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(12) **United States Design Patent** (10) **Patent No.:** **US D957,969 S**
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(54) **SENSOR HOUSING**

B60K 2370/128; B60K 2370/682; B60K
 2370/175; B60K 2370/12; B60K
 2370/122; B60K 2370/143; B60W
 50/082; B60W 30/06; B60W 2540/215;
 B62D 15/0285; B60Y 2302/05; G08B
 25/016

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See application file for complete search history.

(56)

References Cited

U.S. PATENT DOCUMENTS

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

(21) Appl. No.: **29/736,304**

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Related U.S. Application Data

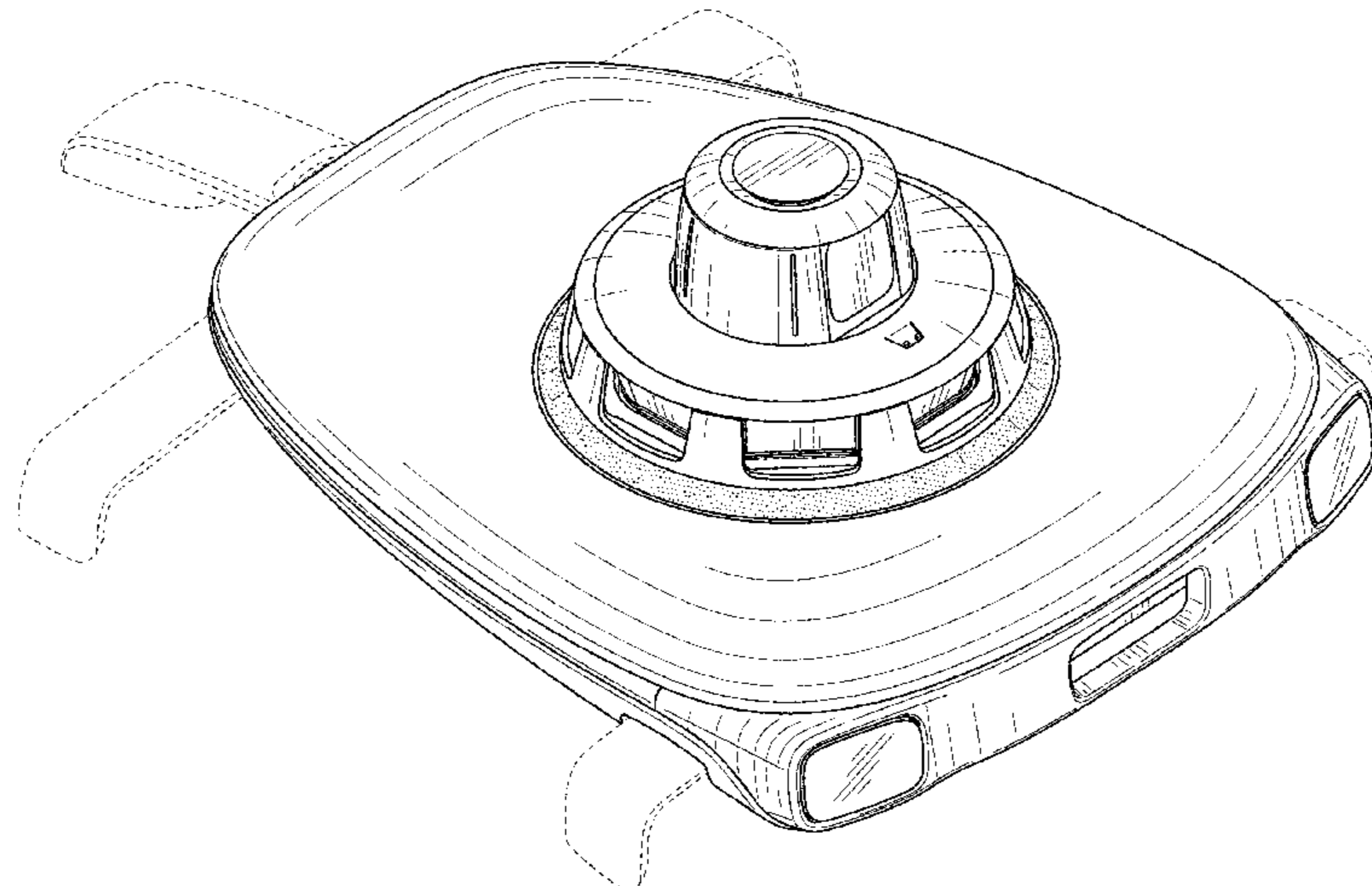
(63) Continuation of application No. 29/722,227, filed on Jan. 28, 2020, which is a continuation-in-part of application No. 29/689,690, filed on May 1, 2019, now Pat. No. Des. 915,913, application No. 29/736,304, which is a continuation-in-part of application No. 29/680,845, filed on Feb. 20, 2019, now Pat. No. Des. 902,756.

(51) **LOC (13) Cl.** **10-04**

(52) **U.S. Cl.**
 USPC **D10/70**

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 B60Q 1/0035; B60Q 1/0041; B60Q 1/26;
 B60Q 1/2603; B60Q 1/2607; B60Q
 1/2611; B60Q 9/002; B60Q 9/003; B60Q
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 2001/1284; G05D 1/0055; G05D 1/021;
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 B60K 37/06; B60K 35/00; B60K 28/02;

| | | | |
|--------------|---------|---------------------|--------|
| D328,436 S | 8/1992 | Fuerst et al. | |
| D335,467 S | 5/1993 | Cheng | |
| D395,408 S | 6/1998 | Wiesemann | |
| D413,277 S | 8/1999 | Scheibe | |
| 5,945,907 A | 8/1999 | Yaron et al. | |
| D427,101 S | 6/2000 | Leen | |
| D434,992 S | 12/2000 | Hiller et al. | |
| D445,386 S | 7/2001 | Sacco et al. | |
| D454,574 S | 3/2002 | Wasko et al. | |
| D478,518 S | 8/2003 | Porter | |
| D525,888 S | 8/2006 | Porter | |
| 7,109,880 B2 | 9/2006 | Sibalich et al. | |
| D547,222 S | 7/2007 | Wilson et al. | |
| D563,246 S | 3/2008 | Ishii et al. | |
| 7,459,672 B2 | 12/2008 | Jensen et al. | |
| 7,517,099 B2 | 4/2009 | Hannah | |
| D644,663 S | 9/2011 | Gardner et al. | |
| D651,532 S | 1/2012 | Li et al. | |
| D689,385 S | 9/2013 | Haws | |
| D717,720 S | 11/2014 | Marino | |
| D726,214 S | 4/2015 | Wantland et al. | |
| D726,560 S | 4/2015 | Gaw | |
| D727,181 S | 4/2015 | Papadourakis | |
| D731,905 S | 6/2015 | Olivieri et al. | |
| D734,211 S * | 7/2015 | Ahn | D12/86 |
| D739,336 S | 9/2015 | Berrey | |
| D750,098 S | 2/2016 | Song | |
| D759,698 S | 6/2016 | Kirsch et al. | |
| 9,373,112 B1 | 6/2016 | Henderson et al. | |
| D761,815 S | 7/2016 | Velasco et al. | |
| D775,978 S | 1/2017 | Christianson et al. | |
| D782,349 S | 3/2017 | Konotopskyi et al. | |
| D784,397 S | 4/2017 | Kim et al. | |
| D788,607 S | 6/2017 | Ji et al. | |
| D788,625 S | 6/2017 | Hsieh et al. | |
| D789,427 S | 6/2017 | Jackson et al. | |
| D791,994 S | 7/2017 | Liu | |
| D795,108 S | 8/2017 | Kondo et al. | |
| 9,725,060 B1 | 8/2017 | Daniel et al. | |
| 9,802,656 B1 | 10/2017 | Williams | |



| | | | | |
|--------------|-----|---------|--------------------|--|
| D809,001 | S | 1/2018 | Funnell, II et al. | |
| 9,862,311 | B2 | 1/2018 | Kiriyama et al. | |
| D810,112 | S | 2/2018 | Hasjim et al. | |
| 9,885,526 | B2 | 2/2018 | Maranville et al. | |
| D818,915 | S | 5/2018 | Kozub et al. | |
| D819,043 | S | 5/2018 | Yamaura et al. | |
| D821,232 | S | 6/2018 | Ewringmann et al. | |
| D822,580 | S | 7/2018 | Eriksson et al. | |
| D825,357 | S | 8/2018 | Ahn et al. | |
| D826,073 | S | 8/2018 | Alkelai et al. | |
| D828,257 | S | 9/2018 | Akrapovic et al. | |
| D829,239 | S | 9/2018 | Rehman | |
| D831,053 | S | 10/2018 | Guo et al. | |
| D834,971 | S | 12/2018 | Ahn et al. | |
| D835,028 | S | 12/2018 | Ahn et al. | |
| 10,302,744 | B1 | 5/2019 | Krishnan et al. | |
| D850,303 | S | 6/2019 | Wang et al. | |
| D850,946 | S | 6/2019 | Zhevelev et al. | |
| 10,359,507 | B2 | 7/2019 | Berger et al. | |
| D858,381 | S | 9/2019 | Ahn et al. | |
| D858,550 | S | 9/2019 | Crandall et al. | |
| D860,013 | S | 9/2019 | Ahn et al. | |
| 10,444,752 | B2 | 10/2019 | Kim et al. | |
| D866,368 | S * | 11/2019 | Ahn D10/70 | |
| D874,956 | S * | 2/2020 | Ahn D10/70 | |
| D874,957 | S | 2/2020 | Ahn et al. | |
| D877,162 | S | 3/2020 | Hanson | |
| D878,264 | S * | 3/2020 | Ahn D12/190 | |
| D887,436 | S | 6/2020 | Crandall et al. | |
| D897,353 | S | 9/2020 | Hall et al. | |
| D900,834 | S | 11/2020 | Yamazaki et al. | |
| D916,851 | S | 4/2021 | Crandall et al. | |
| 2012/0325360 | A1 | 12/2012 | Mcgrath et al. | |
| 2013/0242586 | A1 | 9/2013 | Huizen et al. | |
| 2014/0049912 | A1 | 2/2014 | Marshall | |
| 2016/0011594 | A1 | 1/2016 | Chung et al. | |
| 2017/0151933 | A1 | 6/2017 | Doorley et al. | |
| 2017/0261273 | A1 | 9/2017 | Maranville et al. | |
| 2017/0293016 | A1 | 10/2017 | McCloskey et al. | |
| 2017/0297488 | A1 | 10/2017 | Wang et al. | |
| 2017/0300060 | A1 | 10/2017 | Crawley | |
| 2017/0343654 | A1 | 11/2017 | Valois et al. | |
| 2018/0011173 | A1 | 1/2018 | Newman | |
| 2018/0015886 | A1 | 1/2018 | Frank et al. | |
| 2018/0017680 | A1 | 1/2018 | Pennecot et al. | |
| 2018/0037268 | A1 | 2/2018 | Moore et al. | |
| 2018/0086280 | A1 | 3/2018 | Nguyen | |
| 2019/0247748 | A1 | 8/2019 | Yusupov et al. | |
| 2020/0025933 | A1 | 1/2020 | Ghannam et al. | |
| 2020/0195816 | A1 | 6/2020 | Stein et al. | |

FOREIGN PATENT DOCUMENTS

| | | |
|----|-----------------|--------|
| CN | 306381056 | 3/2021 |
| CN | 3065597780 S | 5/2021 |
| DE | 102017104988 A1 | 9/2017 |
| KR | 101998298 B1 | 7/2019 |
| WO | 2017119385 A1 | 7/2017 |
| WO | 2018138584 A1 | 8/2018 |

OTHER PUBLICATIONS

European Union Office Action for Application No. 008041701 dated Oct. 26, 2020.
 How to Bevel Cylinder Edge [on-line], Feb. 2016 [retrieved Oct. 22, 2020], Retrieved from internet <blenderartists.org/t/ how-to-bevel-cylinder-edge/663039/4>, screen images. (Year: 2016).
 Vectto, Travel Places vol. 1, Jan. 12, 2017, iconfinder.com [online], [site visited Nov. 5, 2018]. Available from Internet: hllps://www.iconfinder.com/iconsets/travel-places-travel-starter <http://www.iconfinder.com/iconsets/travel-places-travel-starter>(Year: 2017).
 Dreamstime White Oval Button [online], undated [retrieved Jun. 11, 2021], Retrieved from the internet <URL:https://www.dreamstime.com/white-i <http://www.dreamstime.com/white-i>nterface-oval-button-blank-d-icon-vector-illustration-image137999456>, image (Year: 2021).
 Houzz Chamfer [online],Jan. 11, 1970 [retrieved Jun. 11, 2021], Retrieved from the internet <URL:https://www.houzz.com/ <http://www.houzz.com/> magazine/chamfer-stsetivw-vs-13436627>, image (Year: 1970).
 PCT Search Report and Written Opinion in International Application No. PCT/US2020/043068, dated Oct. 15, 2020.

* cited by examiner

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(57) **CLAIM**

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

DESCRIPTION

FIG. 1 is a front perspective view of a sensor housing;
 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; and,
 FIG. 7 is a bottom plan view thereof.
 The broken lines in the figures illustrate elements of the sensor housing that form no part of the claimed design.
 The sensor housing may be arranged along a portion of a vehicle, such as along a roof of the vehicle. In one example the sensor housing includes at least one sensor therein, such as a camera or lidar sensor.
 The sections shown in a pattern of stipple illustrate areas of contrasting appearance.

1 Claim, 5 Drawing Sheets

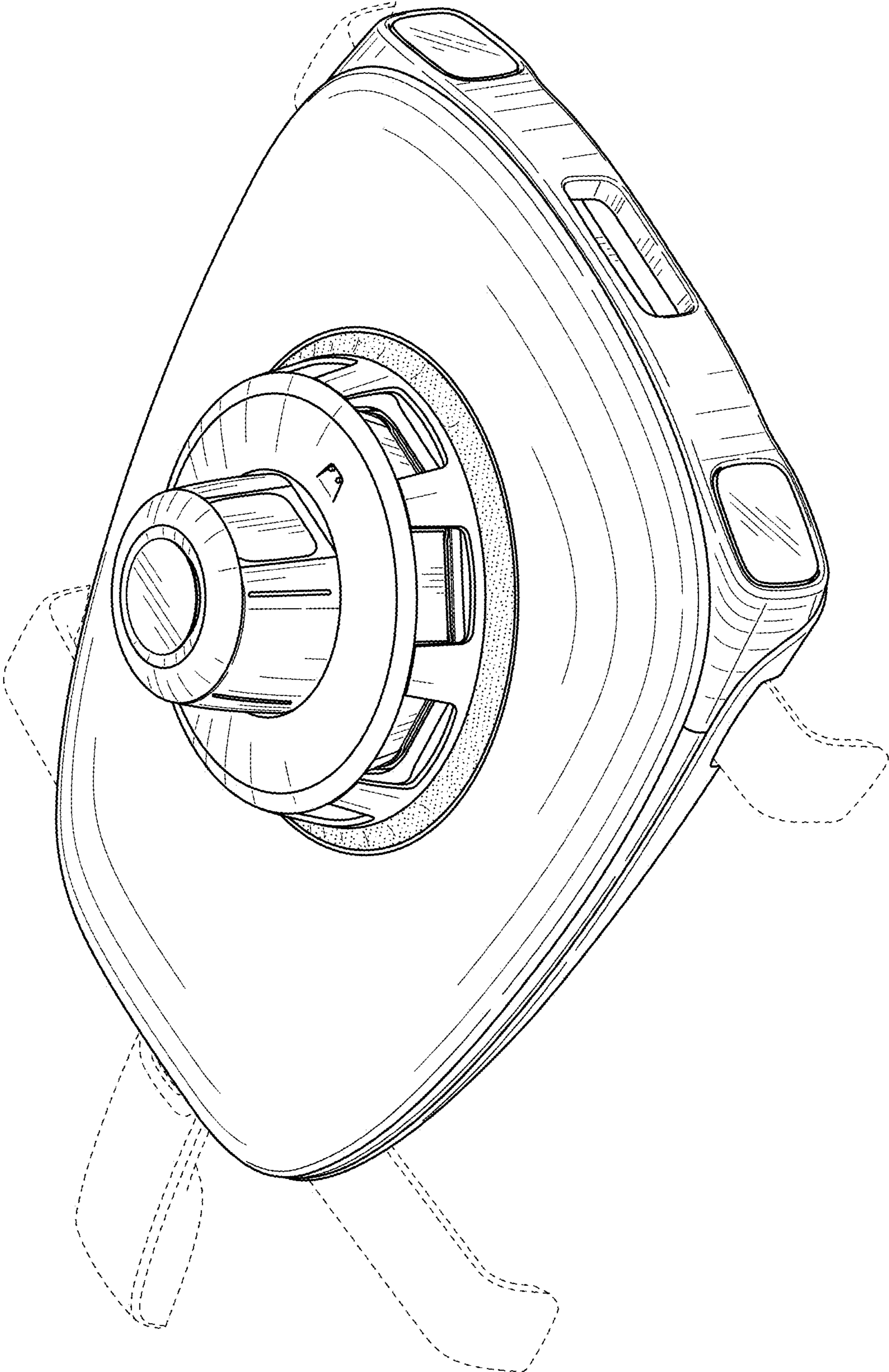


FIG. 1

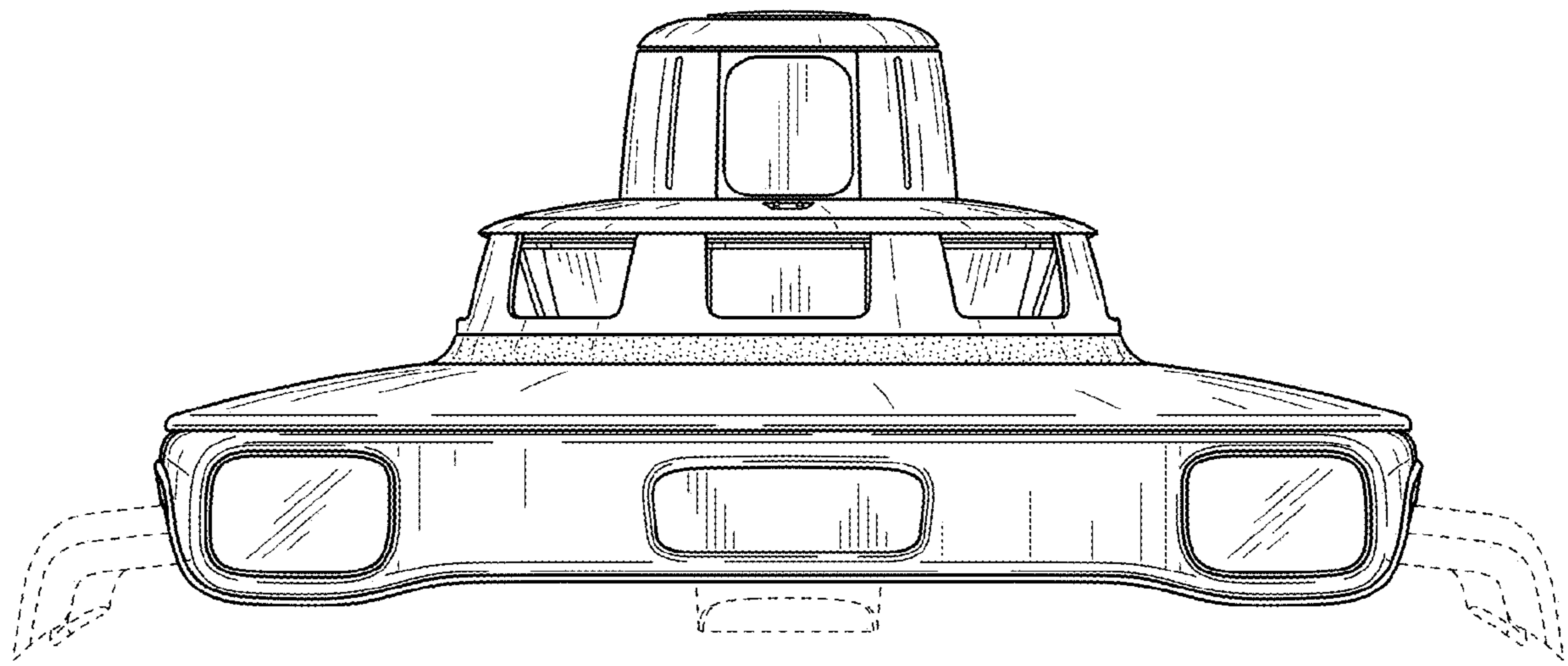


FIG. 2

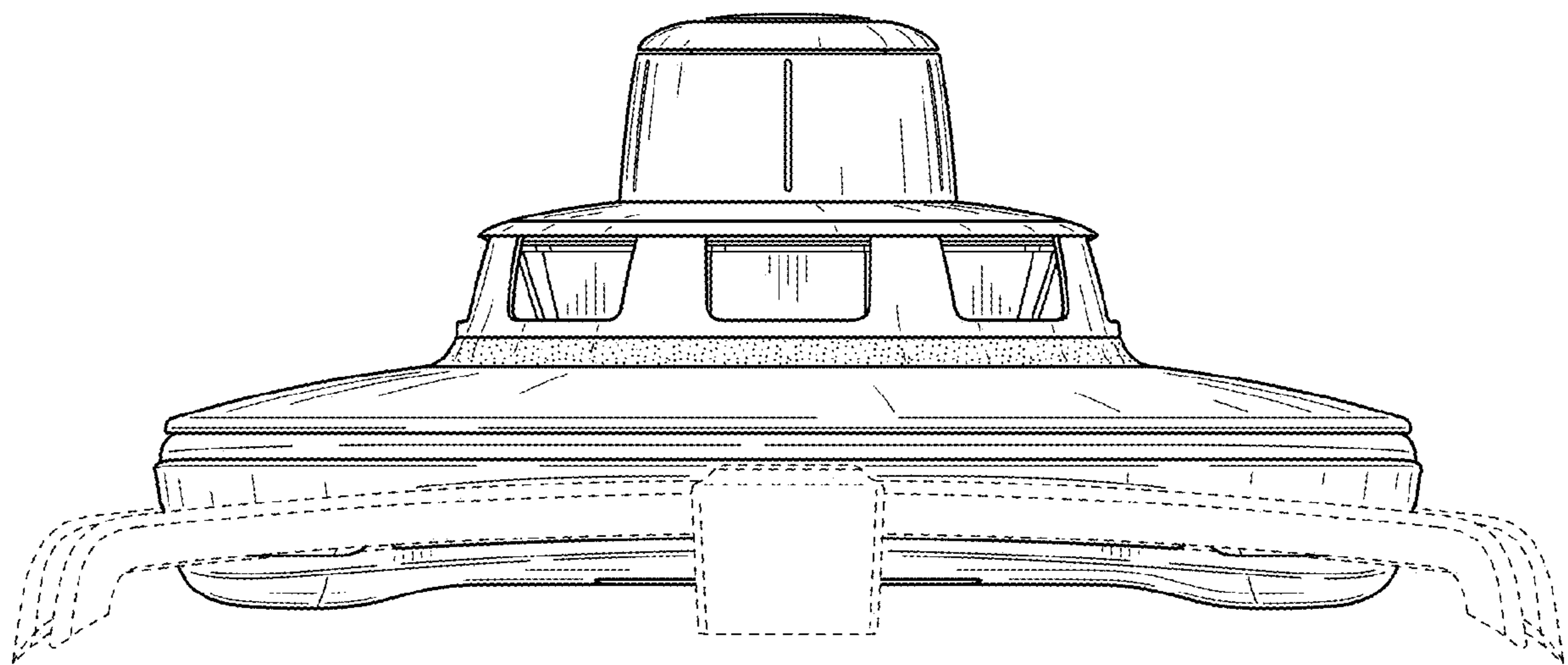


FIG. 3

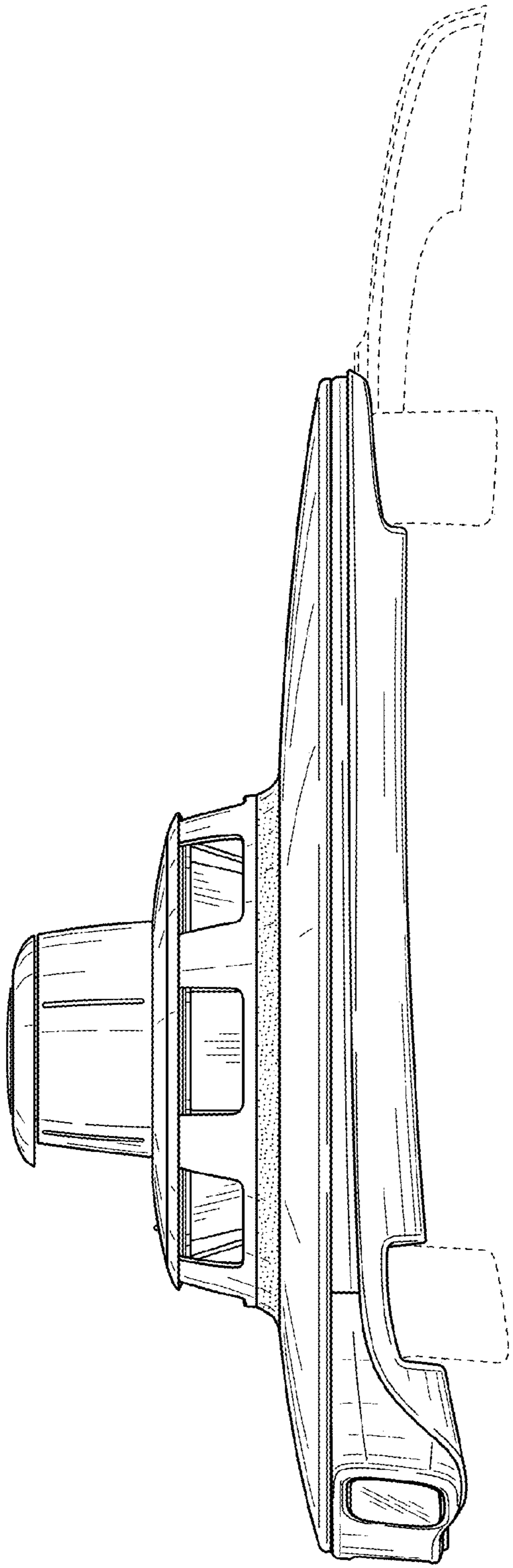


FIG. 4

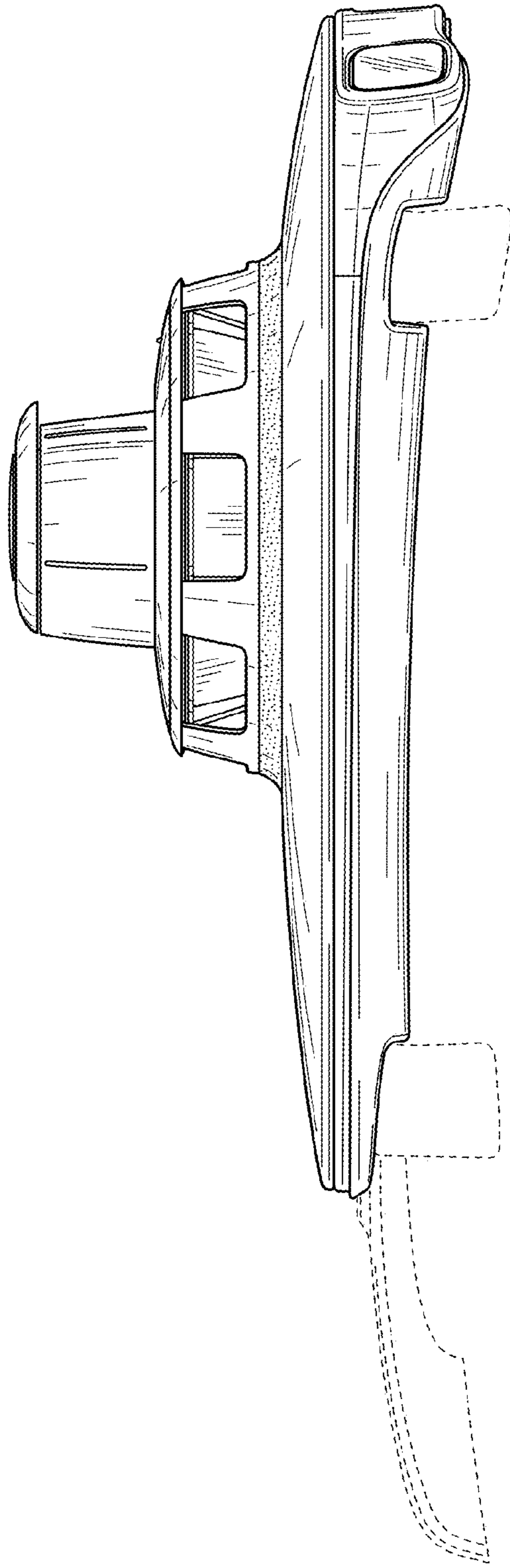


FIG. 5

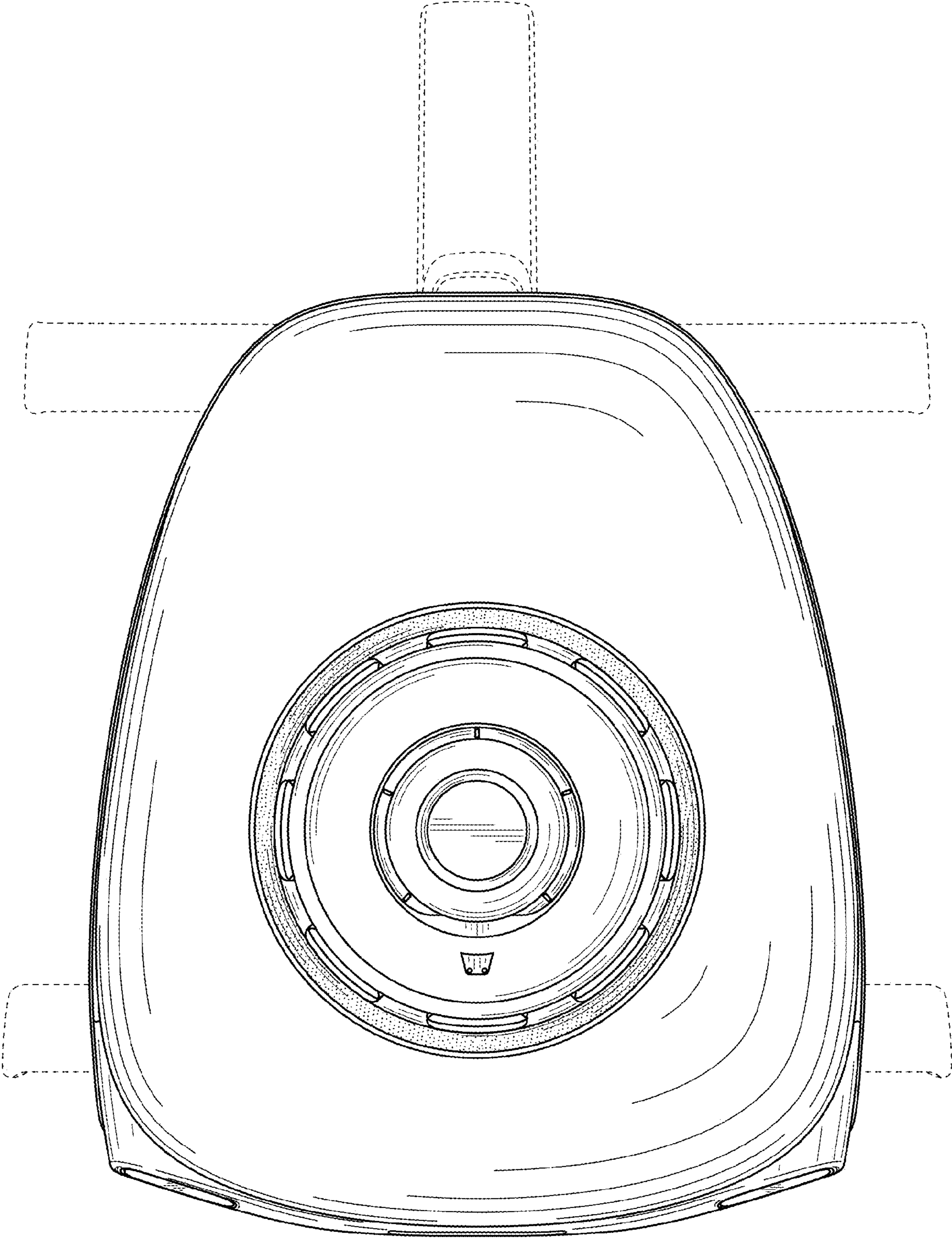


FIG. 6

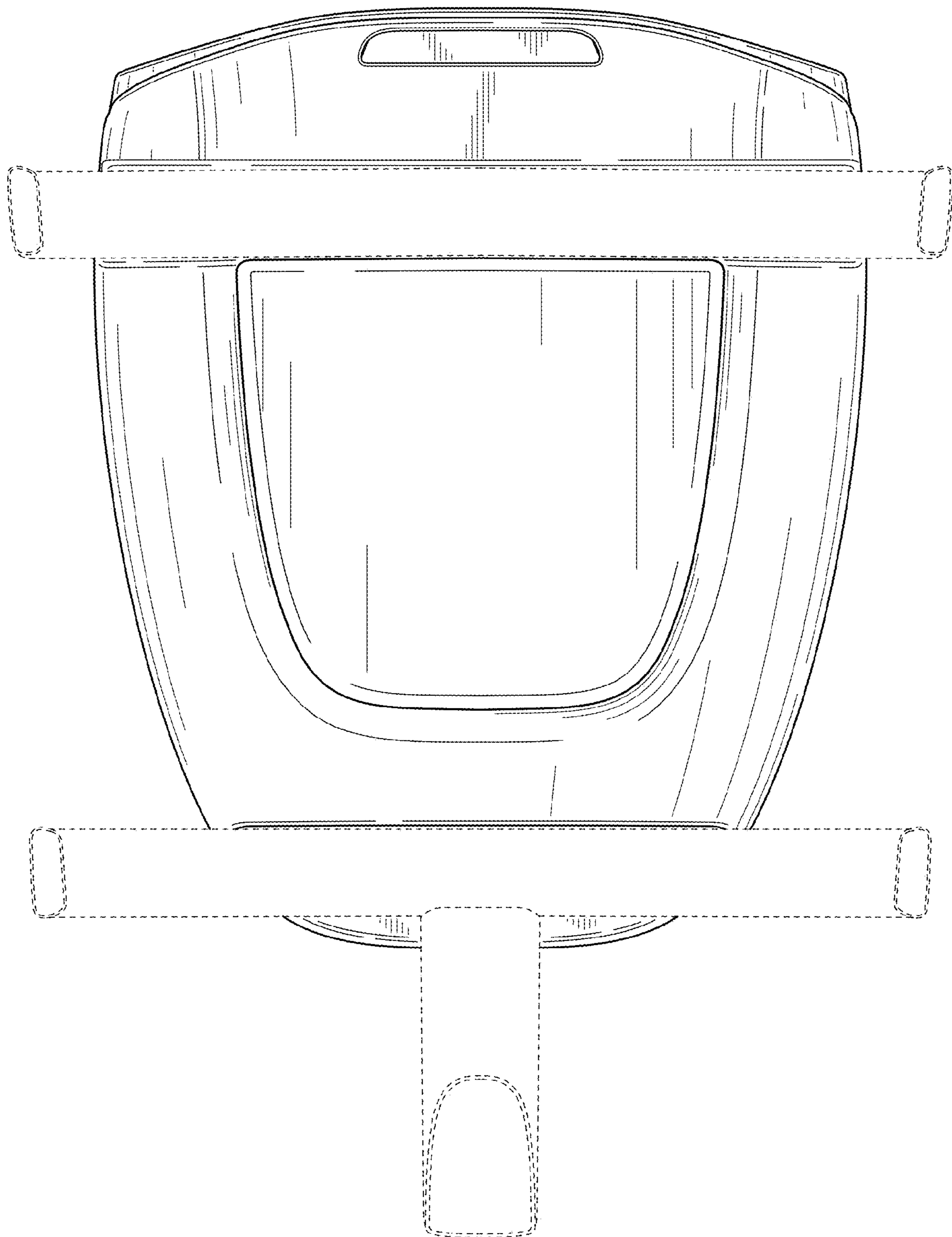


FIG. 7