600 S	*	4/2008	Tazioli	D15/7
D649,164 S	*	11/2011	Cook	D15/7
D689,908 S	*	9/2013	Rogers	D15/7
D708,648 S	*	7/2014	Orsini	D15/7
D740,329 S	*	10/2015	Gilbert	D15/7
D782,540 S	*	3/2017	Zhang	D15/7

* cited by examiner

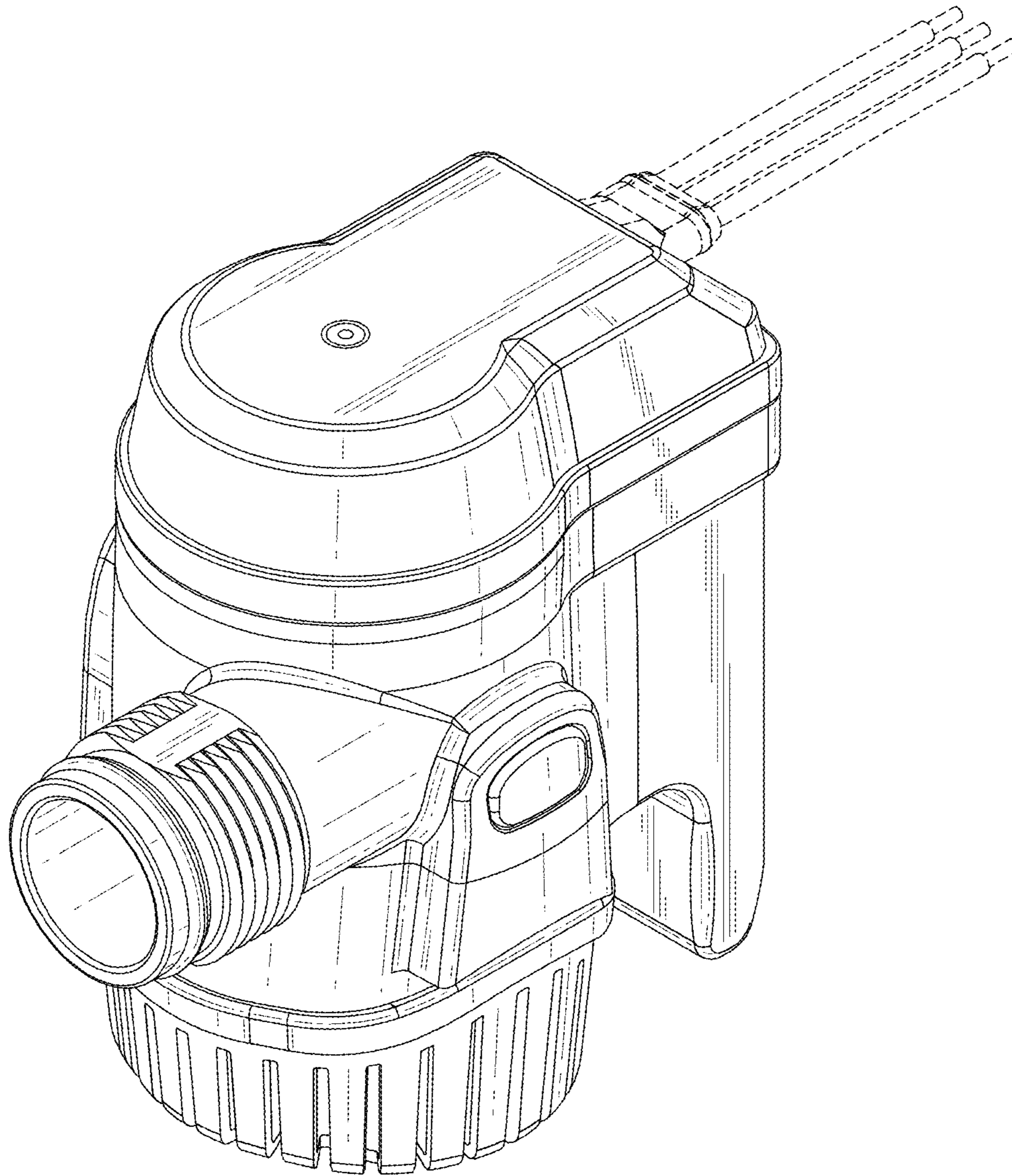


FIG. 1

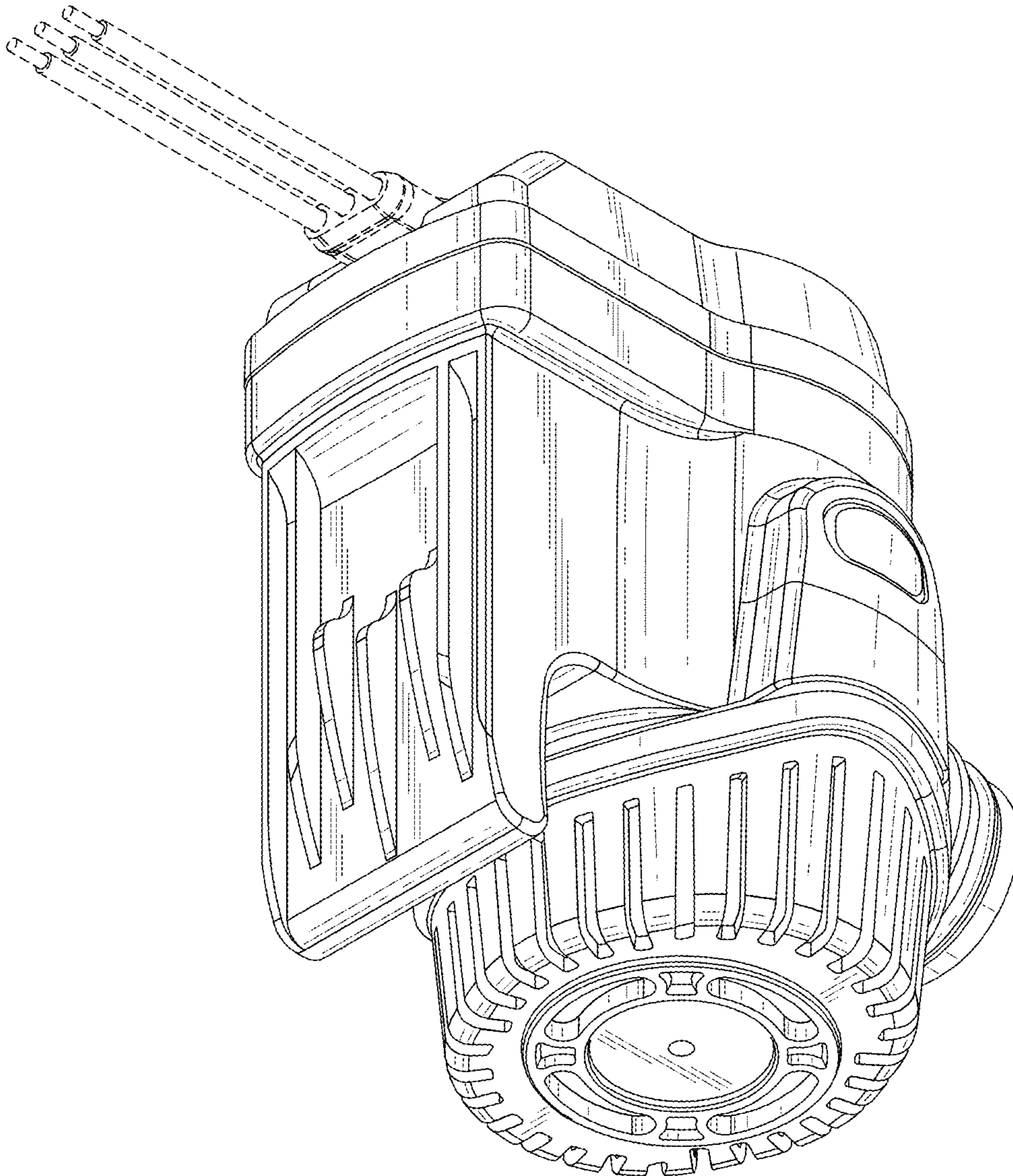


FIG. 2

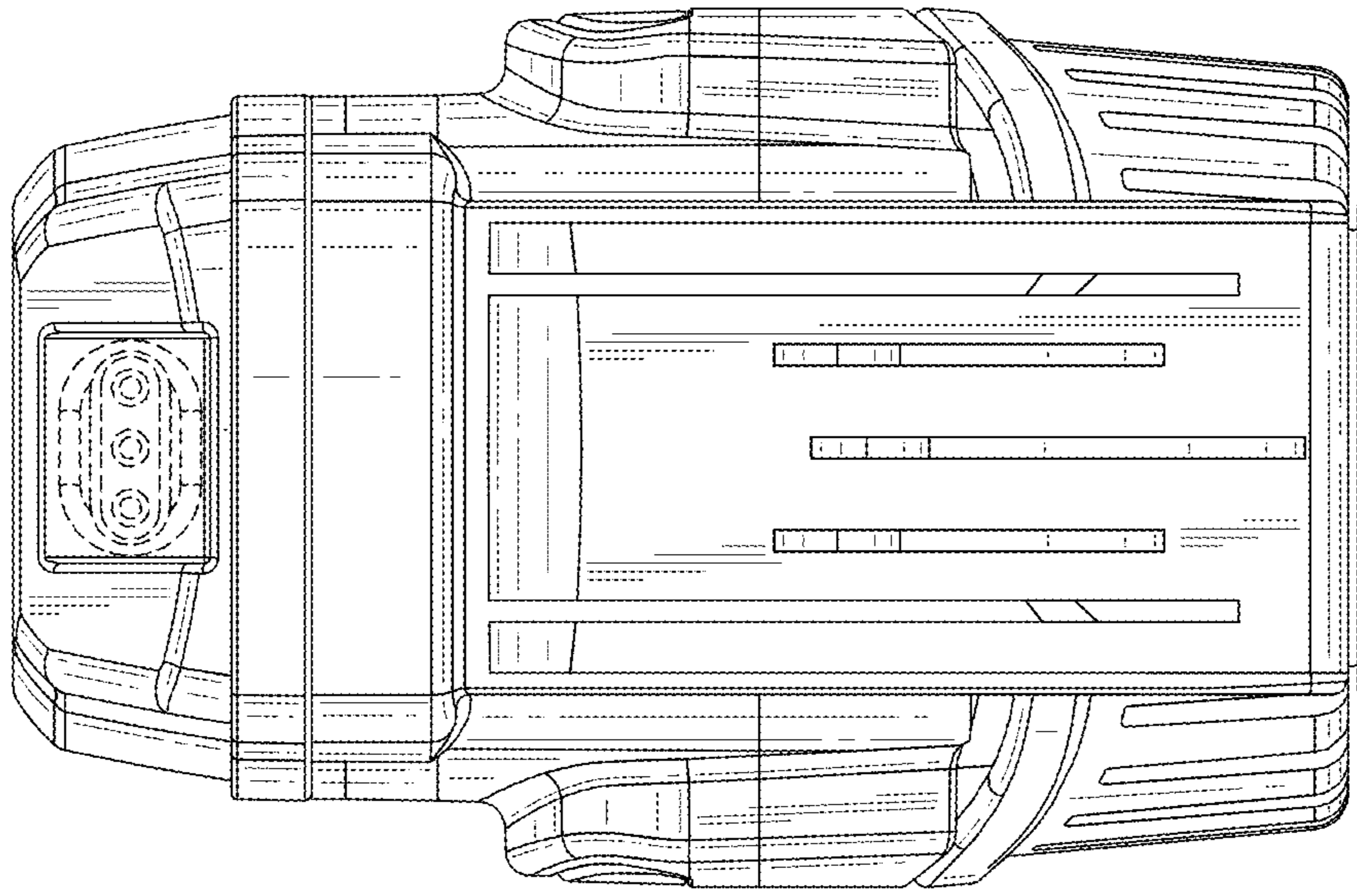


FIG. 3

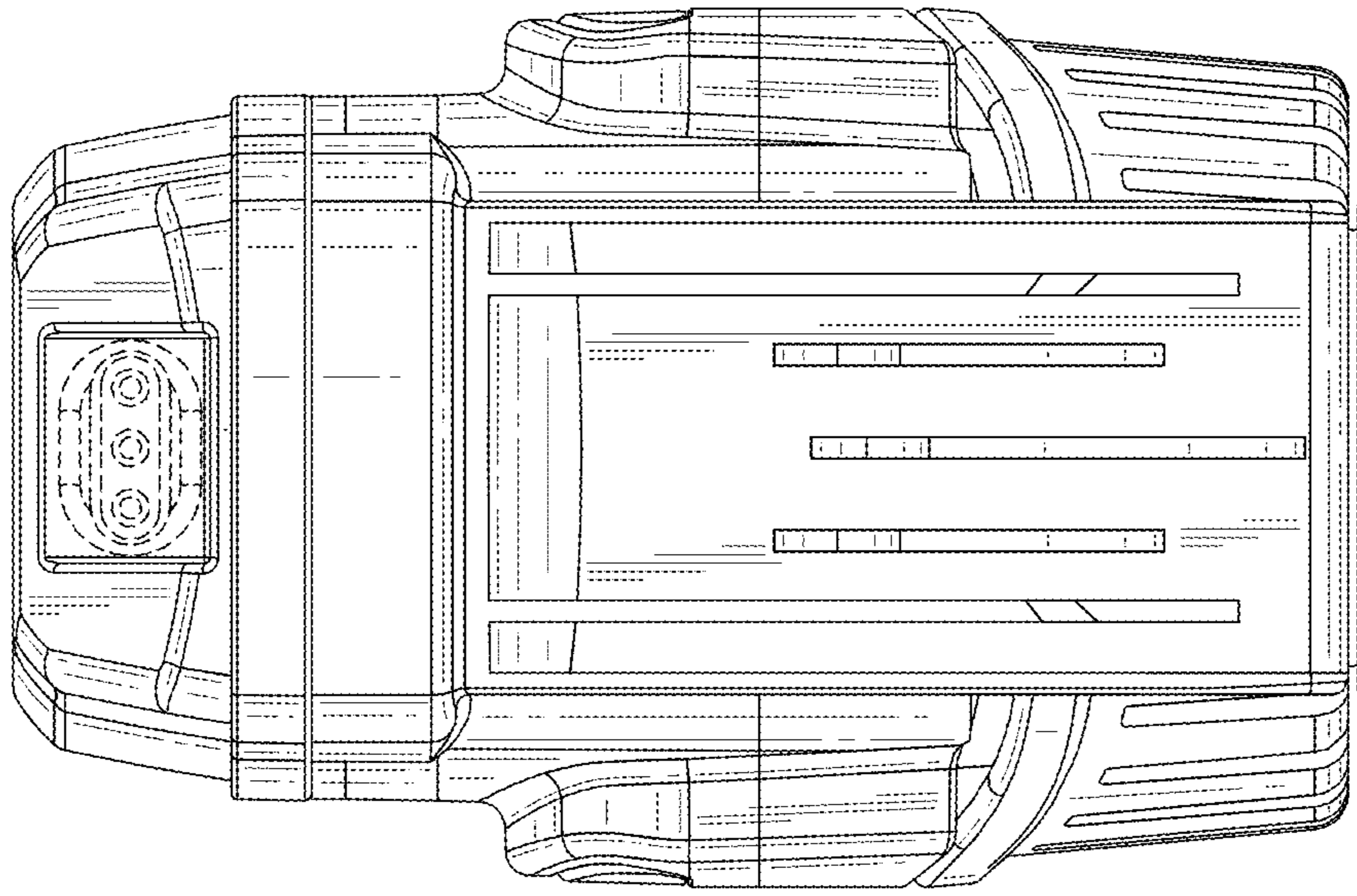


FIG. 4

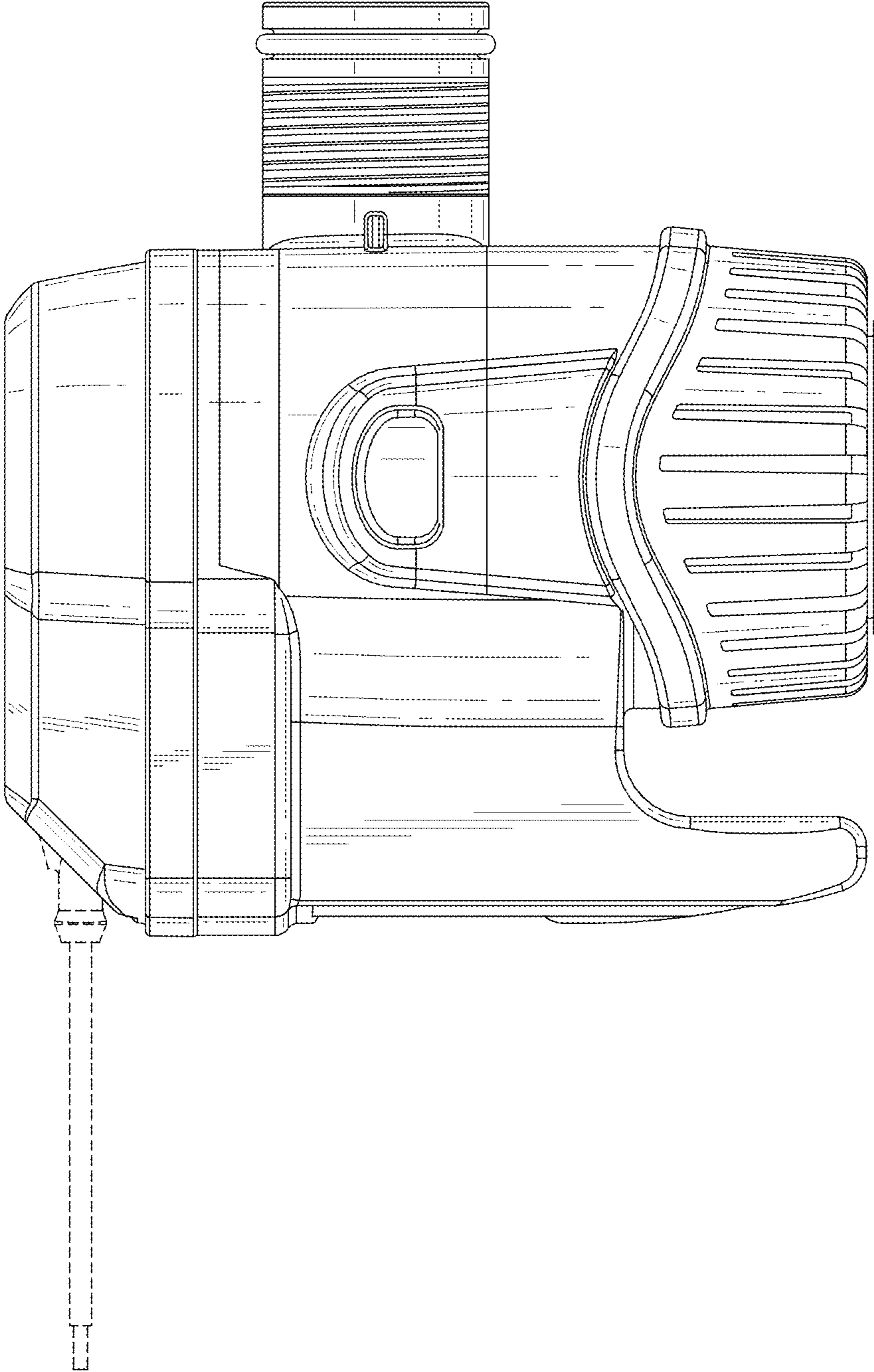


FIG. 5

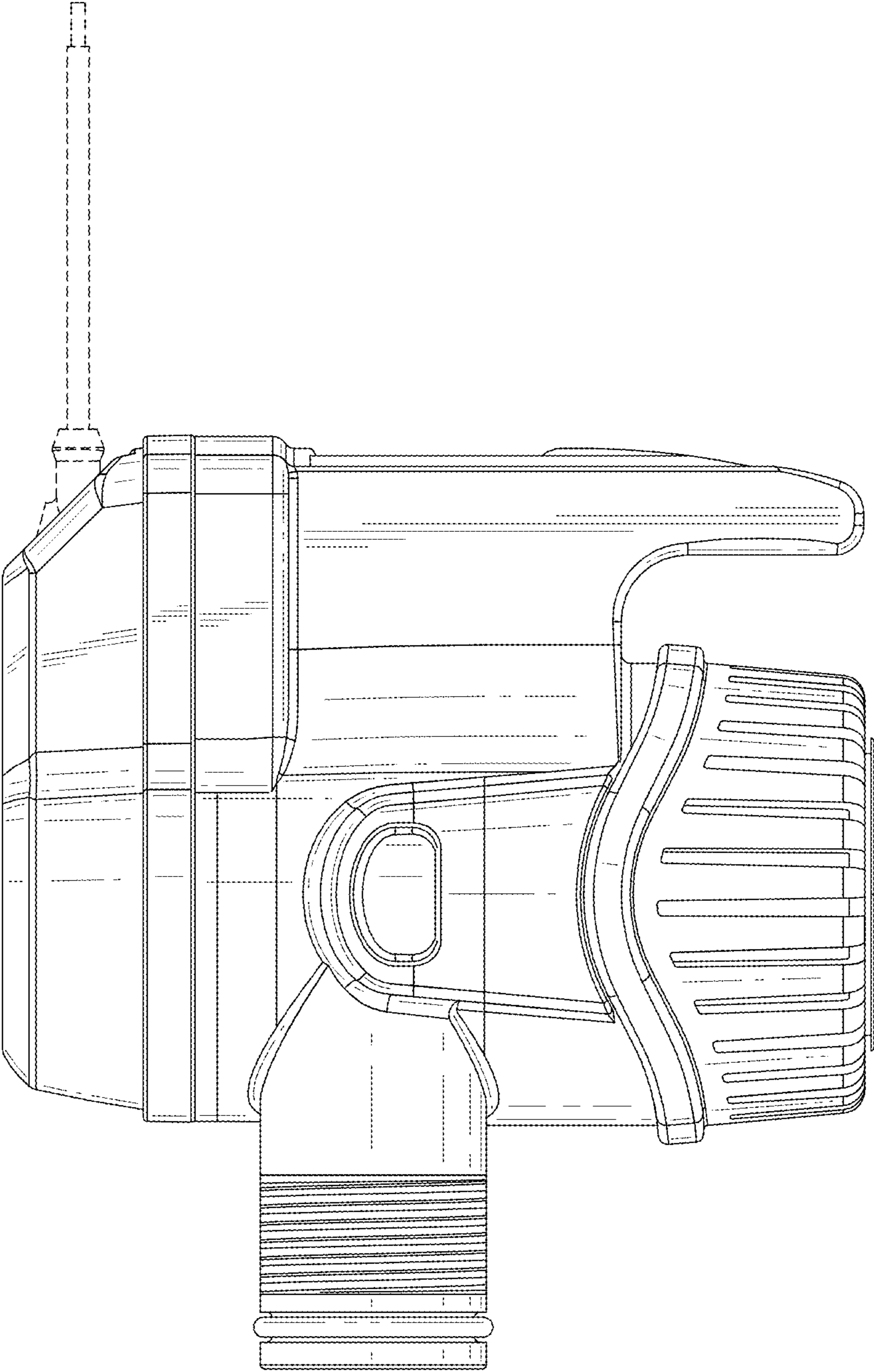


FIG. 6

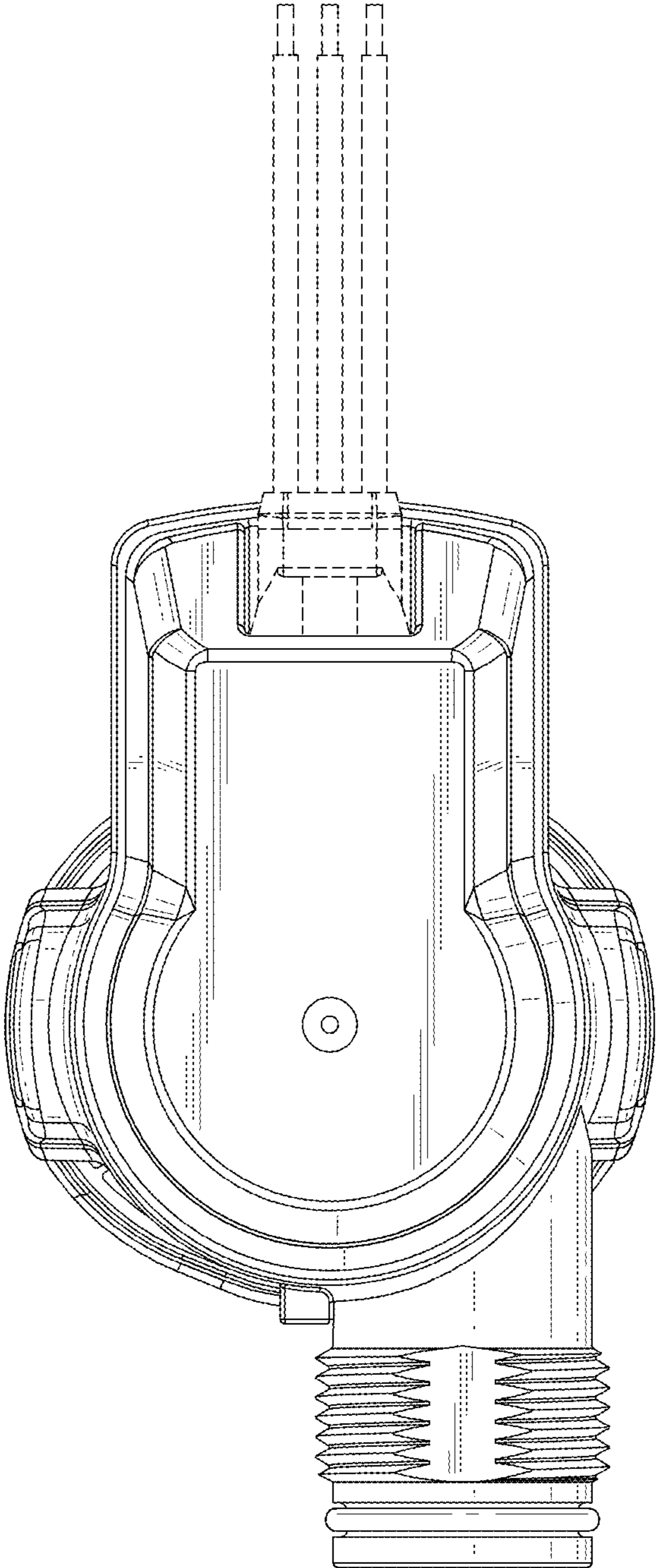


FIG. 7

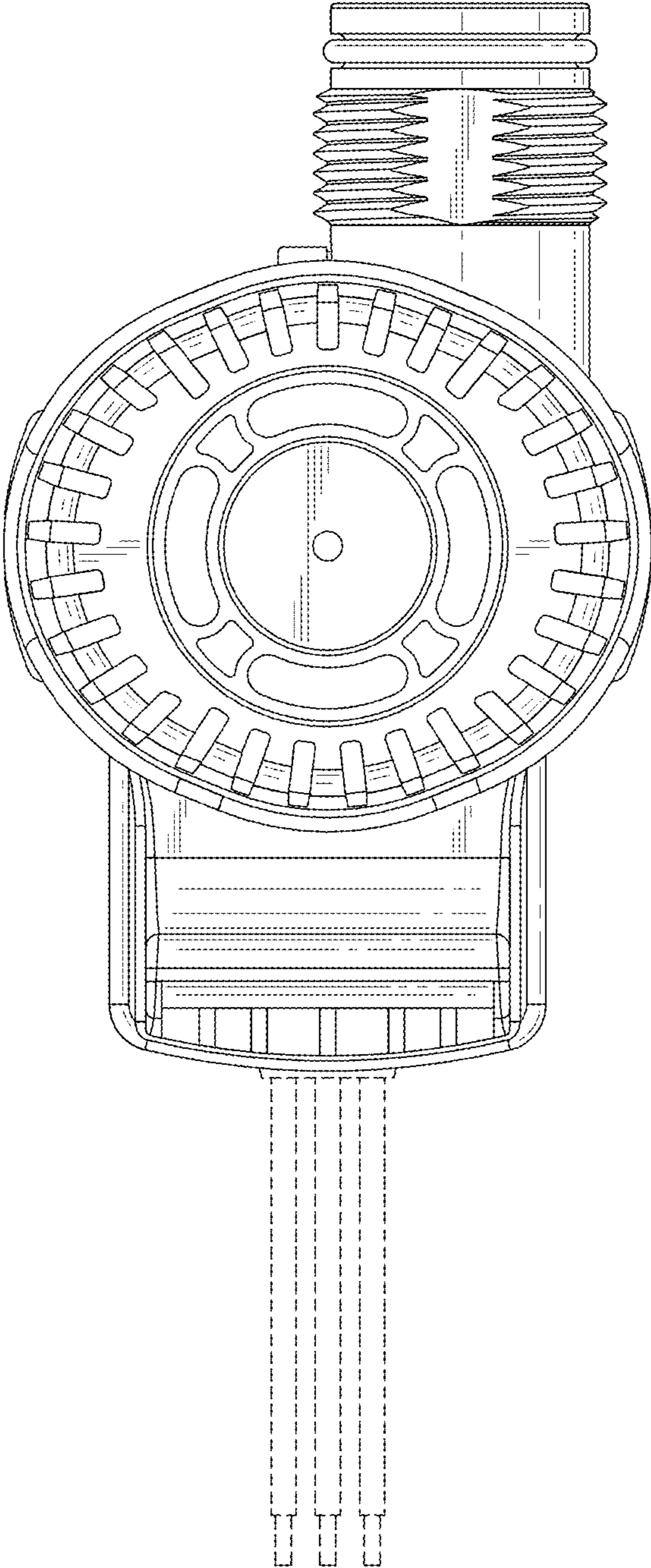


FIG. 8

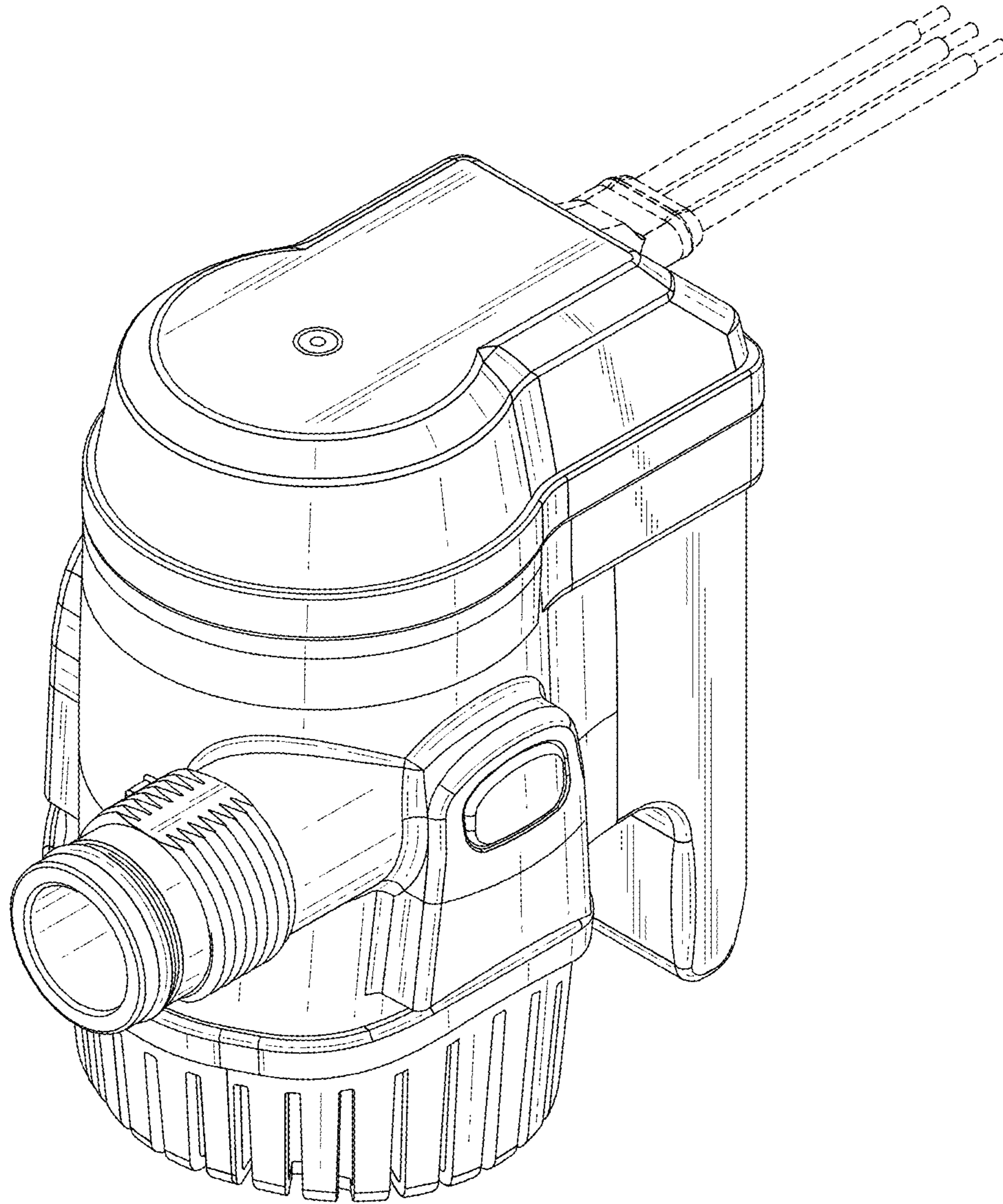


FIG. 9

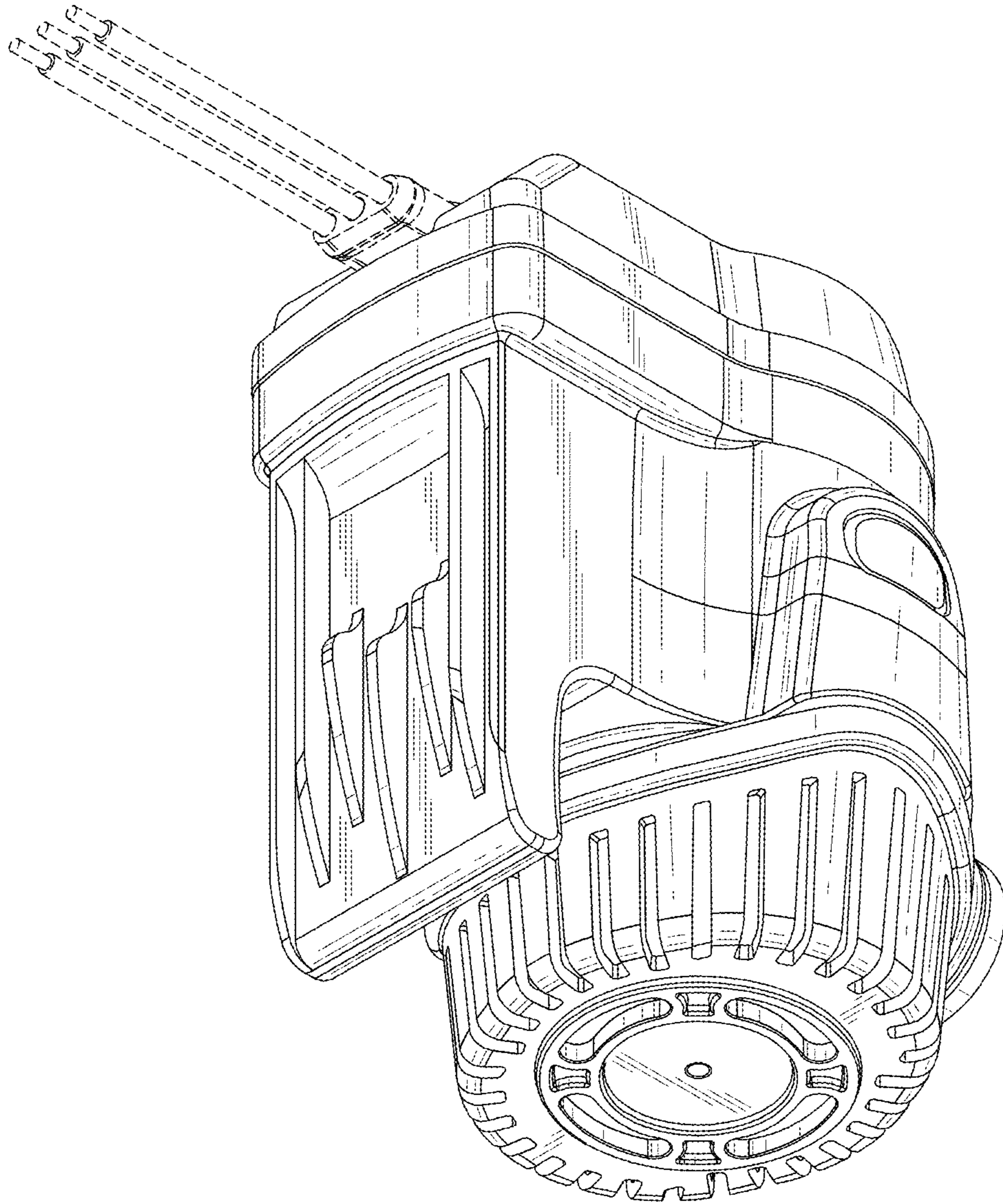


FIG. 10

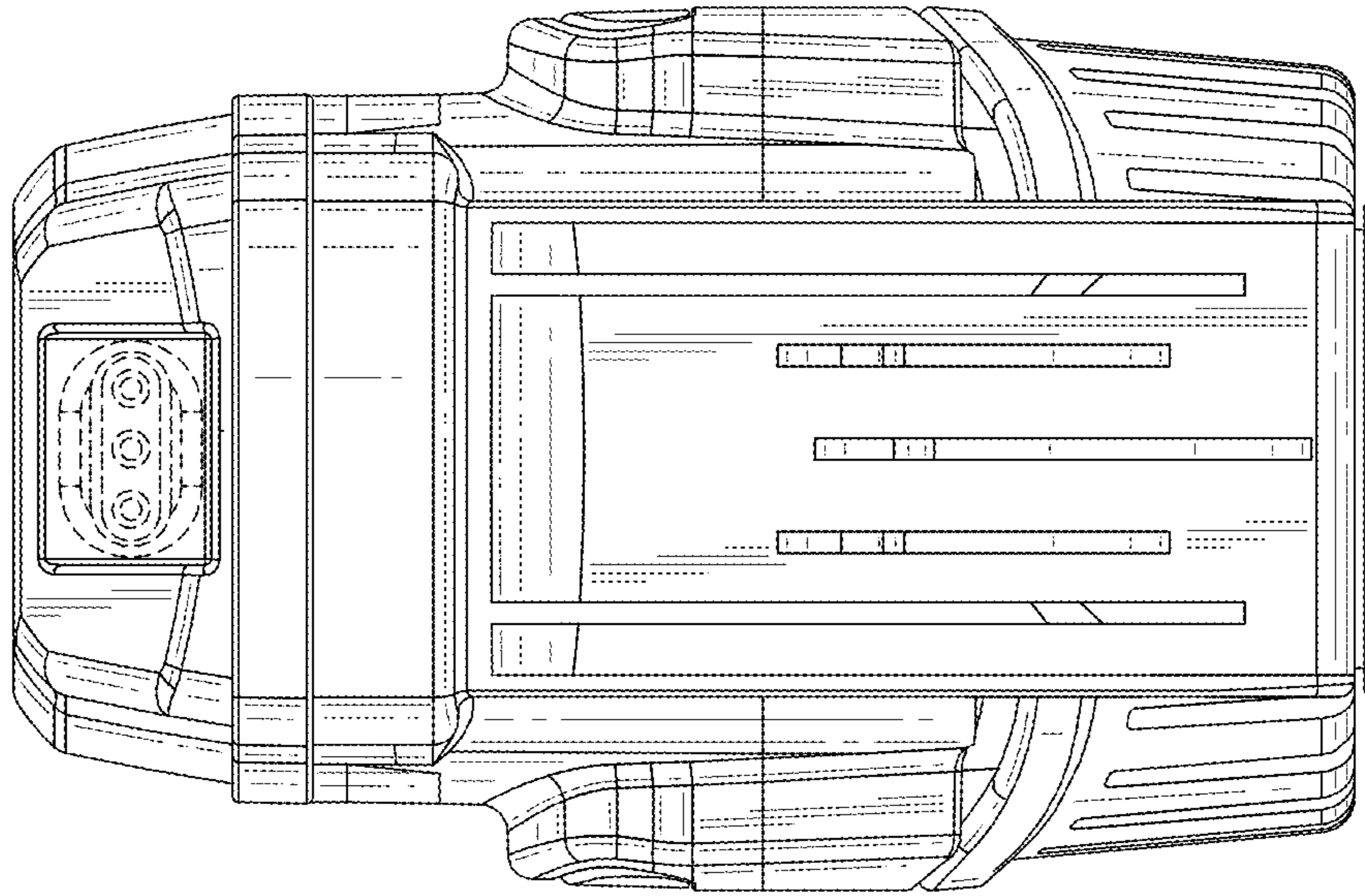


FIG. 12

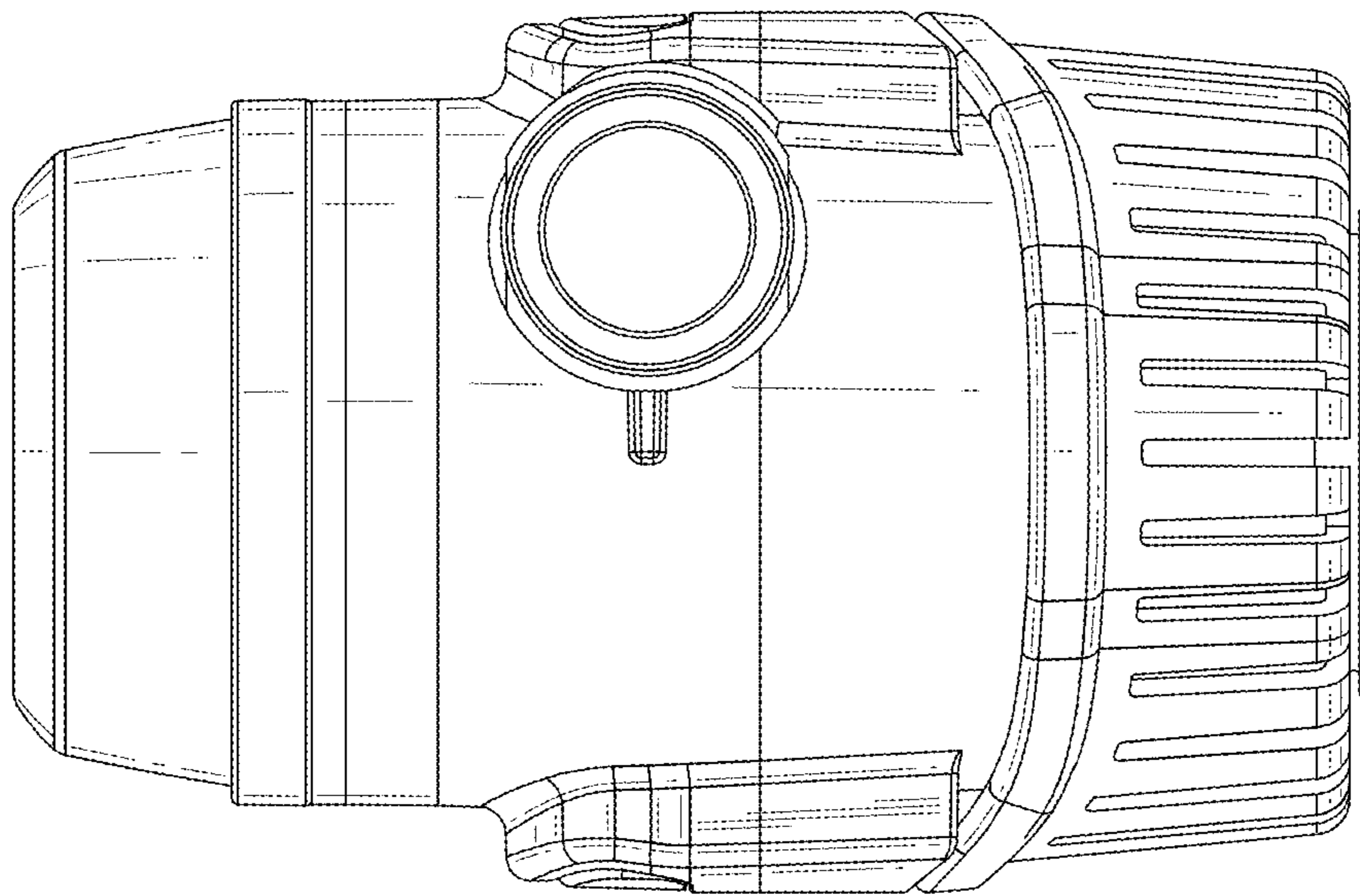


FIG. 11

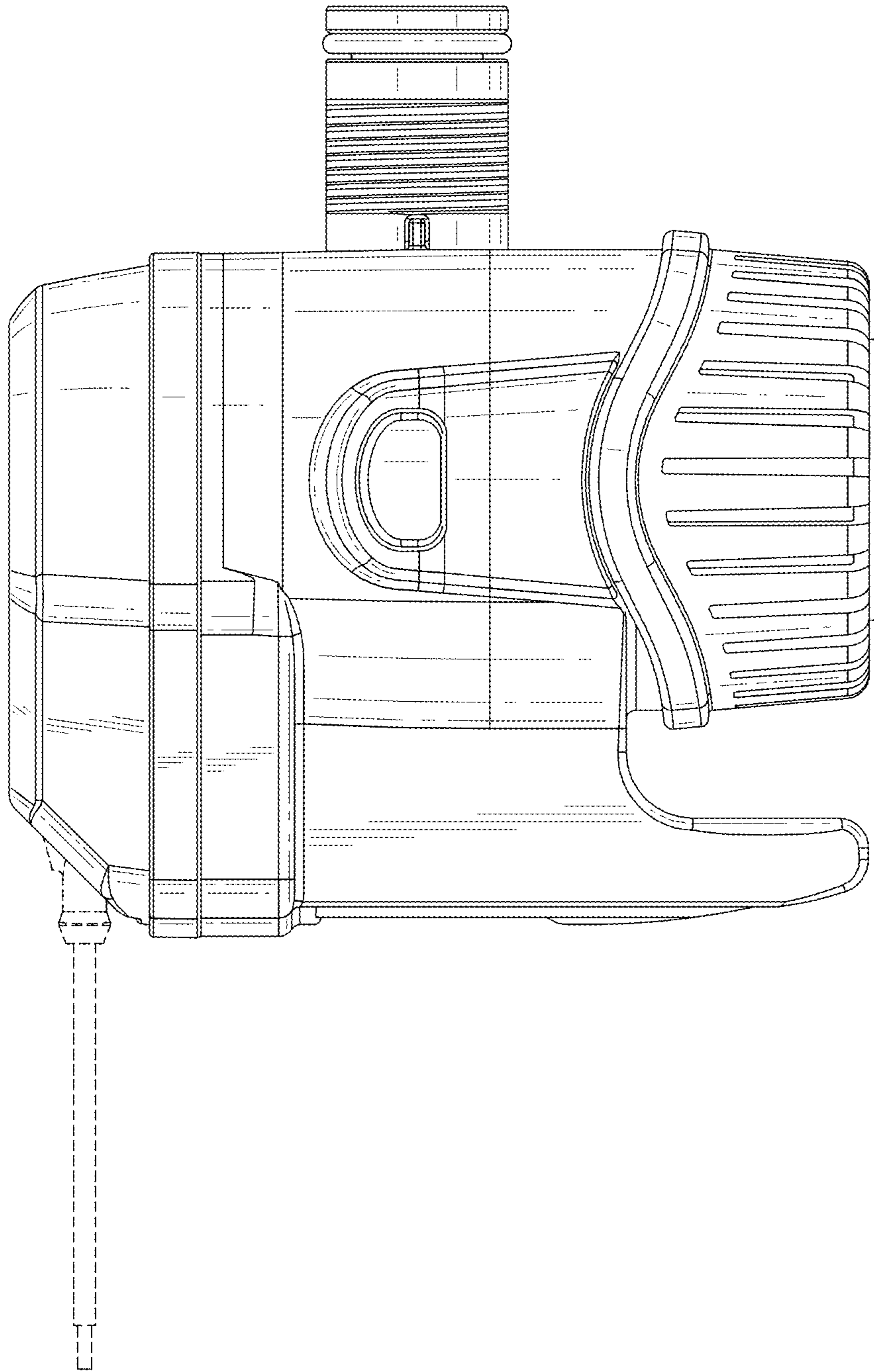


FIG. 13

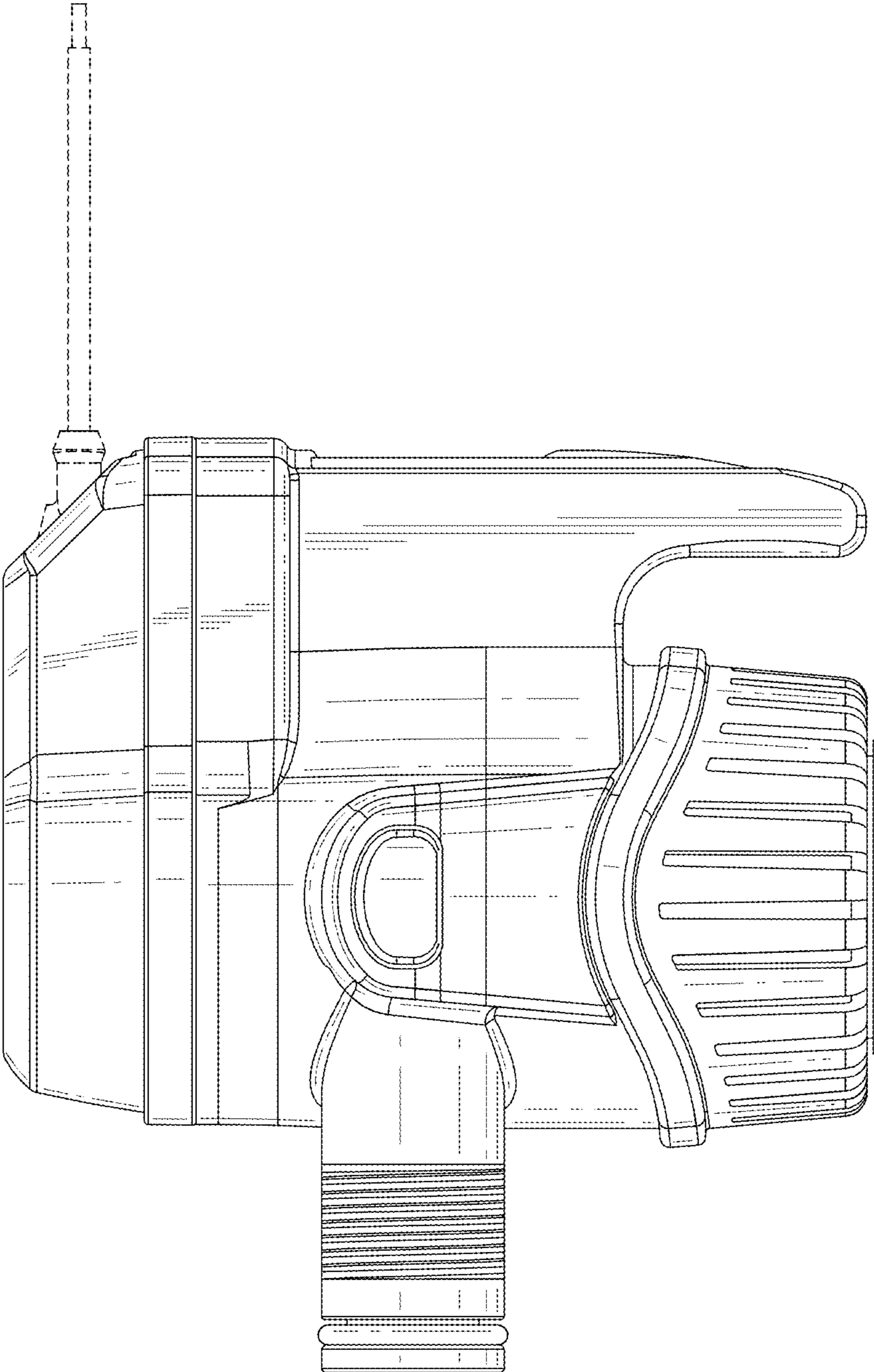


FIG. 14

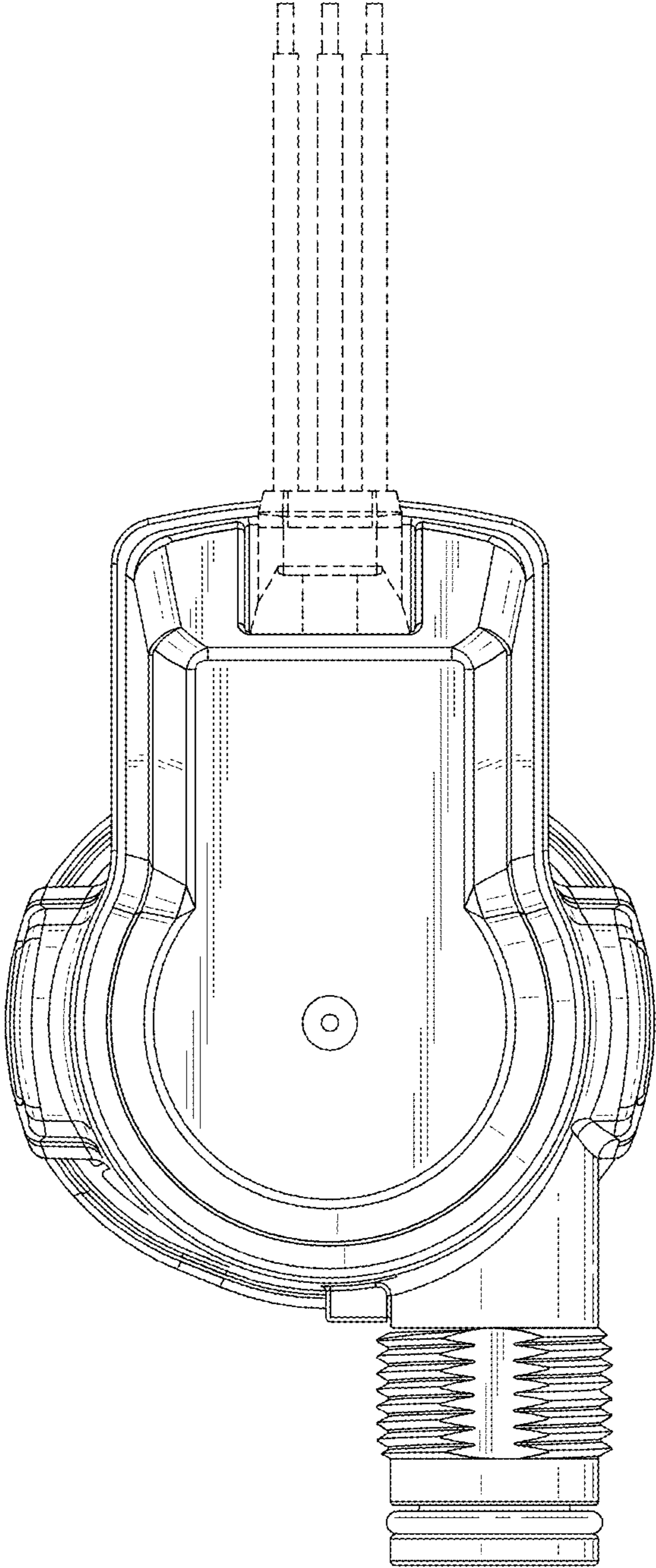


FIG. 15

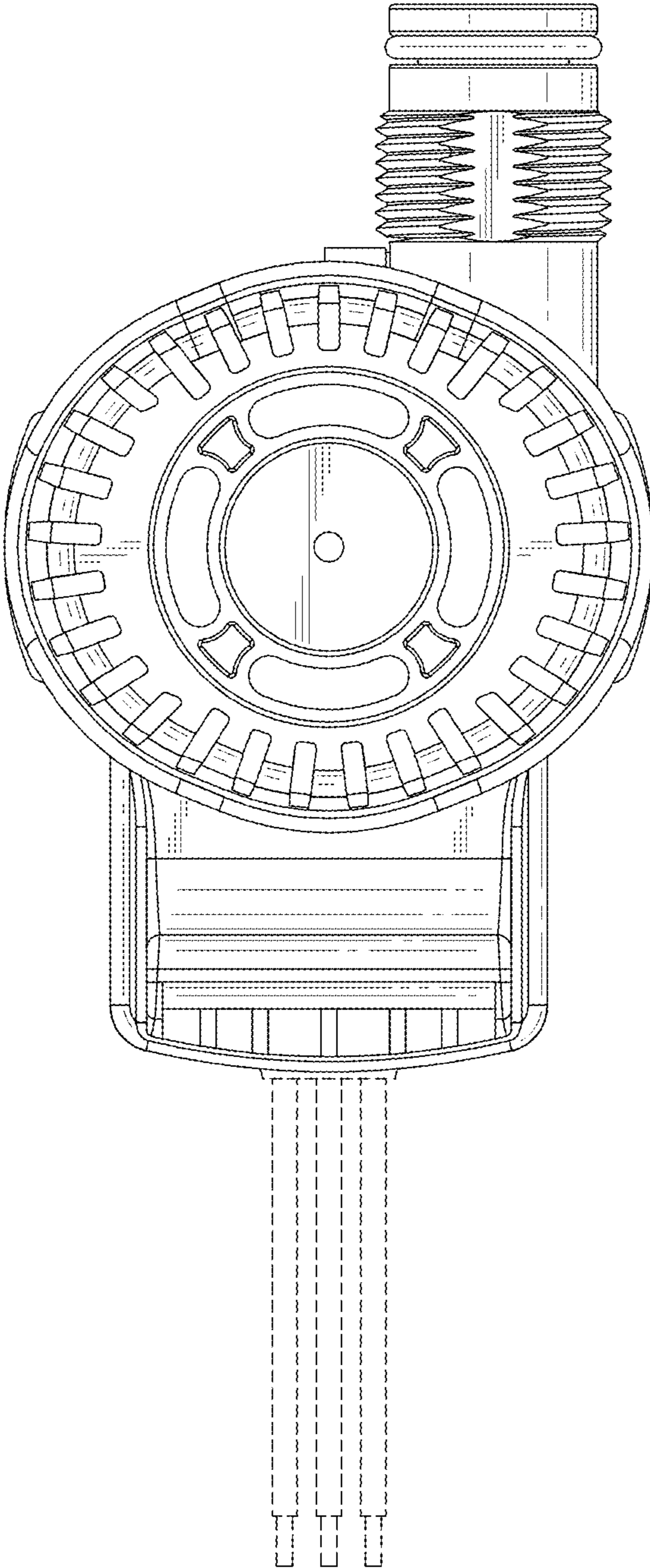


FIG. 16