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(12) **United States Design Patent** (10) **Patent No.:** **US D974,450 S**
Muhlenkamp, IV et al. (45) **Date of Patent:** **** Jan. 3, 2023**

(54) **CAMERA LENS ATTACHMENT**

FOREIGN PATENT DOCUMENTS

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EP 1619882 A2 1/2006
WO 2020055511 A1 3/2020

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OTHER PUBLICATIONS

International Search Report and Written Opinion for App. No.
PCT/US2021/024462, dated Jul. 8, 2021, 10 pages.

(Continued)

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

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(51) **LOC (14) Cl.** **16-05**

(52) **U.S. Cl.**
USPC **D16/219**; D16/218

(58) **Field of Classification Search**
USPC D14/172, 194, 204, 221; D16/200–205,
D16/208, 217–219; 348/148, 373–376;
396/529, 535–541
CPC G03B 15/03; G03B 17/02; G03B 17/04;
G03B 17/56; G03B 19/04; H04N 5/2251;
H04N 5/2252; H04N 5/2253; H04N
5/2254; H04N 2101/00
See application file for complete search history.

(57) **CLAIM**

The ornamental design for a camera lens attachment, as
shown and described.

DESCRIPTION

FIG. 1 is an exploded top, front and right side perspective
view of a camera lens attachment showing our new design;
FIG. 2 is an exploded top, rear and left side perspective view
thereof;
FIG. 3 is a front elevation view thereof;
FIG. 4 is a rear elevation view thereof;
FIG. 5 is an exploded left side elevation view thereof;
FIG. 6 is an exploded right side elevation view thereof;
FIG. 7 is an exploded top plan view thereof;
FIG. 8 is an exploded bottom plan view thereof;
FIG. 9 is an assembled top, front and right side perspective
view thereof;
FIG. 10 is a top, rear and left side perspective view thereof;
FIG. 11 is a left side elevation view thereof;
FIG. 12 is a right side elevation view thereof;
FIG. 13 is a top plan view thereof; and,
FIG. 14 is a bottom plan view thereof.

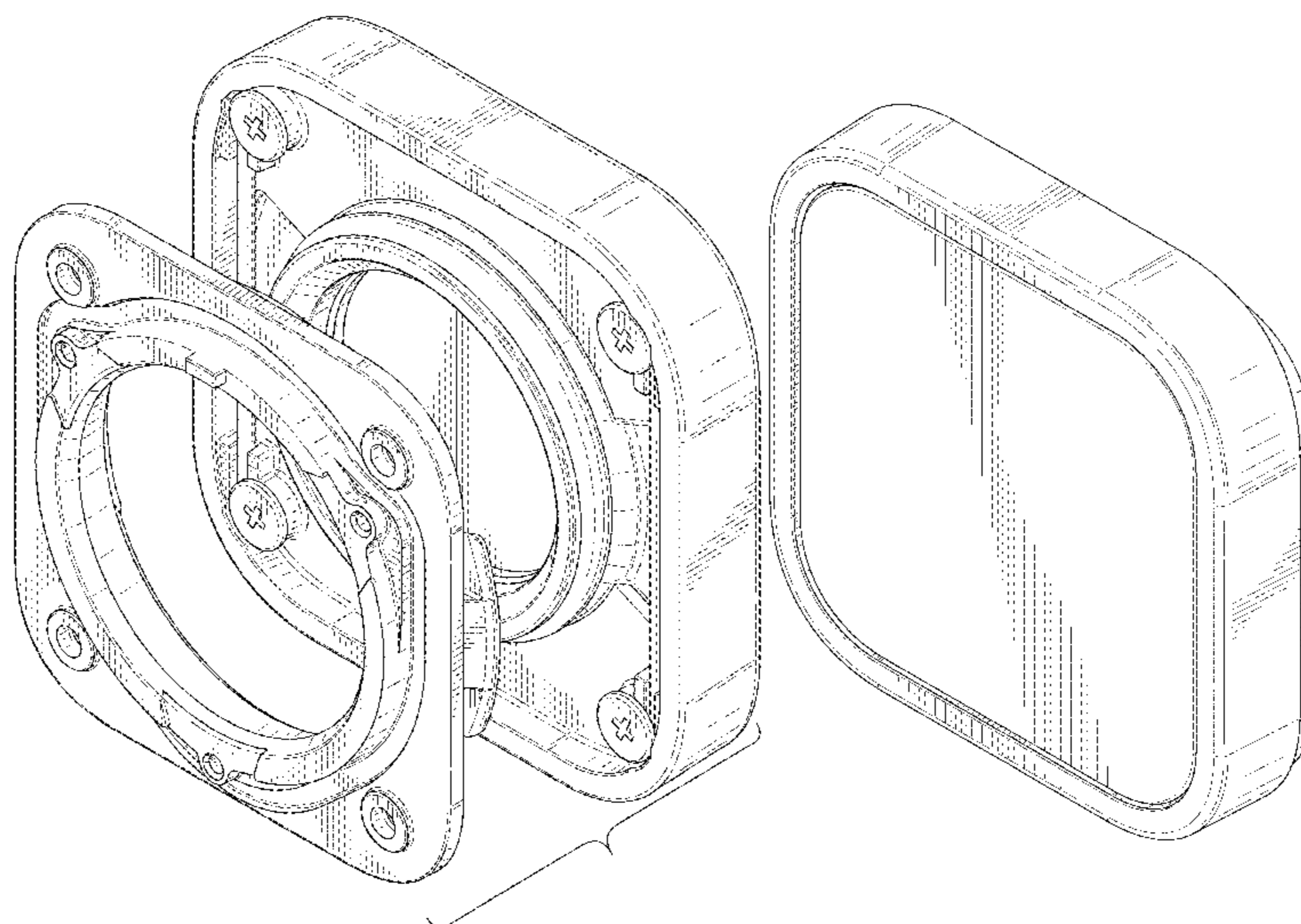
(56) **References Cited**

U.S. PATENT DOCUMENTS

2,186,610	A	1/1940	Leavitt	
3,133,140	A	5/1964	Winchell	
4,451,130	A	5/1984	Yan	
5,077,567	A	12/1991	Haraguchi	
5,828,406	A	10/1998	Parulski	
6,079,883	A	6/2000	Mori	
7,161,749	B2	1/2007	Sakurai	
7,717,630	B1	5/2010	Wan	
8,294,988	B2	10/2012	Cook	
D727,387	S *	4/2015	Hasegawa D16/203

(Continued)

1 Claim, 11 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D730,423 S * 5/2015 Vandebussche D16/218
 D745,589 S * 12/2015 Lee D16/218
 D750,687 S * 3/2016 Samuels H04N 5/23245
 D16/218
 D760,312 S * 6/2016 Lee D16/218
 D773,547 S * 12/2016 Lee D16/218
 D785,068 S * 4/2017 Patsis D16/218
 D788,835 S * 6/2017 Wu D16/218
 9,743,001 B1 8/2017 Stec
 D816,751 S * 5/2018 Harrison D16/200
 9,995,990 B2 6/2018 Lim
 D848,500 S * 5/2019 Miyashita D16/242
 D858,603 S * 9/2019 Ye D16/203
 10,401,705 B2 9/2019 Lim
 10,701,249 B1 6/2020 Guo
 D893,576 S * 8/2020 Kyte D16/202
 10,845,675 B2 11/2020 Lim
 D917,598 S * 4/2021 Ye D16/203
 2004/0240870 A1 12/2004 Stiehler
 2006/0007551 A1 1/2006 Sakurai
 2008/0094708 A1 4/2008 Huang
 2009/0002823 A1 1/2009 Law
 2009/0091827 A1 4/2009 Gauger
 2010/0149408 A1 6/2010 Ito
 2010/0302638 A1 12/2010 Cuadra
 2013/0028590 A1 1/2013 Hasuda
 2013/0071101 A1 3/2013 Idera
 2013/0129338 A1 5/2013 Dowell
 2014/0043733 A1 2/2014 Huang
 2015/0093104 A1 4/2015 Clyne
 2016/0066459 A1 3/2016 Rayner
 2016/0181722 A1 6/2016 Tsai
 2017/0102512 A1 4/2017 Yamaoda
 2017/0102513 A1 4/2017 Ogata
 2018/0017785 A1 1/2018 Bulgajewski
 2018/0091775 A1 3/2018 Jung
 2018/0143512 A1 5/2018 Campbell
 2019/0158709 A1 5/2019 Petty
 2019/0208099 A1 7/2019 Cotoros
 2019/0342473 A1 11/2019 Clearman
 2020/0026023 A1 1/2020 Nagaoka
 2021/0141287 A1 5/2021 Lim
 2021/0274067 A1 9/2021 Crow
 2021/0306536 A1 9/2021 Vitale
 2021/0397070 A1 12/2021 Thomas

OTHER PUBLICATIONS

U.S. Appl. No. 16/803,139, filed Feb. 27, 2020, Crow et al., entitled Heatsink of an Image Capture Device.
 International Search Report and Written Opinion for App. No. PCT/US2021/037757, dated Oct. 7, 2021, 6 pages.
 International Search Report and Written Opinion for App. No. PCT/US2020/042749, dated Apr. 15, 2021, 10 pages.
 Wikipedia, Magic number (programming), https://en.wikipedia.org/wiki/Magic_number_%28programming%29, retrieved on Aug. 4, 2020, 8 pages.
 Geometric Image Transformations, https://docs.opencv.org/2.4/modules/imgproc/doc/geometric_transformations.html?highlight=resize#cv2.resize, OpenCV2.4.13.7, retrieved on Aug. 4, 2020, 11 pages.
 Wikipedia, Histogram, https://en.wikipedia.org/wiki/Histogram#Cumulative_histogram, retrieved on Aug. 4, 2020, 7 pages.
 Wikipedia, Median absolute deviation, https://en.wikipedia.org/wiki/Median_absolute_deviation, retrieved on Aug. 4, 2020, 3 pages.
 Miscellaneous Image Transformations, https://docs.opencv.org/2.4/modules/imgproc/doc/miscellaneous_transformations.html#cvtcolor, OpenCV2.4.13.7, retrieved on Aug. 4, 2020, 12 pages.
 Structural Analysis and Shape Descriptors, https://docs.opencv.org/2.4/modules/imgproc/doc/structural_analysis_and_shape_descriptors.html?highlight=minenclosingcircle#minenclosingcircle, retrieved on Aug. 4, 2020, 27 pages.
 Wikipedia, Random sample consensus, https://en.wikipedia.org/wiki/Random_sample_consensus, retrieved on Aug. 4, 2020, 5 pages.
 Scipy.optimize.minimize, <https://docs.scipy.org/doc/scipy/reference/generated/scipy.optimize.minimize.html>, retrieved on Aug. 4, 2020, 6 pages.
 Structural Analysis and Shape Descriptors, https://docs.opencv.org/3.4/d3/dc0/group_imgproc_shape.html#ga17ed9f5d79ae97bd4c7cf18403e1689a, OpenCV, retrieved on Aug. 4, 2020, 12 pages.
 Wikipedia, YUV, <https://en.wikipedia.org/wiki/YUV>, retrieved on Aug. 4, 2020, 9 pages.

* cited by examiner

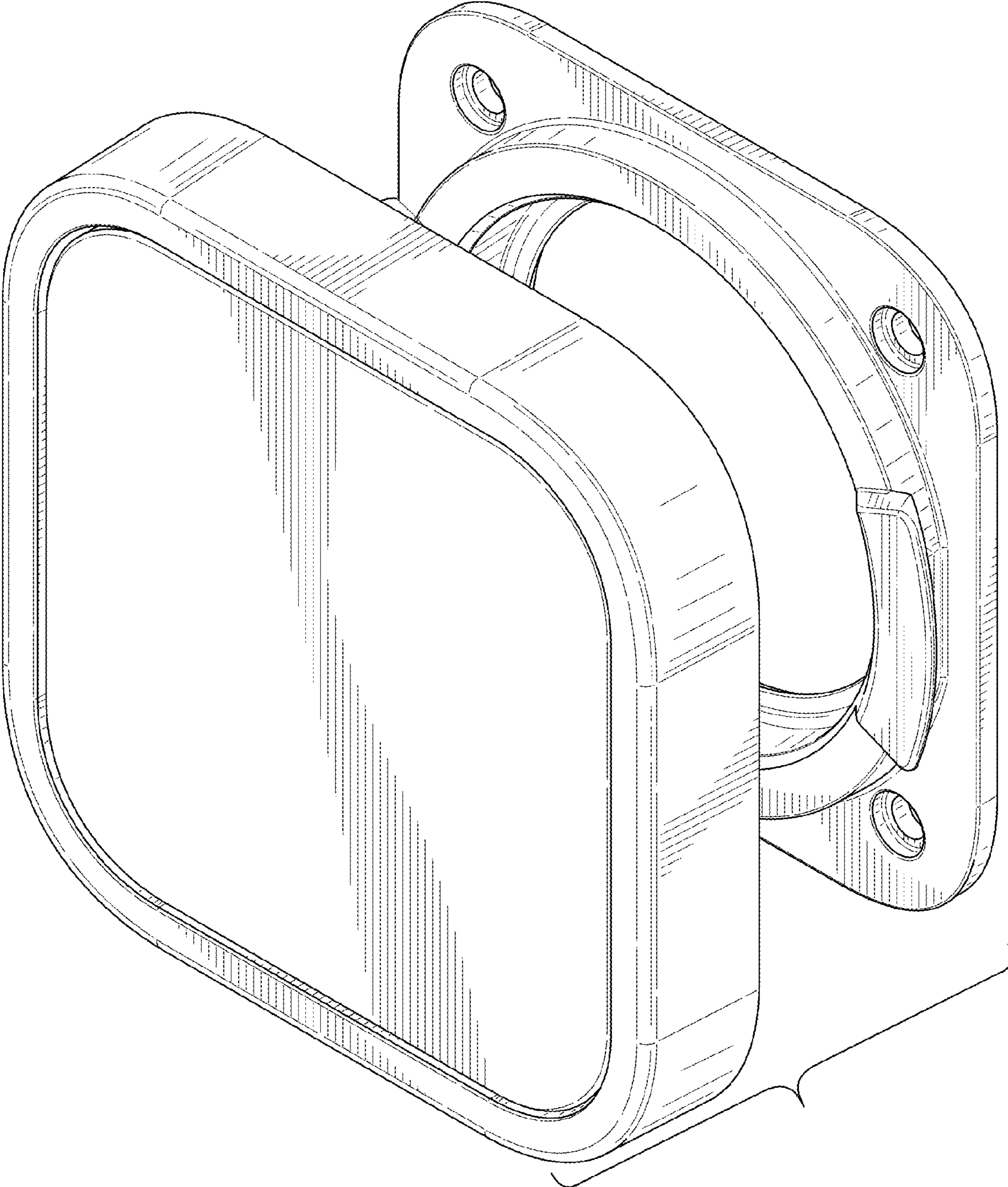


FIG. 1

REPLACEMENT SHEET

2/11

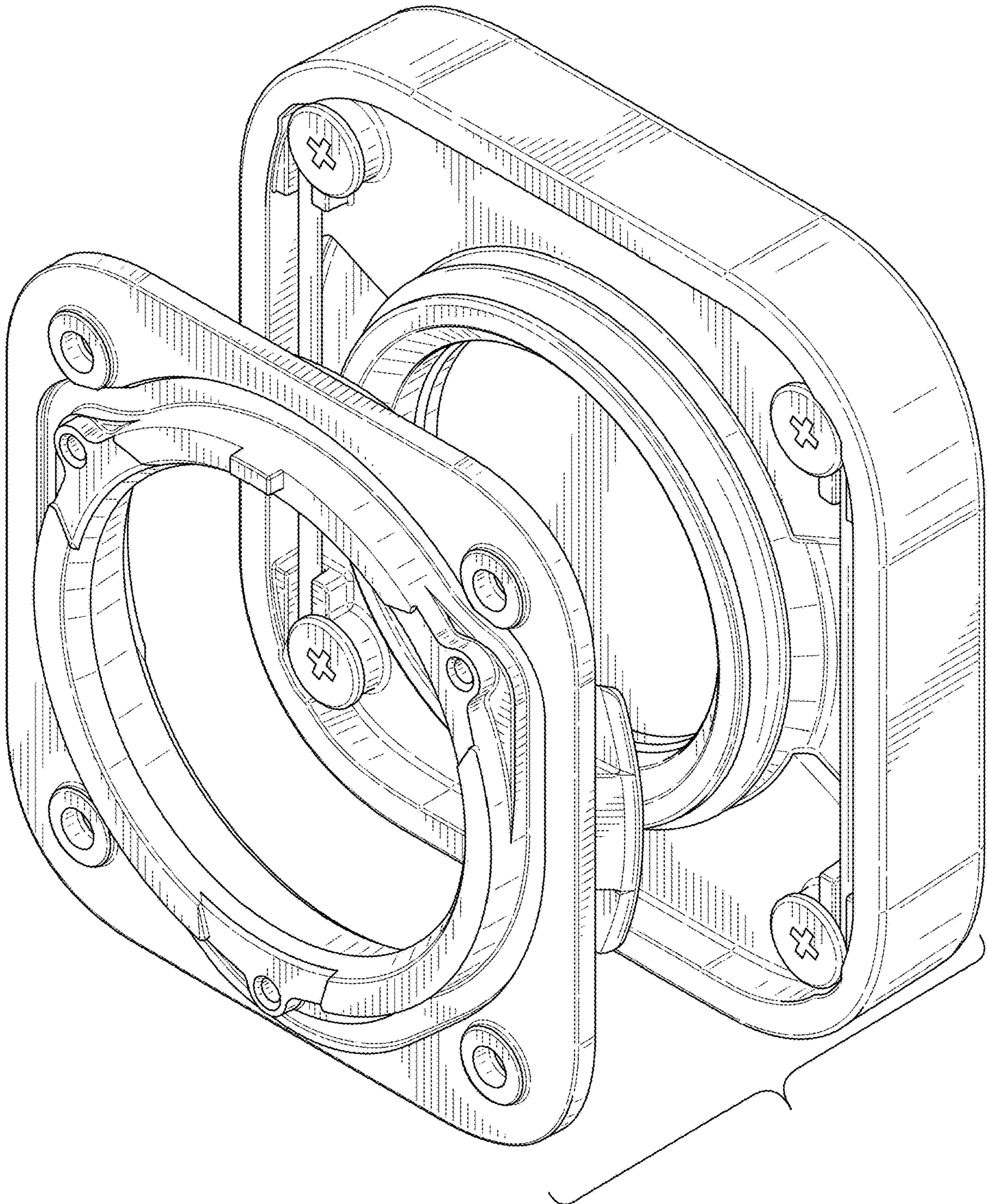


FIG. 2

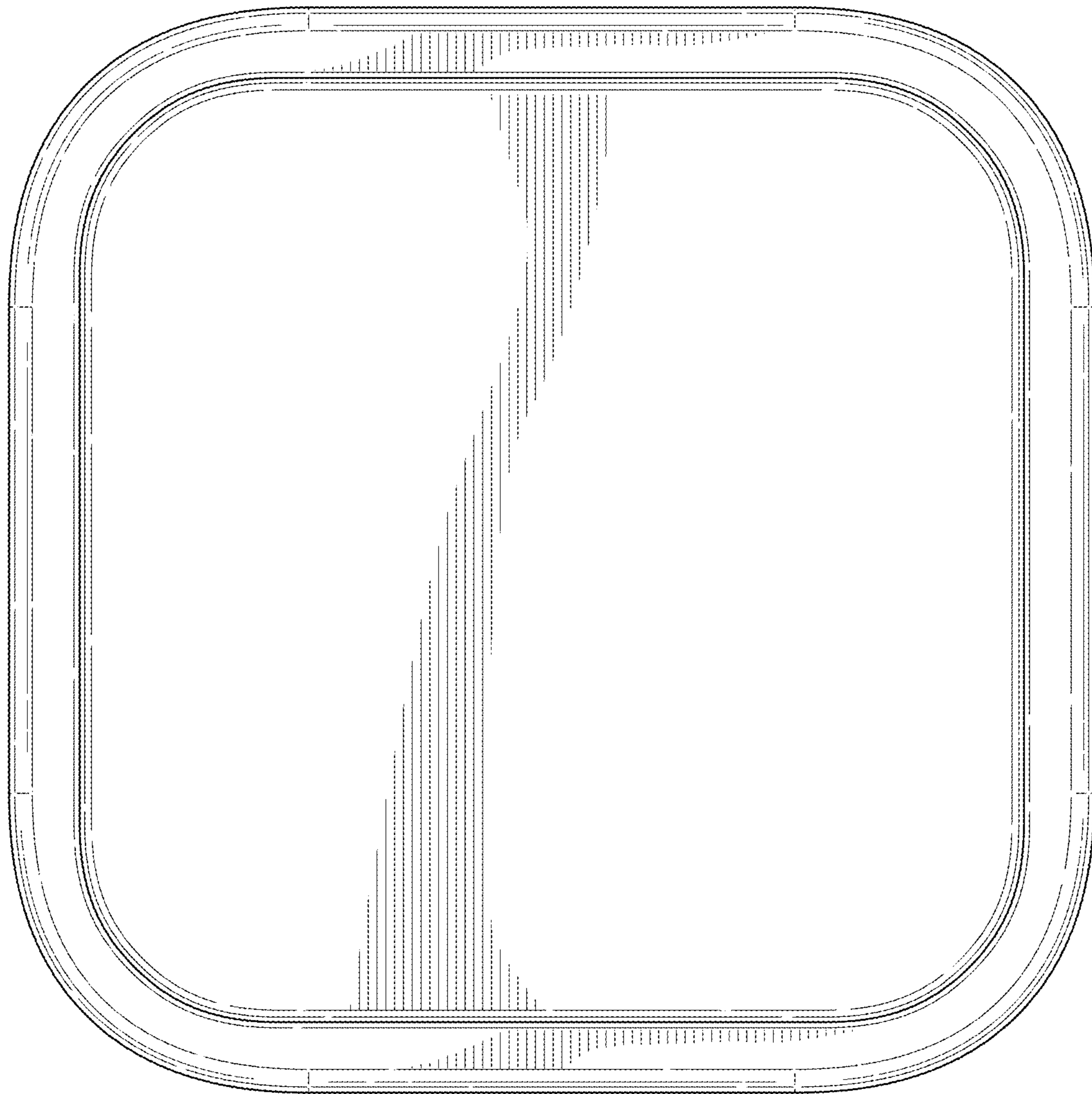


FIG. 3

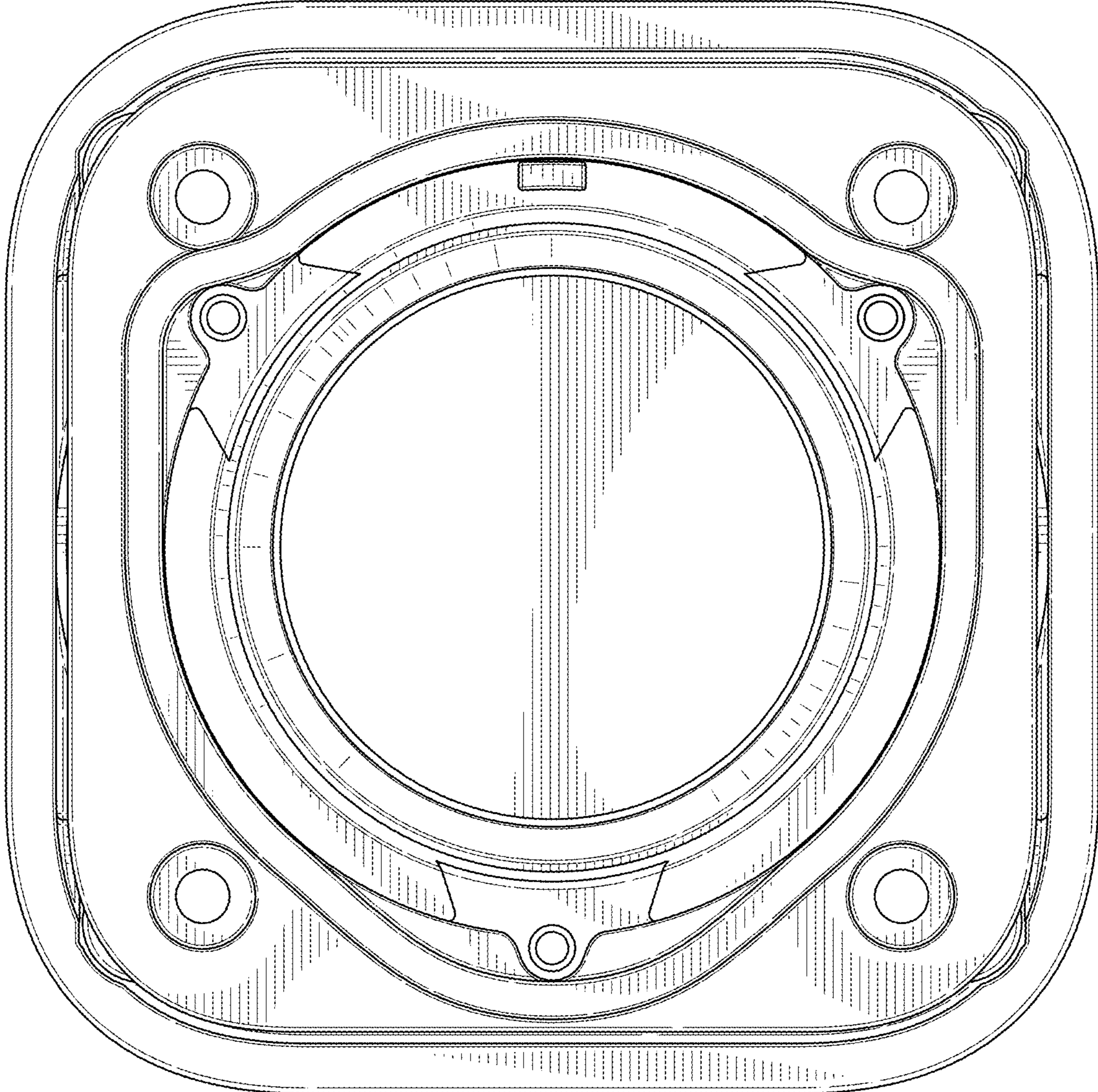


FIG. 4

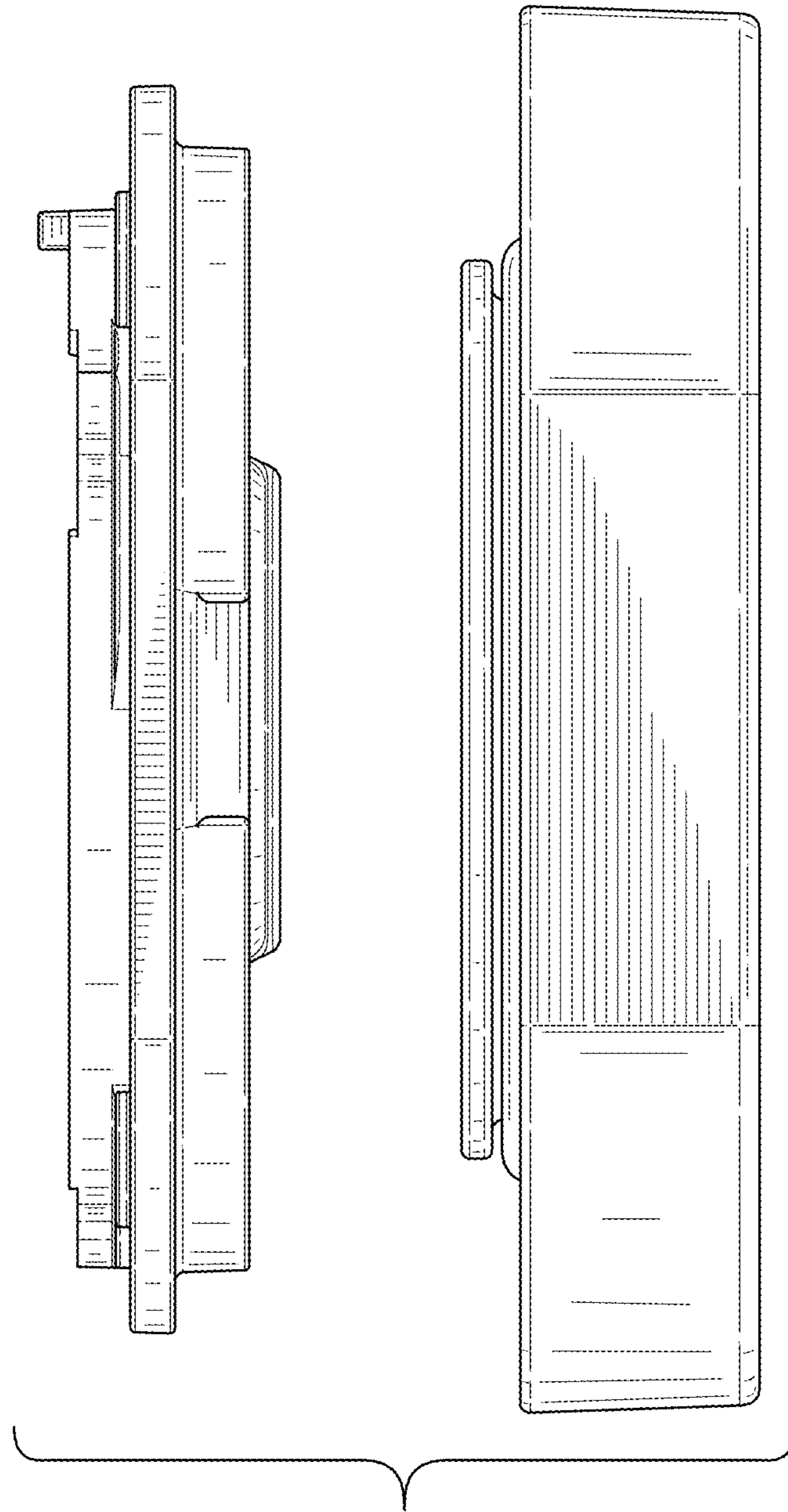


FIG. 5

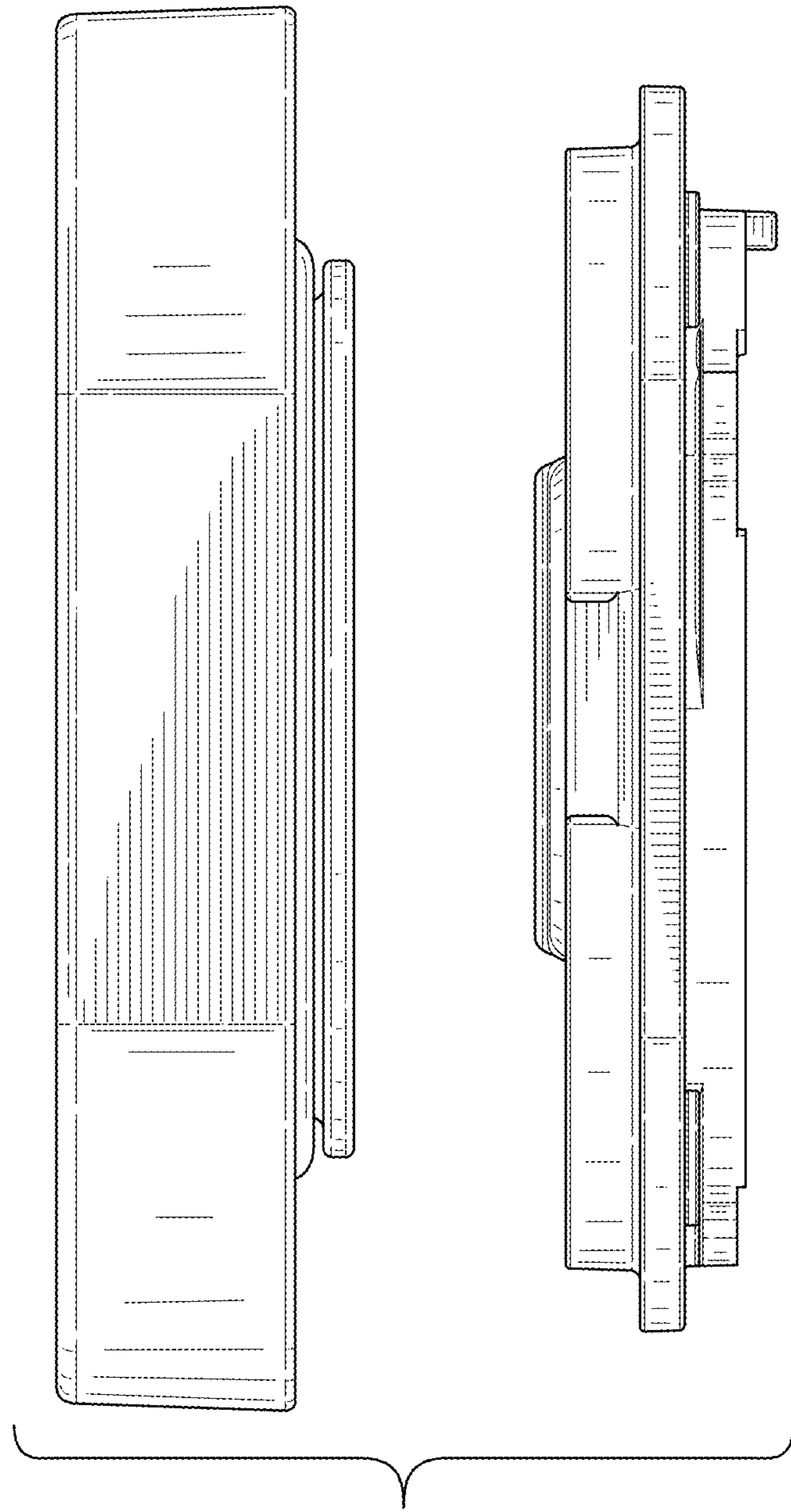


FIG. 6

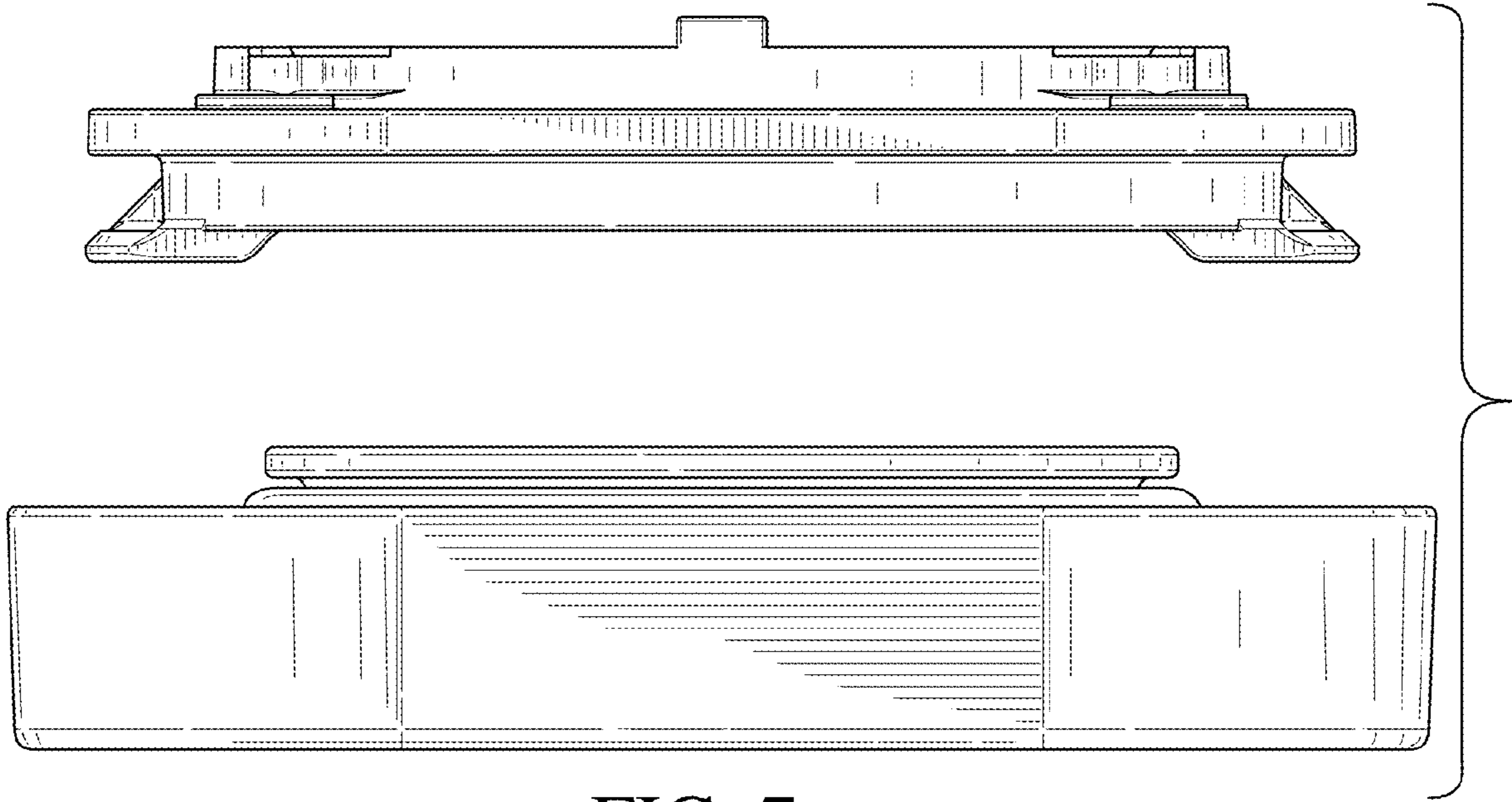


FIG. 7

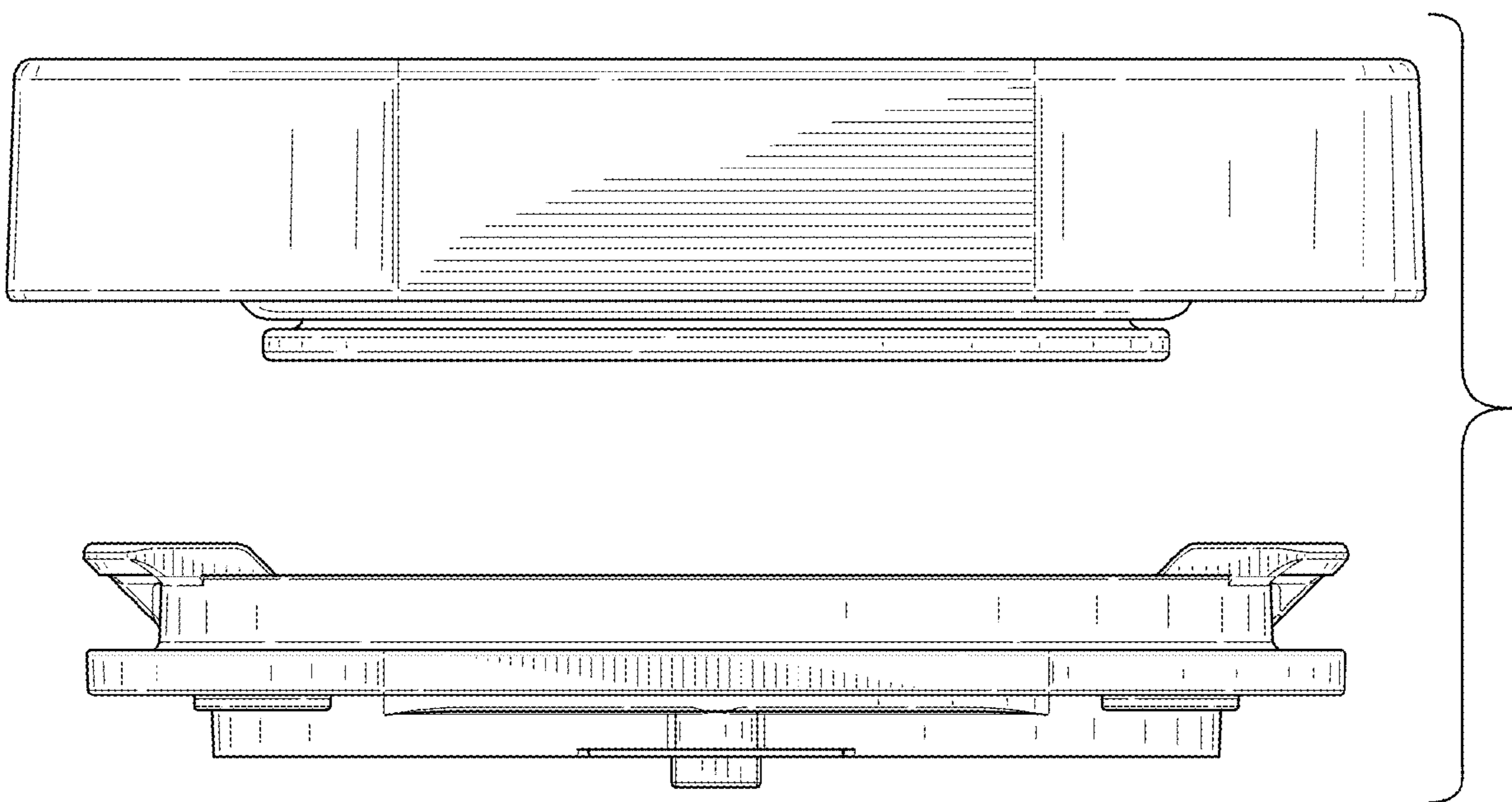


FIG. 8

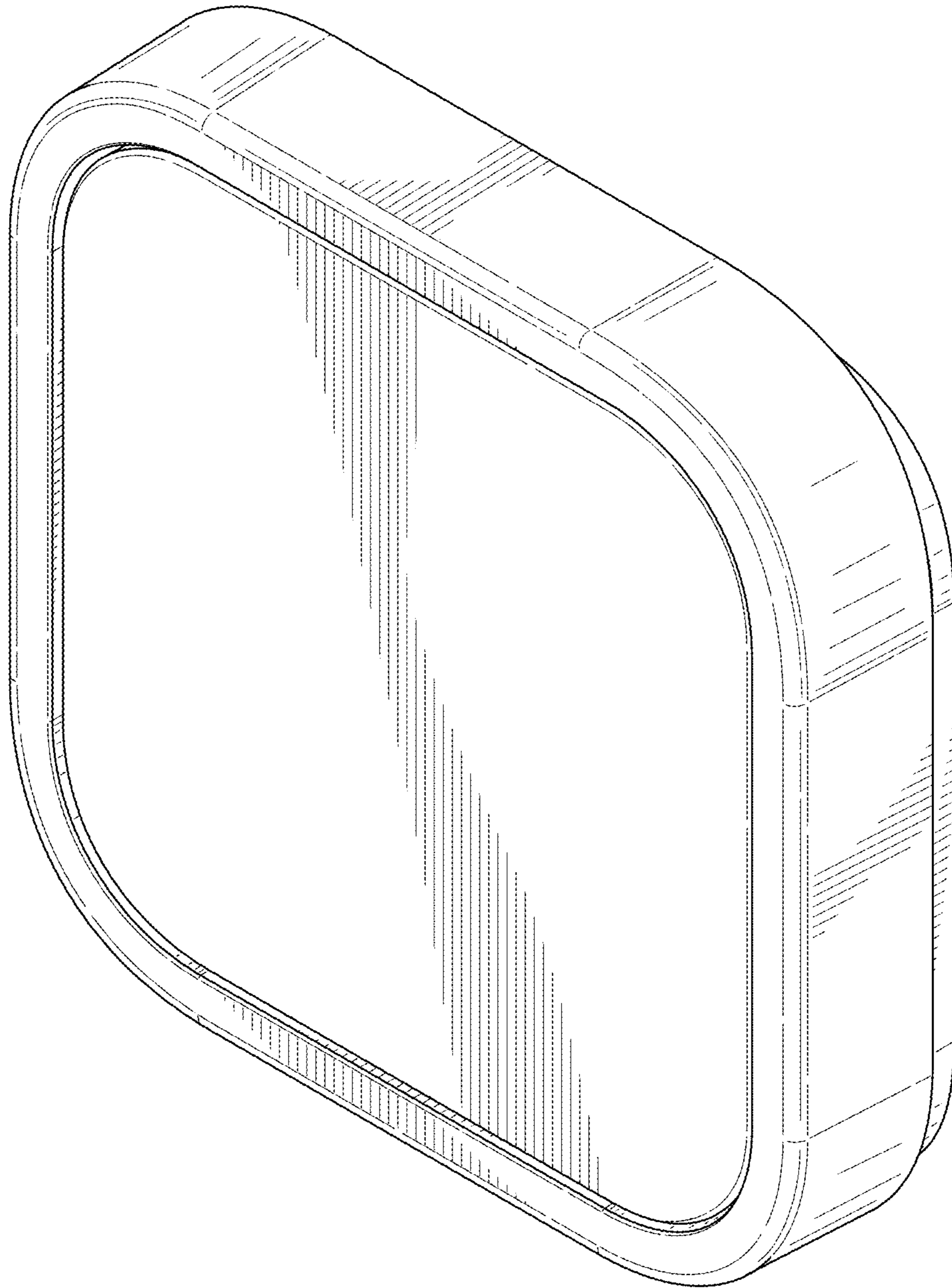


FIG. 9

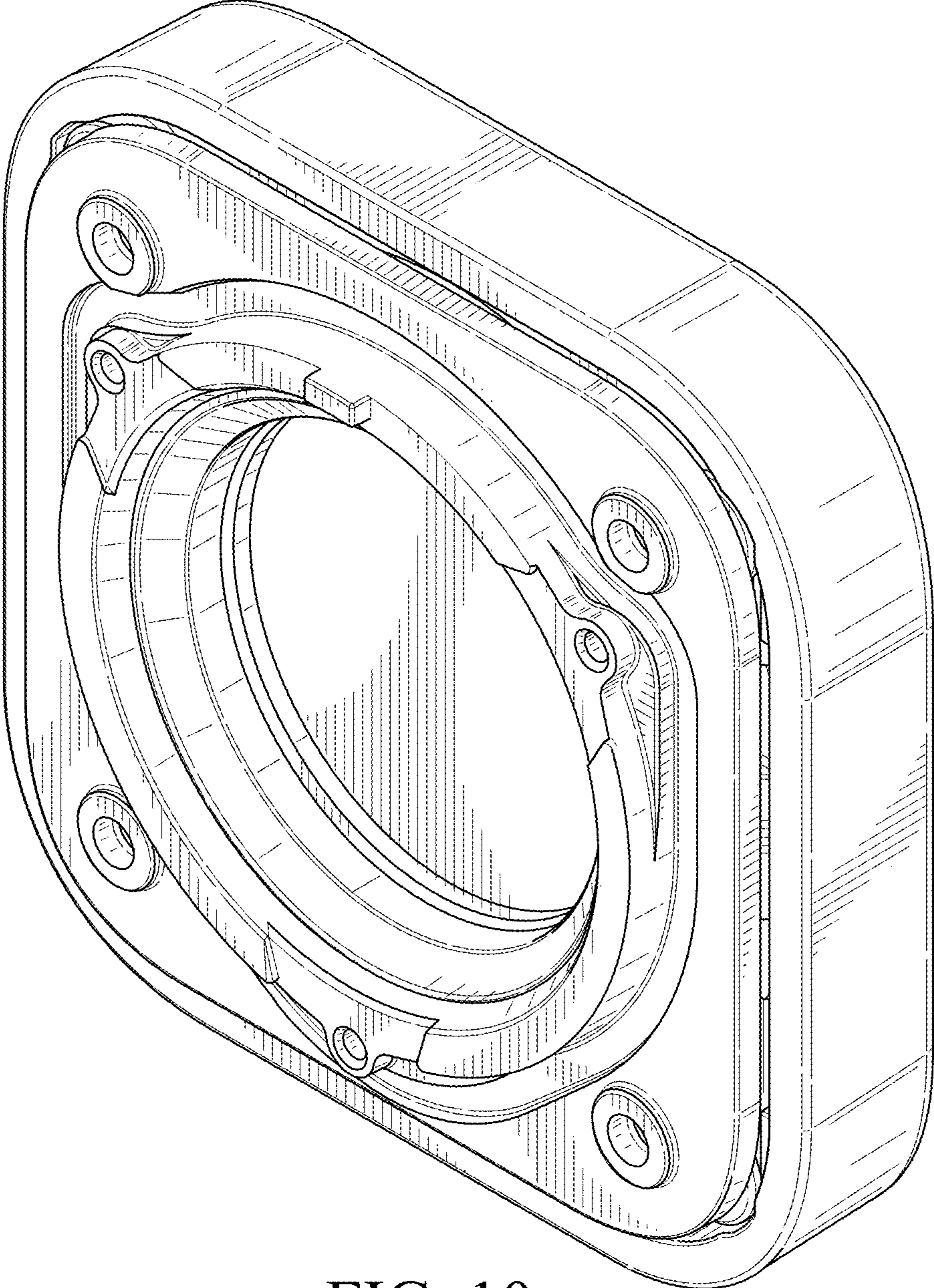


FIG. 10

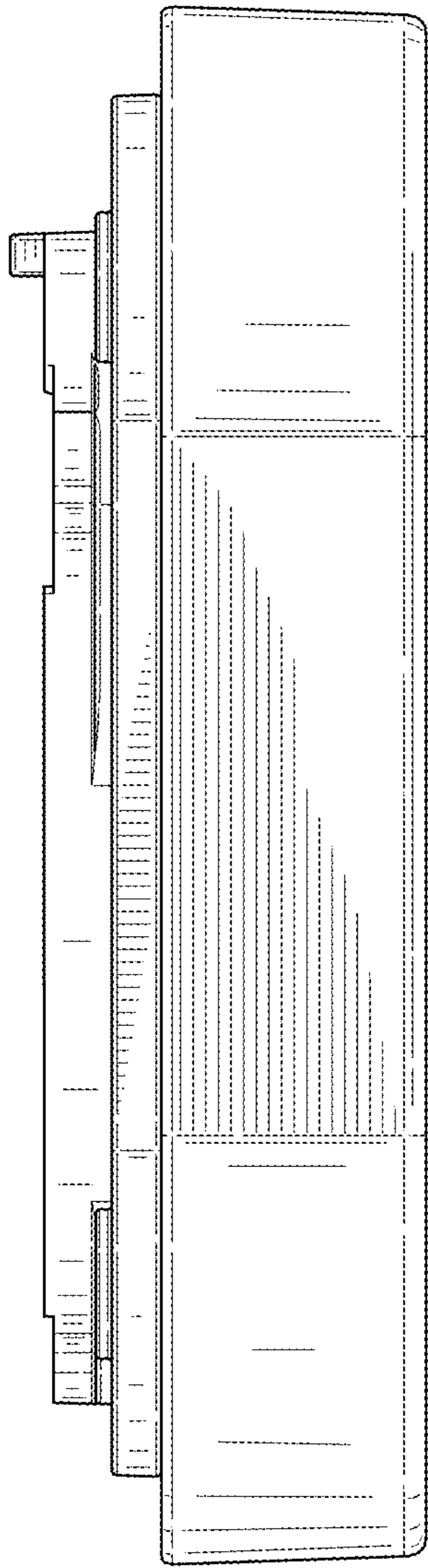


FIG. 11

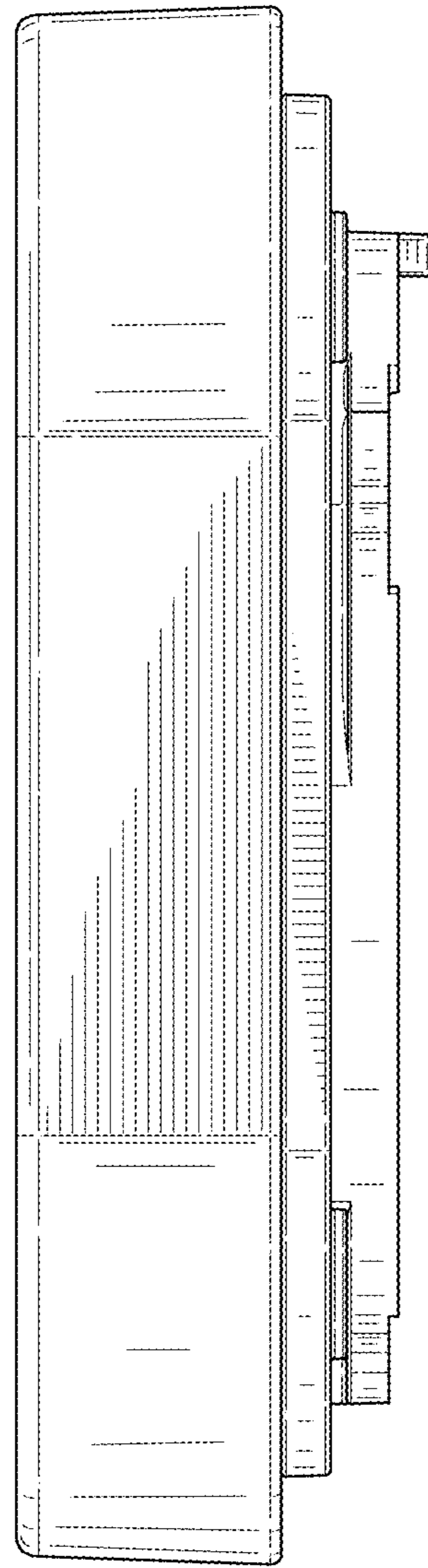


FIG. 12

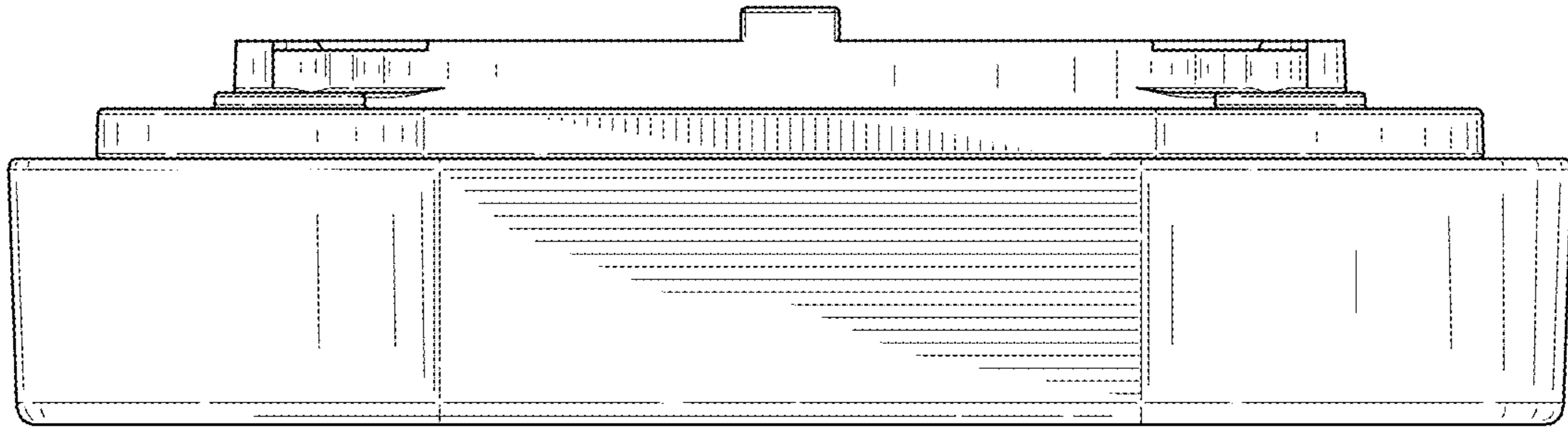


FIG. 13

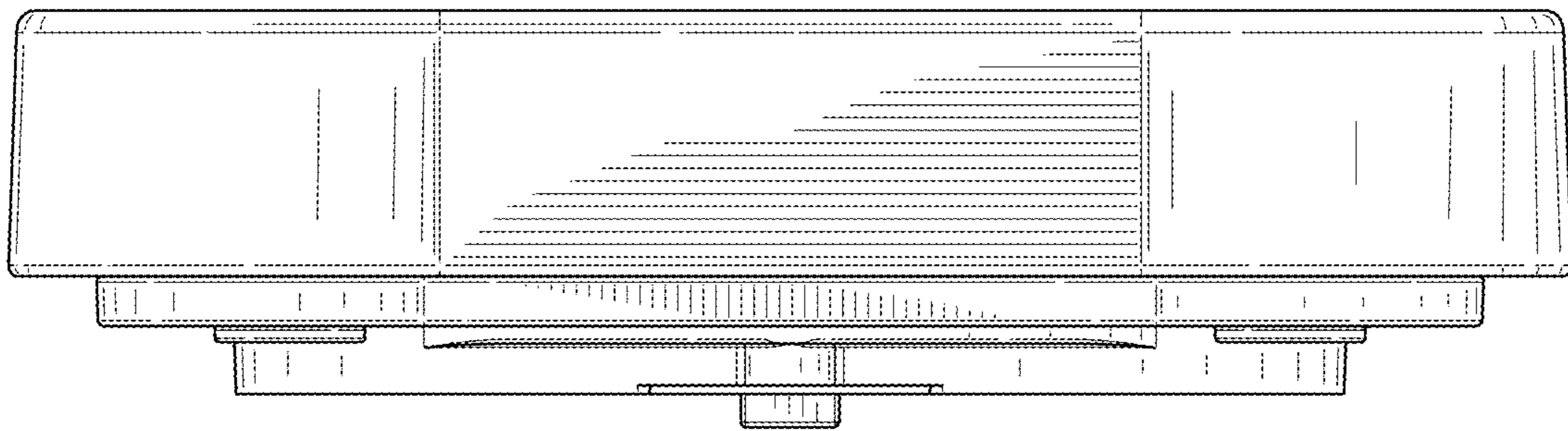


FIG. 14