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

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(54) **AUTONOMOUS TRAVELLING CARRIAGE  
OR A REPLICA THEREOF**

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(30) **Foreign Application Priority Data**

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(51) **LOC (13) Cl.** ..... **15-99**

(52) **U.S. Cl.**  
USPC ..... **D15/199**

(58) **Field of Classification Search**  
USPC ..... D12/1; D15/199; D32/21; D34/12, 24,  
D34/28, 34  
CPC ..... B25J 5/007; B25J 9/1694; G05D 1/027;  
G05D 1/0011; G05D 1/0231; G05D  
1/0242; G05D 2201/0216; Y10S 901/01;  
Y10S 901/46; Y10S 901/49  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

4,137,984 A \* 2/1979 Jennings ..... B62D 1/28  
180/168  
5,127,486 A \* 7/1992 Yardley ..... B62D 1/28  
180/168  
D722,631 S \* 2/2015 Stone ..... D15/199  
D810,799 S \* 2/2018 Sokuza ..... D15/199

D864,270 S \* 10/2019 Hu ..... D15/199  
D865,021 S \* 10/2019 Hu ..... D15/199  
D873,174 S \* 1/2020 Sokuza ..... D12/1  
D879,852 S \* 3/2020 Chen ..... D15/199  
D880,550 S \* 4/2020 Sokuza ..... D15/199  
D886,173 S \* 6/2020 Sokuza ..... D15/199  
D886,174 S \* 6/2020 Blomgren ..... D15/199  
D887,468 S \* 6/2020 Hirvesaar ..... D15/199  
D888,790 S \* 6/2020 Yao ..... D15/199  
D896,858 S \* 9/2020 Kapuria ..... D15/199

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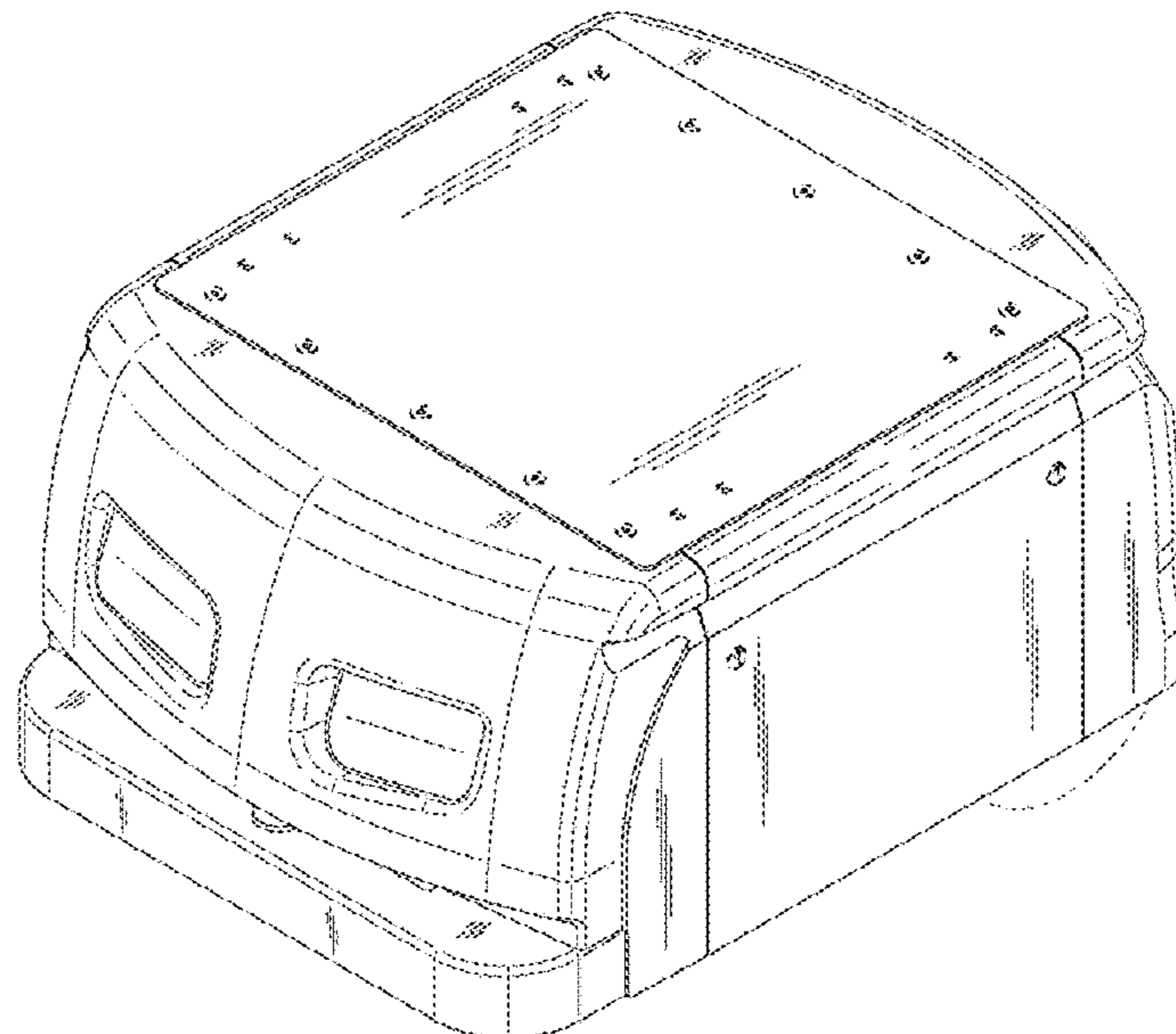
(57) **CLAIM**

The ornamental design for an autonomous travelling carriage or a replica thereof, as shown and described.

**DESCRIPTION**

FIG. 1 is a front view of an autonomous travelling carriage or a replica thereof, showing our new design;  
FIG. 2 is a rear view thereof;  
FIG. 3 is a right side view thereof;  
FIG. 4 is a left side view thereof;  
FIG. 5 is a top plan view thereof;  
FIG. 6 is a bottom plan view thereof;  
FIG. 7 is a front, top and right side perspective view thereof;  
FIG. 8 is a rear, bottom and left side perspective view thereof;  
FIG. 9 is a front, bottom and right side perspective view thereof; and,  
FIG. 10 is a rear, top and left side perspective view thereof.  
The ornamental design which is claimed is shown in solid lines in the drawings: The broken lines shown in the drawings illustrate portions of the autonomous travelling carriage or a replica thereof that are environmental structures and form no part of the claimed design.

**1 Claim, 10 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

D898,790 S \* 10/2020 Sokuza ..... D15/199  
D899,475 S \* 10/2020 Xiao ..... D15/199  
D902,272 S \* 11/2020 Cascajar Ordonez ..... D15/199  
D902,277 S \* 11/2020 Sakaguchi ..... D15/199  
D906,390 S \* 12/2020 Kapuria ..... D15/199  
D907,084 S \* 1/2021 Kapuria ..... D15/199  
D907,677 S \* 1/2021 Mork ..... D15/199  
D907,678 S \* 1/2021 Cai ..... D15/199  
2018/0099810 A1\* 4/2018 Wu ..... B65G 1/0492  
2019/0270472 A1\* 9/2019 Akamatsu ..... B62B 5/0093

\* cited by examiner

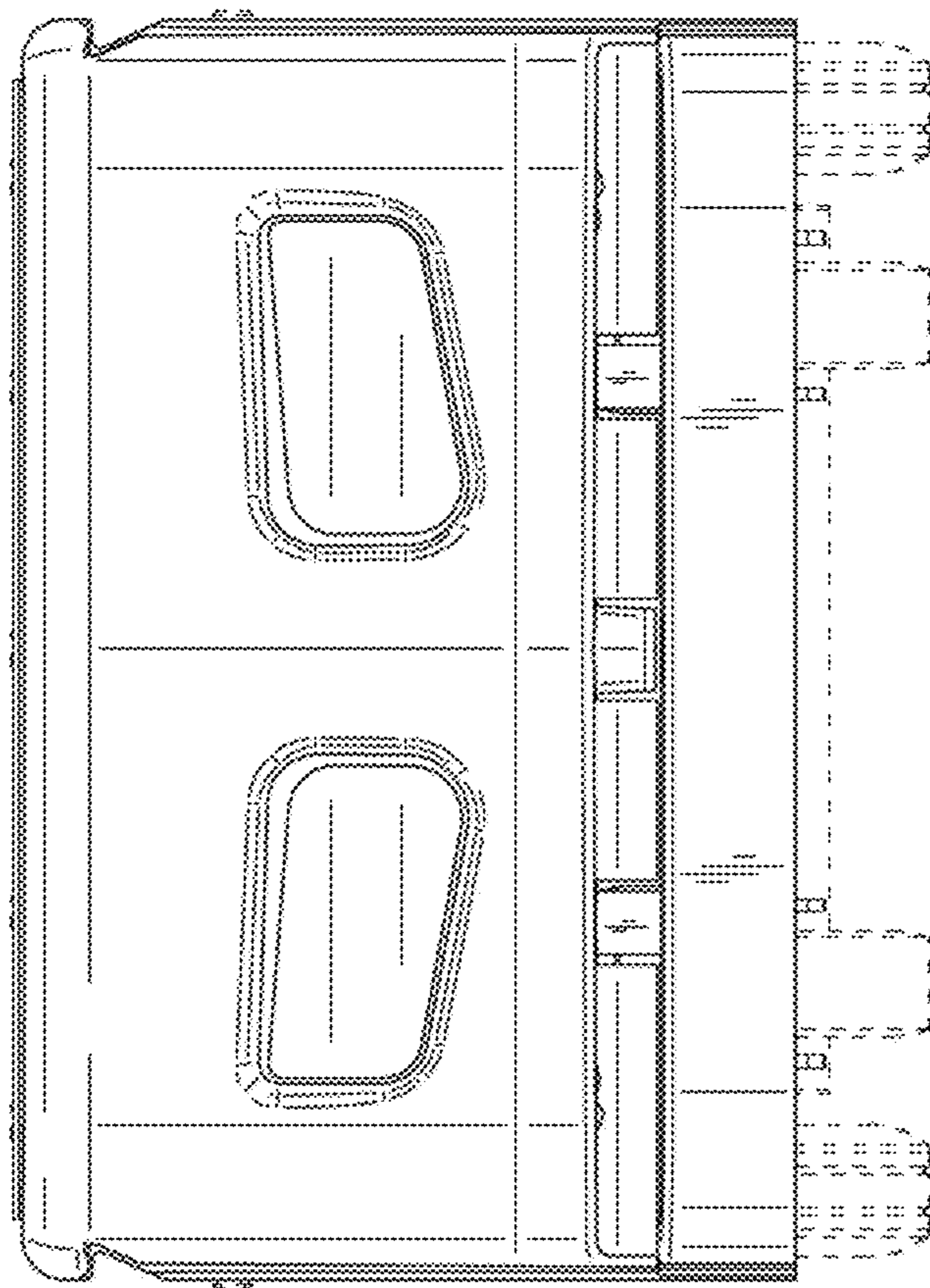


Fig. 1

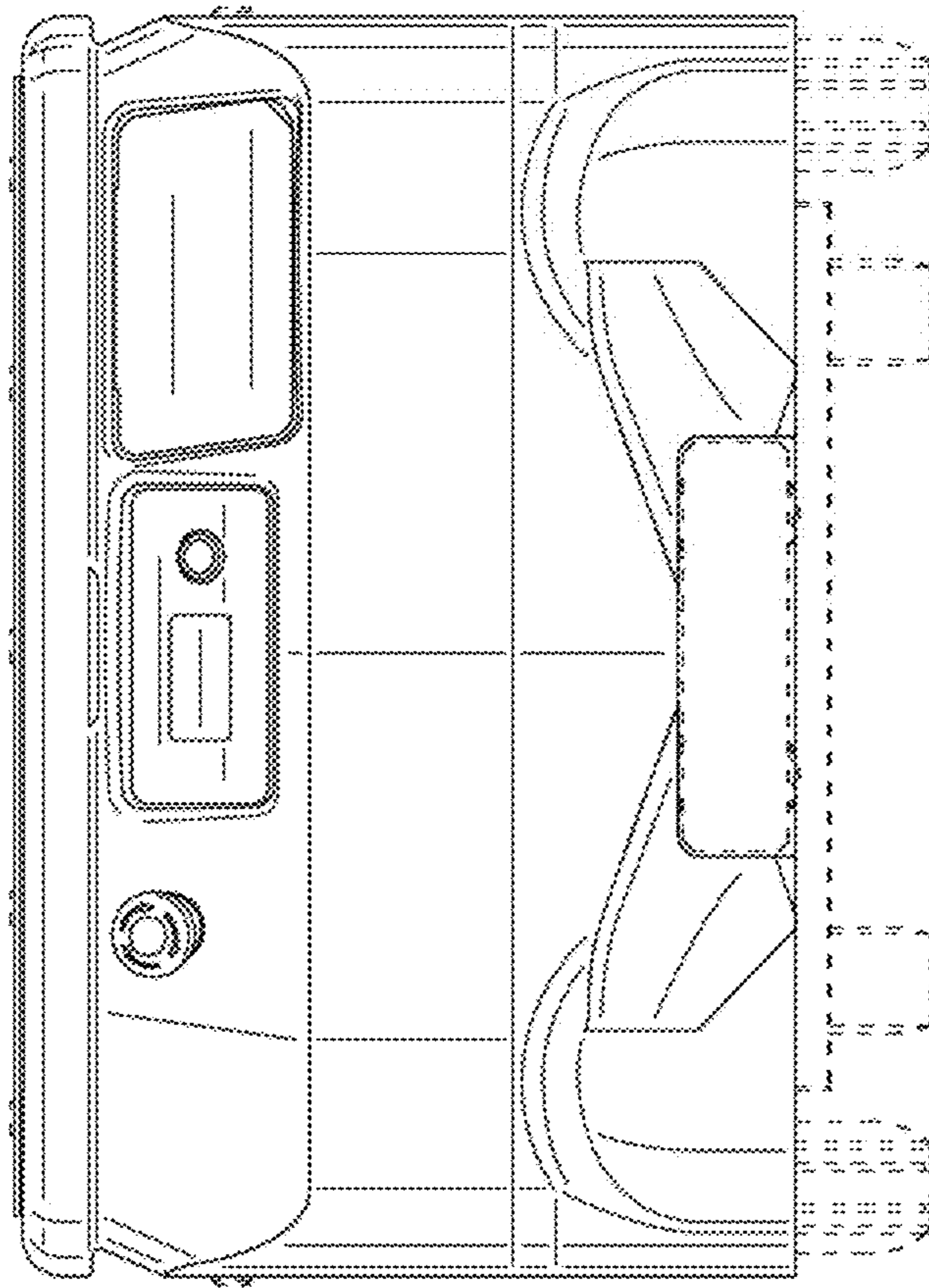


Fig. 2

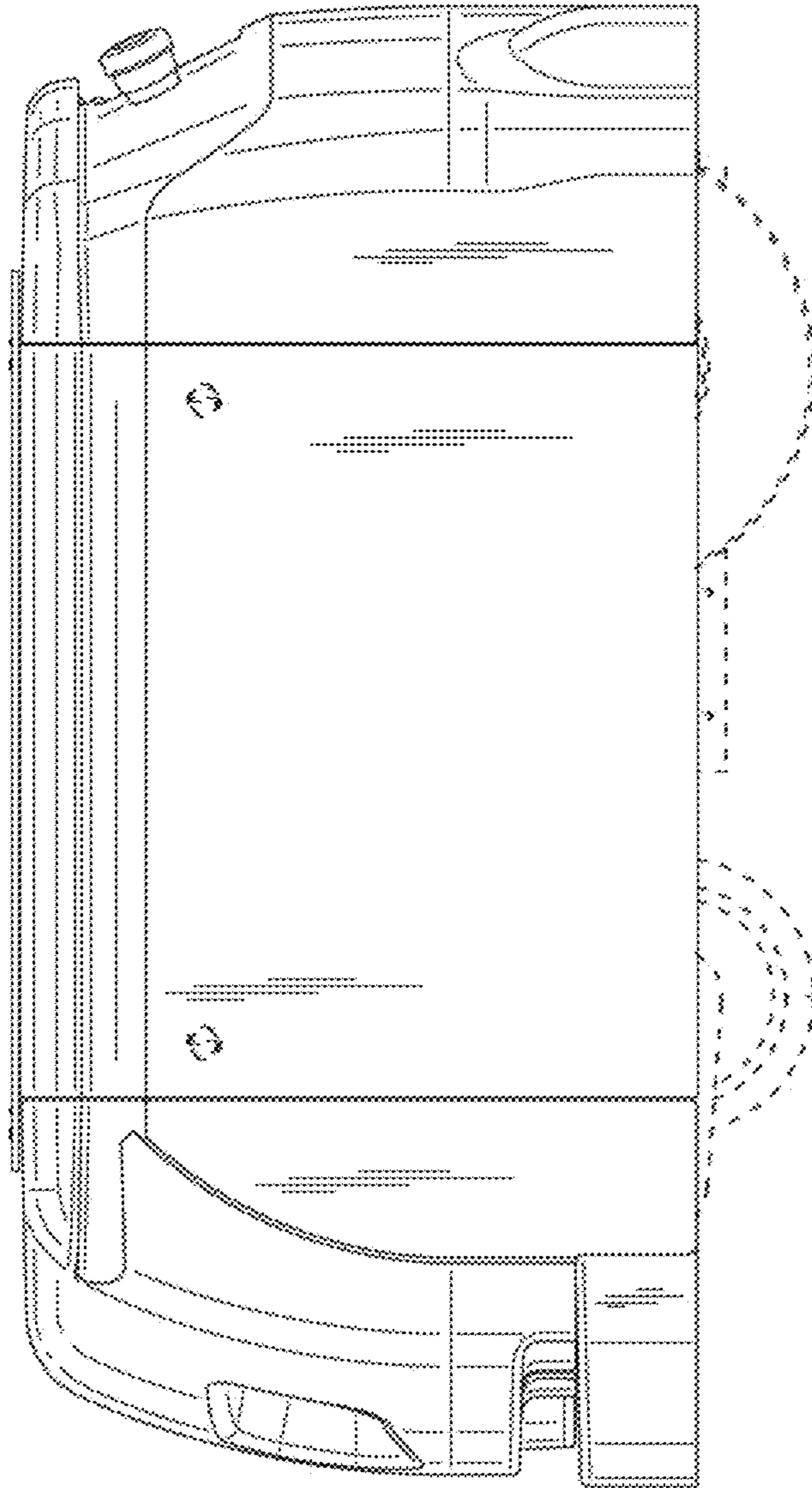


Fig. 3

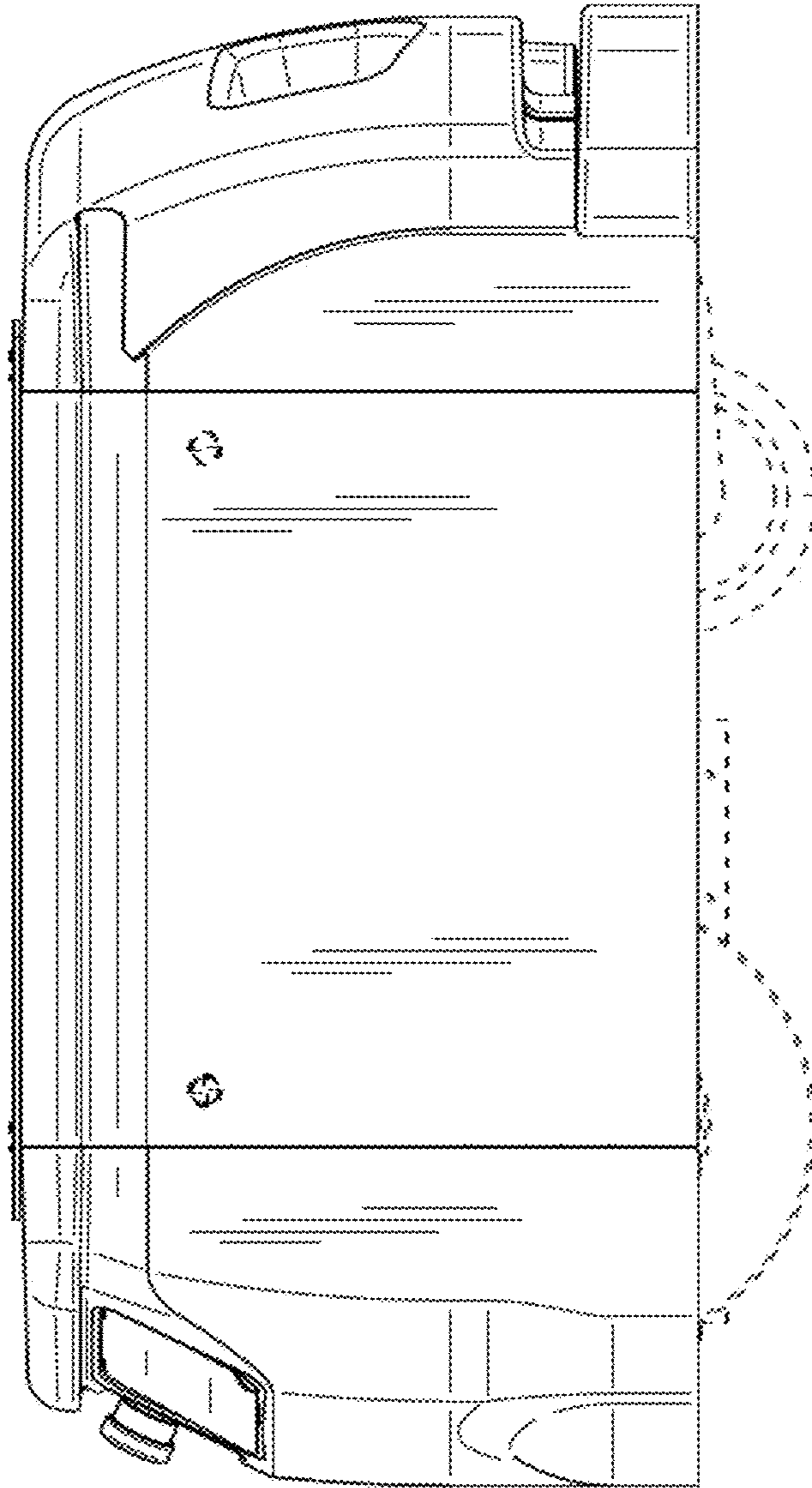


Fig. 4

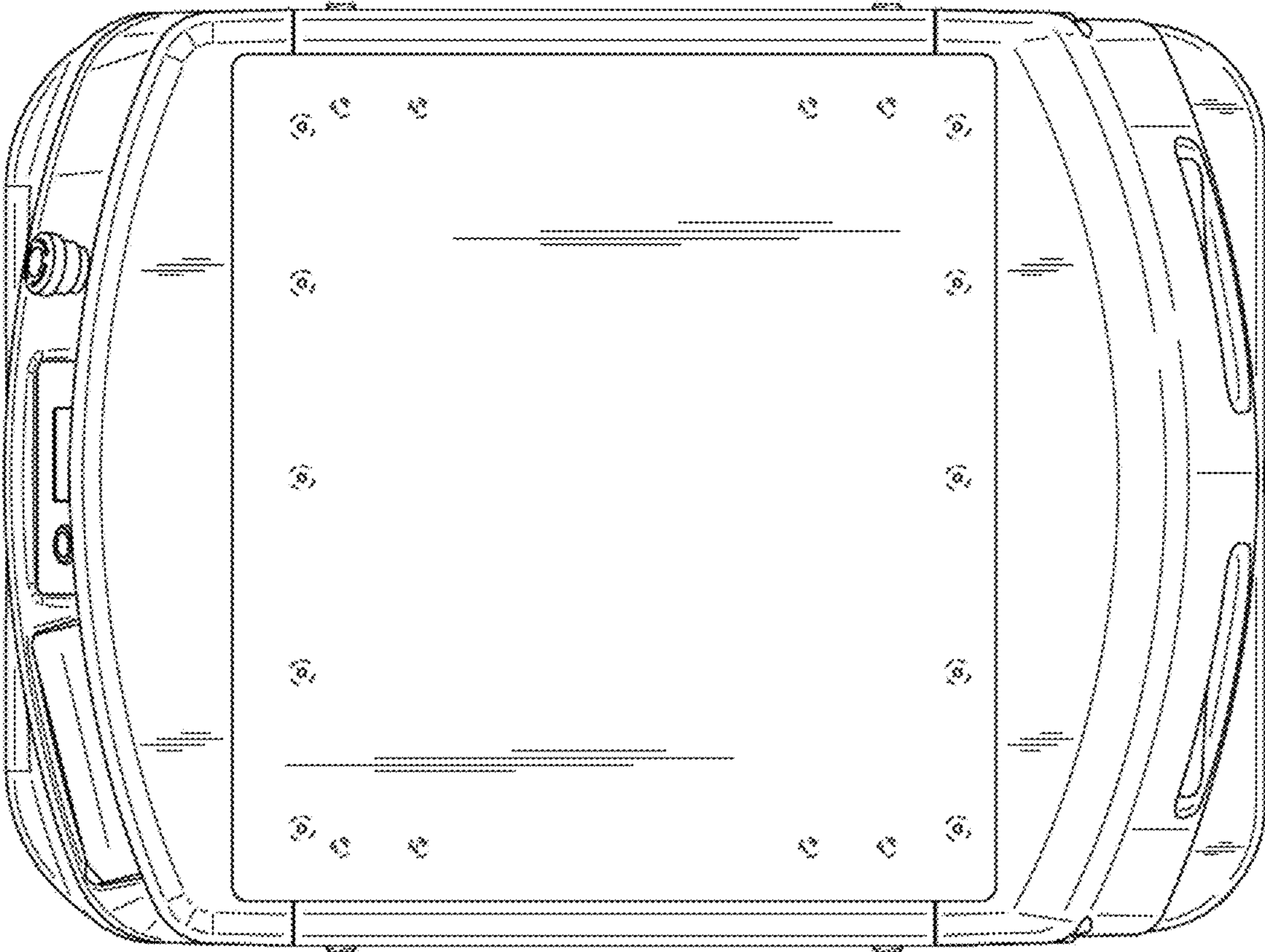


Fig. 5

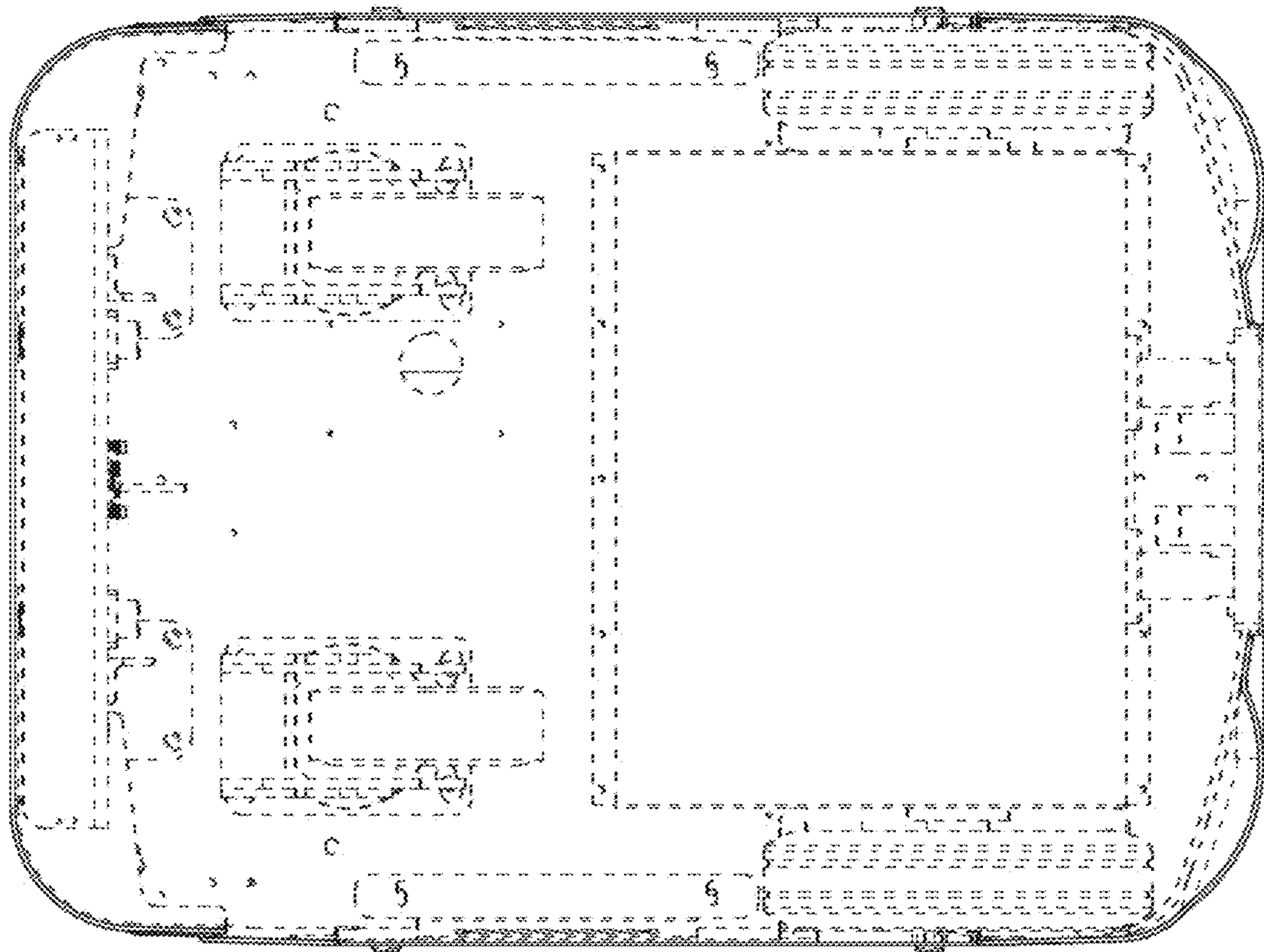


Fig. 6



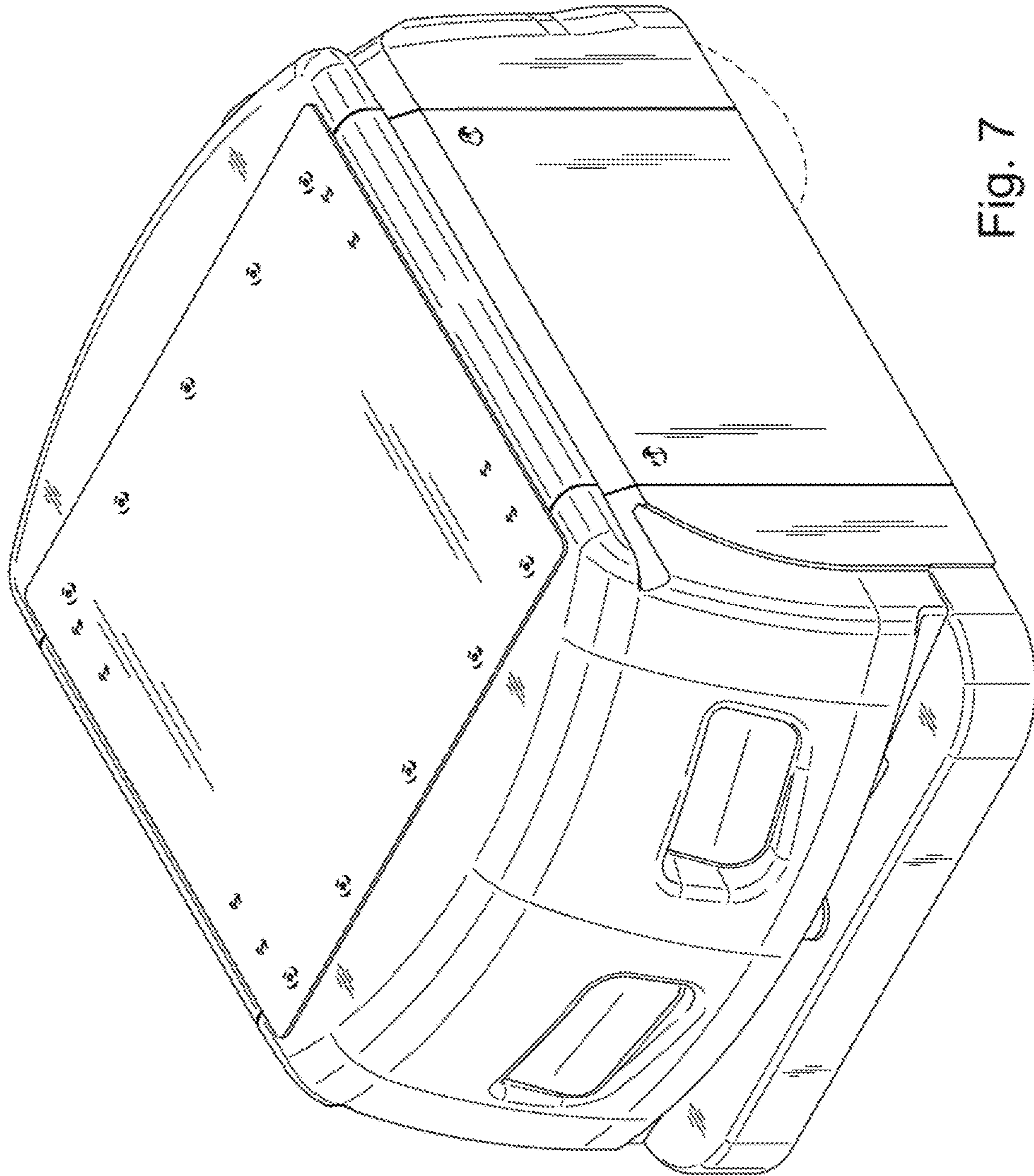


Fig. 7

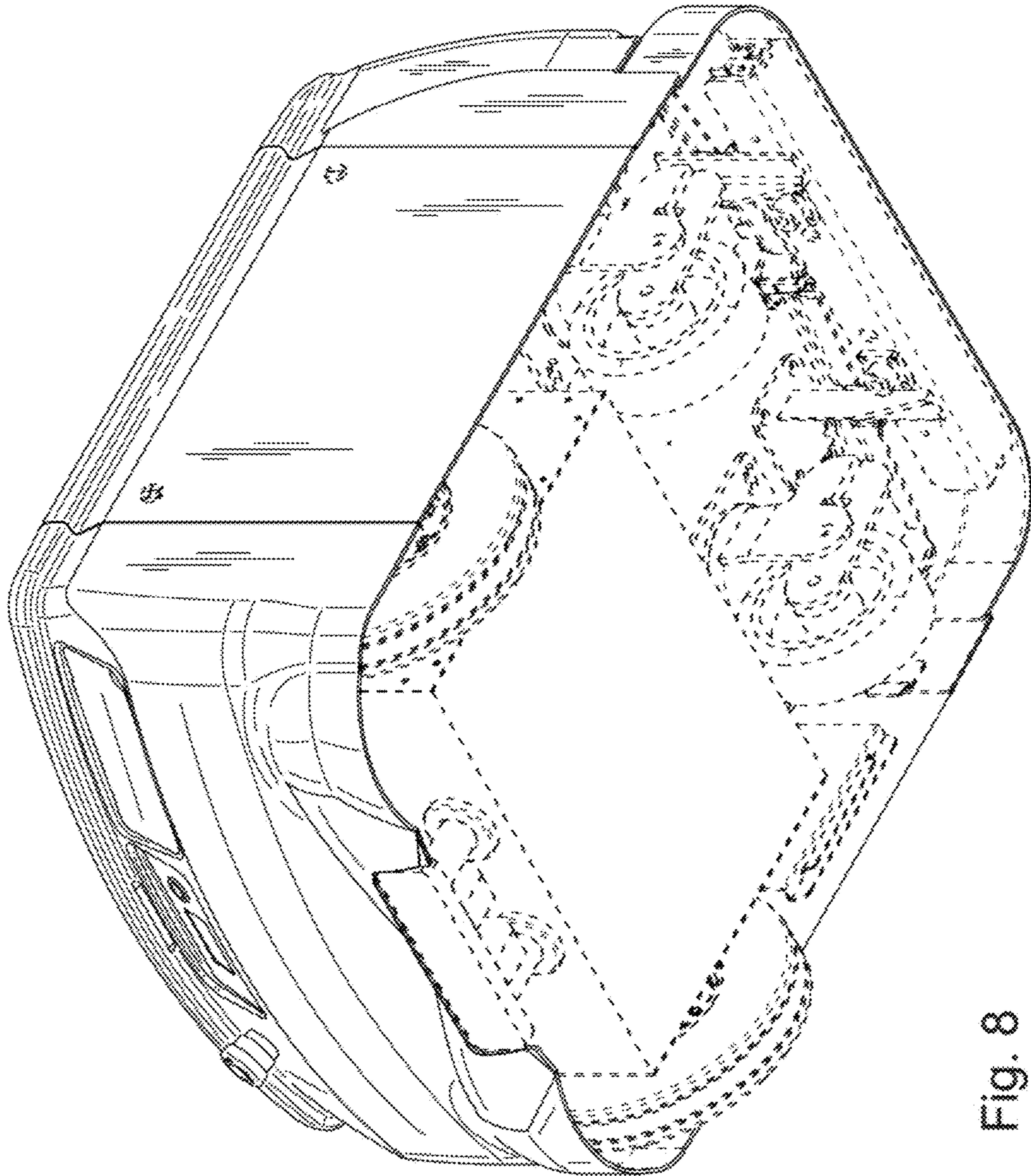


Fig. 8

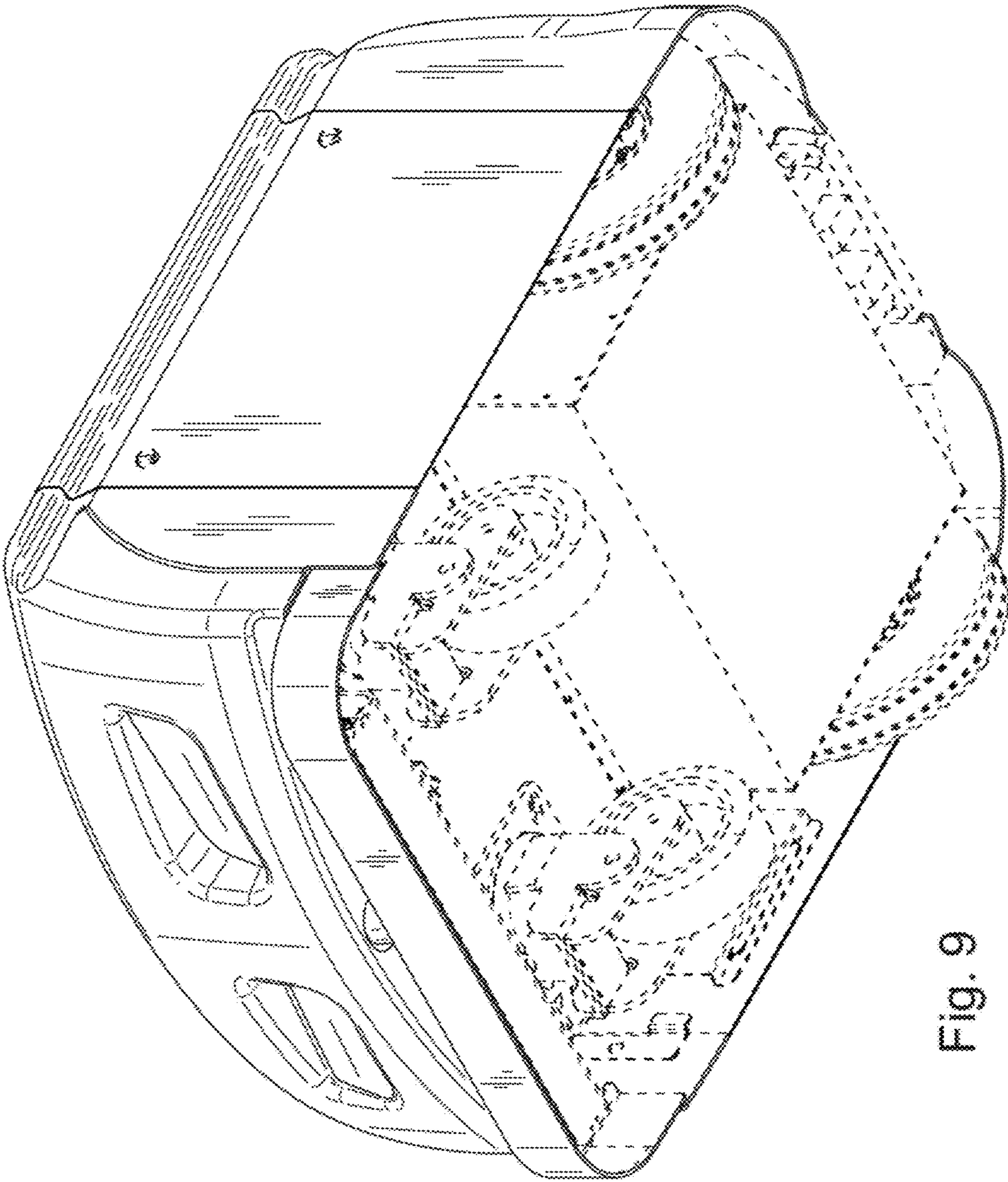


Fig. 9

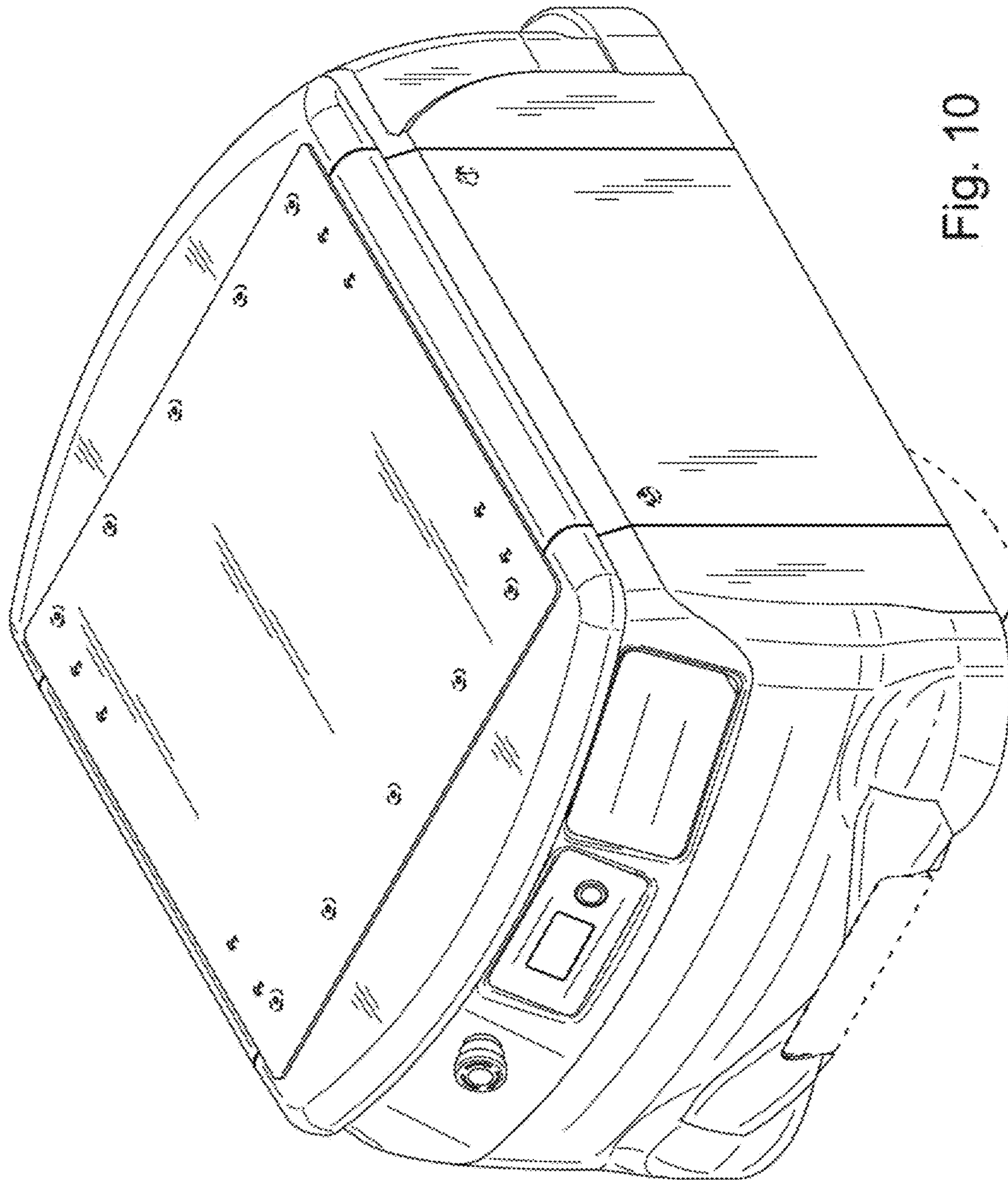


Fig. 10