



US00D490732S

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

(10) **Patent No.: US D490,732 S**
(45) **Date of Patent: ** Jun. 1, 2004**

(54) **DEVICE FOR MEASURING FORCE AND ANGLES**

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

(21) Appl. No.: **29/174,381**

(22) Filed: **Jan. 15, 2003**

(51) **LOC (7) Cl. 10-04**

(52) **U.S. Cl. D10/83**

(58) **Field of Search** D10/65, 83; 73/379.01,
73/862.045; 600/582, 595

(56) **References Cited**

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Primary Examiner—Antoine Duval Davis

(74) *Attorney, Agent, or Firm*—Mallinckrodt & Mallinckrodt

(57) **CLAIM**

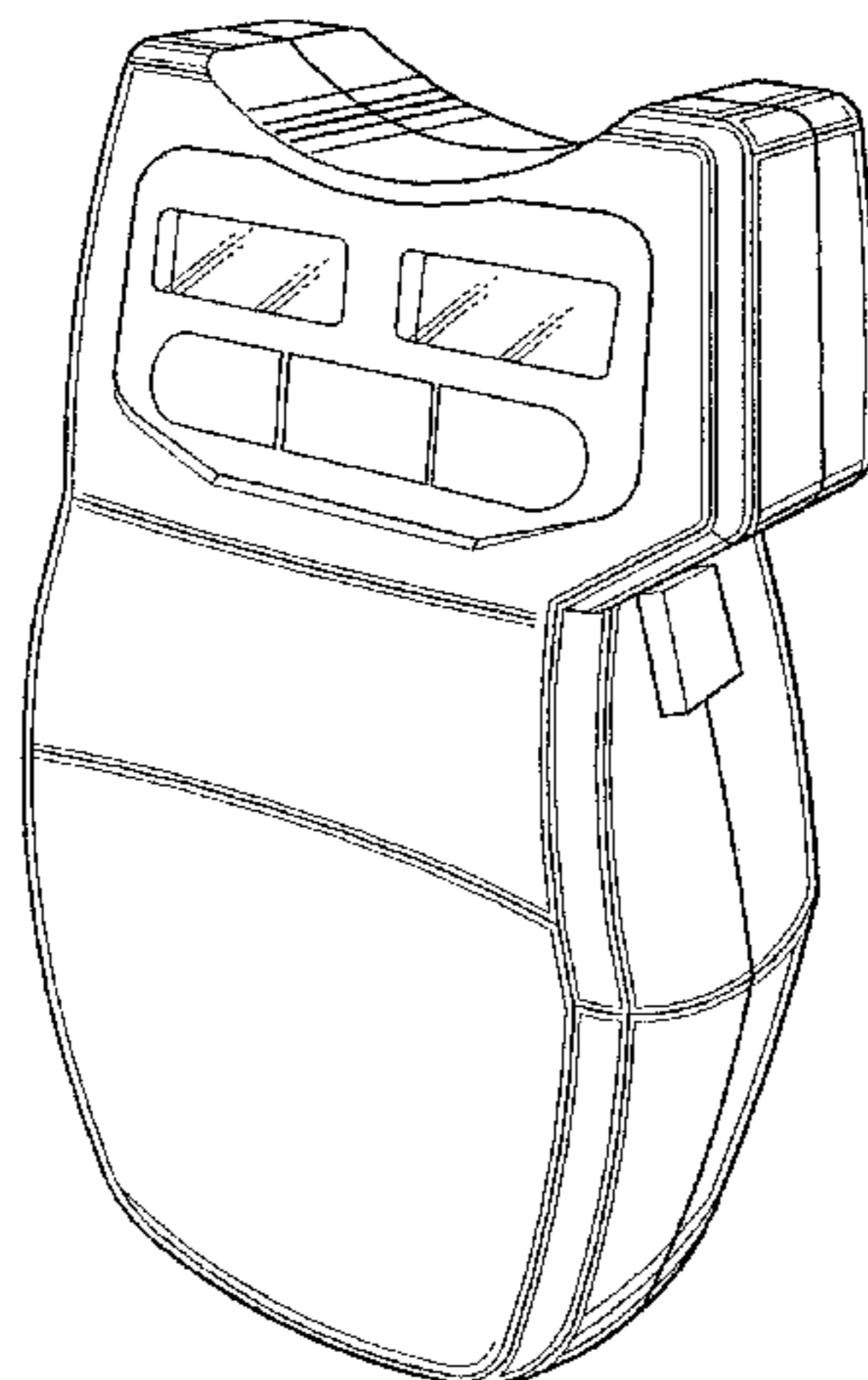
The ornamental design for a device for measuring force and angles, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of a device for measuring force and angles showing our new design and without a force measuring contact pad attachment;
FIG. 2 is a rear elevational view thereof;

FIG. 3 is a left side elevational view thereof;
FIG. 4 is a right side elevational view thereof;
FIG. 5 is a top plan view thereof;
FIG. 6 is a bottom plan view thereof;
FIG. 7 is a front perspective view showing our new design with one embodiment of force measuring pad secured thereto and extending from the rear thereof and showing in FIGS. 8–12, but not showing in this FIG.;
FIG. 8 is a rear elevational view of the embodiment of FIG. 7;
FIG. 9 is a left side elevational view thereof;
FIG. 10 is a right side elevational view thereof;
FIG. 11 is a top plan view thereof;
FIG. 12 is a bottom plan view thereof;
FIG. 13 is a front perspective view showing our new design with a second embodiment of force measuring pad secured thereto and extending from the rear thereof and showing in FIGS. 14–18, but not showing in this FIG.;
FIG. 14 is a rear elevational view of the embodiment of FIG. 13;
FIG. 15 is a left side elevational view thereof;
FIG. 16 is a right side elevational view thereof;
FIG. 17 is a top plan view thereof;
FIG. 18 is a bottom plan view thereof;
FIG. 19 is a front perspective view showing our new design with a third embodiment of force measuring pad secured thereto and extending from the rear thereof and showing in FIGS. 19–23, but not showing in this FIG.;
FIG. 20 is a rear elevational view of the embodiment of FIG. 18;
FIG. 21 is a left side elevational view thereof;
FIG. 22 is a right side elevational view thereof;
FIG. 23 is a top plan view thereof;
FIG. 24 is a bottom plan view thereof;
FIG. 25 is a front perspective view showing our new design with a fourth embodiment of force measuring pad secured thereto and extending from the rear thereof and showing in FIGS. 25–29, but not showing in this FIG.;
FIG. 26 is a rear elevational view of the embodiment of FIG. 24;
FIG. 27 is a left side elevational view thereof;
FIG. 28 is a right side elevational view thereof;
FIG. 29 is a top plan view thereof; and,
FIG. 30 is a bottom plan view thereof.

1 Claim, 10 Drawing Sheets



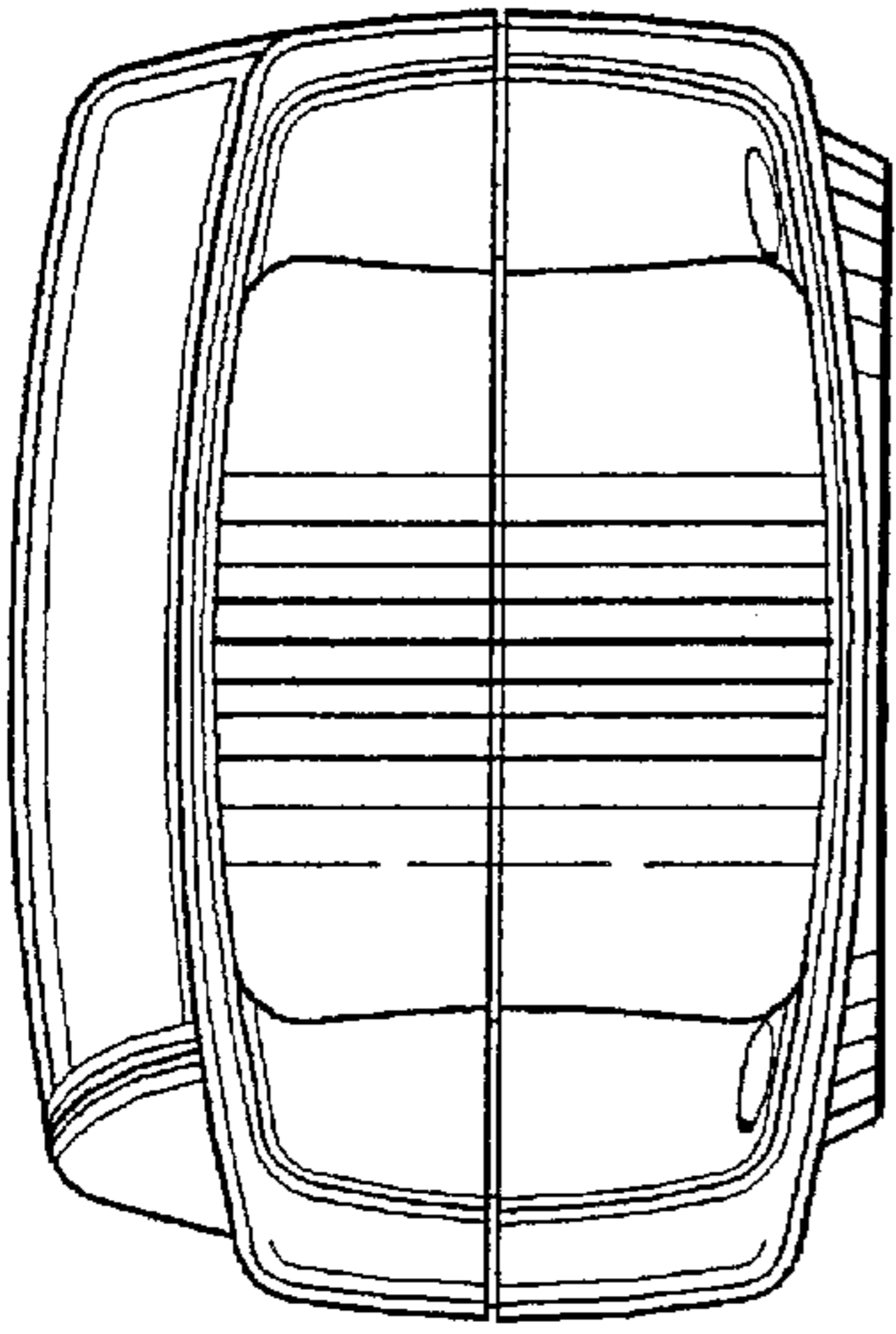


FIG. 5

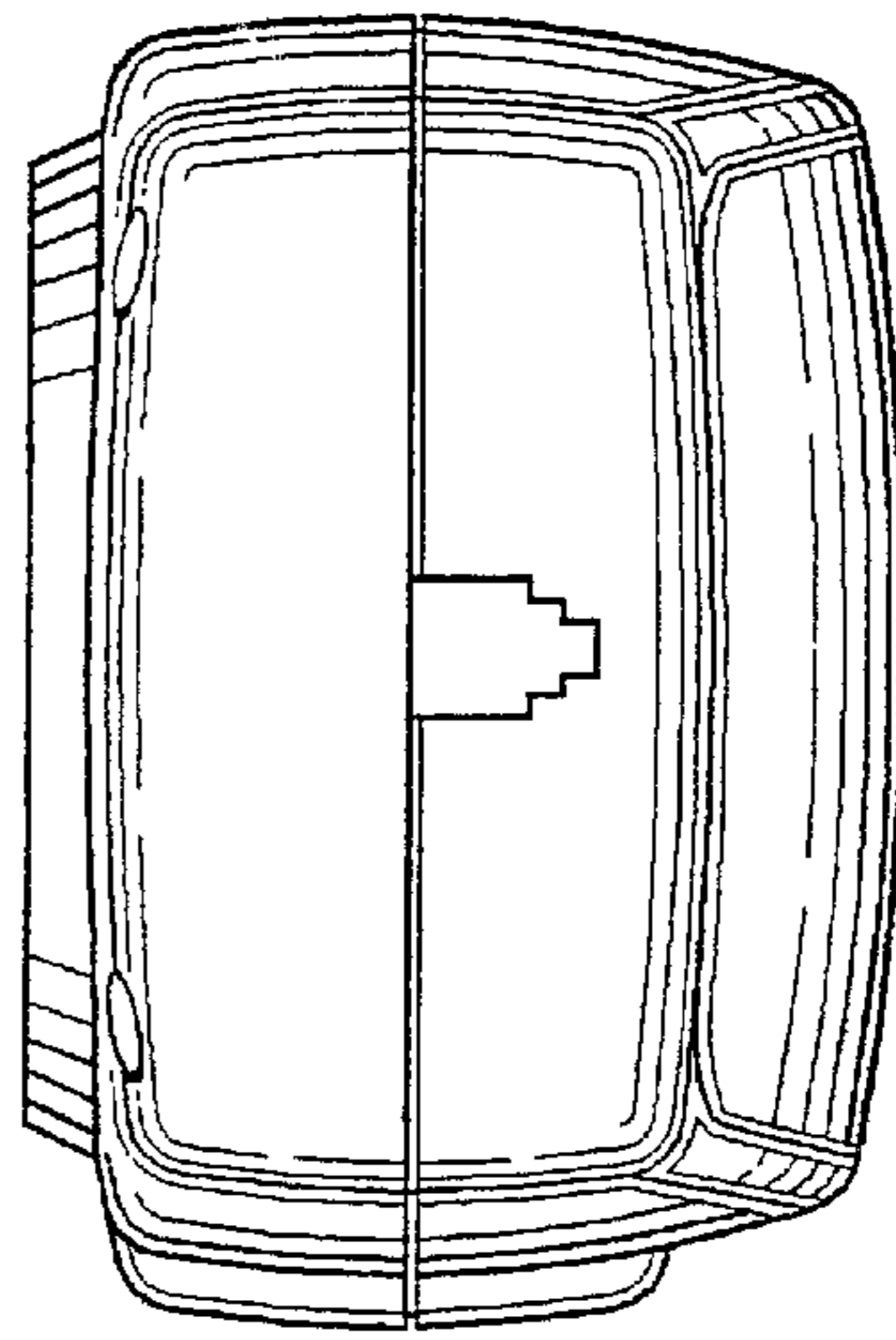


FIG. 6

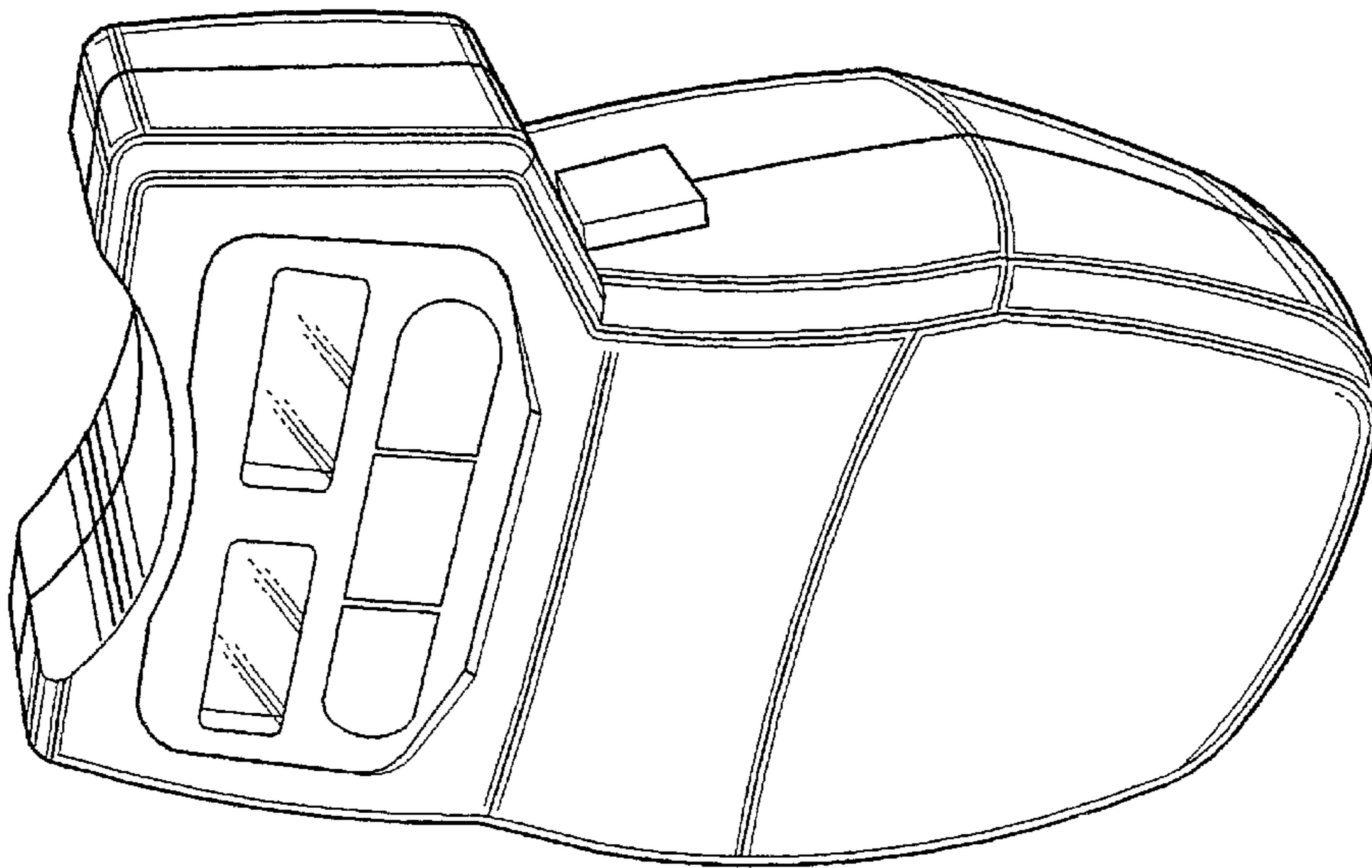


FIG. 1

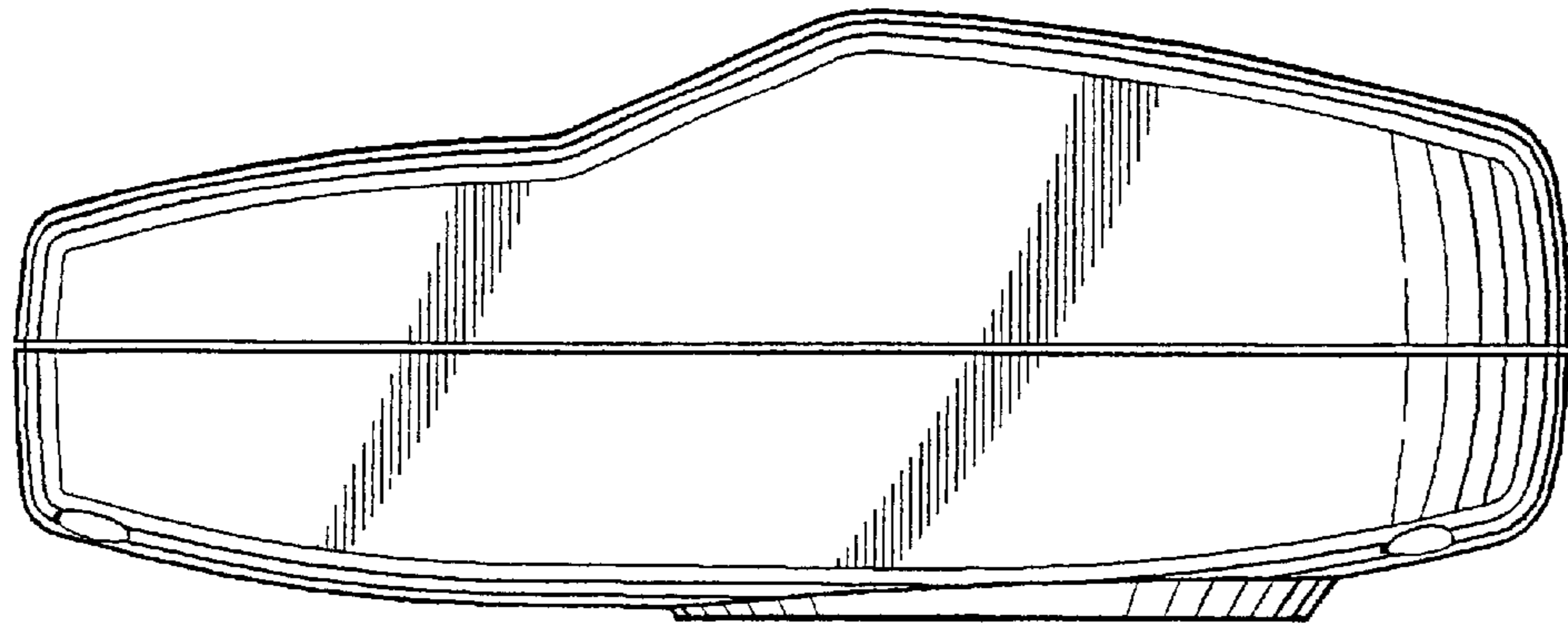


FIG. 4

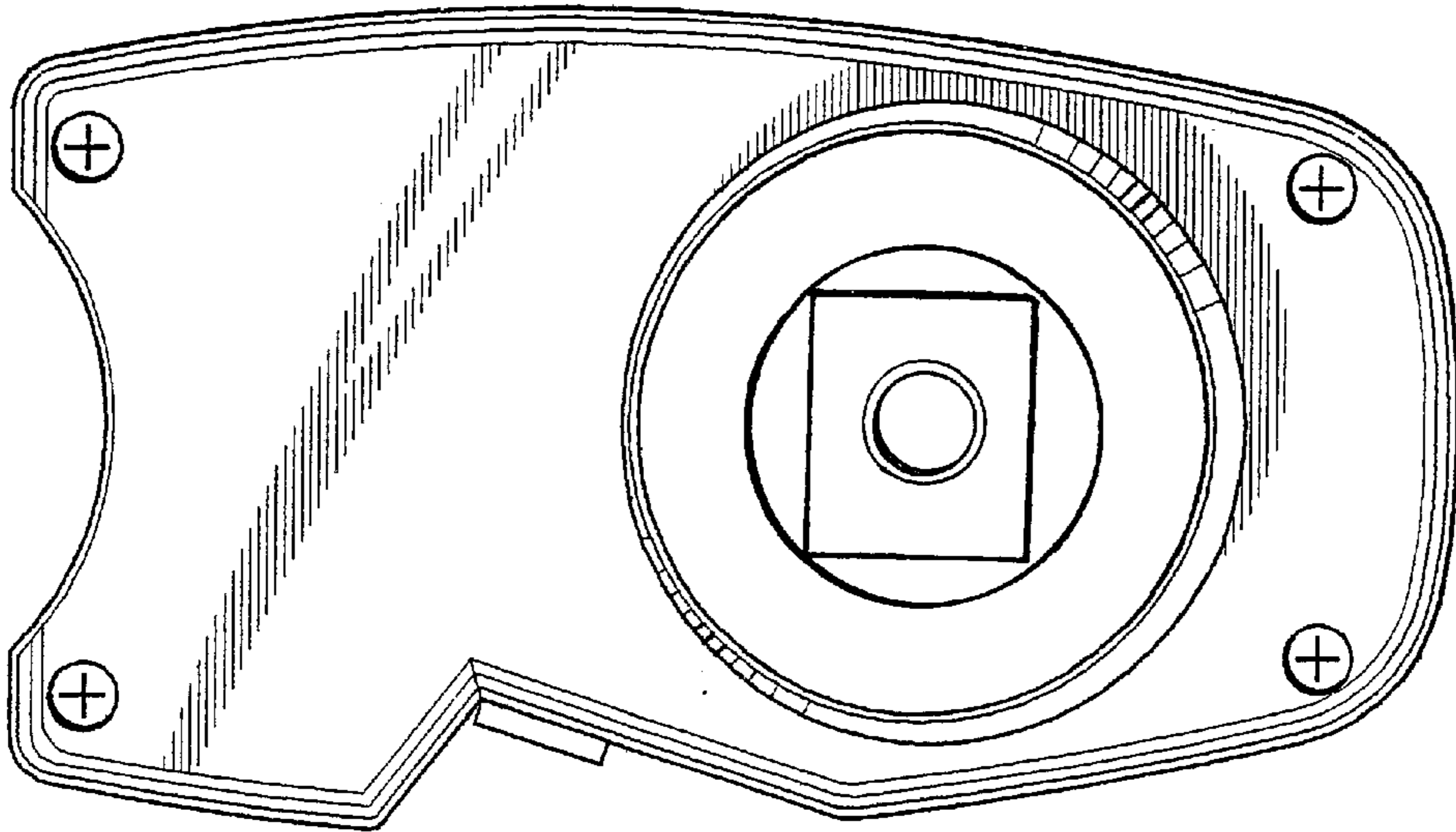


FIG. 2

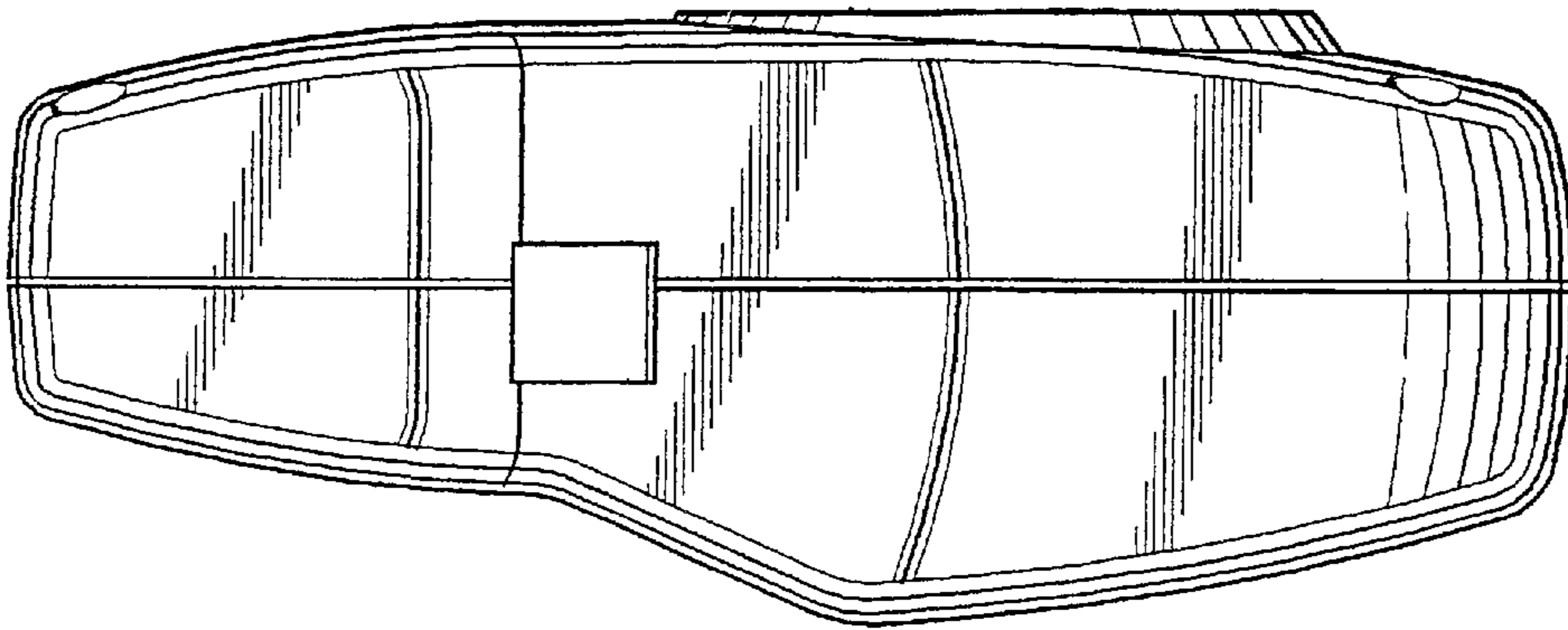


FIG. 3

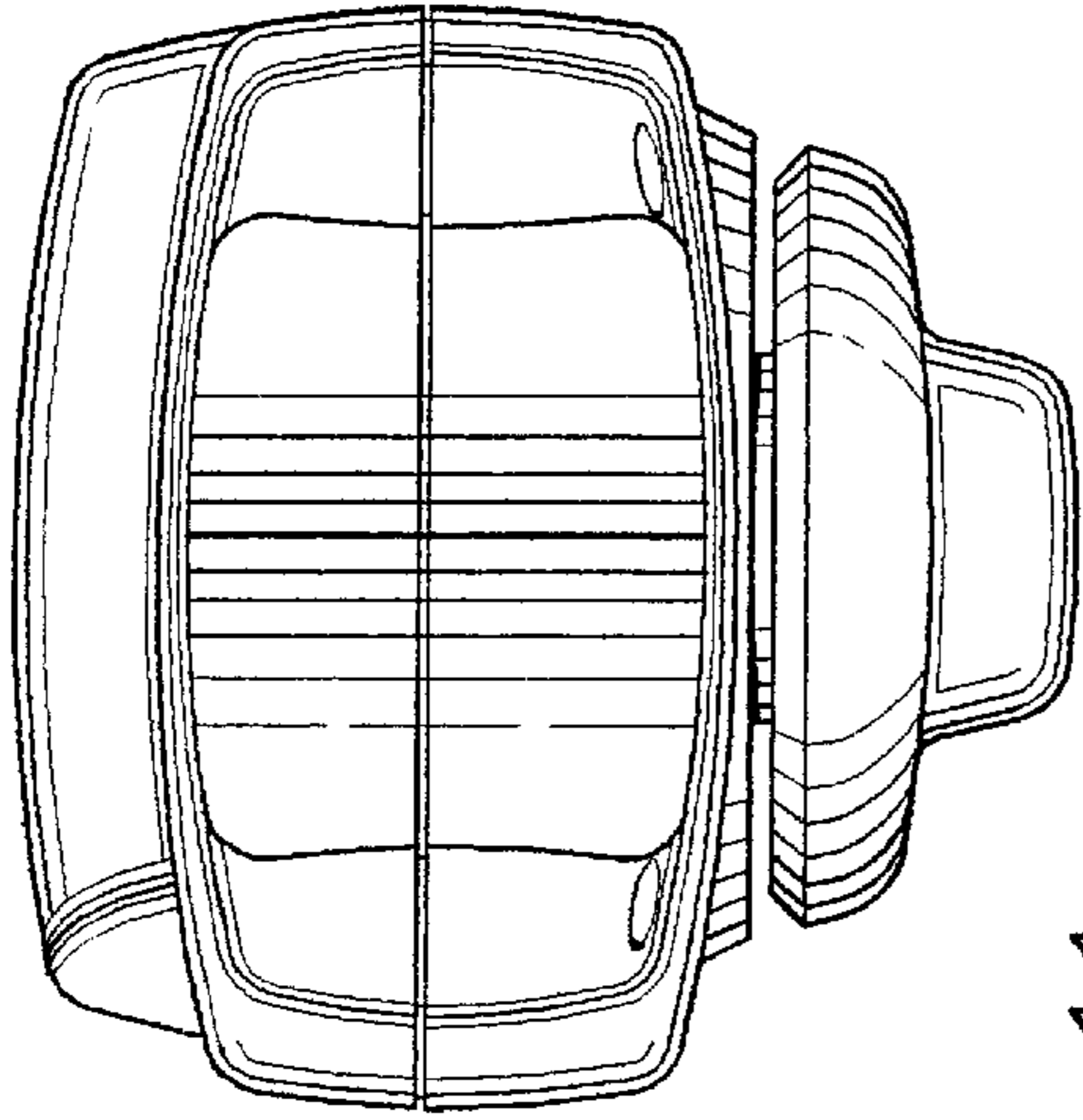


FIG. 11

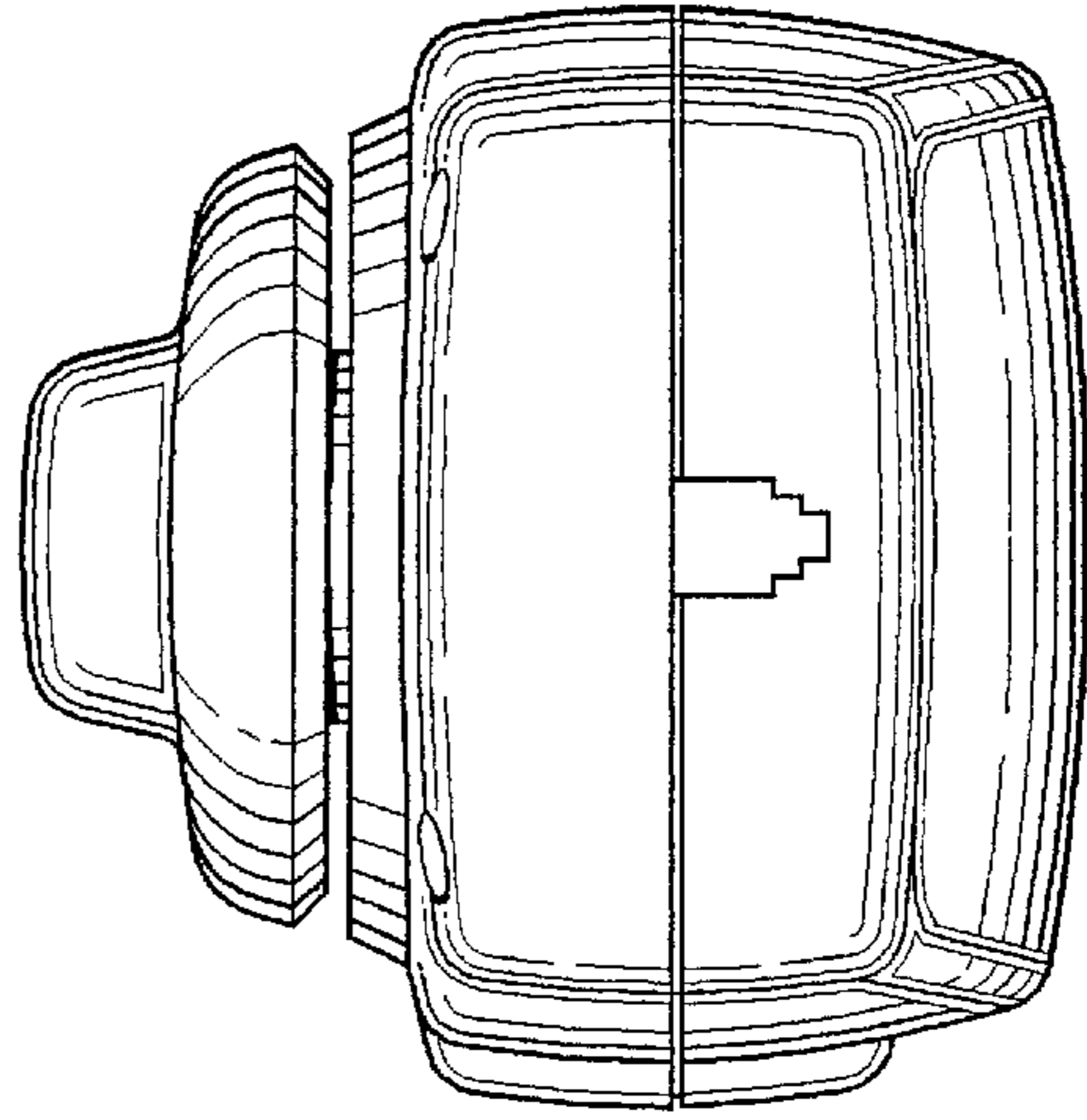


FIG. 12

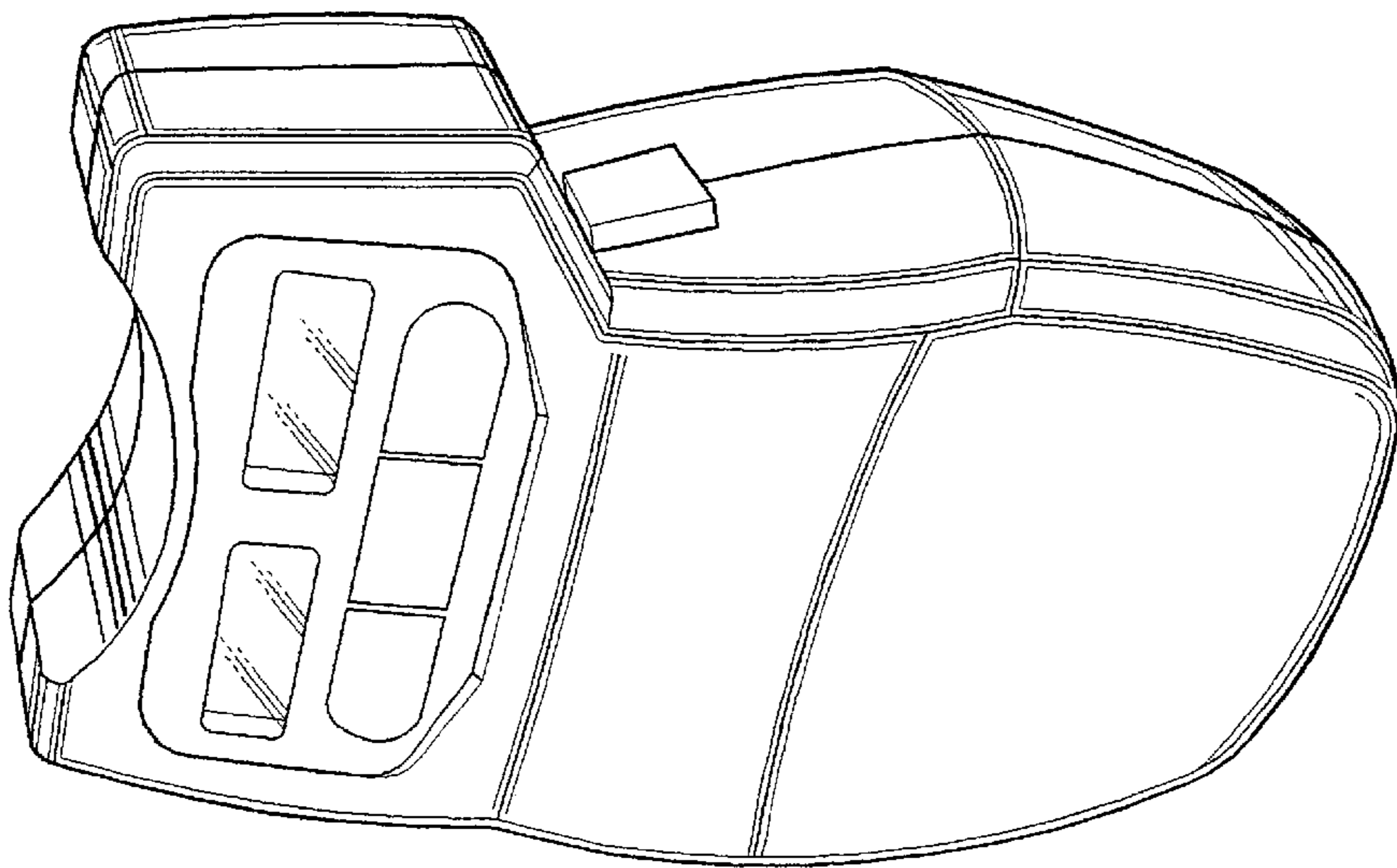


FIG. 7

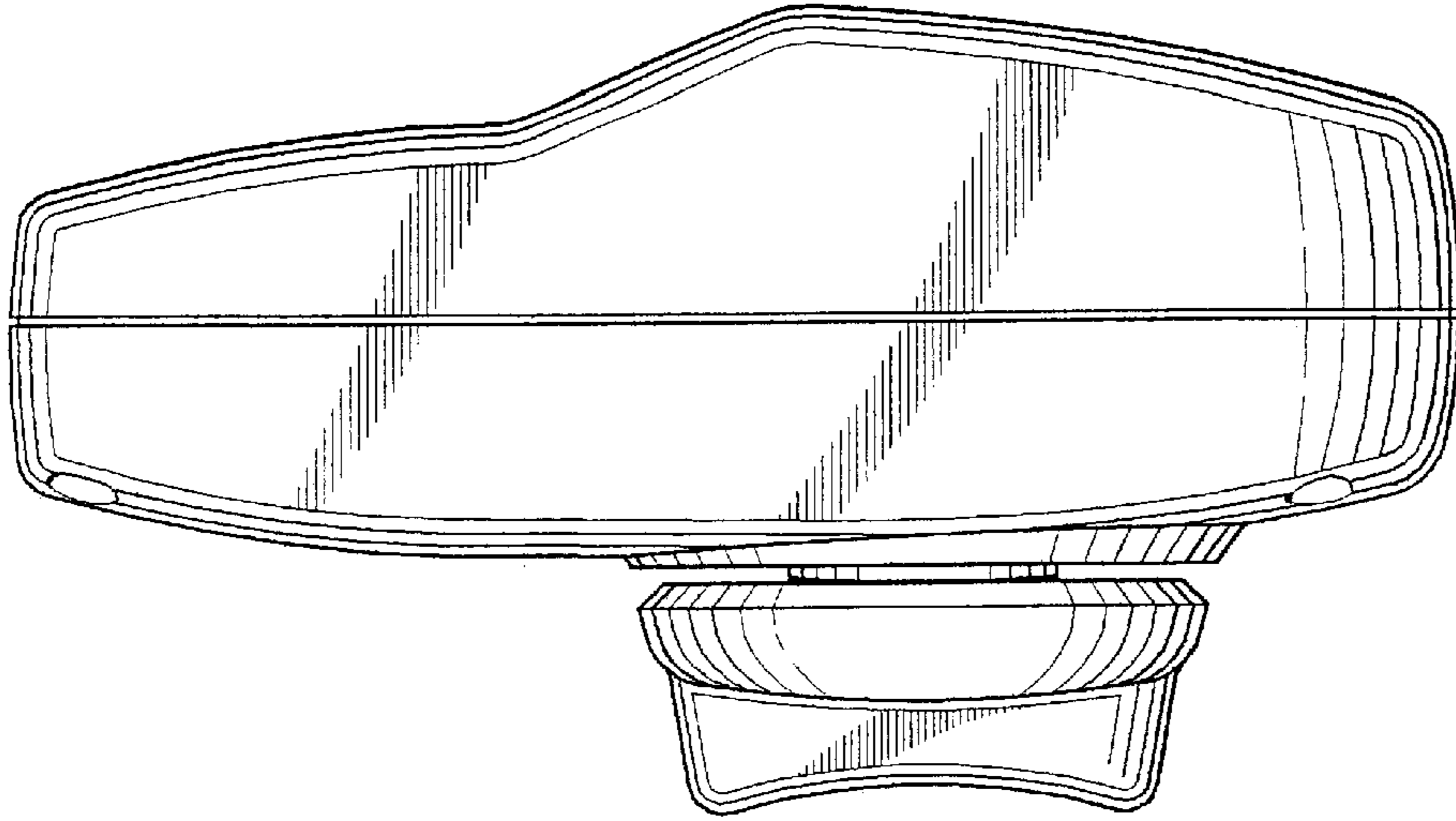


FIG. 10

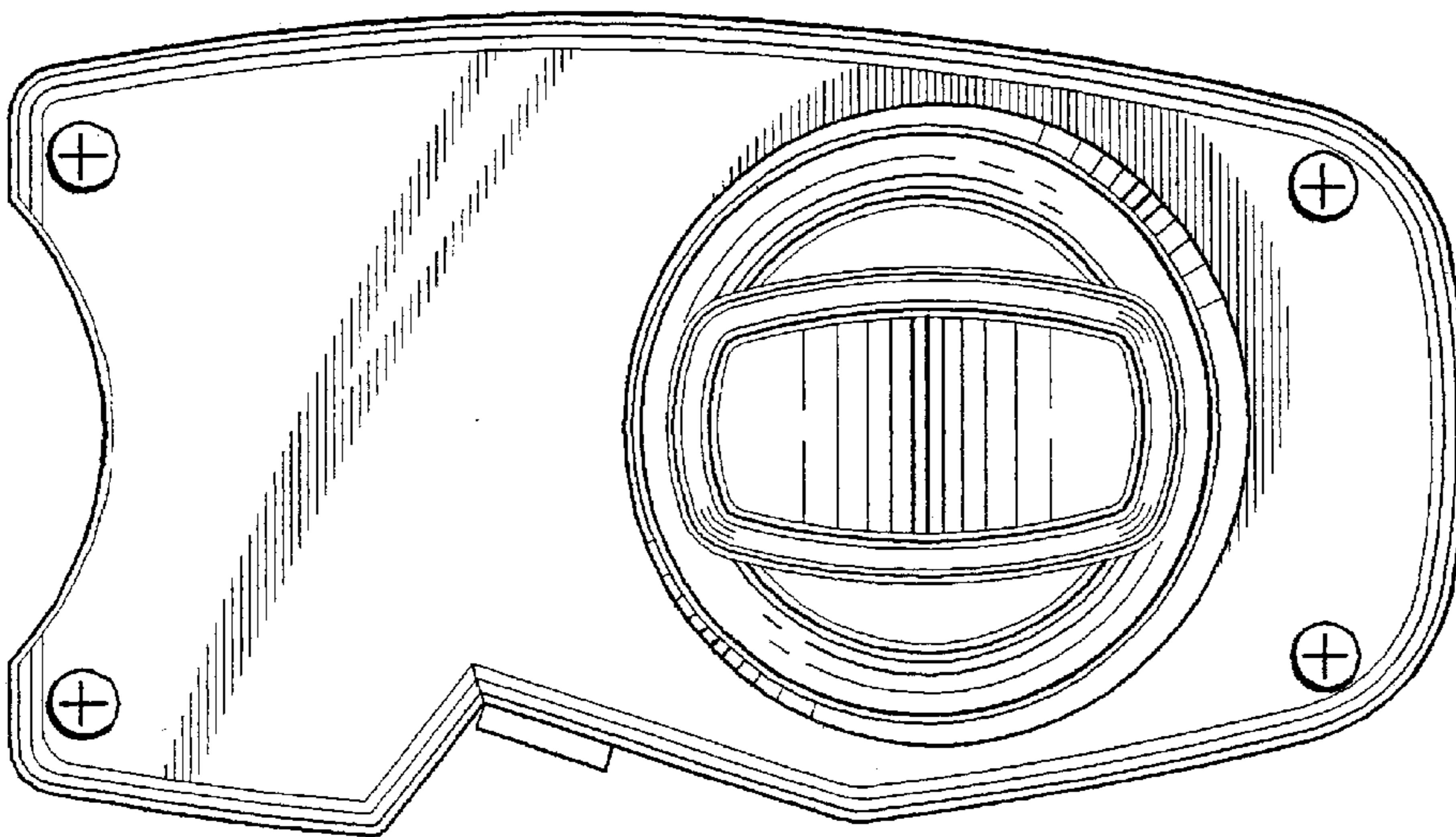


FIG. 8

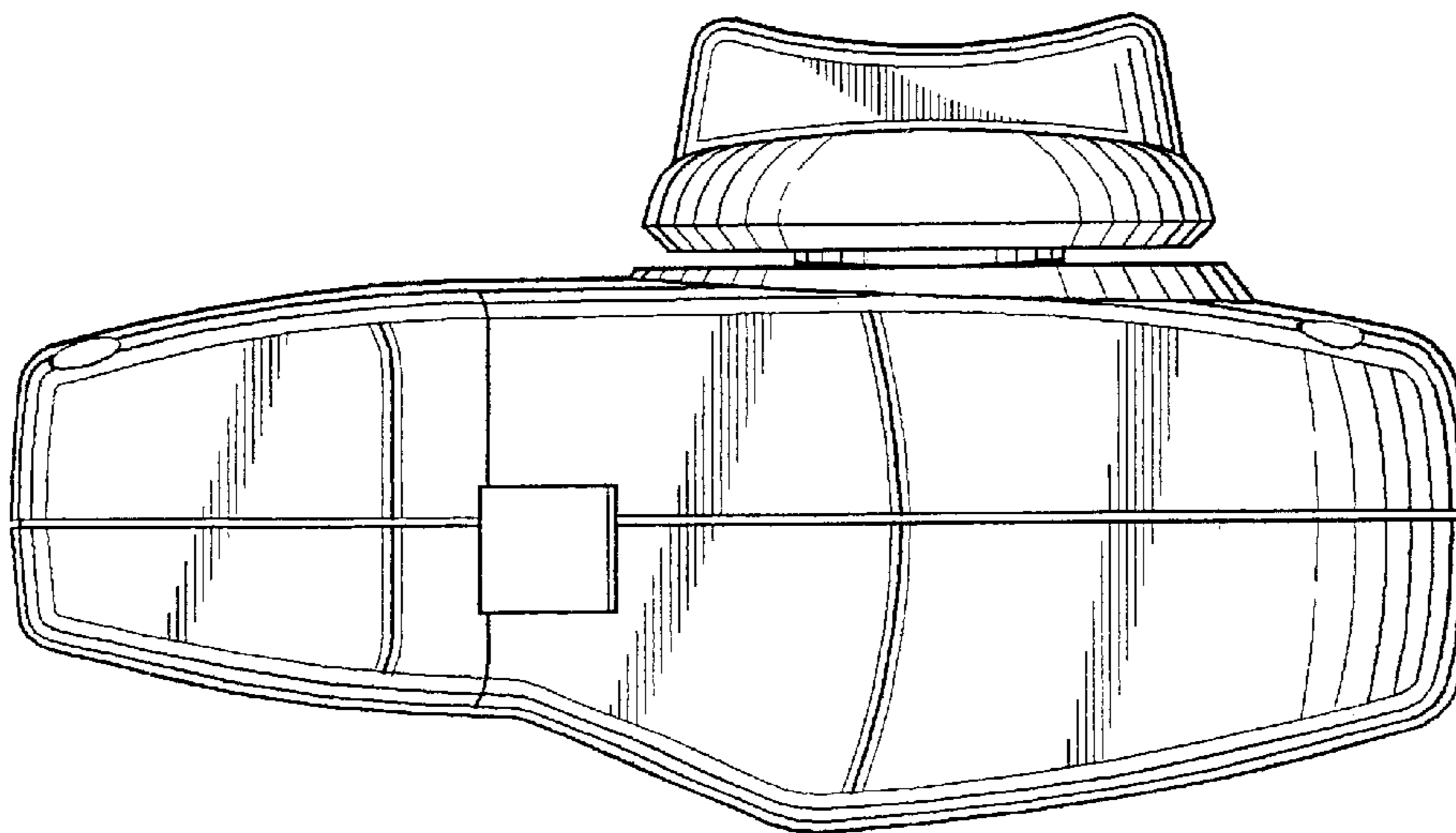


FIG. 9

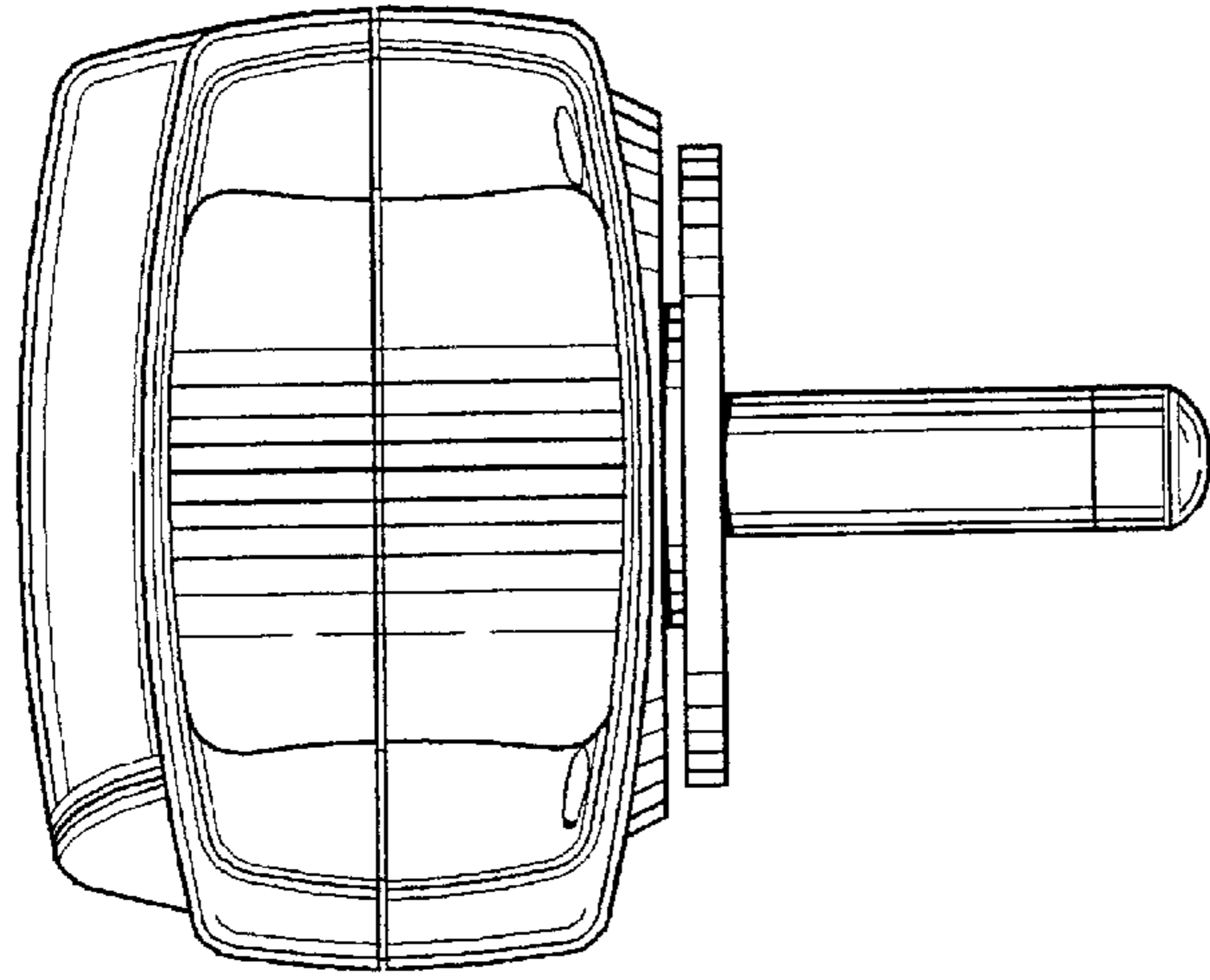


FIG. 17

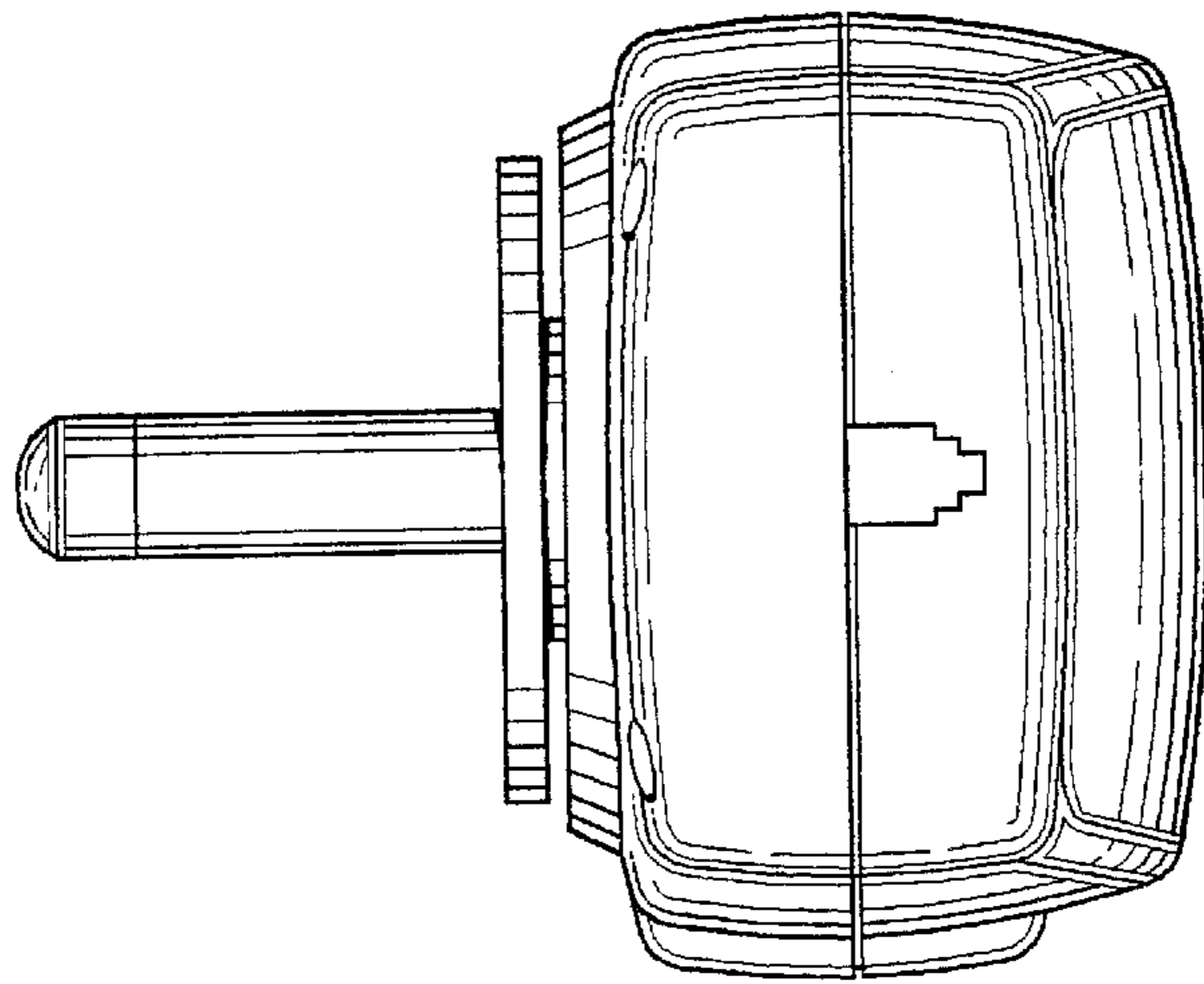


FIG. 18

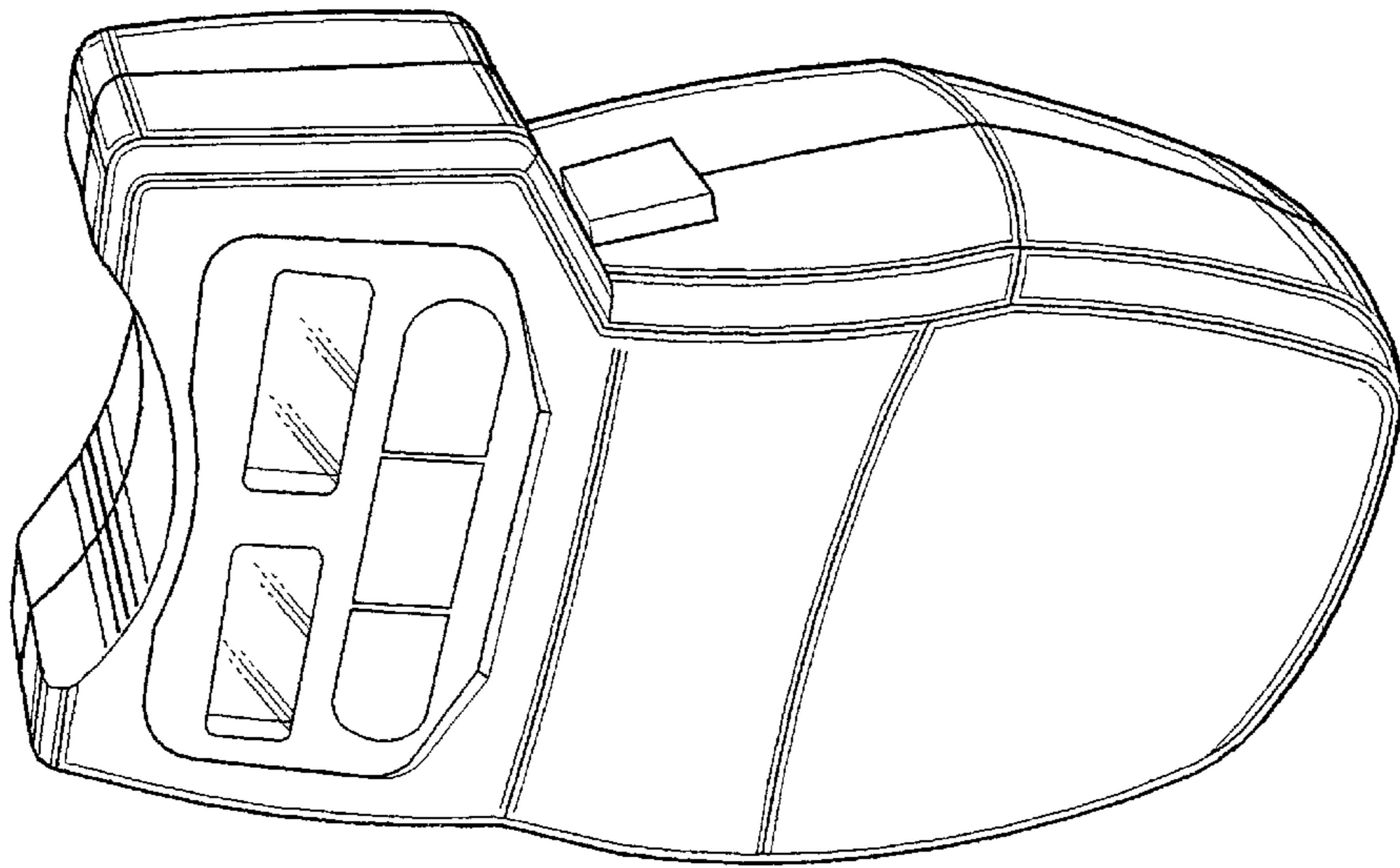


FIG. 13

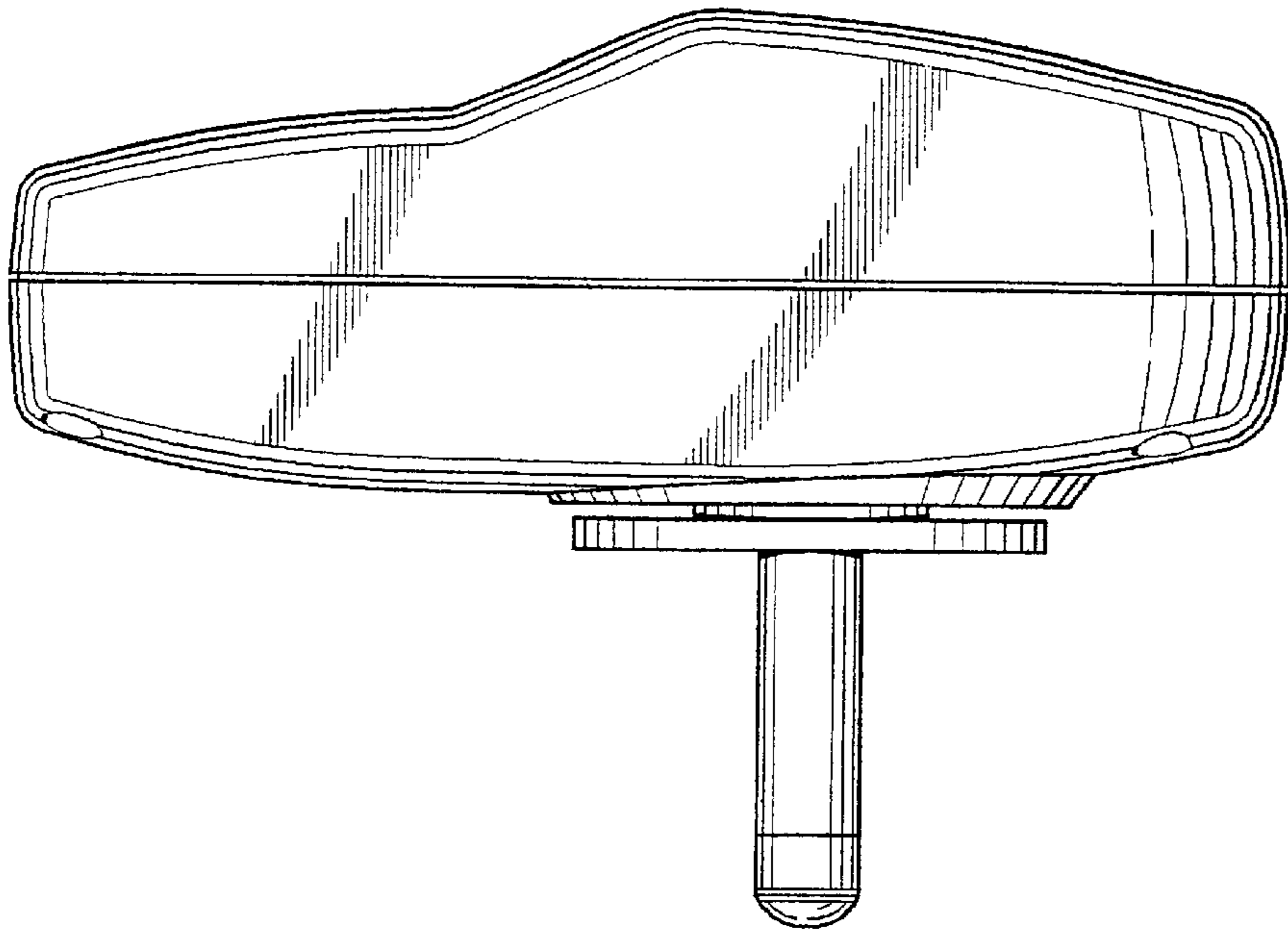


FIG. 16

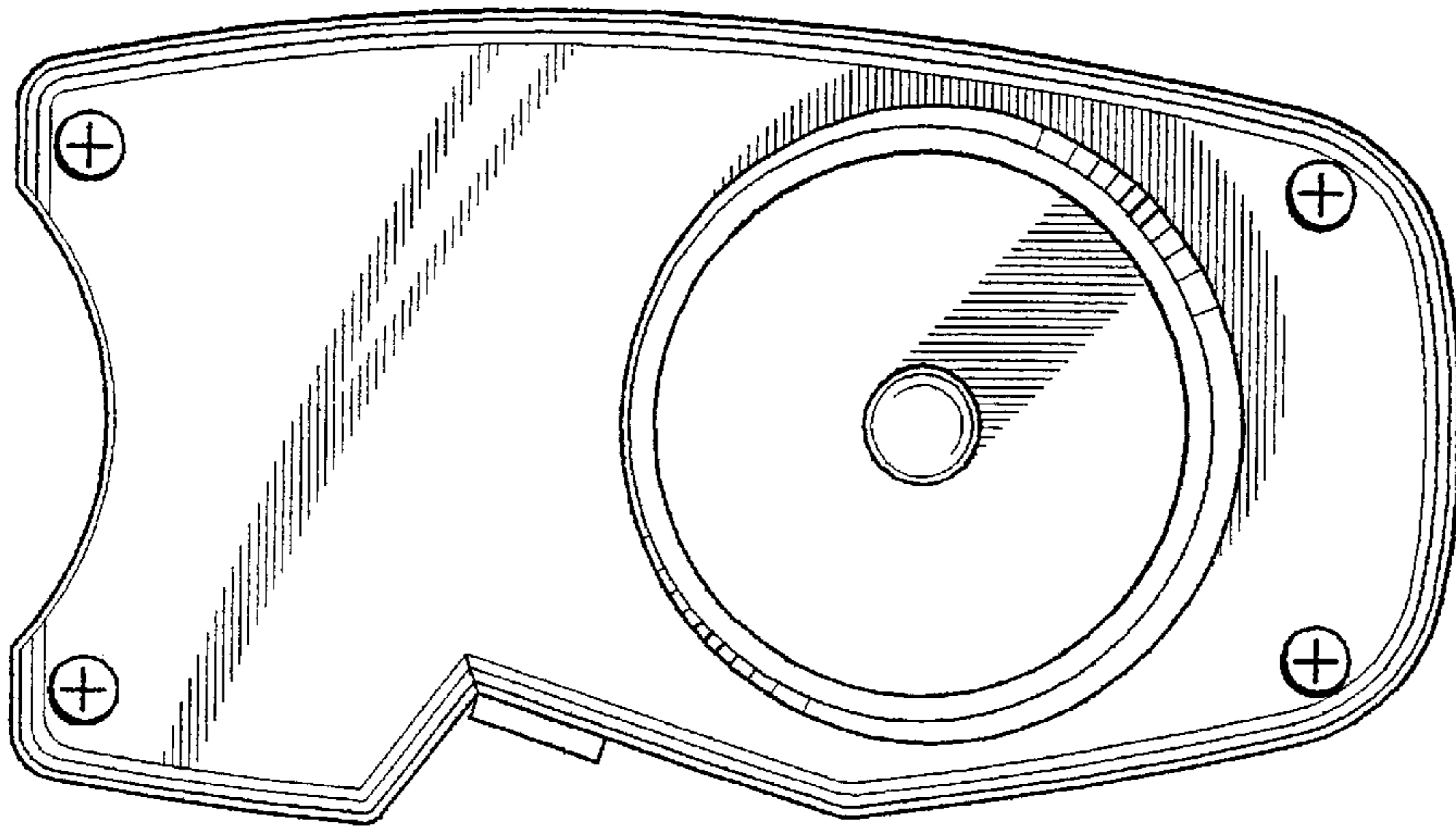


FIG. 14

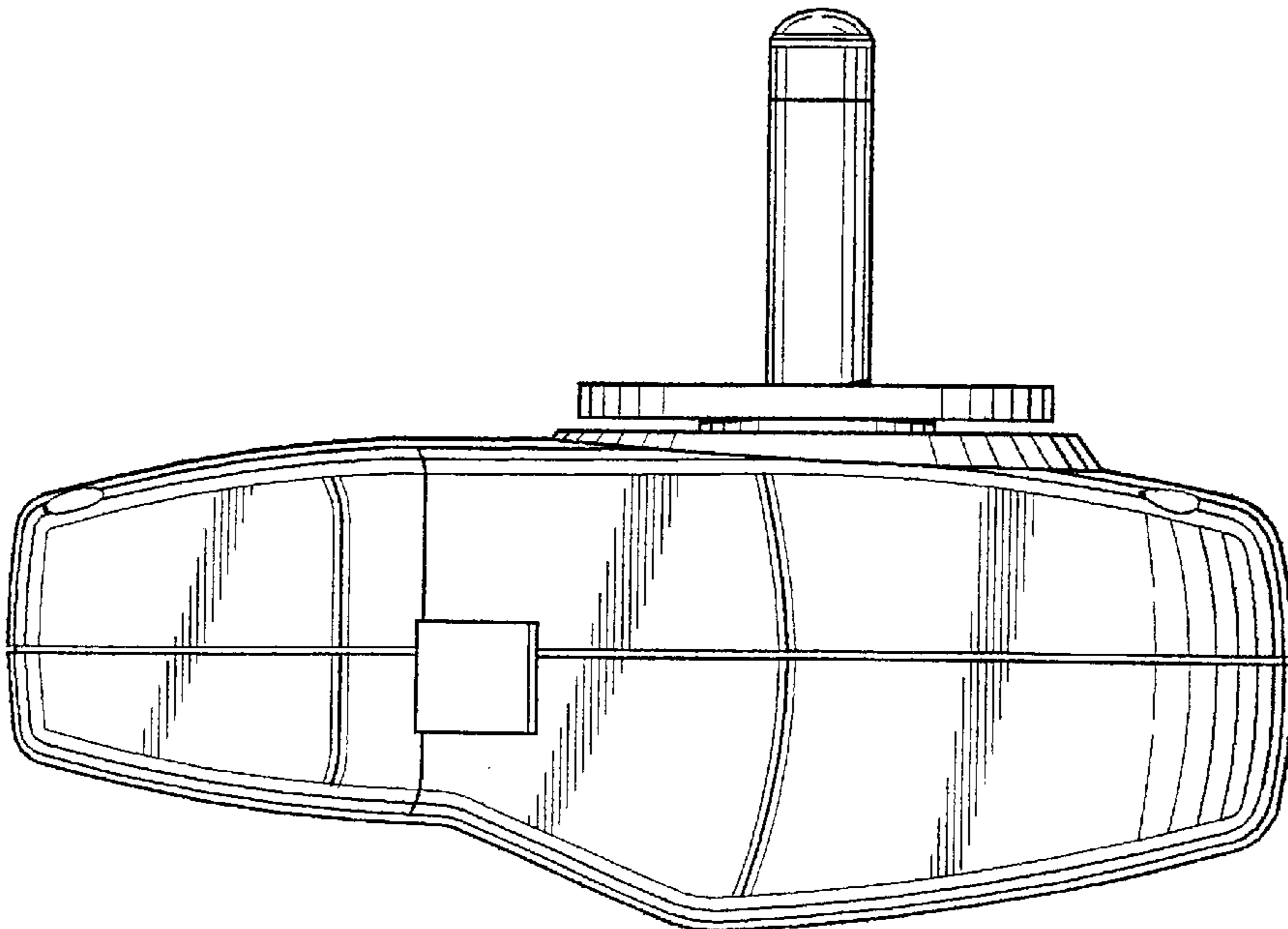


FIG. 15

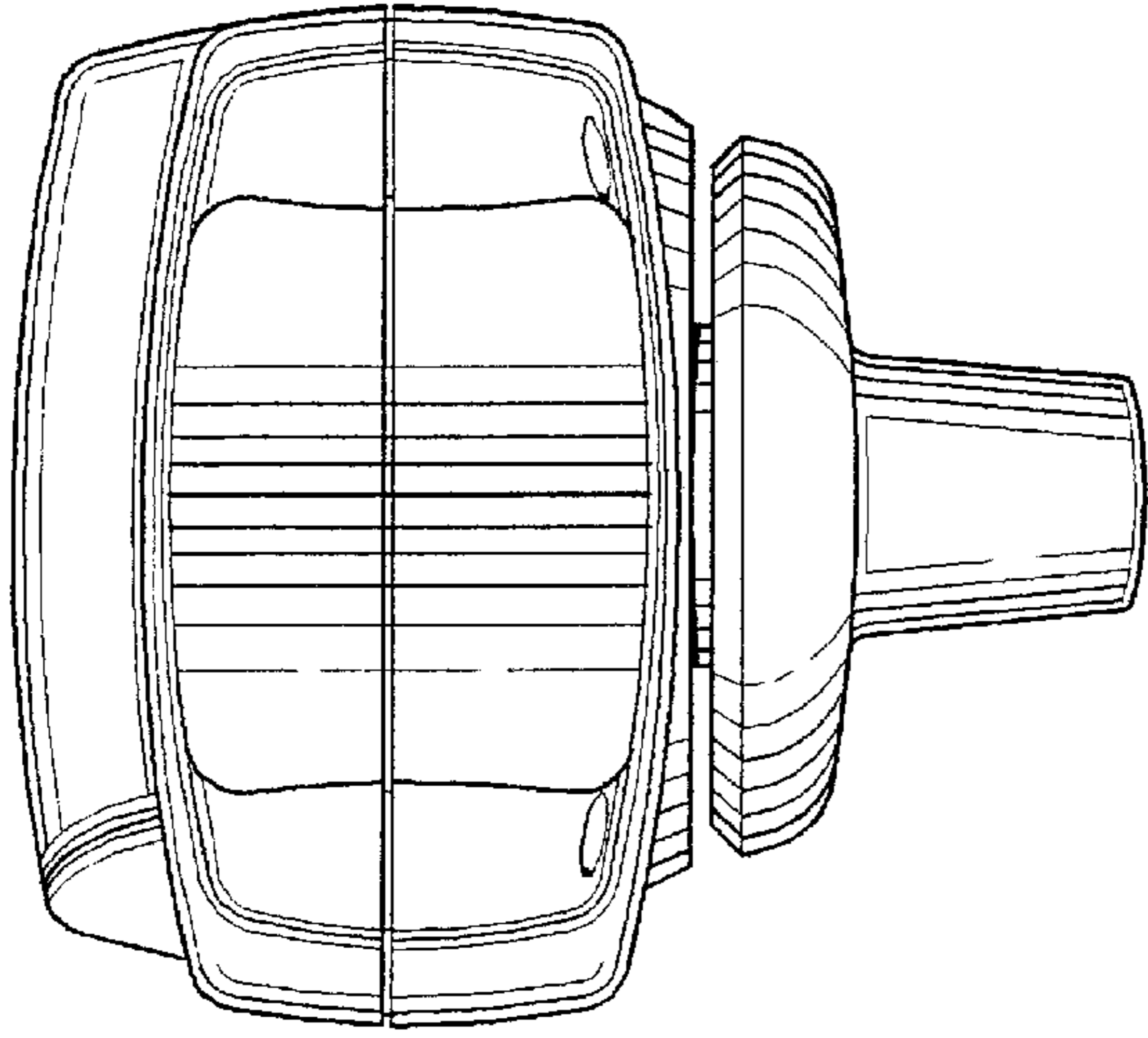


FIG. 23

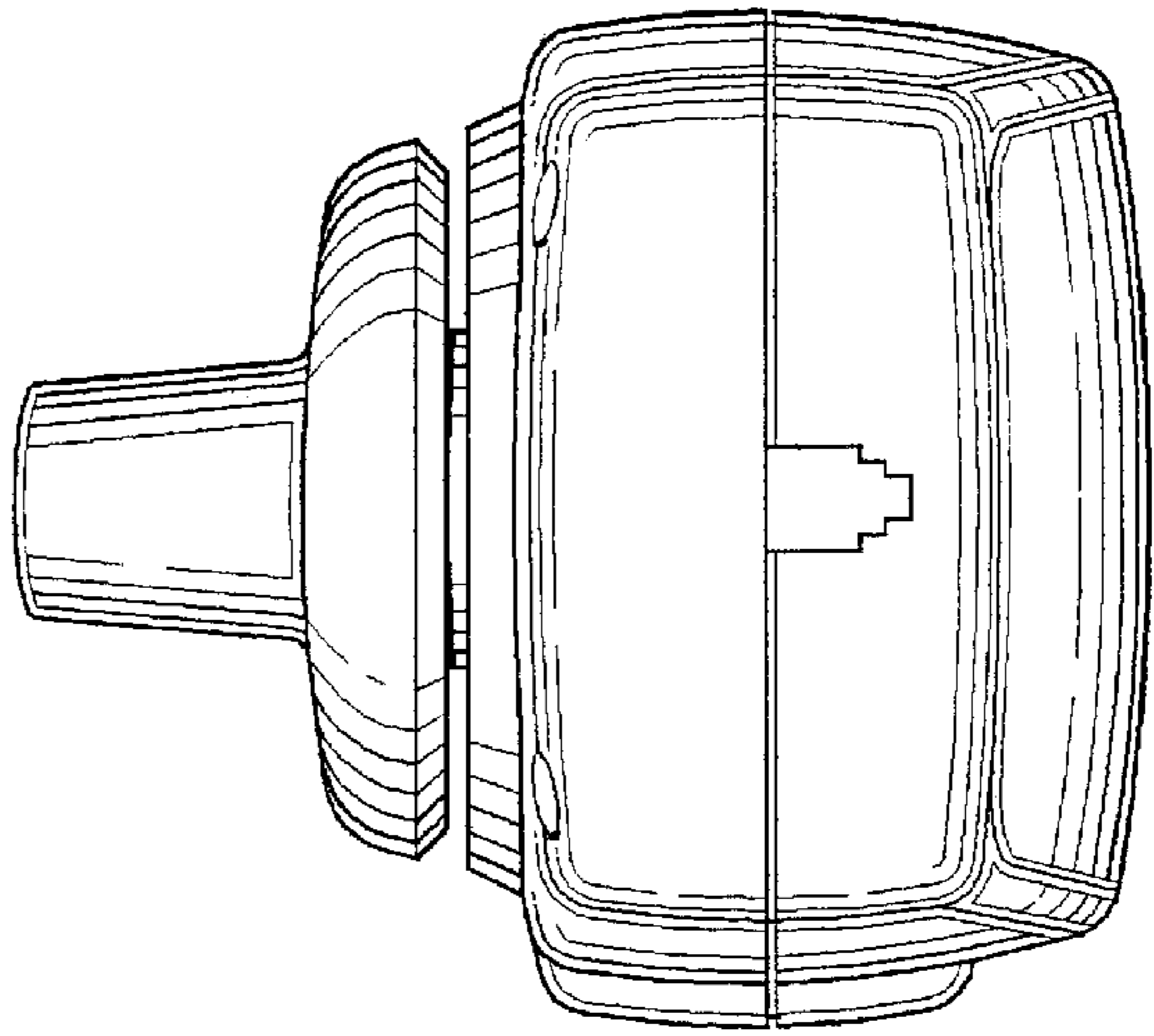


FIG. 24

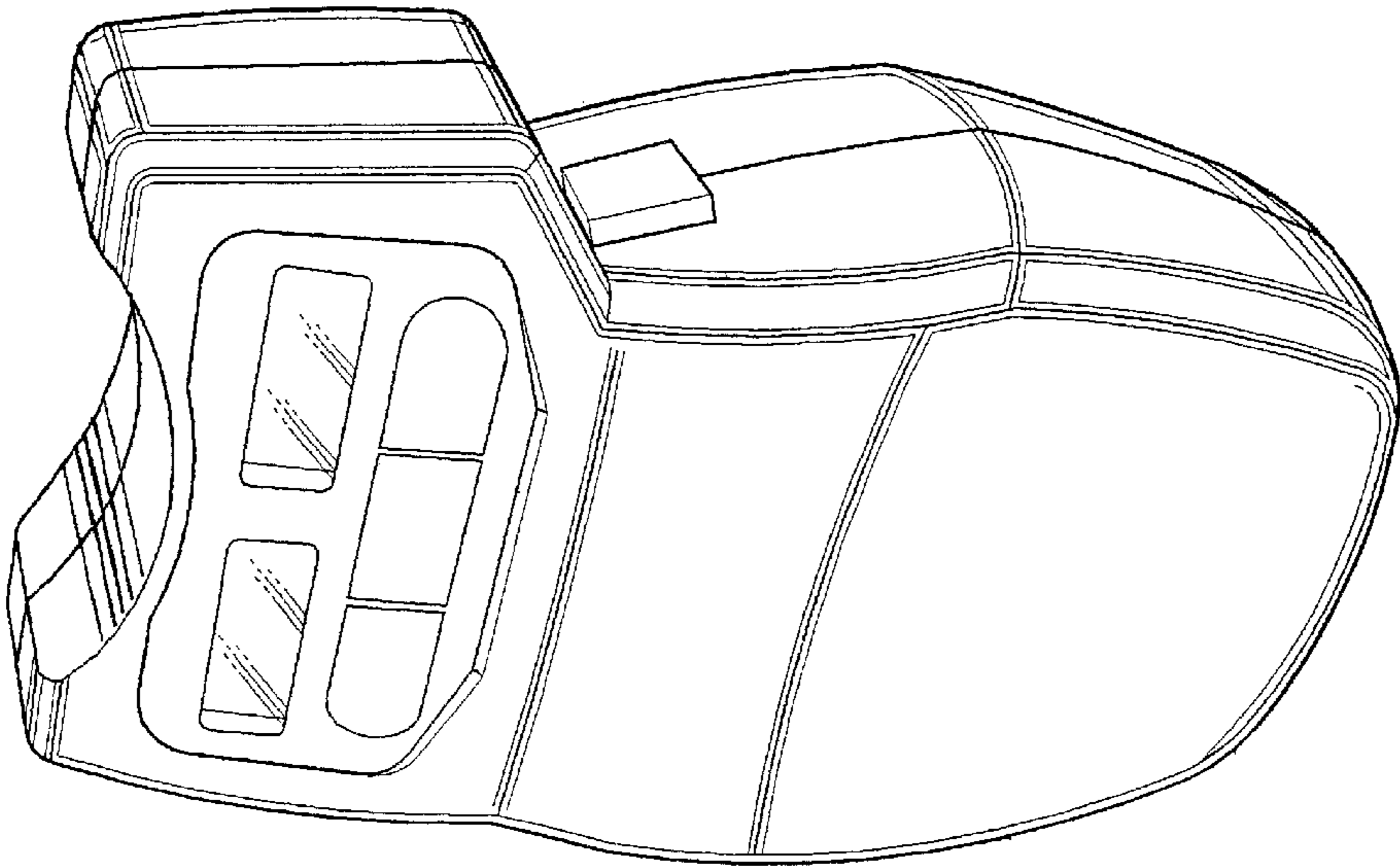


FIG. 19

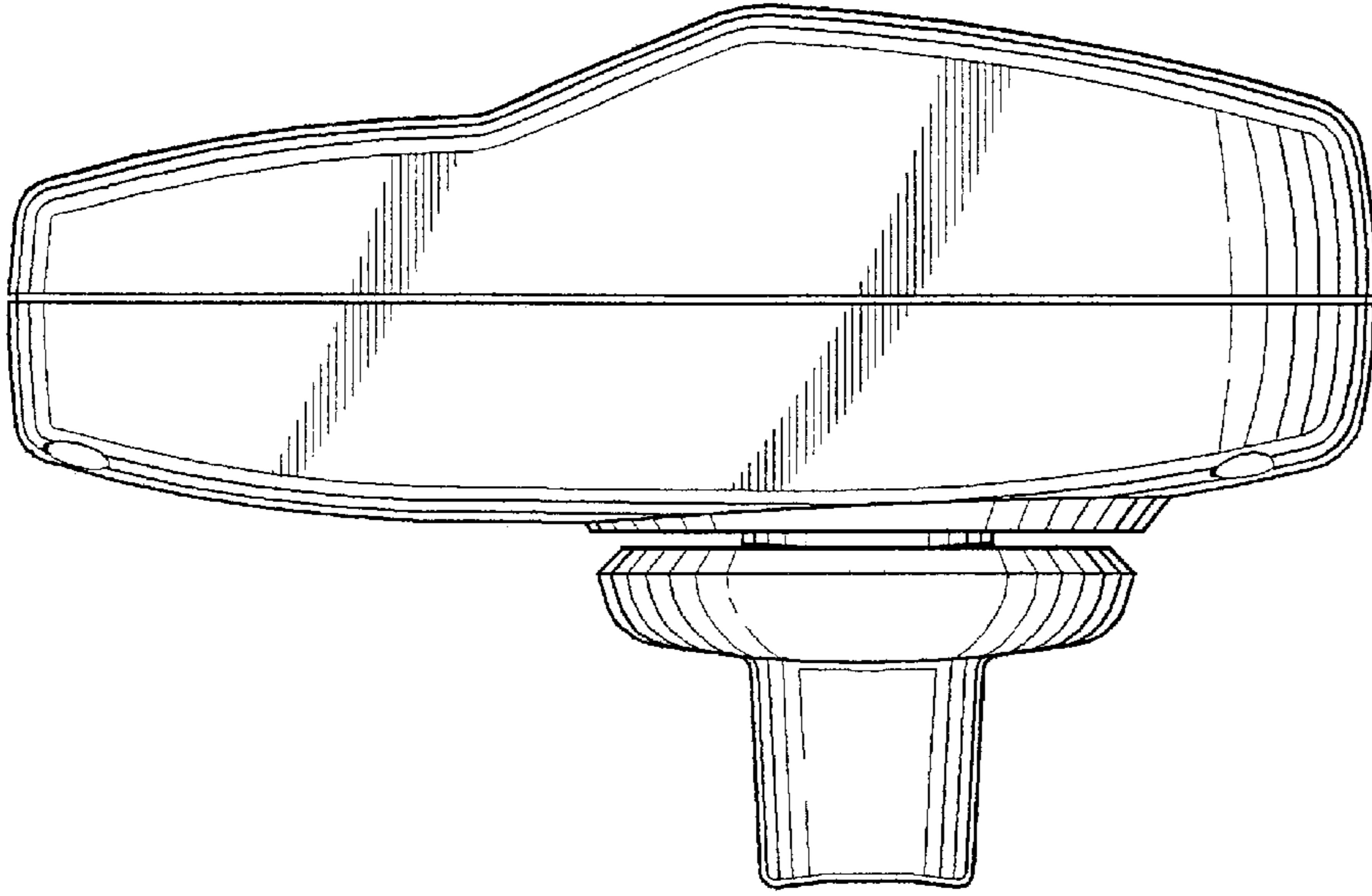


FIG. 22

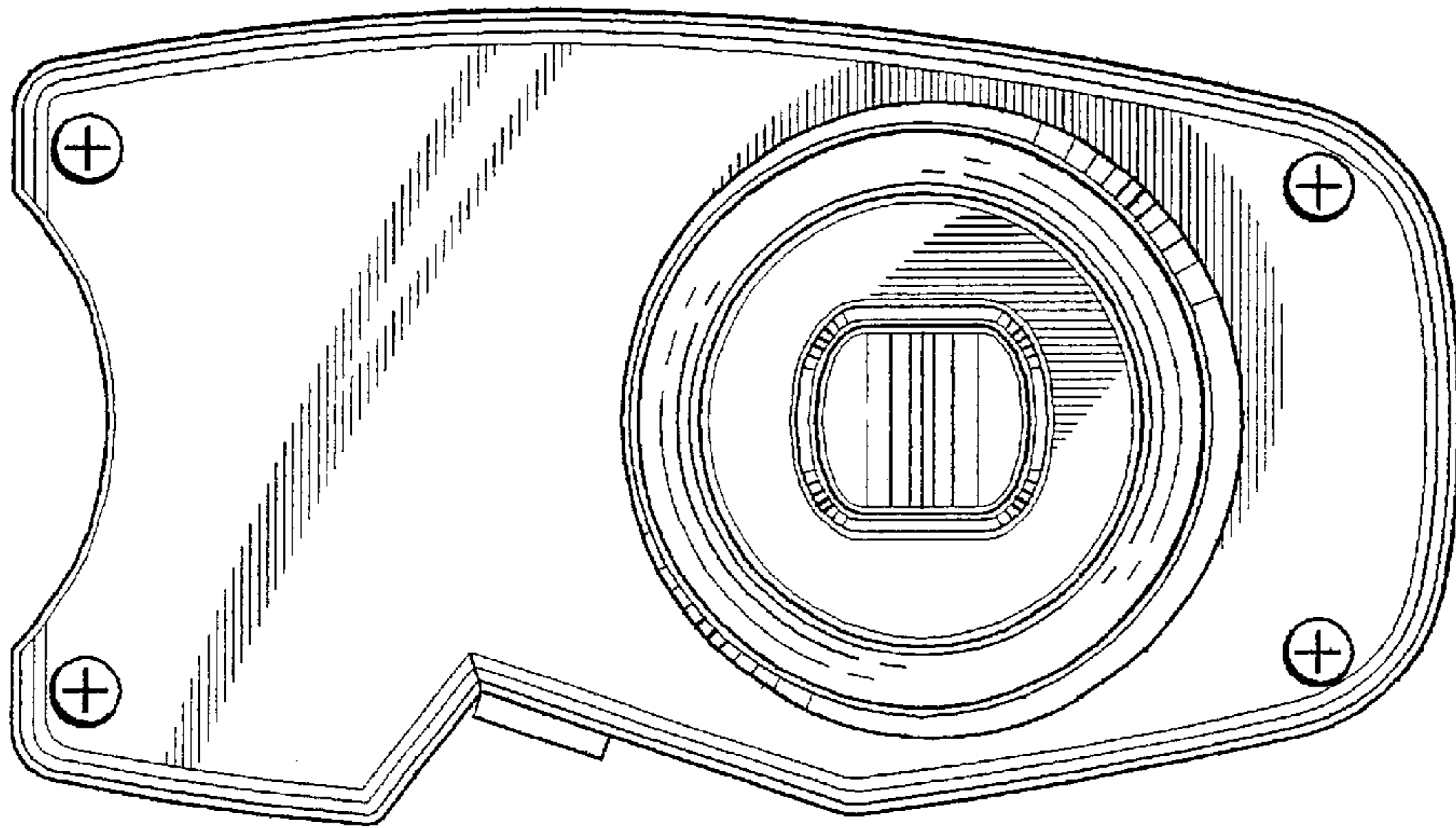


FIG. 20

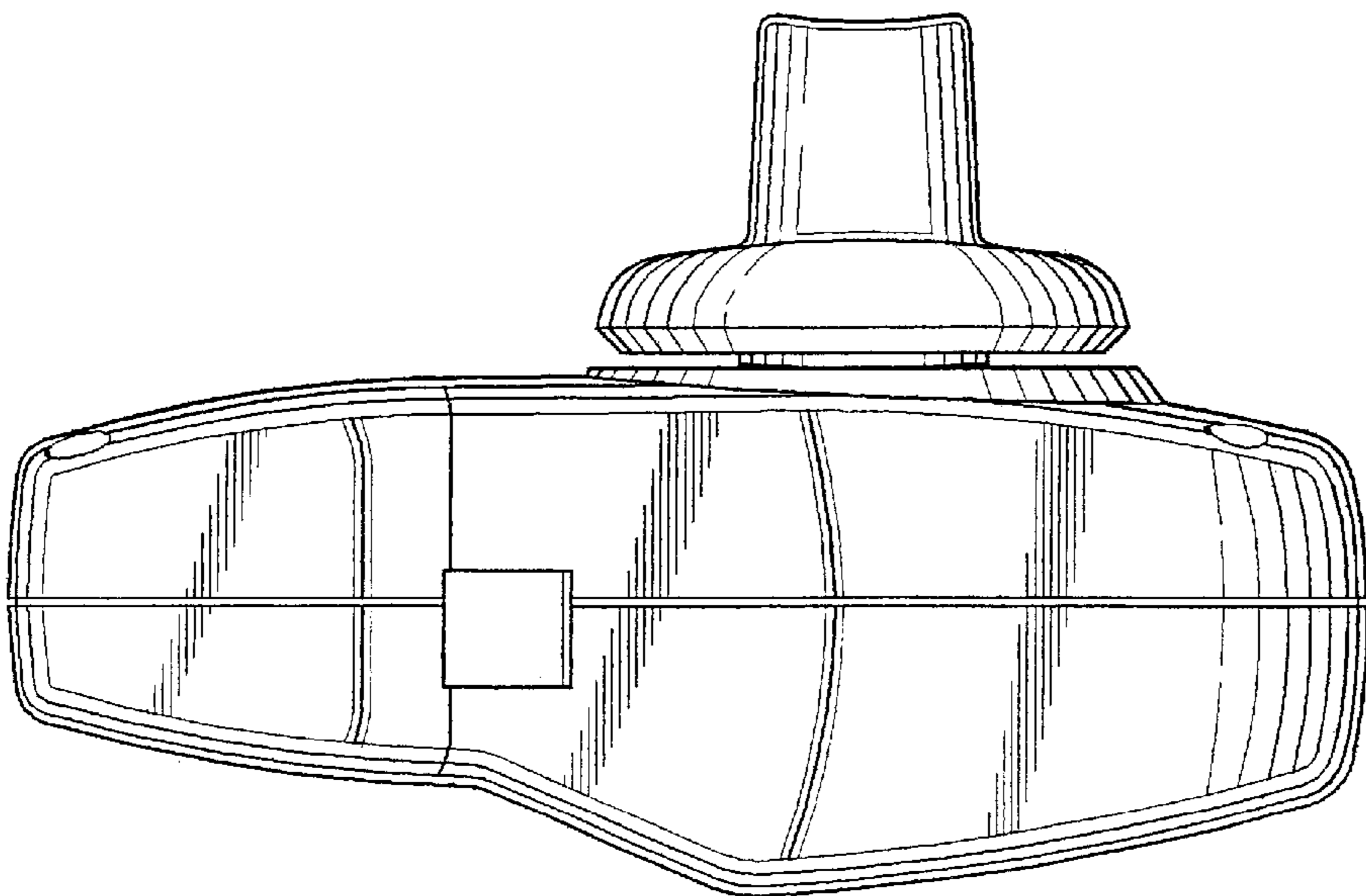


FIG. 21

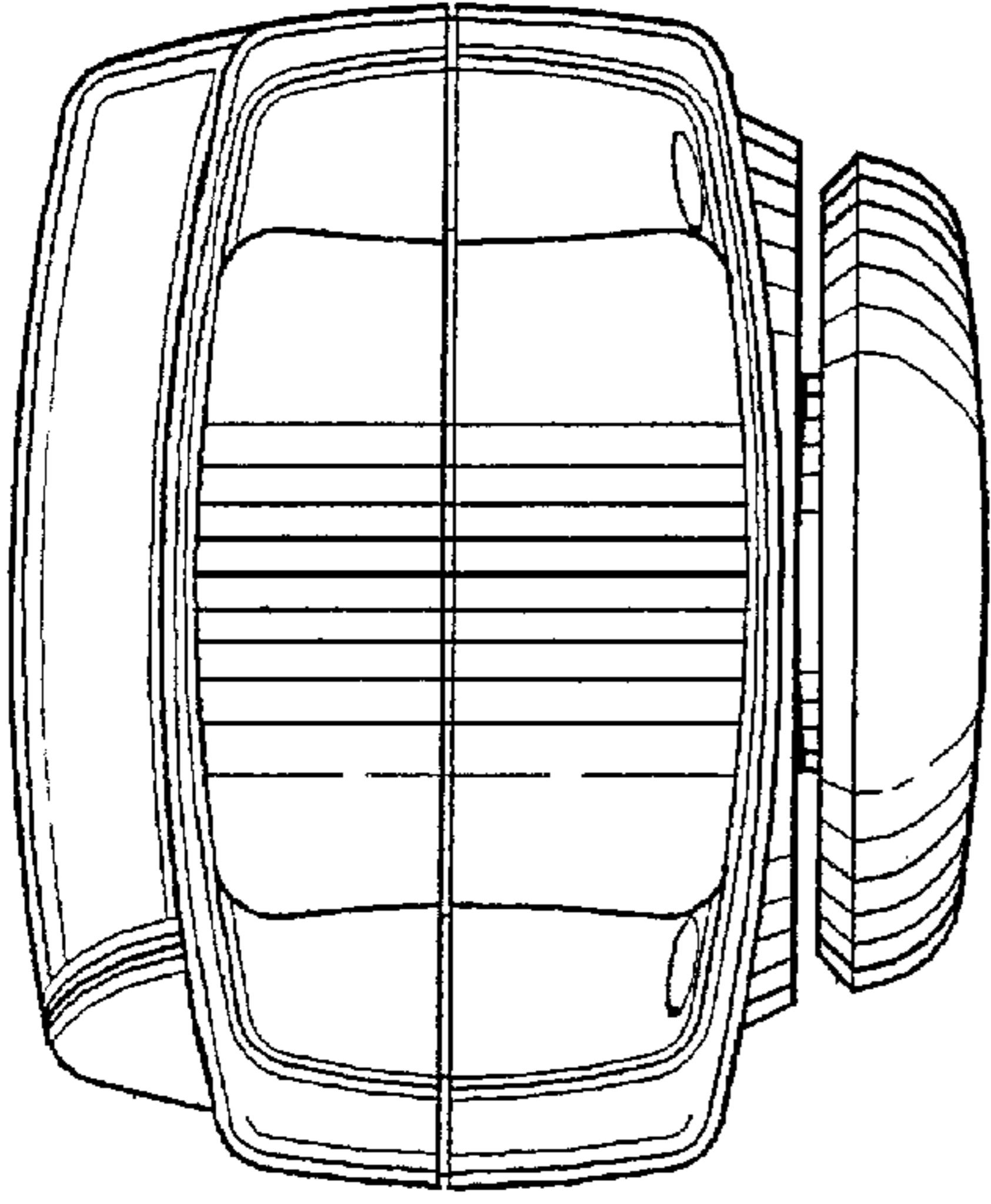


FIG. 29

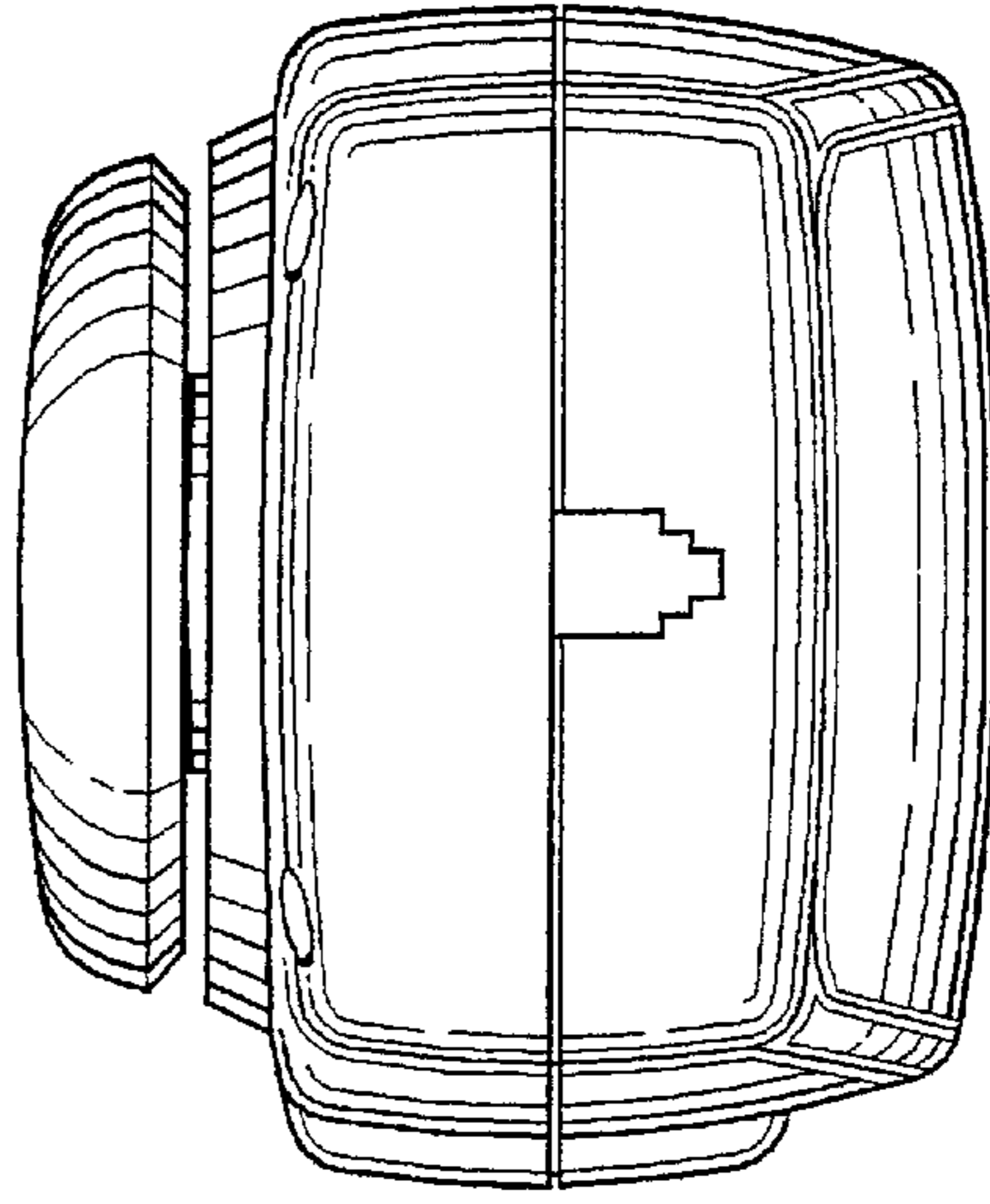


FIG. 30

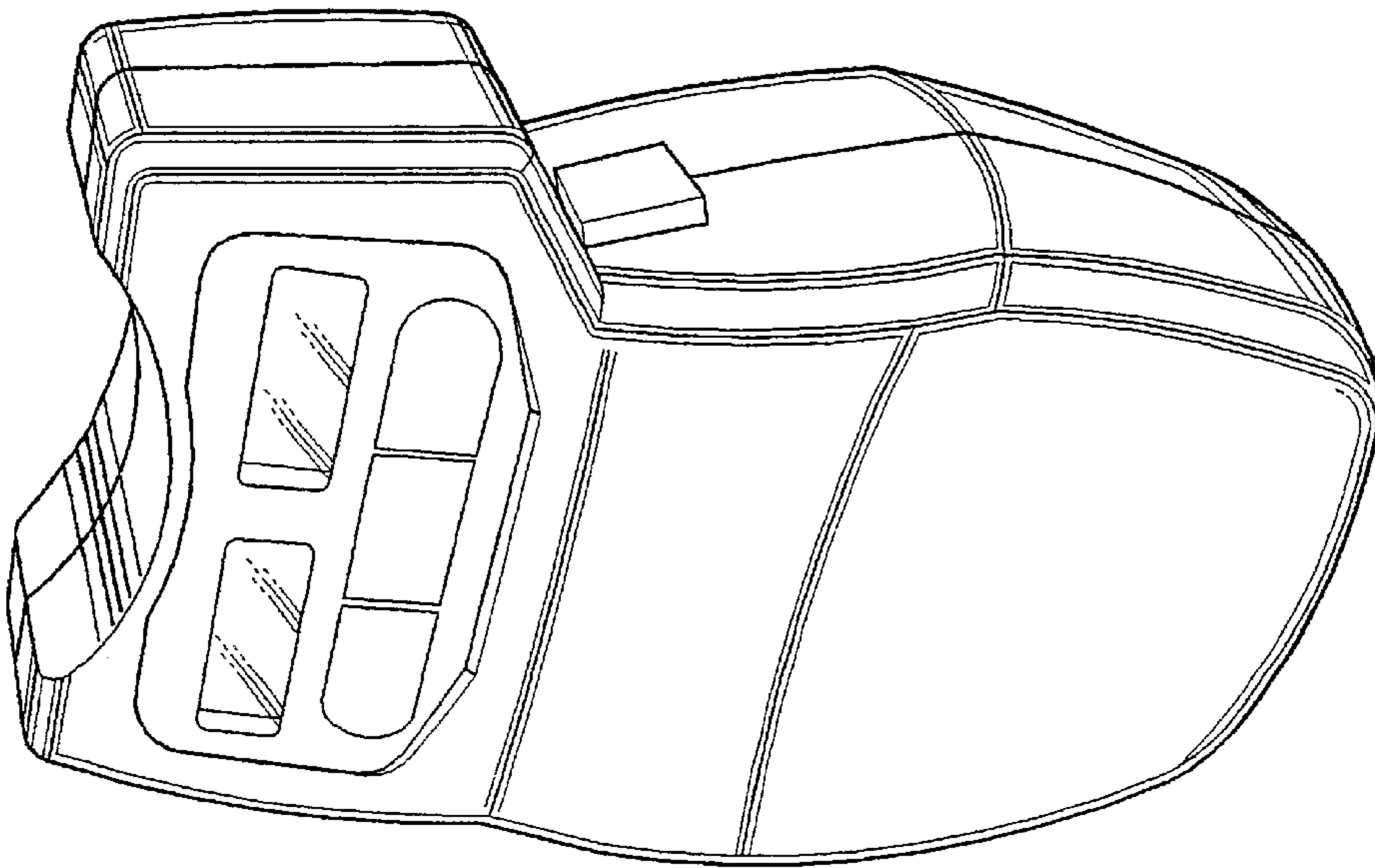


FIG. 25

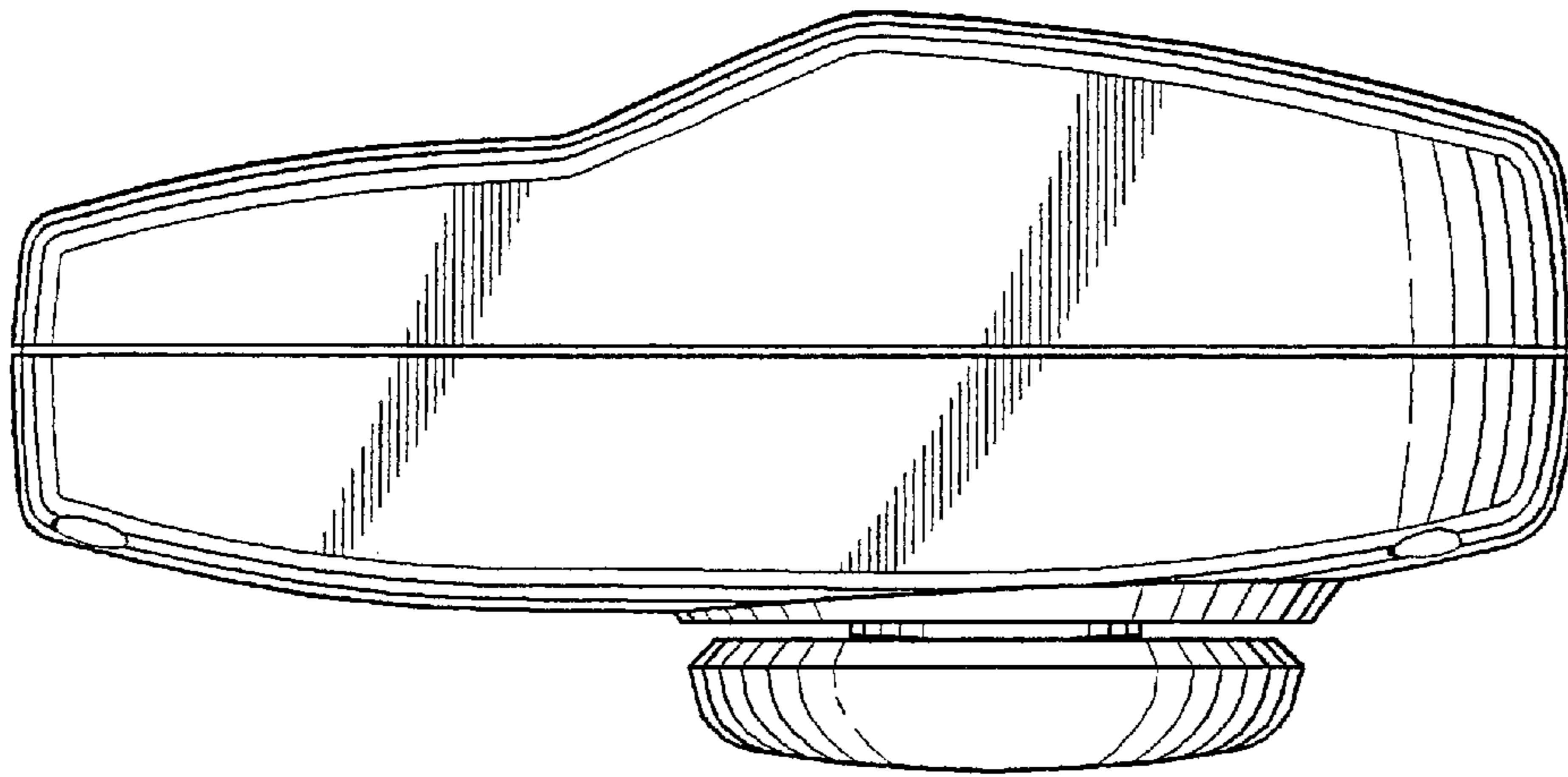


FIG. 28

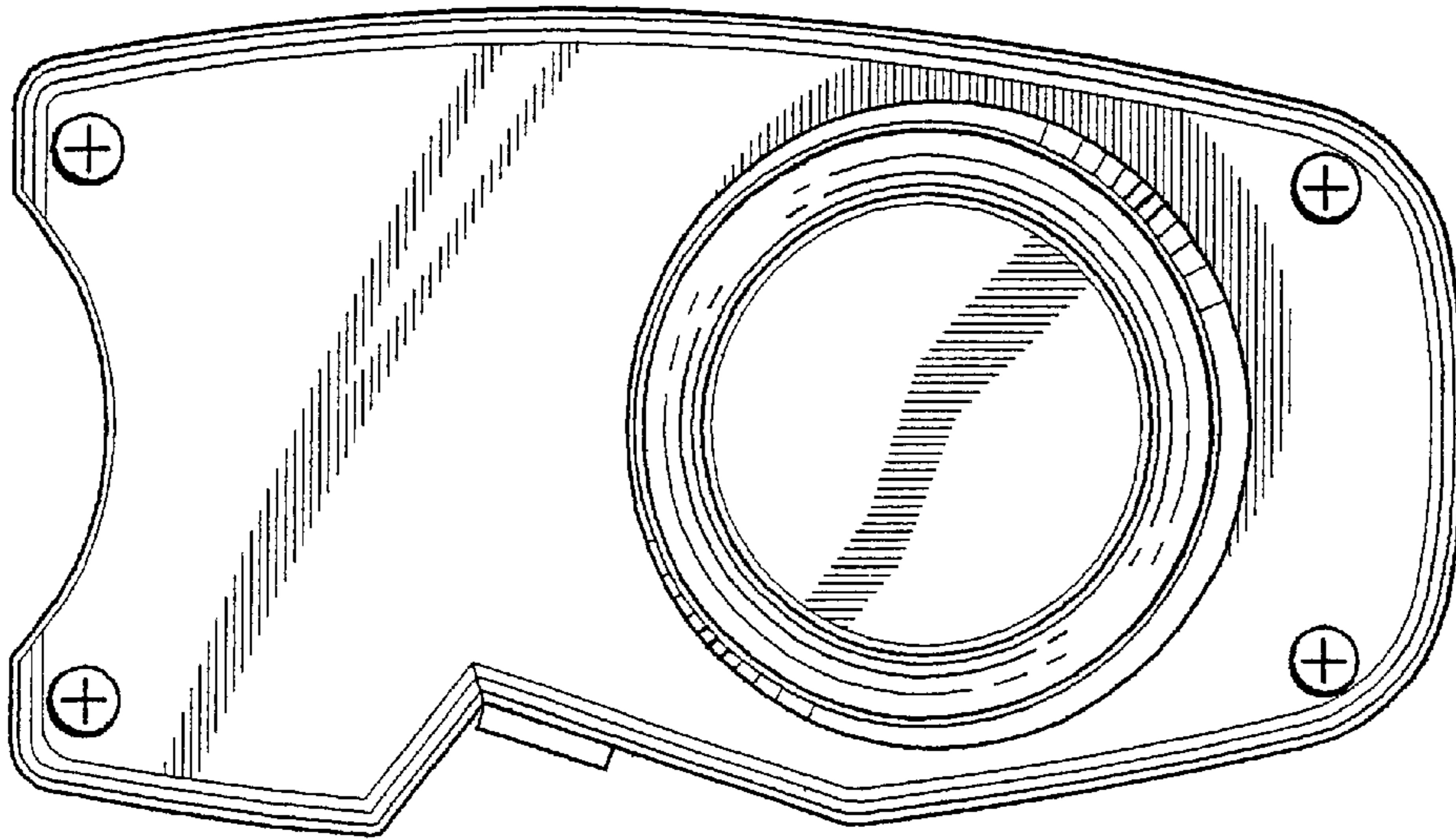


FIG. 26

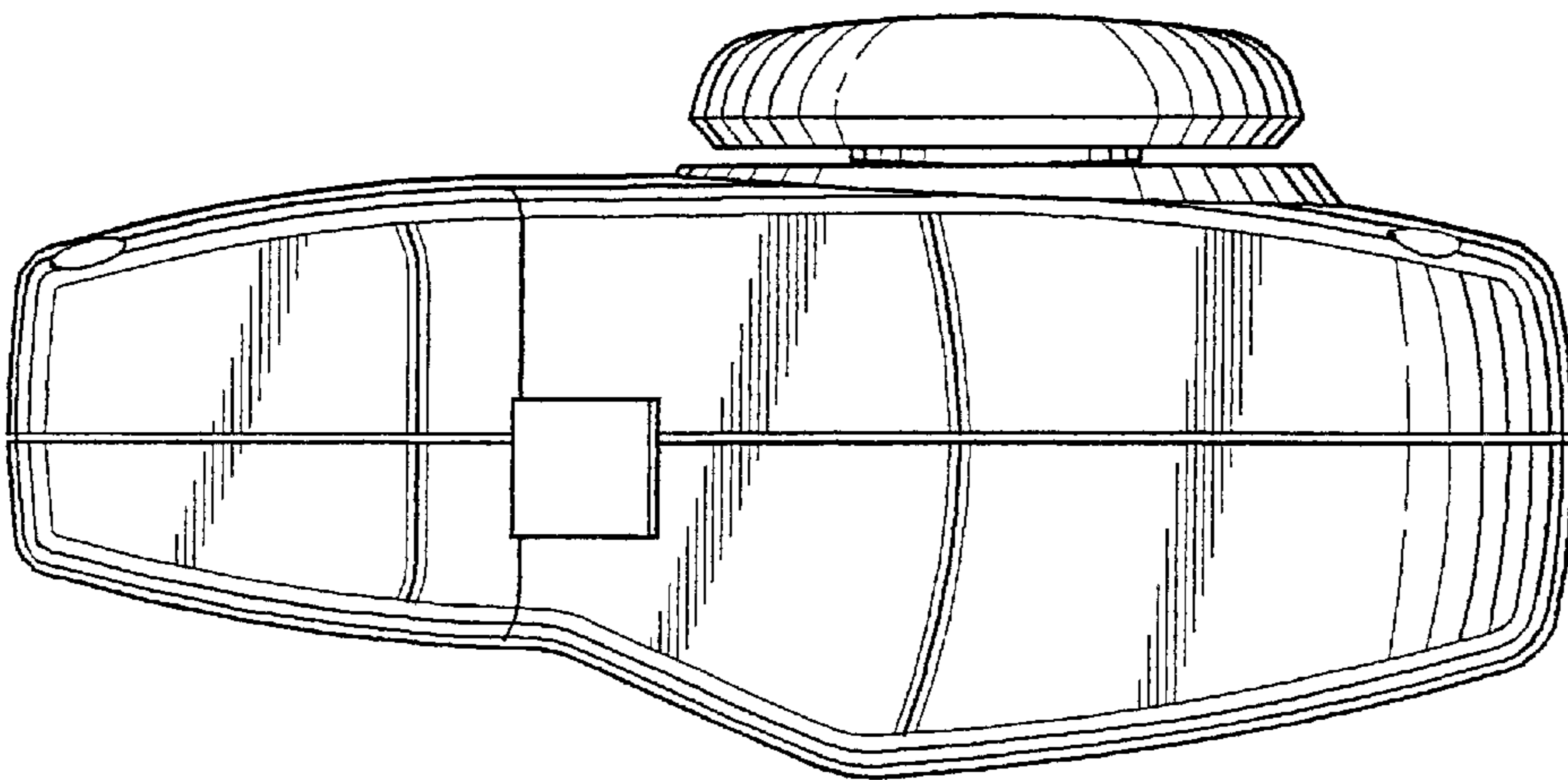


FIG. 27