



US00D403219S

United States Patent [19]

[11] **Patent Number: Des. 403,219**

Bosten et al.

[45] **Date of Patent: **Dec. 29, 1998**

[54] **IMPACT WRENCH**

Attorney, Agent, or Firm—Merchant, Gould, Smith, Edell, Welter & Schmidt, P.A.

[75] Inventors: **Donald Robert Bosten**, Jackson;
Randy Glen Cooper, Milan; **Mark A. Etter**, Jackson, all of Tenn.

[57] **CLAIM**

The ornamental design for an impact wrench, as shown and described.

[73] Assignee: **Porter-Cable Corporation**, Jackson, Tenn.

DESCRIPTION

[**] Term: **14 Years**

FIG. 1 is a front and top right perspective of an impact wrench, showing our new design;

[21] Appl. No.: **74,471**

FIG. 2 is a front elevational view of the impact wrench shown in FIG. 1;

[22] Filed: **Jul. 31, 1997**

FIG. 3 is a rear elevational view of the impact wrench shown in FIG. 1;

[51] **LOC (6) Cl.** **08-02**

[52] **U.S. Cl.** **D8/68**

[58] **Field of Search** D8/61, 65; 81/54, 81/57, 57.13, 57.14, 57.29, 57.39, 57.46, 63, 177.85; 403/365; 178/170, 217

FIG. 4 is a right side elevational view of the impact wrench shown in FIG. 1;

FIG. 5 is a left side elevational view of the impact wrench shown in FIG. 1;

[56] **References Cited**

U.S. PATENT DOCUMENTS

- D. 392,863 3/1998 Sugimoto et al. D8/68
- D. 393,581 4/1998 McCallops et al. D8/68

FIG. 6 is a top plan view of the impact wrench shown in FIG. 1;

FIG. 7 is a bottom plan view of the impact wrench shown in FIG. 1;

OTHER PUBLICATIONS

Ingersoll-Rand, "Instruction and Use Manual for Electric Impacttools" (front cover—Owner's Manual), Date Unknown.

FIG. 8 is a front and top right perspective of an ergonomic switch shown in the environment of an impact wrench;

Makita, "Impact Wrench" (front cover—Owner's Manual), Date Unknown.

FIG. 9 is a front elevational view of the ergonomic switch shown in FIG. 8;

Milwaukee, "Heavy-Duty Impact Wrench 1/2" Square Drive", (front cover and pp. 6-7—Owner's Manual), Date Unknown.

FIG. 10 is a right side elevational view of the ergonomic switch shown in FIG. 8;

Hitachi, "Impact Wrench" (front cover—Owner's Manual), Date Unknown.

FIG. 11 is a left side elevational view of the ergonomic switch shown in FIG. 8;

Dewalt, "Built Jobsite Tough" (inside front cover—Owner's Manual), Date Unknown.

FIG. 12 is a top plan view of the ergonomic switch shown in FIG. 8, looking through the environment; and,

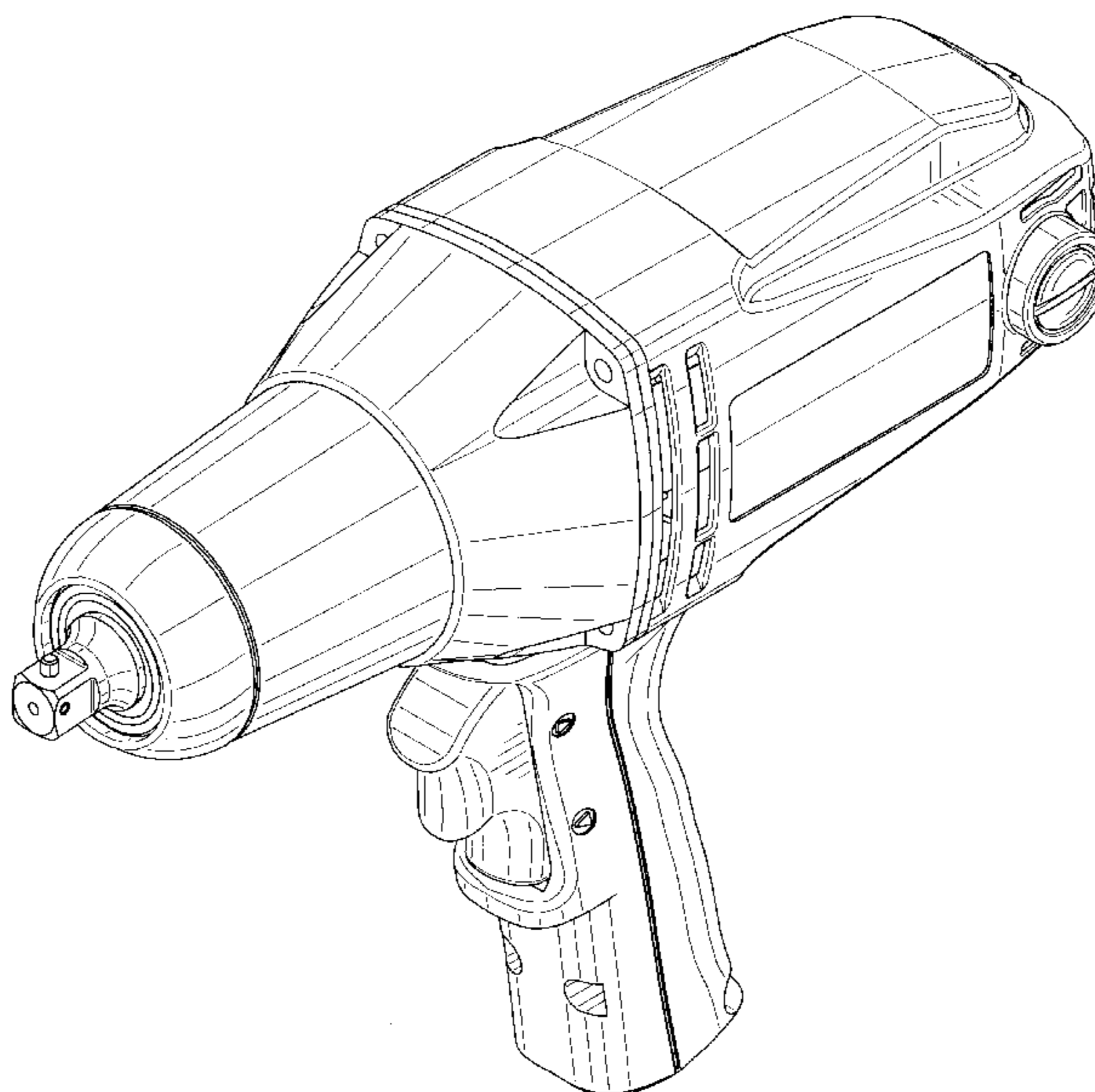
DeWalt, schematic drawing, Bulletin No. 11568, Jun. 1995.

FIG. 13 is a bottom plan view of the ergonomic switch shown in FIG. 8.

The broken line showing of a impact wrench is for illustrative purposes only and forms no part of the claimed design.

Primary Examiner—Antoine Duval Davis

1 Claim, 10 Drawing Sheets



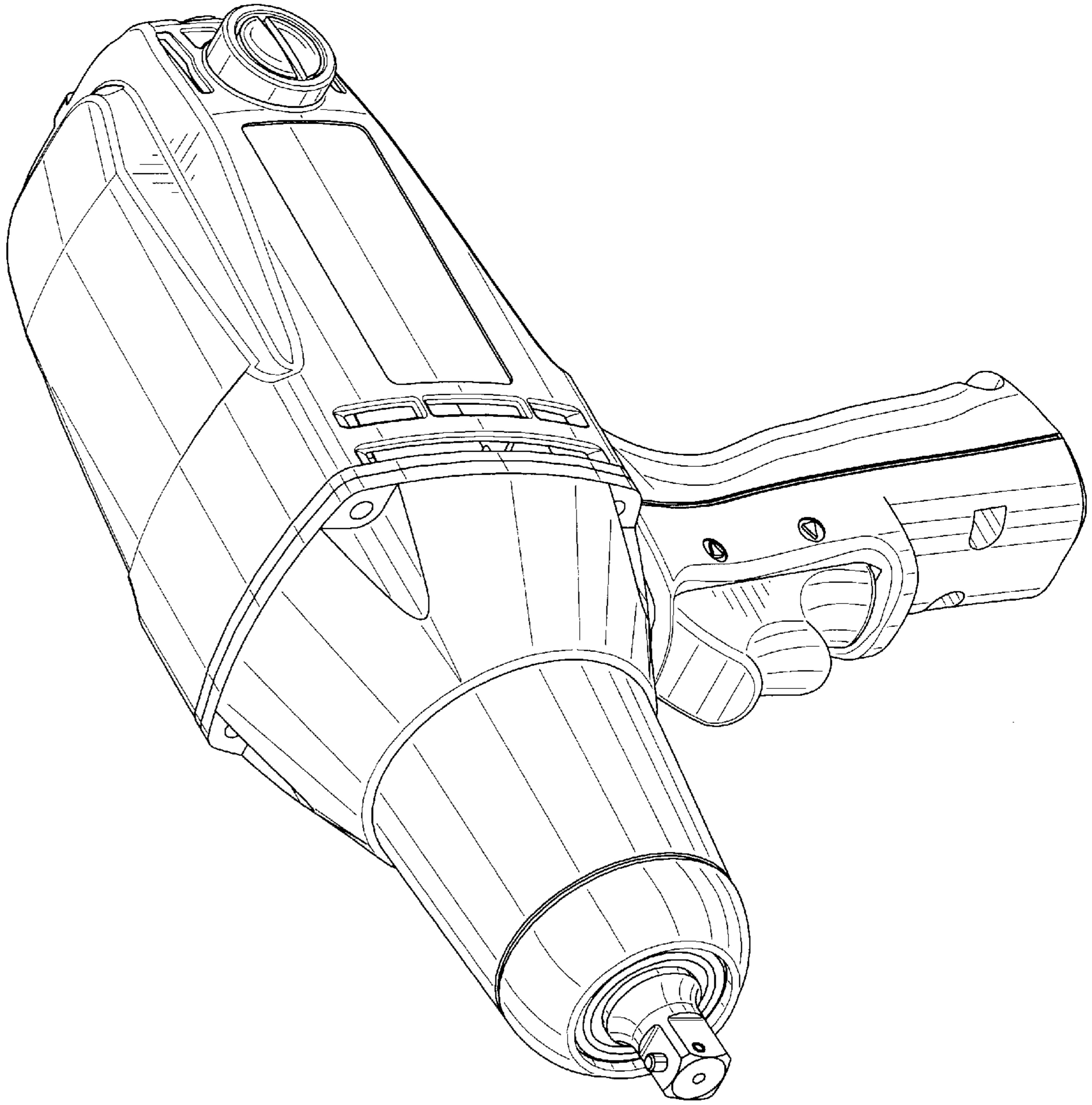


FIG. 1

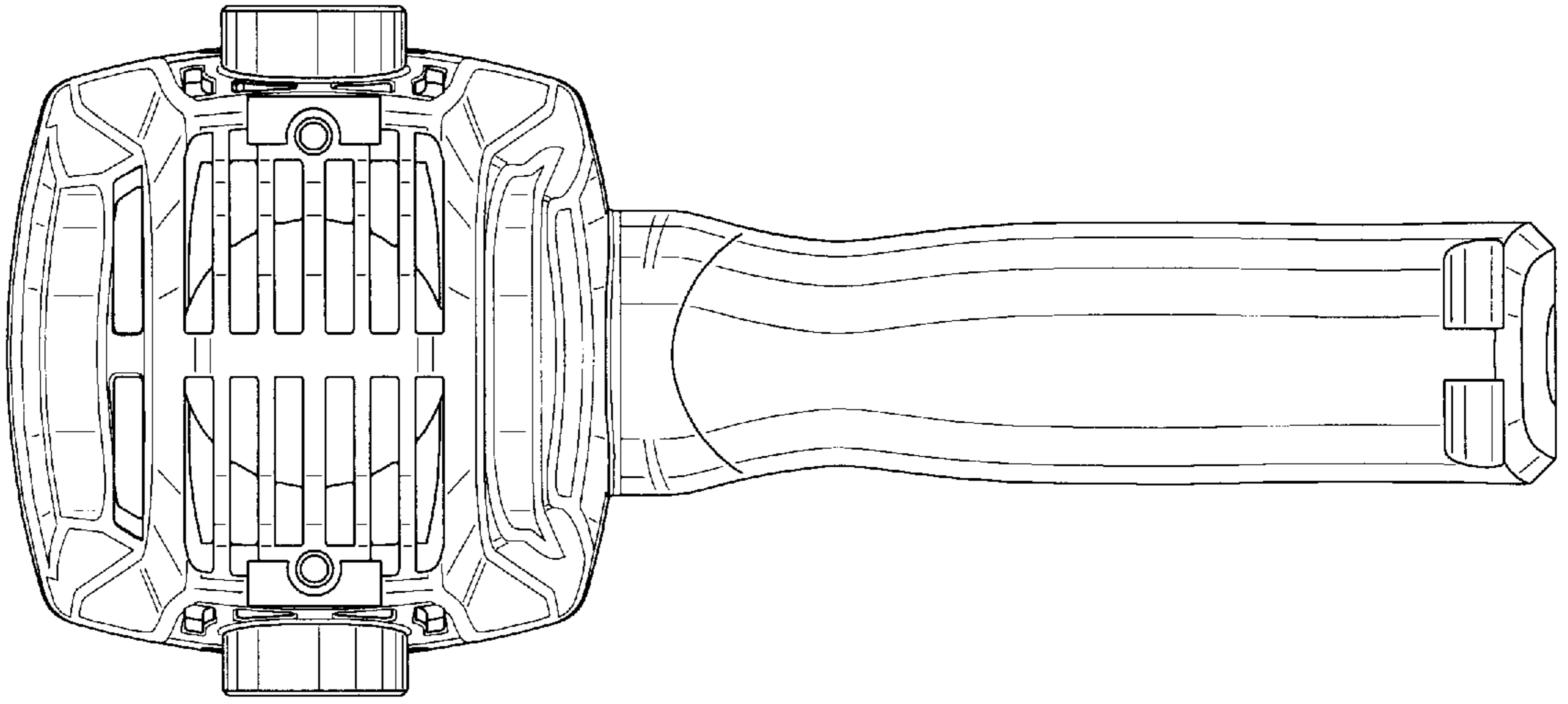


FIG. 3

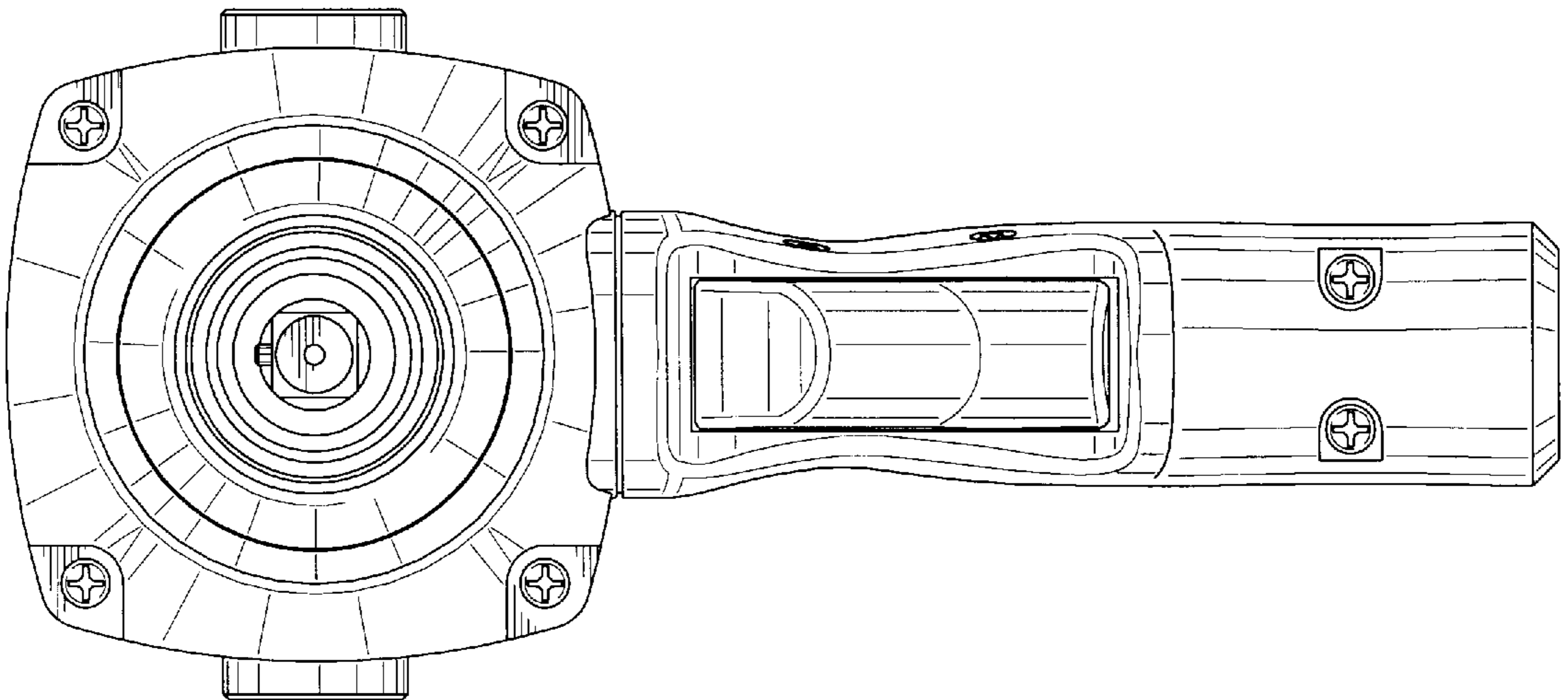


FIG. 2

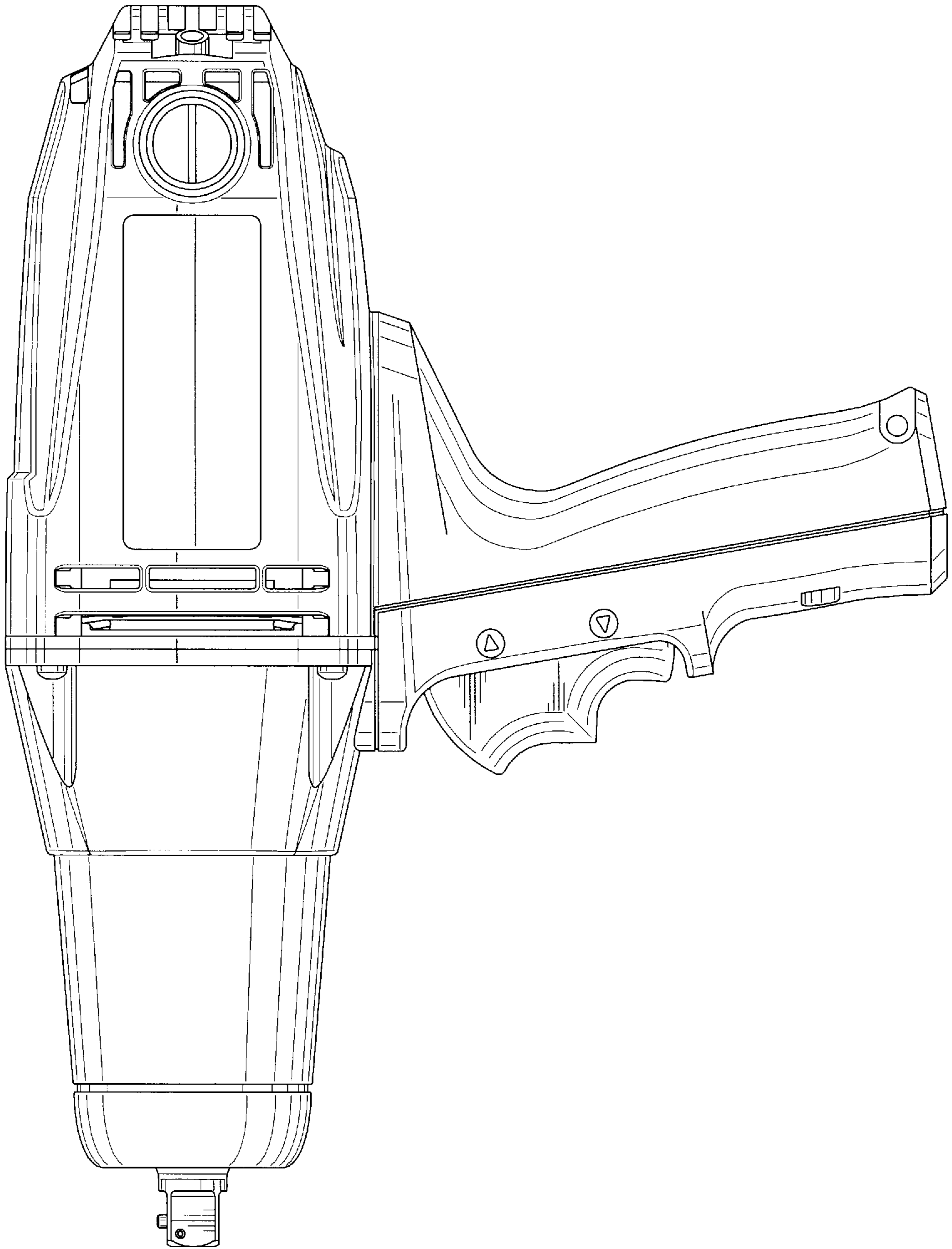


FIG. 4

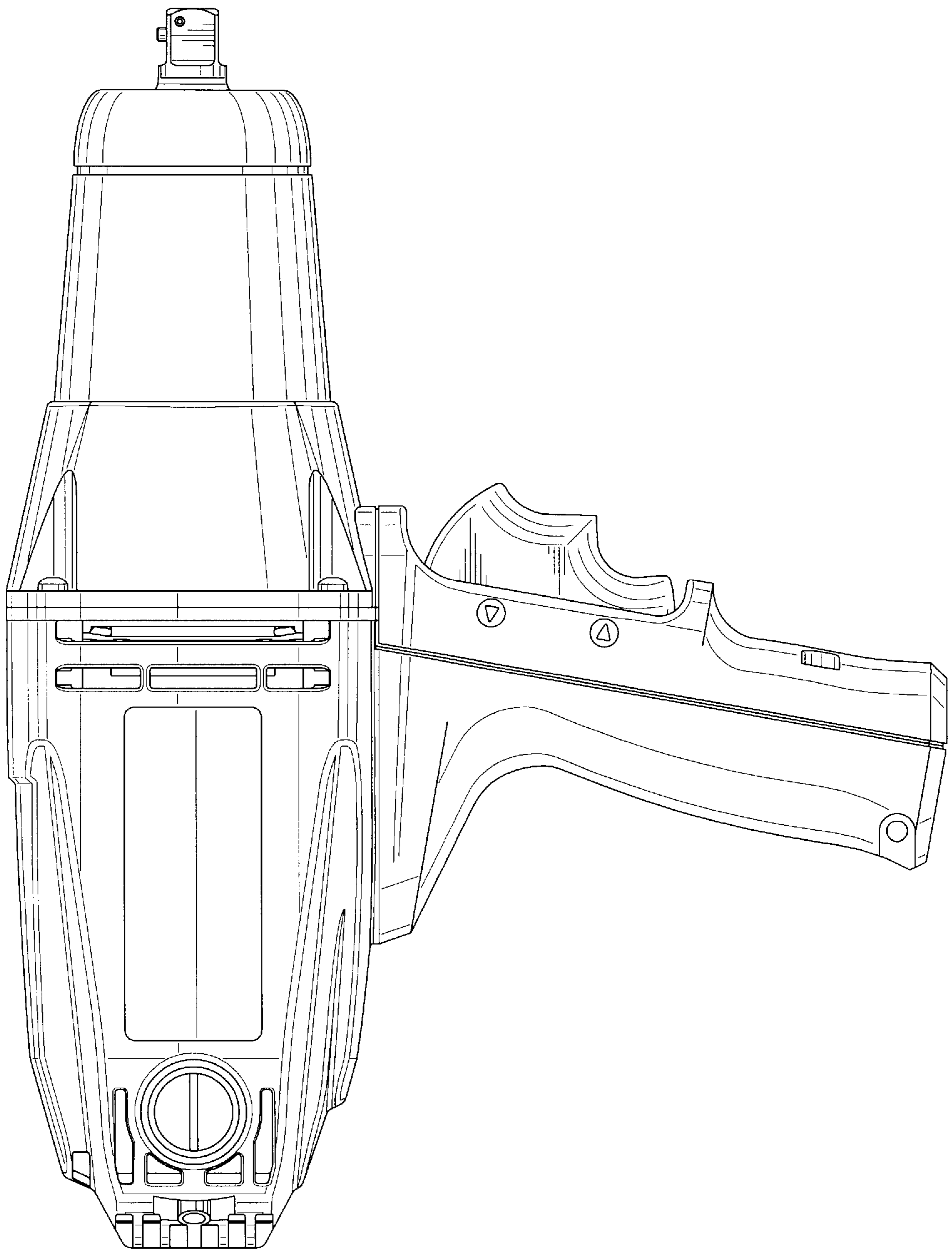


FIG. 5

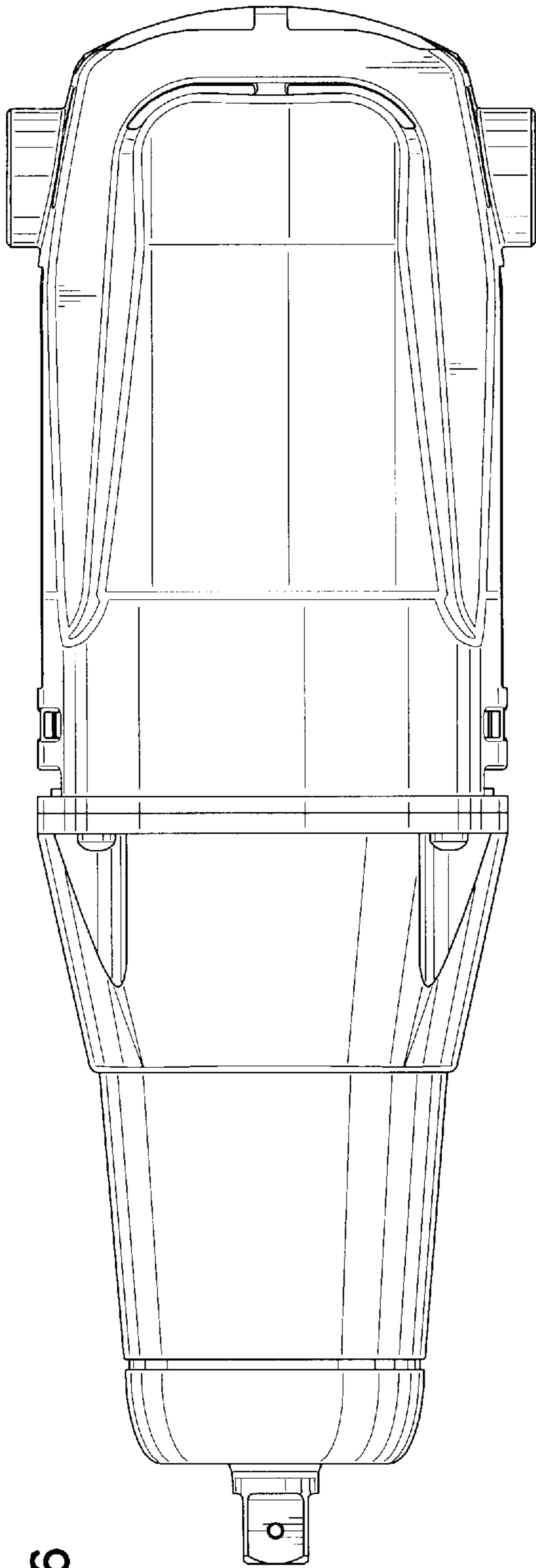


FIG. 6

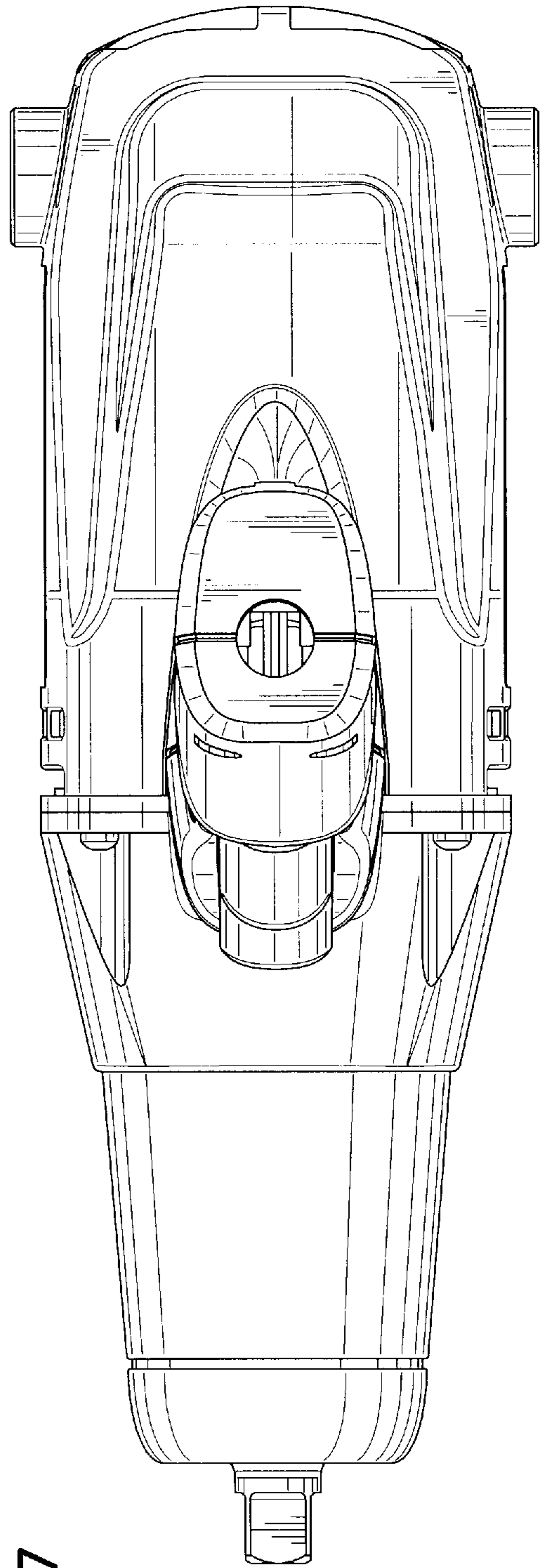


FIG. 7

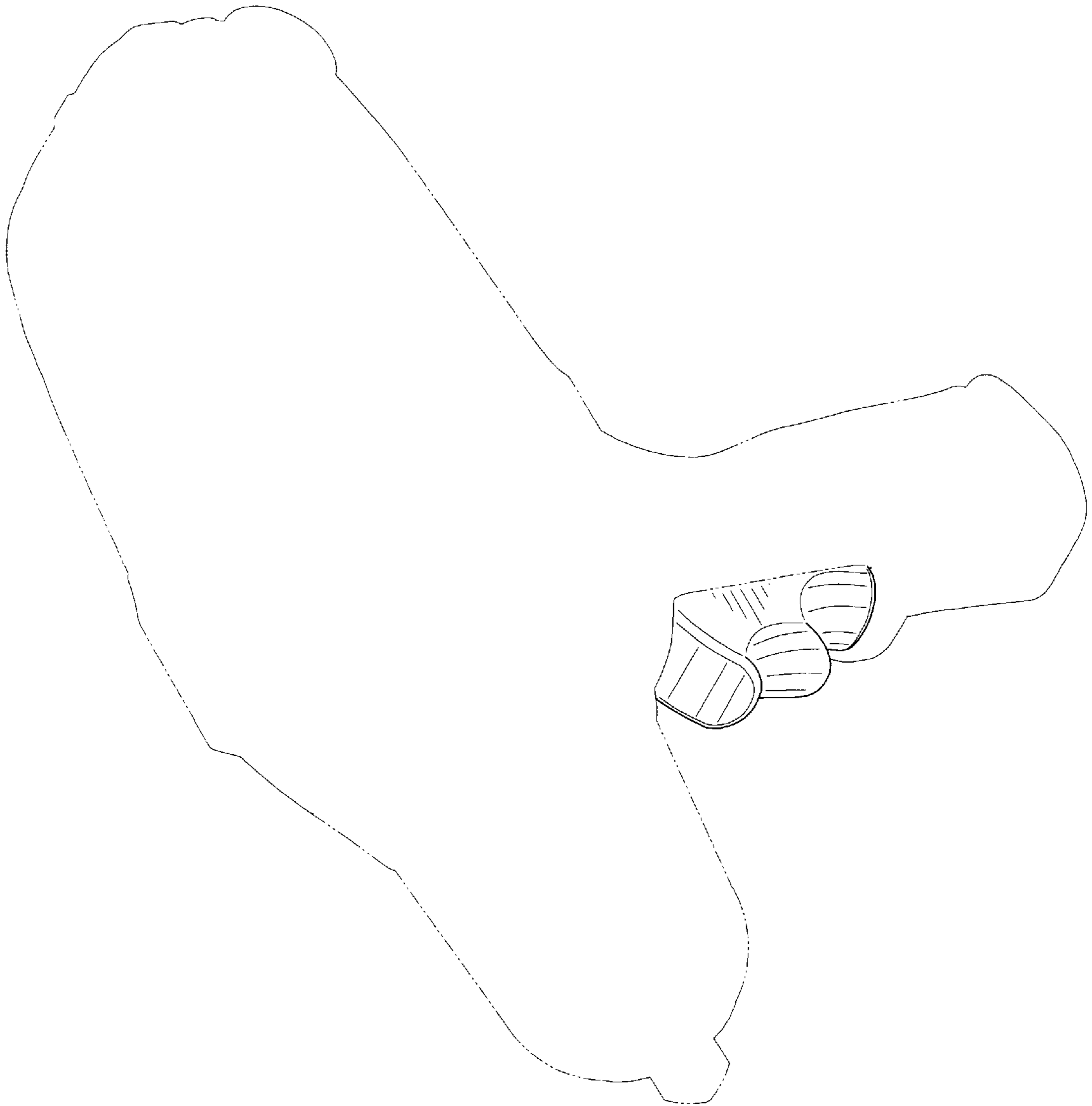
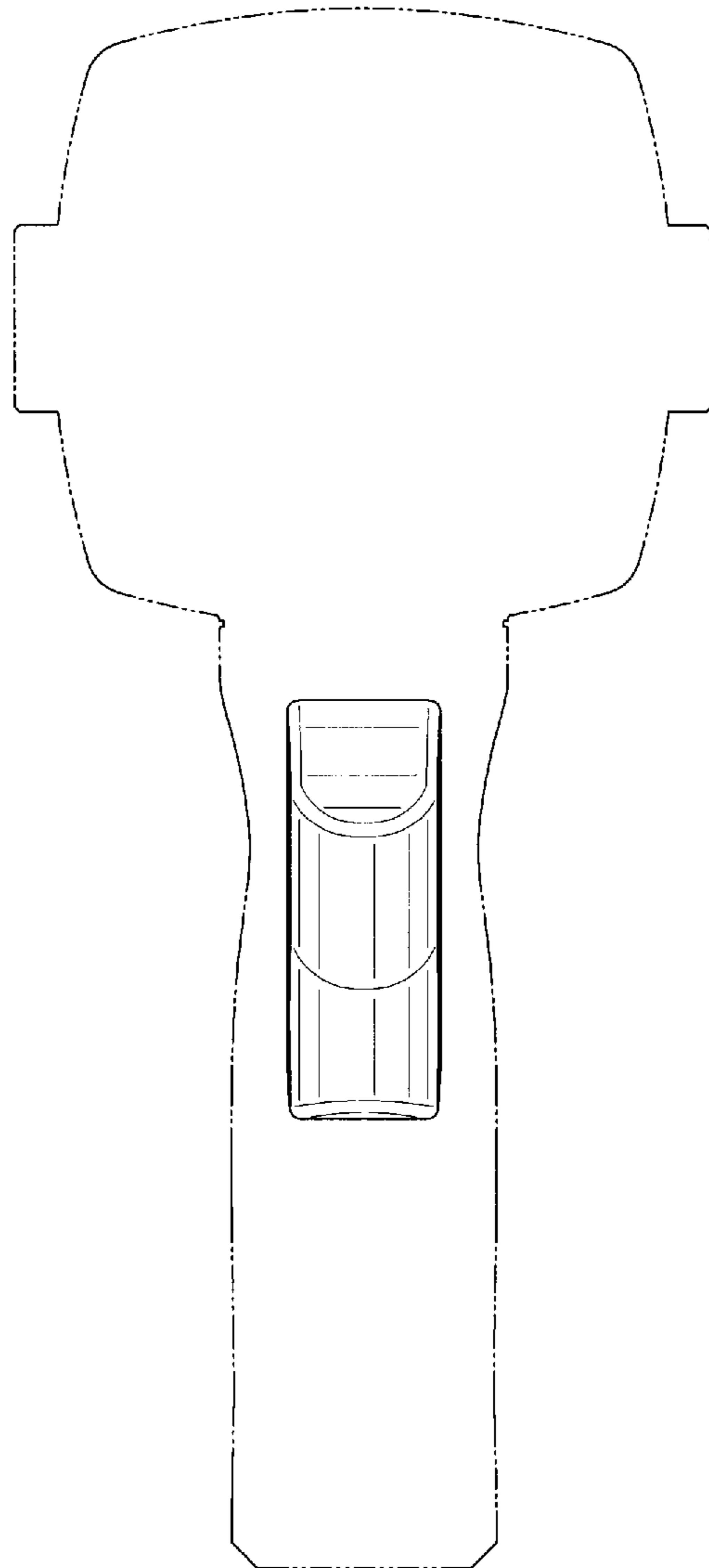


FIG. 8

FIG. 9



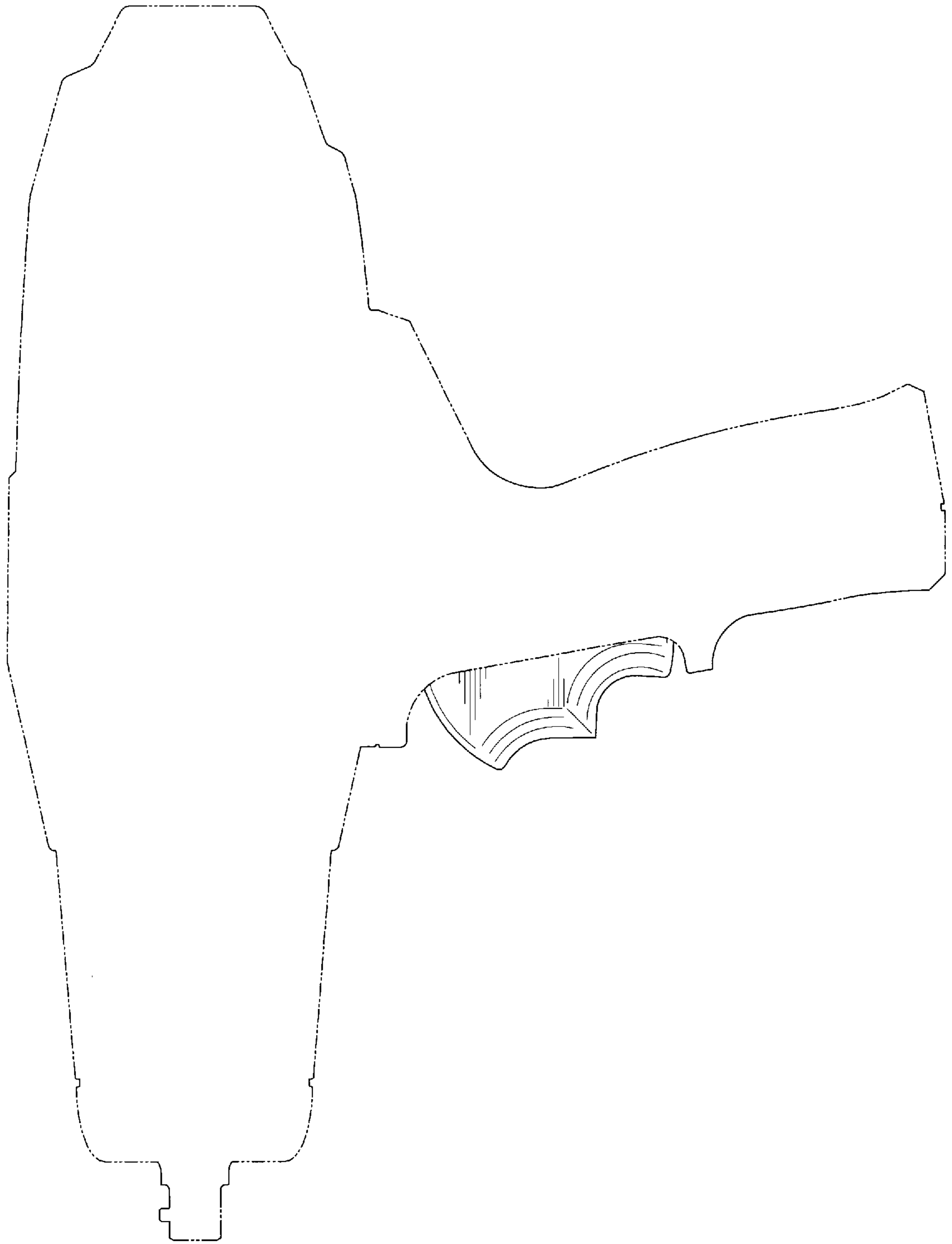


FIG. 10

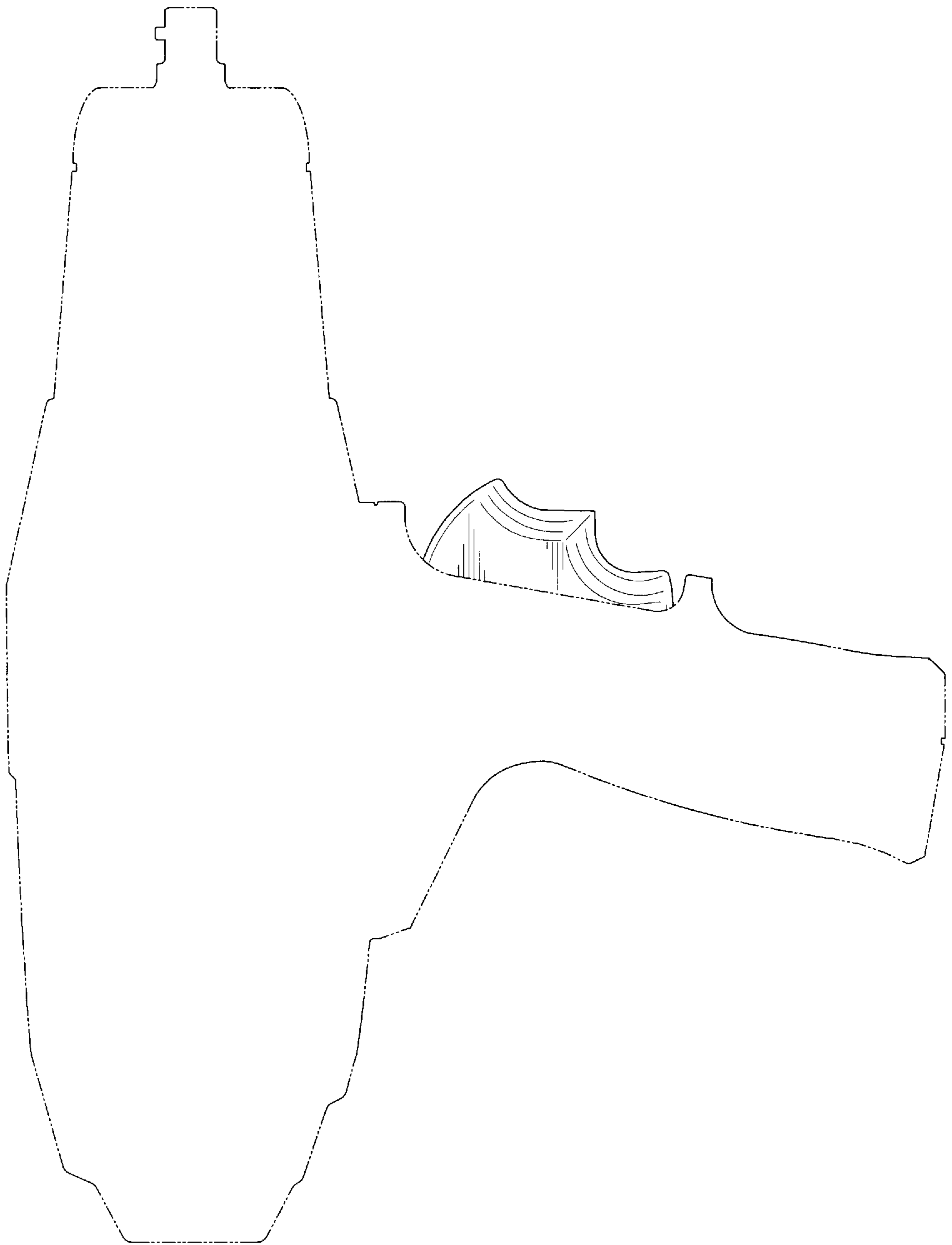


FIG. 11

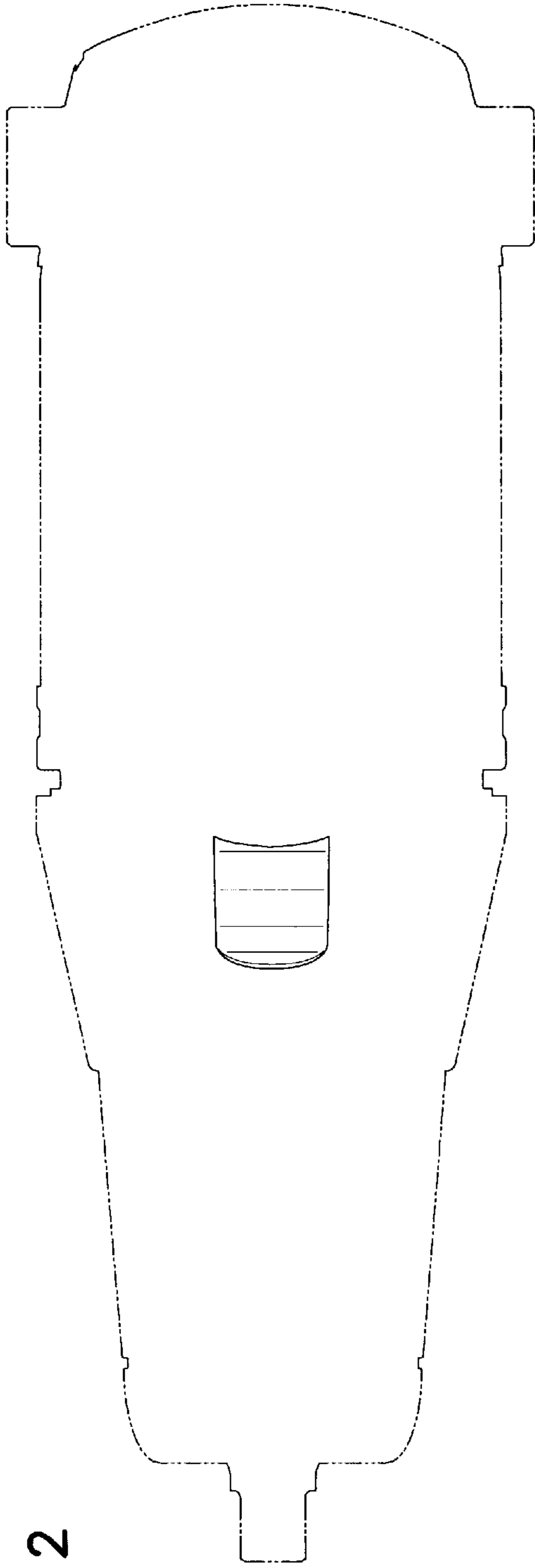


FIG. 12

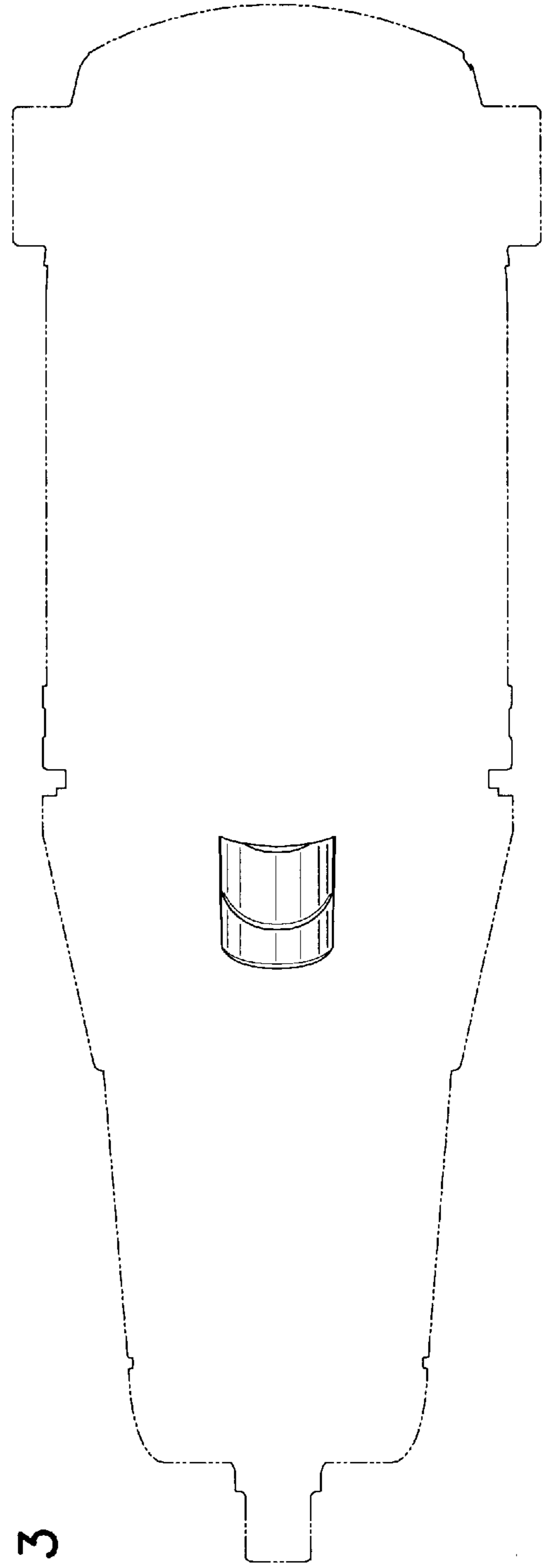


FIG. 13