



US00D954620S

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

(10) **Patent No.:** **US D954,620 S**
(45) **Date of Patent:** **** Jun. 14, 2022**

(54) **FENDER SENSOR HOUSING**

- (71) Applicant: **Waymo LLC**, Mountain View, CA (US)
- (72) Inventors: **YooJung Ahn**, Mountain View, CA (US); **Joshua Newby**, San Francisco, CA (US); **Robert Veitch**, San Francisco, CA (US)
- (73) Assignee: **Waymo LLC**, Mountain View, CA (US)
- (**) Term: **15 Years**
- (21) Appl. No.: **29/696,525**
- (22) Filed: **Jun. 28, 2019**

Related U.S. Application Data

- (63) Continuation of application No. 29/602,117, filed on Apr. 28, 2017.
- (51) **LOC (13) Cl.** **12-16**
- (52) **U.S. Cl.**
USPC **D12/173**
- (58) **Field of Classification Search**
USPC D10/70, 106.8; D12/172, 173, 187, 188;
D15/28; D16/202

(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

- D328,436 S ‡ 8/1992 Fuerst D10/46
- D335,467 S ‡ 5/1993 Cheng D10/106.7

(Continued)

FOREIGN PATENT DOCUMENTS

- KR 101998298 B1 7/2019
- WO 2018138584 A1 8/2018

OTHER PUBLICATIONS

Vehicle Detection Sensor. (Design—© Questel) orbit.com. [Online PDF compilation of references] 102 pgs. Print Dates Range Jan. 15, 2021-Feb. 23, 2016 [Retrieved Jan. 4, 2022].*

(Continued)

Primary Examiner — Manpreet S Matharu
Assistant Examiner — Suzanne E Tisdell
(74) *Attorney, Agent, or Firm* — Banner & Witcoff, Ltd.

(57) **CLAIM**

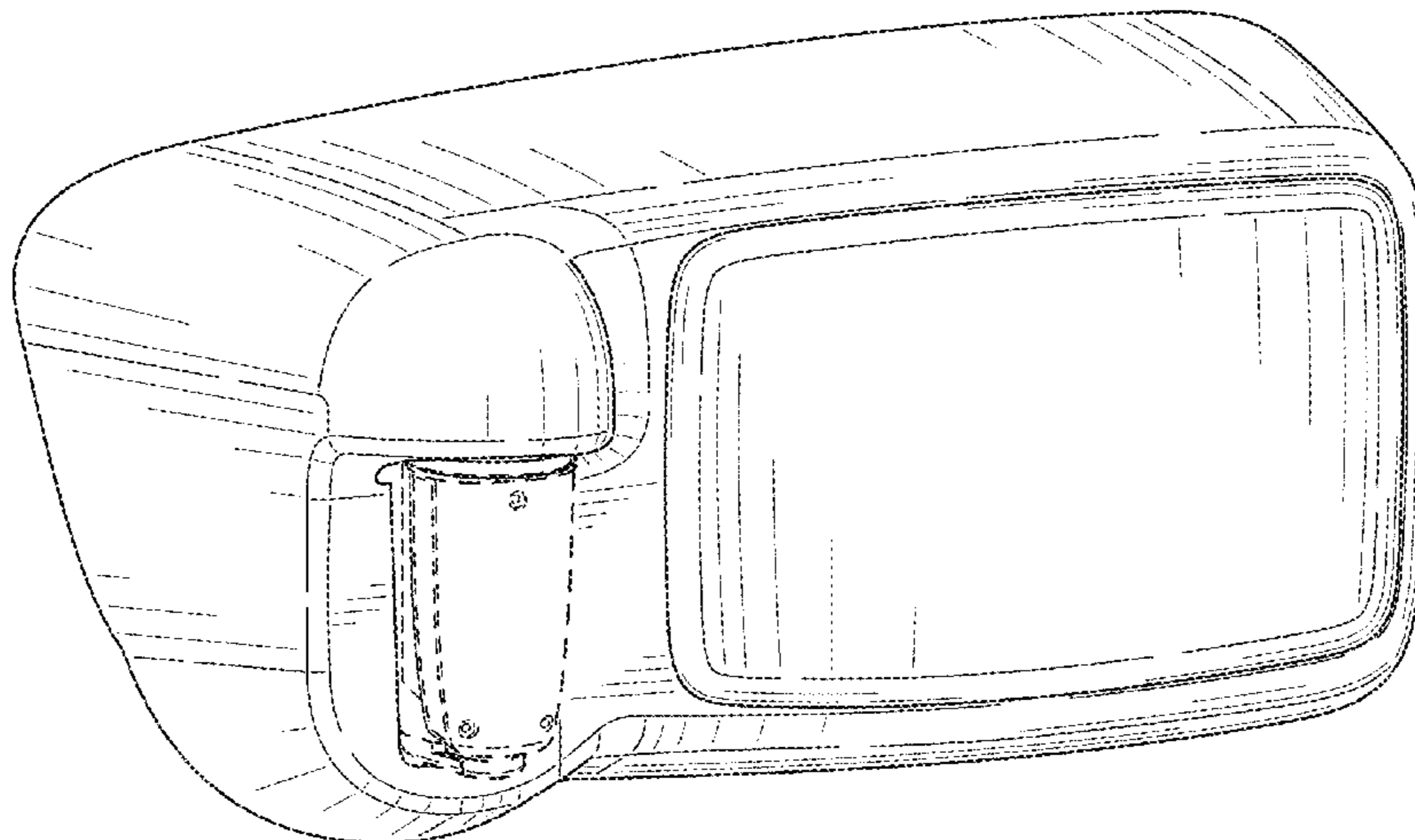
The ornamental design for a fender sensor housing, as shown and described.

DESCRIPTION

The present application is related to application Ser. No. 29/602,101 filed Apr. 28, 2017, entitled Roof Sensor Housing, now U.S. Design Pat. No. D835,028 issued Dec. 4, 2018; to application Ser. No. 29/602,110 filed Apr. 28, 2017, entitled Rear Sensor Housing, now U.S. Design Pat. No. D825,357 issued Aug. 14, 2018; to application Ser. No. 29/602,112 filed Apr. 28, 2017, entitled Front Sensor Housing, now U.S. Design Pat. No. D834,971 issued Dec. 4, 2018, and to application Ser. No. 29/656,372 filed Jul. 12, 2018, entitled Rear Sensor Housing, the entire disclosures of which are incorporated by reference herein.

FIG. 1 is a front perspective view of a fender sensor housing according to our design;
FIG. 2 is a front elevation view thereof;
FIG. 3 is a back elevation view thereof;
FIG. 4 is a right side elevation view thereof;
FIG. 5 is a left side elevation view thereof;
FIG. 6 is a top plan view thereof;
FIG. 7 is a bottom plan view thereof;
FIG. 8 is a front perspective view of a pair of Fender Sensor Housings positioned on a first exemplary vehicle; and,
FIG. 9 is a front perspective view of a pair of Fender Sensor Housings positioned on a second exemplary vehicle.
The broken lines shown in FIGS. 1-7 illustrate portions of the fender sensor housing that form no part of the claimed design. The broken lines shown in FIGS. 8-9 illustrate the same portions of the fender sensor housing shown in FIGS.

(Continued)



1-7, but also include environmental subject matter. Neither the portions of the Housing nor the environmental subject matter in FIGS. 8-9 form any part of the claimed design. FIGS. 1-7 illustrate the fender sensor housing for use on a first side of a vehicle in a first embodiment. A second embodiment of the fender sensor housing is a mirror image of the first embodiment shown in FIGS. 1-7. The second embodiment is arranged for use on a second, opposite side of the vehicle. These mirror image arrangements are presented in the exemplary perspective views of FIGS. 8 and 9. The specific placement of the fender sensor housing in FIGS. 8-9 on the exemplary vehicles is for illustrative purposes only.

1 Claim, 6 Drawing Sheets

(58) **Field of Classification Search**

CPC G06M 7/00; G08B 23/00; B60R 11/04; B60R 19/483; B08B 3/02; B62D 25/18; G10H 3/181

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D395,408 S † 6/1998 Wiesemann D10/106.8
 5,767,431 A * 6/1998 Khanagov G10H 3/181
 84/726
 D413,277 S † 8/1999 Scheibe D10/106.7
 5,945,907 A † 8/1999 Yaron B60Q 9/007
 340/43
 D427,101 S † 6/2000 Leen D10/106.7
 D434,992 S † 12/2000 Hiller D10/106.7
 D445,386 S † 7/2001 Sacco D12/187
 D478,518 S † 8/2003 Porter D10/70
 D525,888 S † 8/2006 Porter D10/70
 7,109,880 B2 † 9/2006 Sibalich F21S 8/02
 340/693.5
 D547,222 S † 7/2007 Wilson D10/106.7
 7,459,672 B2 † 12/2008 Jensen G08B 13/193
 250/221
 7,517,099 B2 † 4/2009 Hannah B60Q 1/2665
 340/46
 D651,532 S † 1/2012 Li D10/70
 D689,385 S † 9/2013 Haws D10/106.8
 D717,720 S † 11/2014 Marino D12/41
 D726,560 S † 4/2015 Gaw D10/70
 D727,181 S † 4/2015 Papadourakis D10/65
 D731,905 S † 6/2015 Olivieri D10/65
 D739,336 S † 9/2015 Berrey D12/41
 D775,978 S † 1/2017 Christianson D10/106.8
 D782,349 S † 3/2017 Konotopskyi D10/106.6

D788,607 S † 6/2017 Ji D10/70
 D788,625 S † 6/2017 Hsieh D10/106.6
 D789,427 S † 6/2017 Jackson D15/28
 D791,994 S † 7/2017 Liu D10/106.8
 D795,108 S † 8/2017 Kondo D10/106.6
 9,725,060 B1 † 8/2017 Daniel B62D 21/15
 9,862,311 B2 † 1/2018 Kiriyaama B60Q 1/0023
 D818,915 S † 5/2018 Kozub D12/187
 D821,232 S † 6/2018 Ewringmann D10/70
 D822,580 S † 7/2018 Eriksson D12/41
 D825,357 S † 8/2018 Ahn D10/70
 D826,073 S † 8/2018 Alkelai et al.
 D828,257 S † 9/2018 Akrapovic D12/187
 D834,971 S * 12/2018 Ahn D10/70
 D835,028 S 12/2018 Ahn et al.
 D850,303 S 6/2019 Wang et al.
 D850,946 S 6/2019 Zhevelev et al.
 D858,381 S * 9/2019 Ahn D12/173
 D860,013 S * 9/2019 Ahn D10/70
 10,444,752 B2 10/2019 Kim et al.
 2010/0182199 A1 * 7/2010 Jeong G01S 7/4026
 342/374
 2016/0011594 A1 † 1/2016 Chung G05D 1/0231
 701/28
 2017/0151933 A1 † 6/2017 Doorley B60S 1/56
 2017/0293016 A1 † 10/2017 McCloskey G01S 7/023
 2017/0297488 A1 10/2017 Wang et al.
 2017/0300060 A1 † 10/2017 Crawley B25J 11/008
 2017/0343654 A1 † 11/2017 Valois G01S 7/497
 2018/0011173 A1 † 1/2018 Newman G01S 17/936
 2018/0015886 A1 † 1/2018 Frank B60R 11/04
 2018/0017680 A1 † 1/2018 Pennecot H05K 999/99
 2018/0037268 A1 † 2/2018 Moore B62D 25/06
 2018/0086280 A1 † 3/2018 Nguyen G01S 17/87
 2020/0124698 A1 * 4/2020 Noujeim G01S 13/878
 2020/0156576 A1 * 5/2020 Kataoka B60R 19/483
 2020/0158863 A1 * 5/2020 Hohla G01S 13/931
 2021/0016703 A1 * 1/2021 Shitara G01S 17/931
 2021/0148737 A1 * 5/2021 Yamaji G01S 7/027
 2021/0229754 A1 * 7/2021 Shibata B62D 25/18
 2021/0339710 A1 * 11/2021 Adams B08B 3/02
 2021/0341613 A1 * 11/2021 Adams B60R 11/04

OTHER PUBLICATIONS

Reynolds, Kim. "The End of Driving The Promise and Pitfalls of Autonomous Cars." Dec. 4, 2019. Motortrend, <https://www.motortrend.com/features/the-end-of-driving-autonomous-cars-future/>.
 McClinton, Dream. Are Self driving Cars Visions of the Future or a Menace to the Present. Jan. 6, 2021. Thomasnet. <https://www.thomasnet.com/insights/are-self-driving-cars-visions-of-the-future-or-a-menace-to-the-present/>.
 "Waymo Rolls Out Self Driving Taxi Service in San Francisco." Aug. 24, 2021. Hypebeast. <https://hypebeast.com/2021/8/waymo-autonomous-taxi-test-service-san-francisco/>.

* cited by examiner
 † imported from a related application

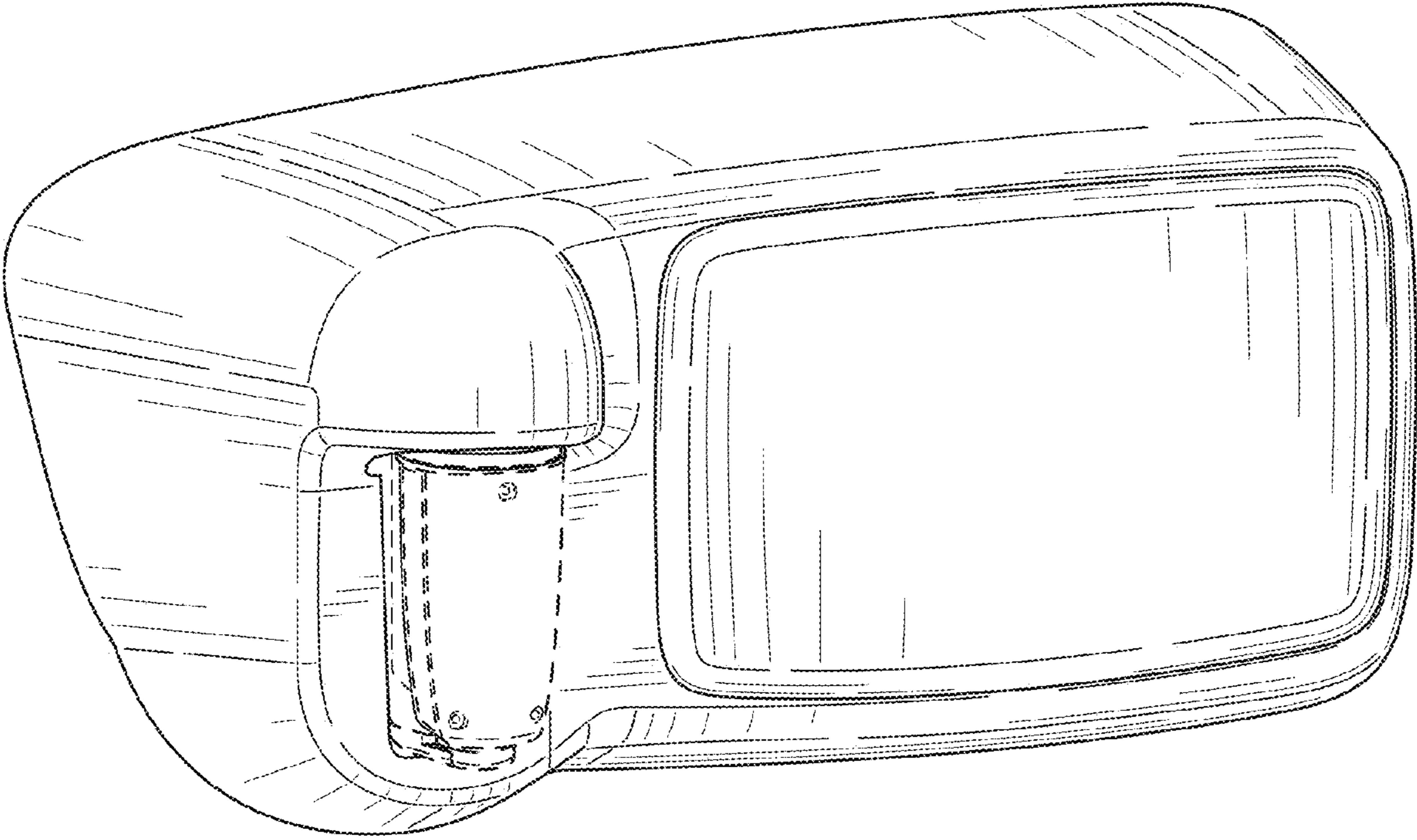


FIG. 1

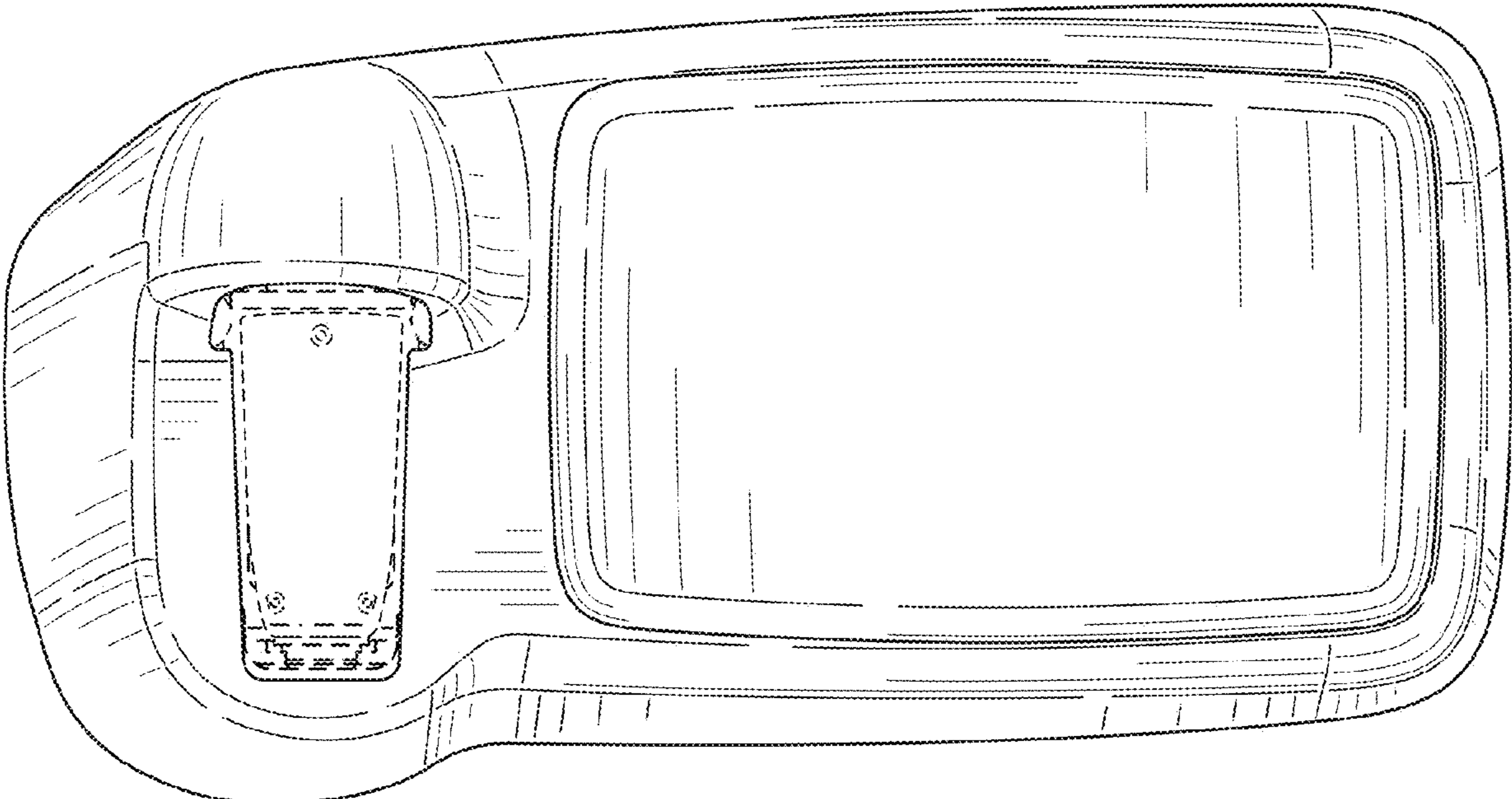


FIG. 2

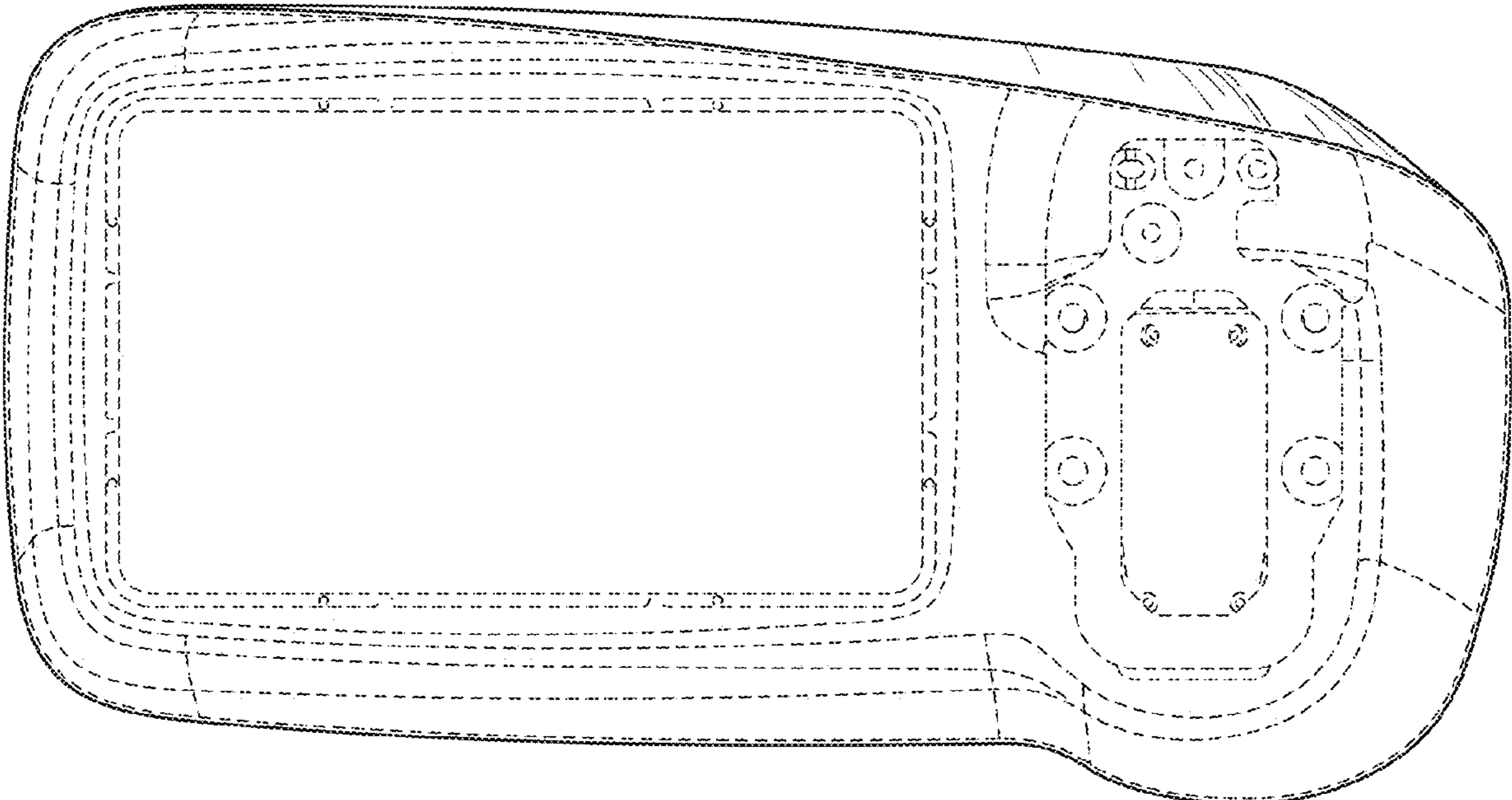


FIG. 3

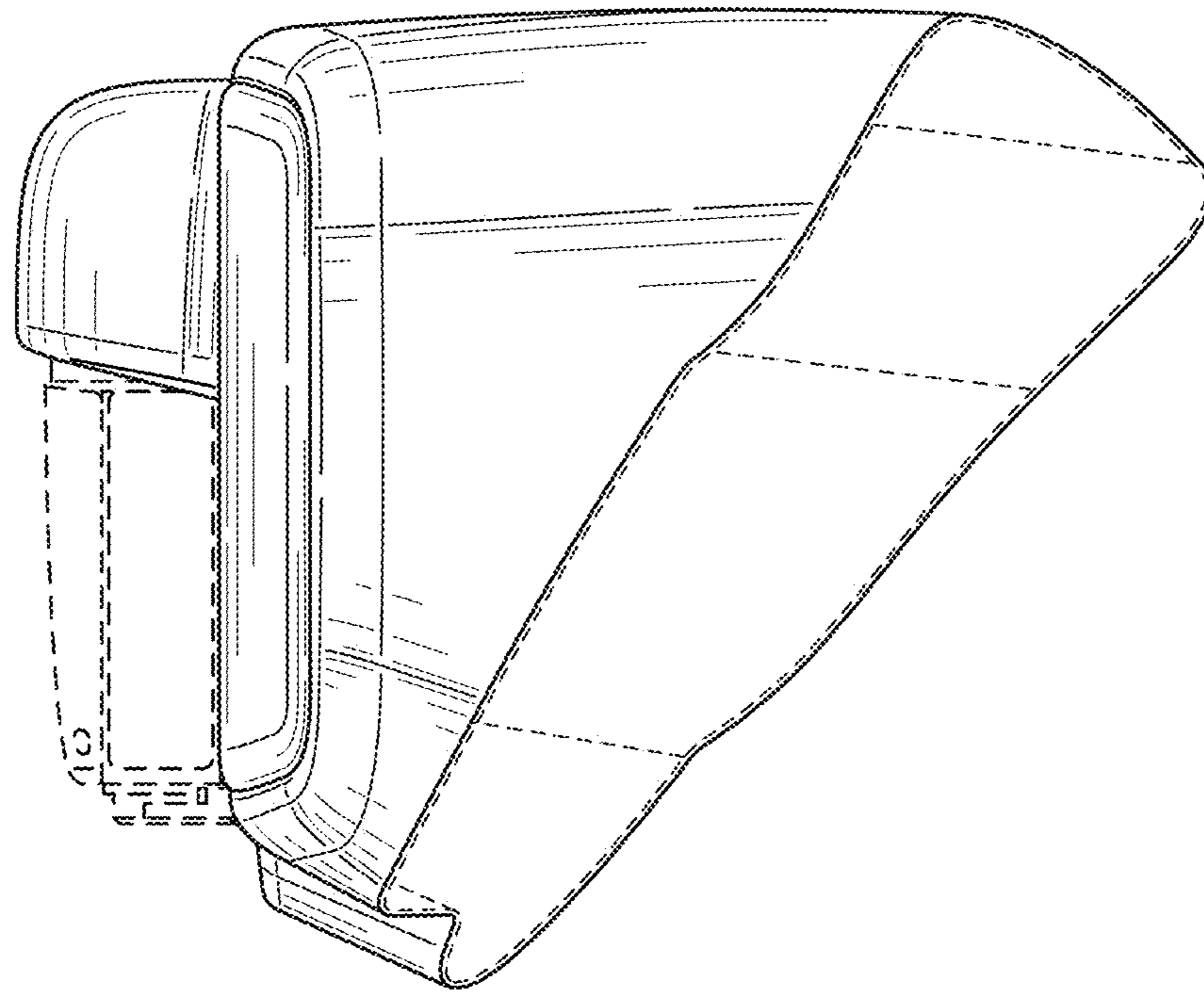


FIG. 4

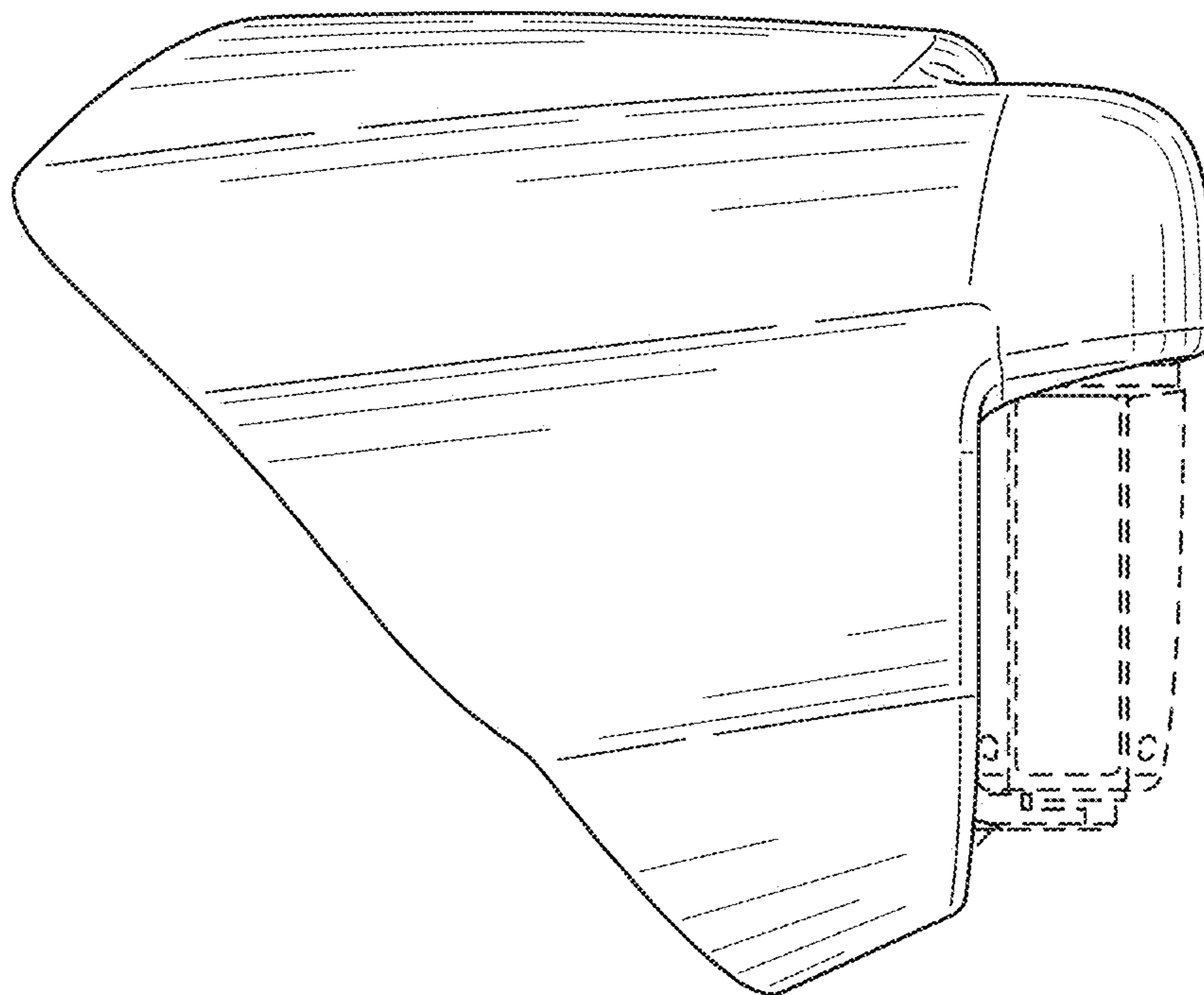


FIG. 5

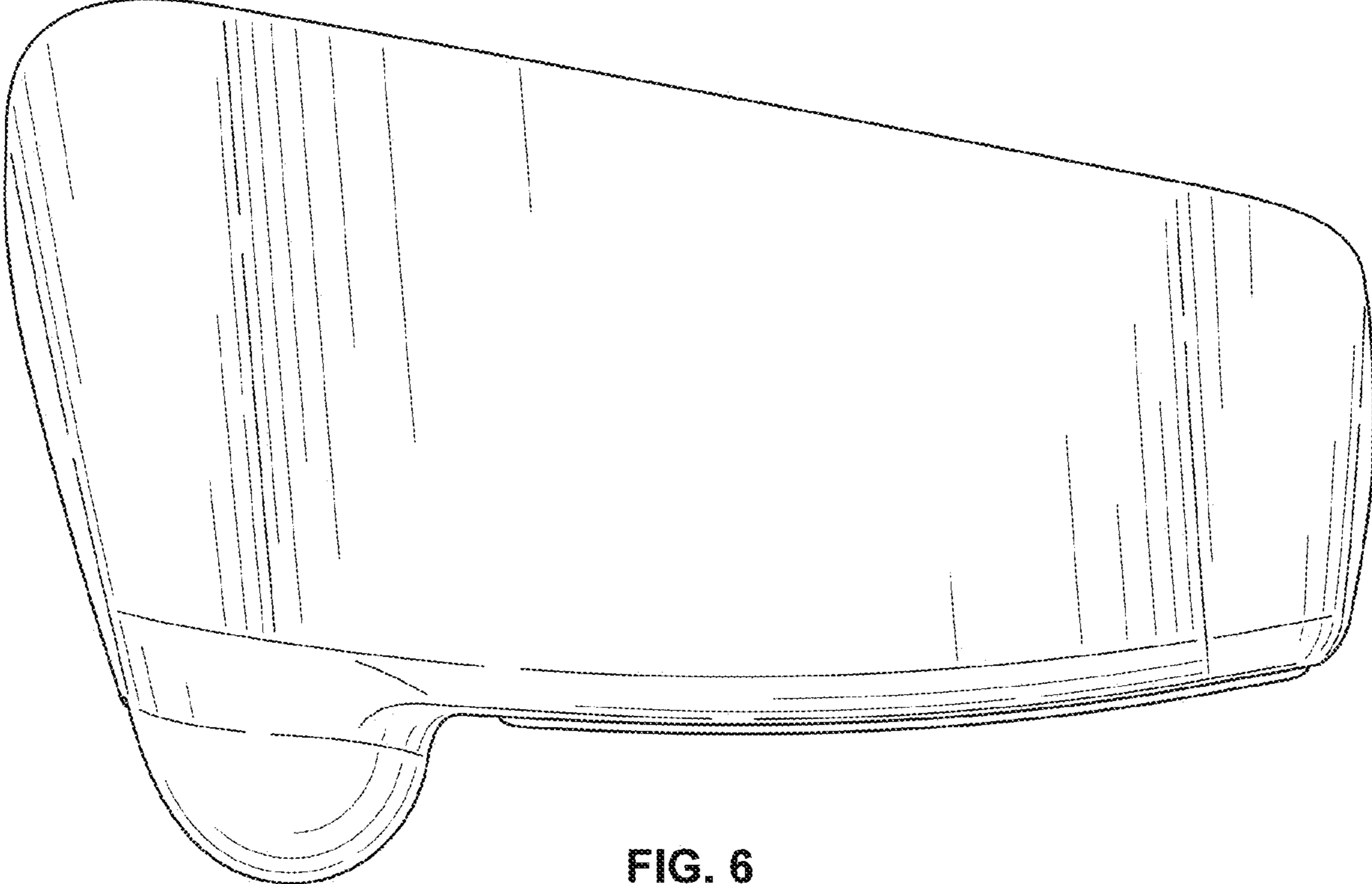


FIG. 6

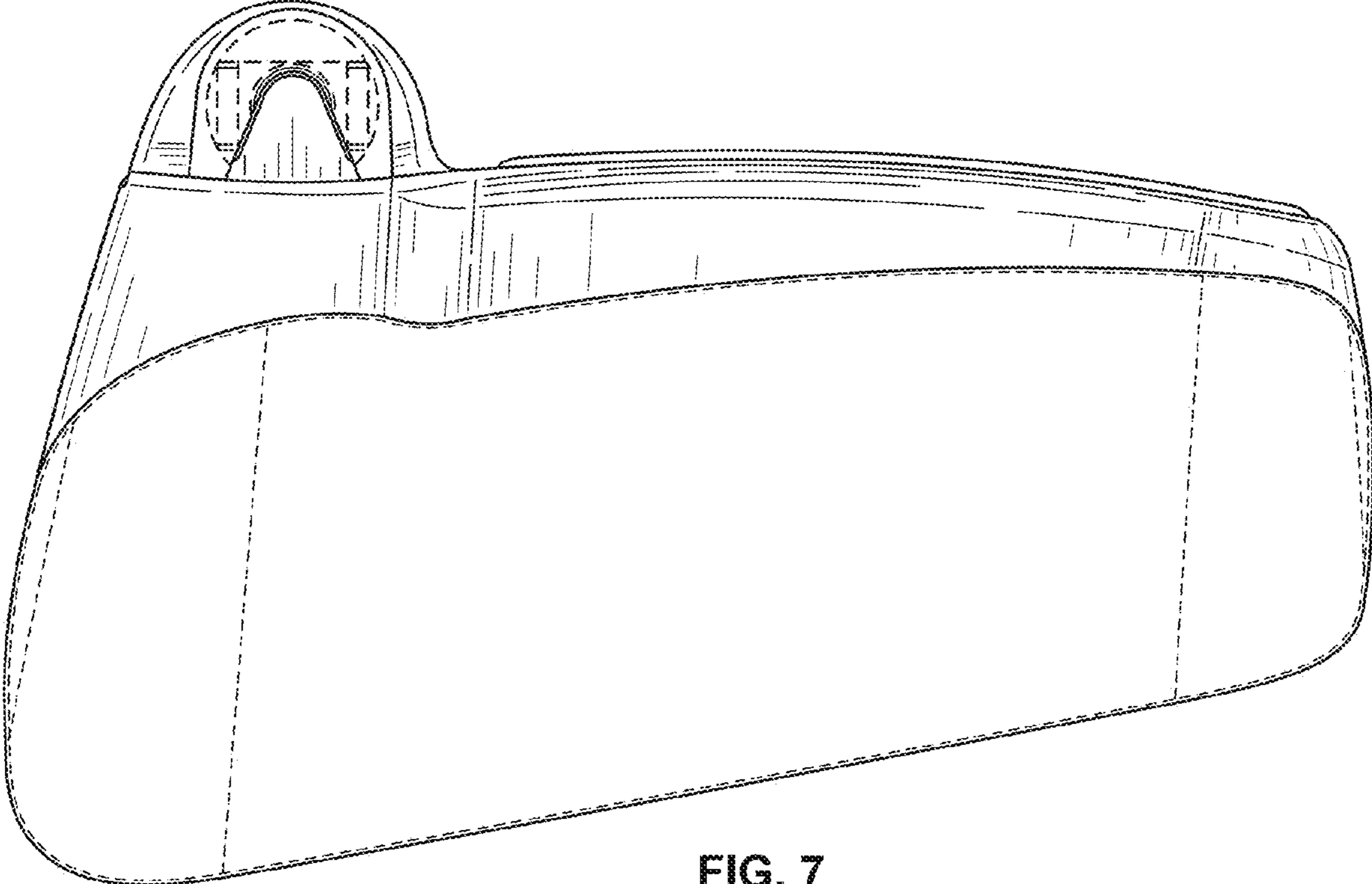


FIG. 7

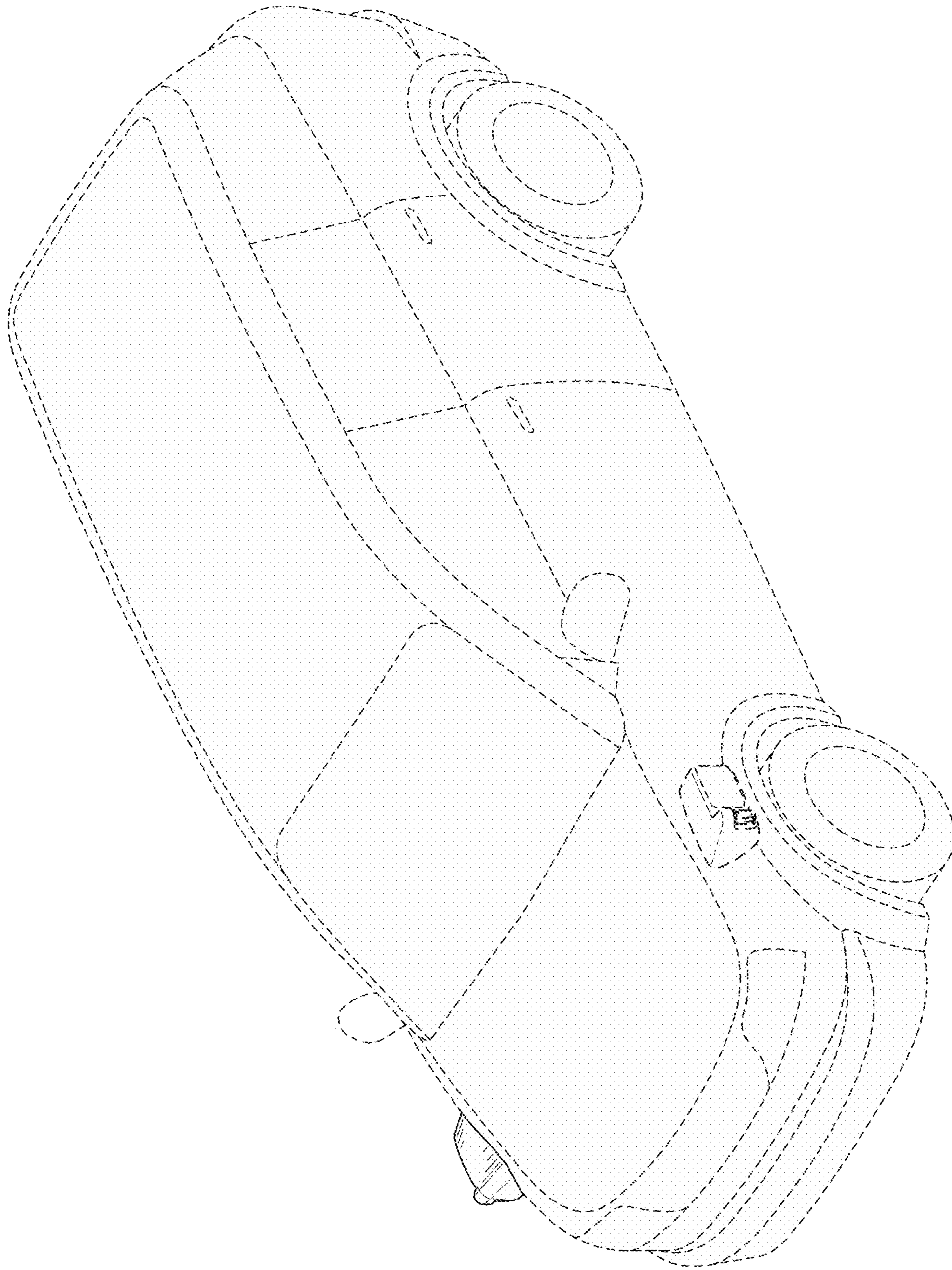


FIG. 8

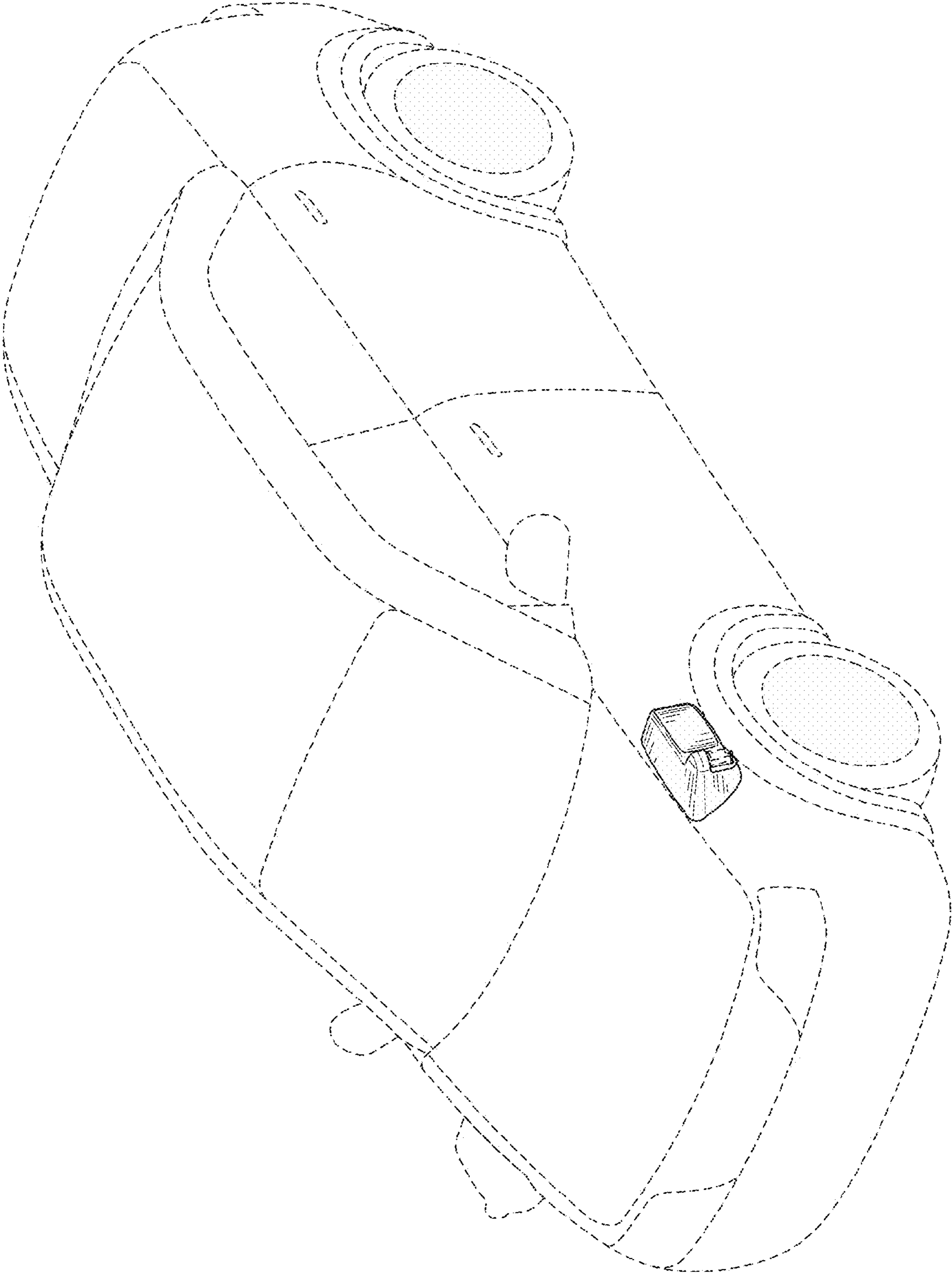


FIG. 9