



US00D890725S

(12) **United States Design Patent**
Liu

(10) **Patent No.:** **US D890,725 S**
(45) **Date of Patent:** **** Jul. 21, 2020**

(54) **WIRELESS EARPHONES WITH CHARGING CASE**

Primary Examiner — Paula Allen Greene

(71) Applicant: **Ming Liu**, Ji'An (CN)

(57) **CLAIM**

(72) Inventor: **Ming Liu**, Ji'An (CN)

The ornamental design for wireless earphones with charging case, as shown and described.

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

(21) Appl. No.: **29/729,346**

DESCRIPTION

(22) Filed: **Mar. 26, 2020**

(51) **LOC (12) Cl.** **14-01**

(52) **U.S. Cl.**
USPC **D14/223**

(58) **Field of Classification Search**
USPC D14/205, 223, 224, 253, 434, 240;
D13/108; D3/201, 294; D9/420, 435;
D7/629, 709; 220/23.87, 526; 206/541;
455/90.3, 575.1, 569.1; D28/83;
381/380, 381, 323
CPC H04R 25/00; H04R 25/02; H04R 1/10;
H04R 1/1066; H04R 1/1016; H04R
25/652; B65D 11/00; B65D 43/02; B65D
25/10; B65D 43/16; B65D 21/02; B65D
1/24; A45C 11/00; A45D 33/006
See application file for complete search history.

FIG. 1 is a perspective view of wireless earphones with charging case showing my new design; the charging case is shown separately for ease of illustration;
FIG. 2 is another perspective view thereof;
FIG. 3 is another perspective view thereof;
FIG. 4 is a right side elevational view thereof;
FIG. 5 is a left side elevational view thereof;
FIG. 6 is a front elevational view thereof;
FIG. 7 is a rear elevational view thereof;
FIG. 8 is a top plan view thereof;
FIG. 9 is a bottom plan view thereof;
FIG. 10 is a perspective view of earphones of the wireless earphones with charging case shown separately for ease of illustration;
FIG. 11 is another perspective view thereof;
FIG. 12 is a right side elevational view thereof;
FIG. 13 is a left side elevational view thereof;
FIG. 14 is a front elevational view thereof;
FIG. 15 is a rear elevational view thereof;
FIG. 16 is a top plan view thereof;
FIG. 17 is a bottom plan view thereof;
FIG. 18 is a perspective view of the wireless earphones with charging case where the wireless earphones are received in the charging case; and,
FIG. 19 is a perspective view of the charging case for the wireless earphones with charging case shown separately for ease of illustration.
In the drawing, the claimed design is defined by the shaded surfaces, the broken lines depict environment and are for illustrative purposes only, the broken lines form no part of the claimed design.

(56) **References Cited**

U.S. PATENT DOCUMENTS

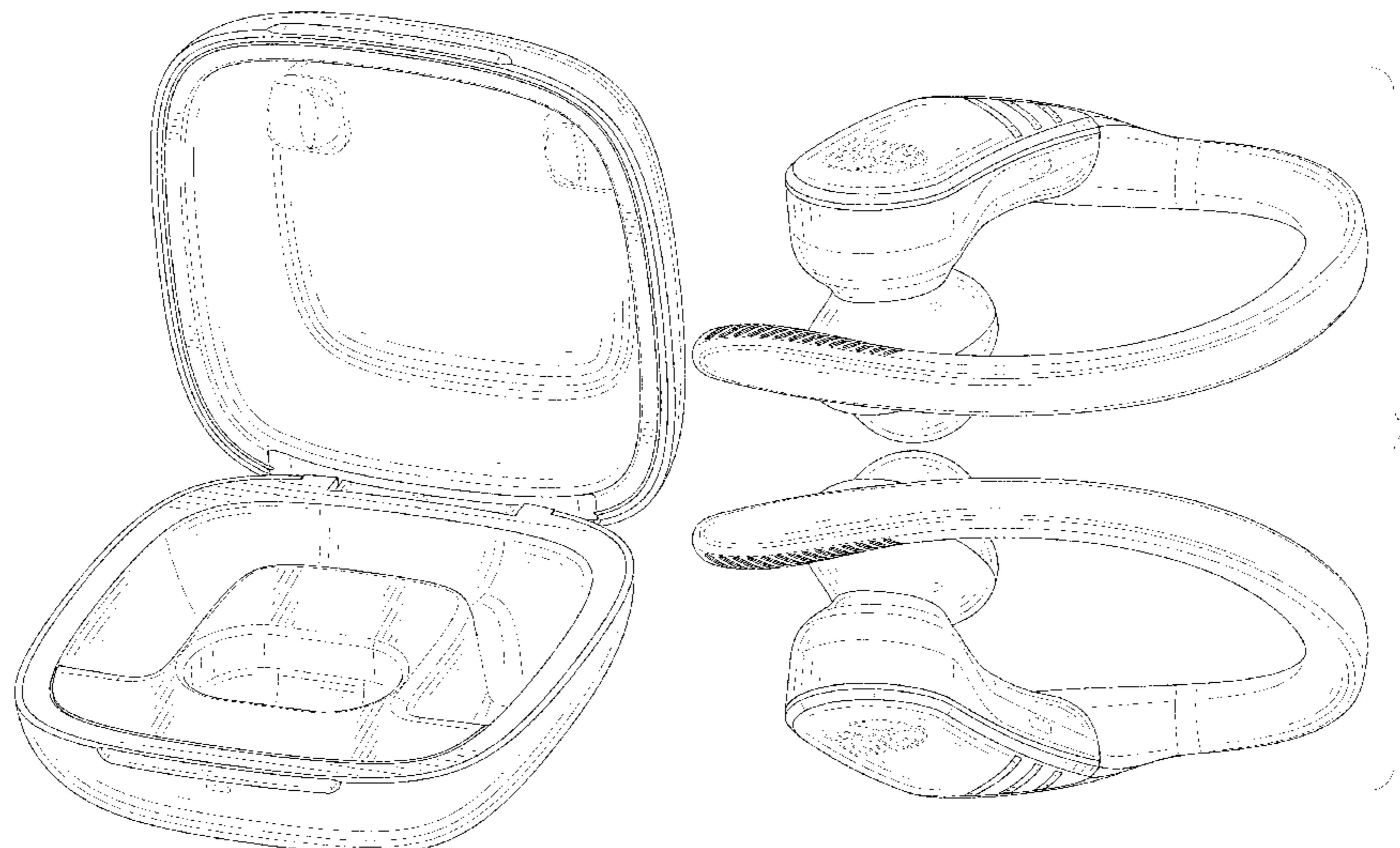
- 2,055,389 A * 9/1936 Rosenberg A45D 33/006
132/306
- 2,580,310 A * 12/1951 Magnenat E05F 1/1284
220/827
- 4,617,431 A * 10/1986 Scott H04M 1/05
181/20
- 4,732,269 A * 3/1988 Roy A45C 11/16
206/495

(Continued)

FOREIGN PATENT DOCUMENTS

EM 007447966-0001 * 12/2019

1 Claim, 19 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

5,782,371 A * 7/1998 Baerenwald B65D 43/168
 16/DIG. 13
 6,131,760 A * 10/2000 Huang B65D 25/04
 220/326
 D496,029 S * 9/2004 Skulley D14/224
 D519,975 S * 5/2006 Skulley D13/108
 D523,412 S * 6/2006 Ham D13/108
 D532,005 S * 11/2006 Leith D14/253
 D551,216 S * 9/2007 Wei D14/223
 D554,107 S * 10/2007 Calco D14/217
 D564,501 S * 3/2008 Rath D14/224
 D565,556 S * 4/2008 Brennwald D14/224
 D566,697 S * 4/2008 Nielsen D14/224
 D582,901 S * 12/2008 Bentley D14/224
 D589,031 S * 3/2009 Bentley D14/224
 D593,998 S * 6/2009 Bentley D14/224
 D597,939 S * 8/2009 Tkachuk D13/108
 D599,331 S * 9/2009 Bentley D14/224
 D602,008 S * 10/2009 Bentley D14/205
 D602,917 S * 10/2009 Bentley D14/224
 D643,834 S * 8/2011 Bentley D14/224
 D645,027 S * 9/2011 Gougherty D14/223
 D646,263 S * 10/2011 Yuan D14/224
 D662,089 S * 6/2012 Gougherty D14/224
 D663,292 S * 7/2012 Hoggarth D14/224
 D669,888 S * 10/2012 Gougherty D14/223
 D684,145 S * 6/2013 Rath D14/206
 D710,333 S * 8/2014 Davies H04R 1/10
 D14/223
 D712,382 S * 9/2014 Brunner D14/223
 D713,385 S * 9/2014 Burgett D14/223
 D718,283 S * 11/2014 Thompson D14/223
 8,910,781 B2 * 12/2014 Pipes B65B 7/28
 206/236
 D725,637 S * 3/2015 Nakajima D14/223
 D743,945 S * 11/2015 Brunner D14/223
 D743,946 S * 11/2015 Brunner D14/223
 D761,770 S * 7/2016 Kanou D14/206
 D775,610 S * 1/2017 Nakajima D14/223
 D780,721 S * 3/2017 Brunner D14/223
 D782,996 S * 4/2017 Zhu D14/205

D796,490 S * 9/2017 Lian D14/217
 D799,316 S * 10/2017 Thain D9/415
 D801,312 S * 10/2017 Birger H04R 1/1075
 D14/223
 D801,952 S * 11/2017 Lian D14/223
 D806,684 S * 1/2018 Tsai D14/223
 D807,331 S * 1/2018 Morimoto D14/223
 D810,053 S * 2/2018 Otani D14/223
 D811,745 S * 3/2018 Davi D3/294
 D821,364 S * 6/2018 Brunner D14/223
 D834,003 S * 11/2018 Maeda D14/223
 D838,480 S * 1/2019 Son D3/294
 D838,692 S * 1/2019 Fu D14/223
 D839,583 S * 2/2019 Cao D3/201
 D842,836 S * 3/2019 Ma D14/205
 D843,344 S * 3/2019 Zhu D14/205
 D844,969 S * 4/2019 Xiao D3/201
 D845,932 S * 4/2019 Lu D14/223
 D848,978 S * 5/2019 Min D14/223
 D852,784 S * 7/2019 Cramer G06F 3/165
 D14/223
 D853,360 S * 7/2019 Kawabata D14/223
 D863,265 S * 10/2019 Hu D14/223
 D871,375 S * 12/2019 Meyer D14/223
 D873,246 S * 1/2020 Zhu D14/223
 D882,262 S * 4/2020 Zhang D3/294
 D883,259 S * 5/2020 Ma D14/223
 2007/0256946 A1 * 11/2007 Godshaw B65D 43/16
 206/320
 2007/0272686 A1 * 11/2007 Yu A45C 11/00
 220/4.02
 2010/0166208 A1 * 7/2010 Kato H04R 5/0335
 381/74
 2011/0186579 A1 * 8/2011 Bailey B65D 43/0212
 220/495.01
 2012/0140976 A1 * 6/2012 Birger H04M 1/05
 381/381
 2013/0010997 A1 * 1/2013 Tanaka A61B 5/6817
 381/380
 2019/0069072 A1 * 2/2019 Ansari H04R 1/1016
 2019/0288543 A1 9/2019 Castillo et al.
 2020/0077174 A1 * 3/2020 Solis H04R 1/105

* cited by examiner



FIG. 1

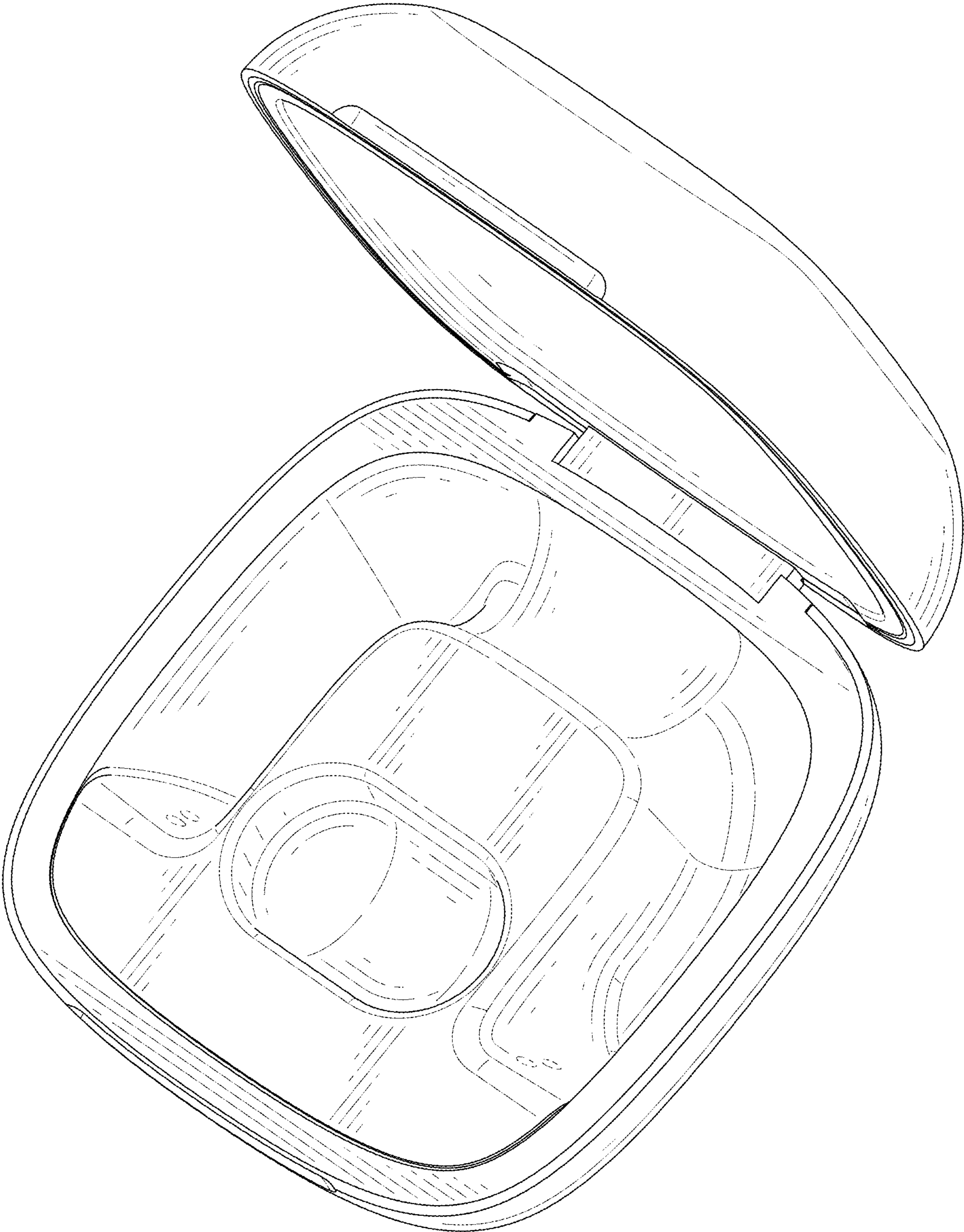


FIG. 2

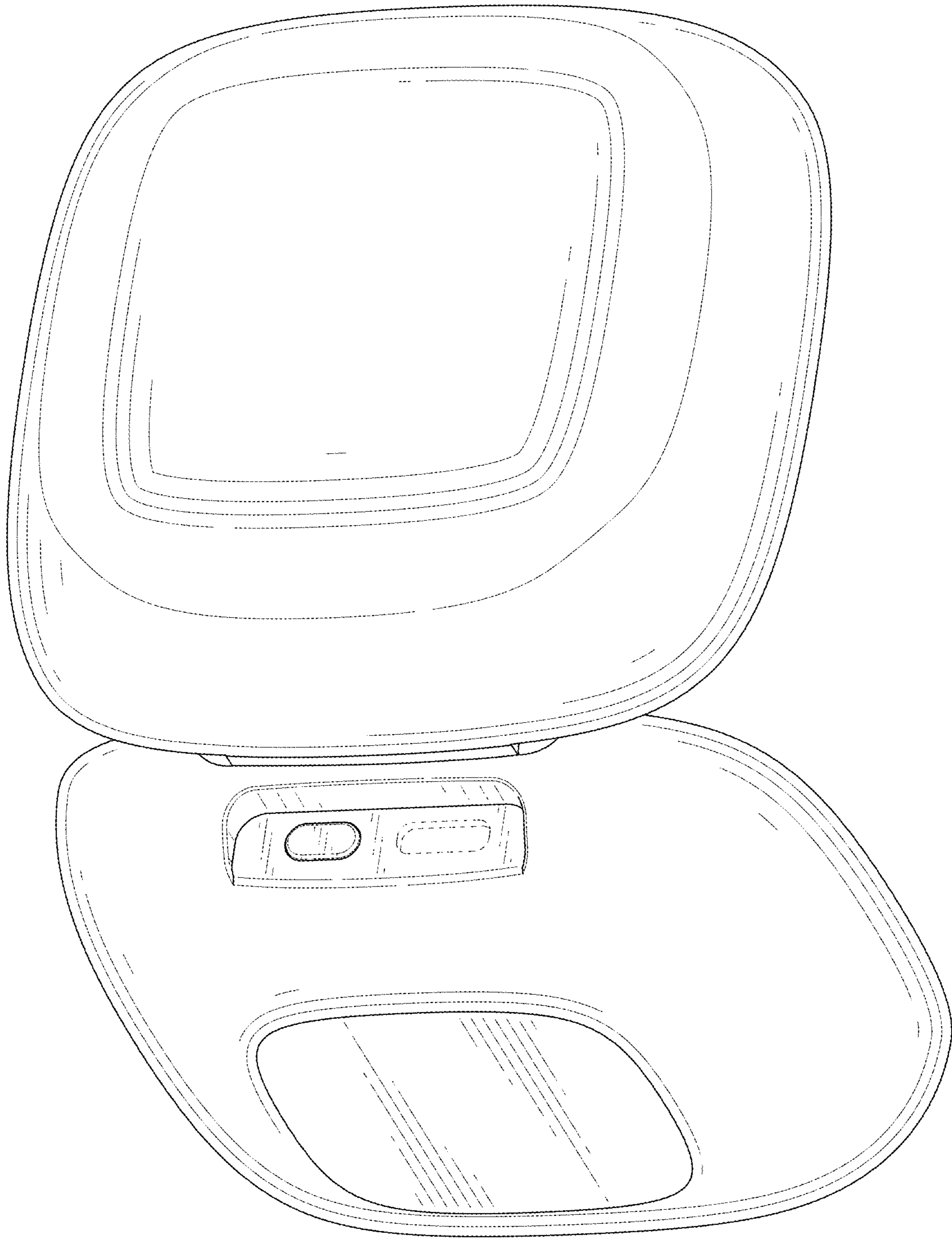


FIG. 3

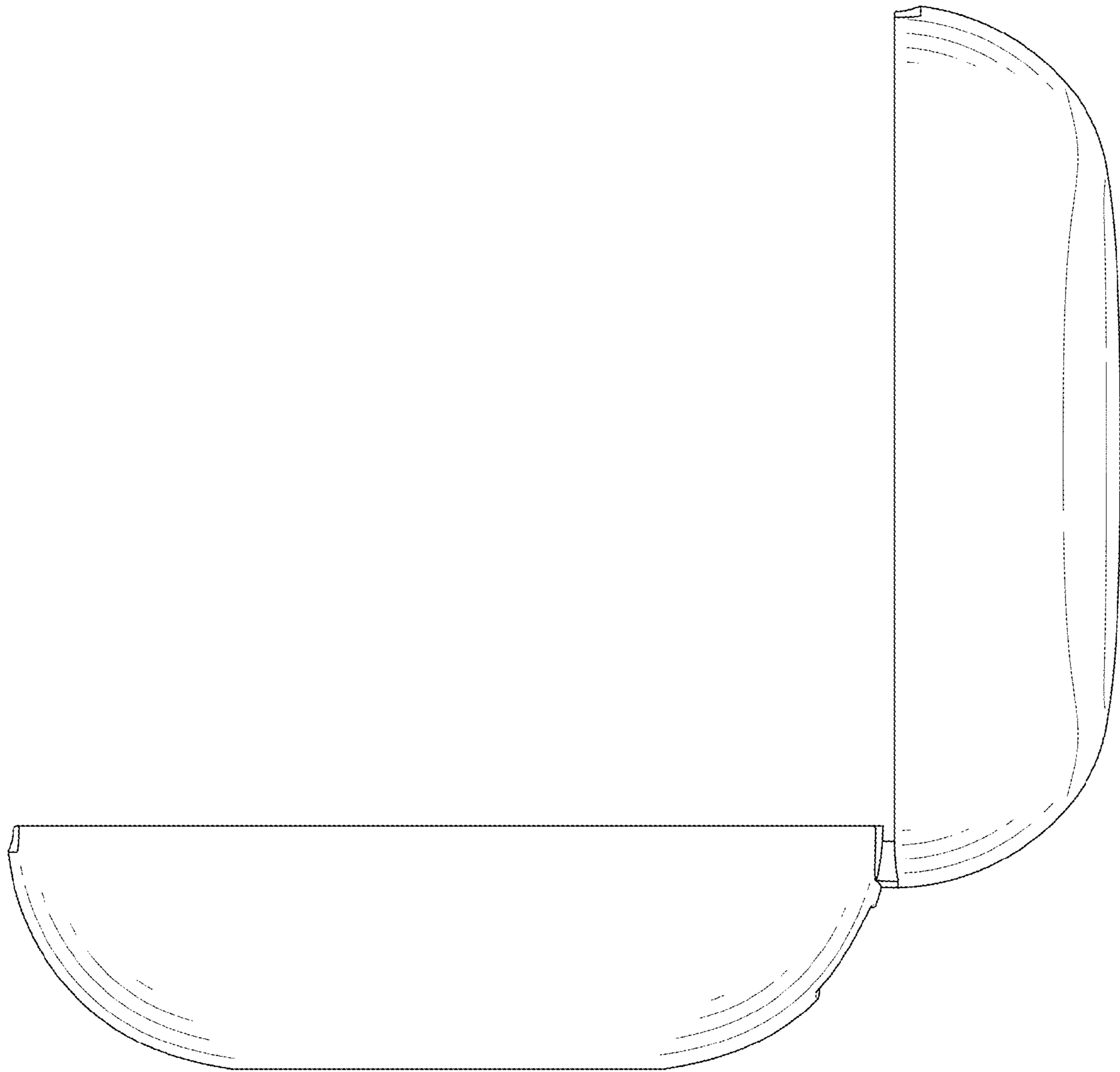


FIG. 4

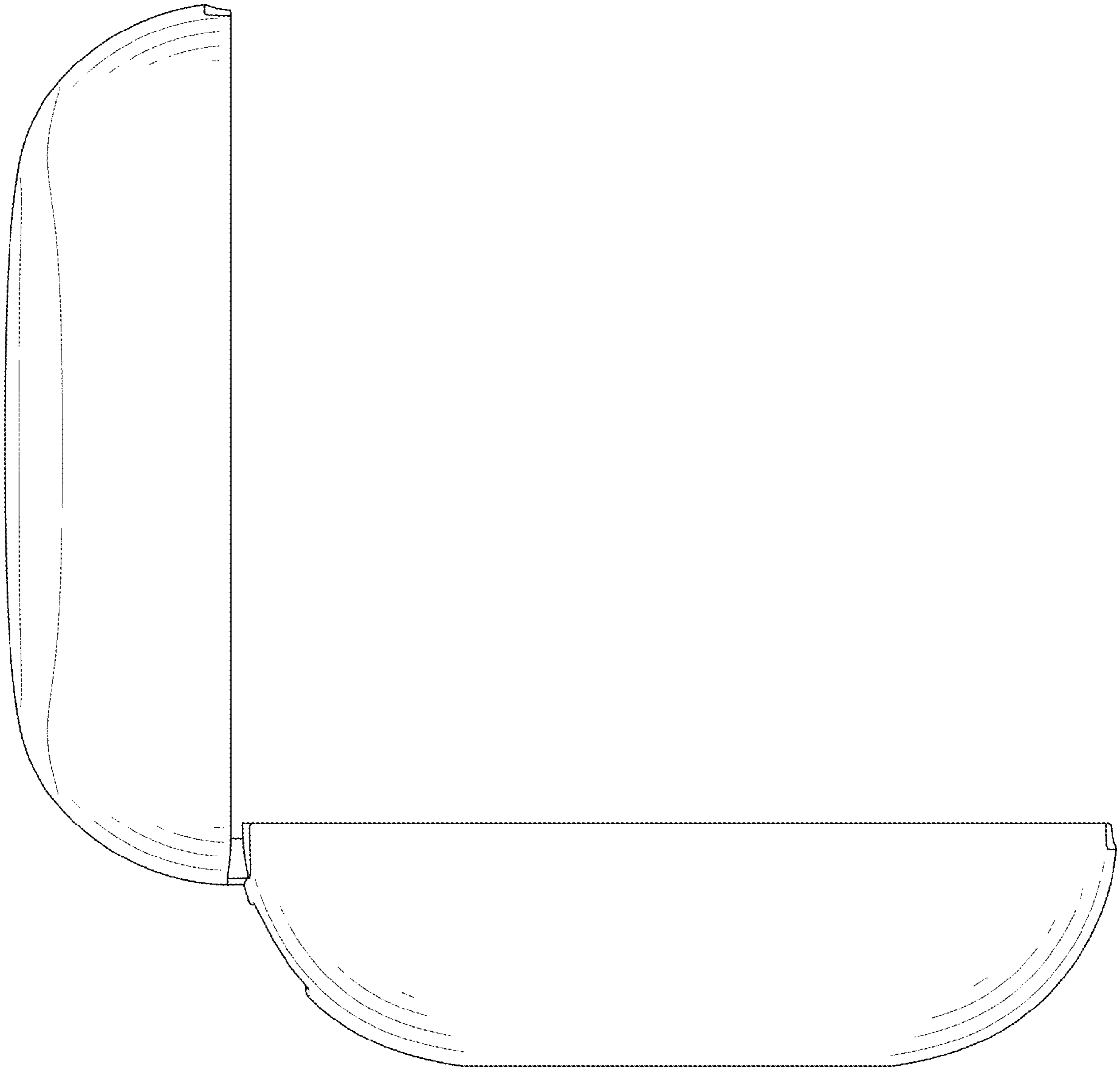


FIG. 5

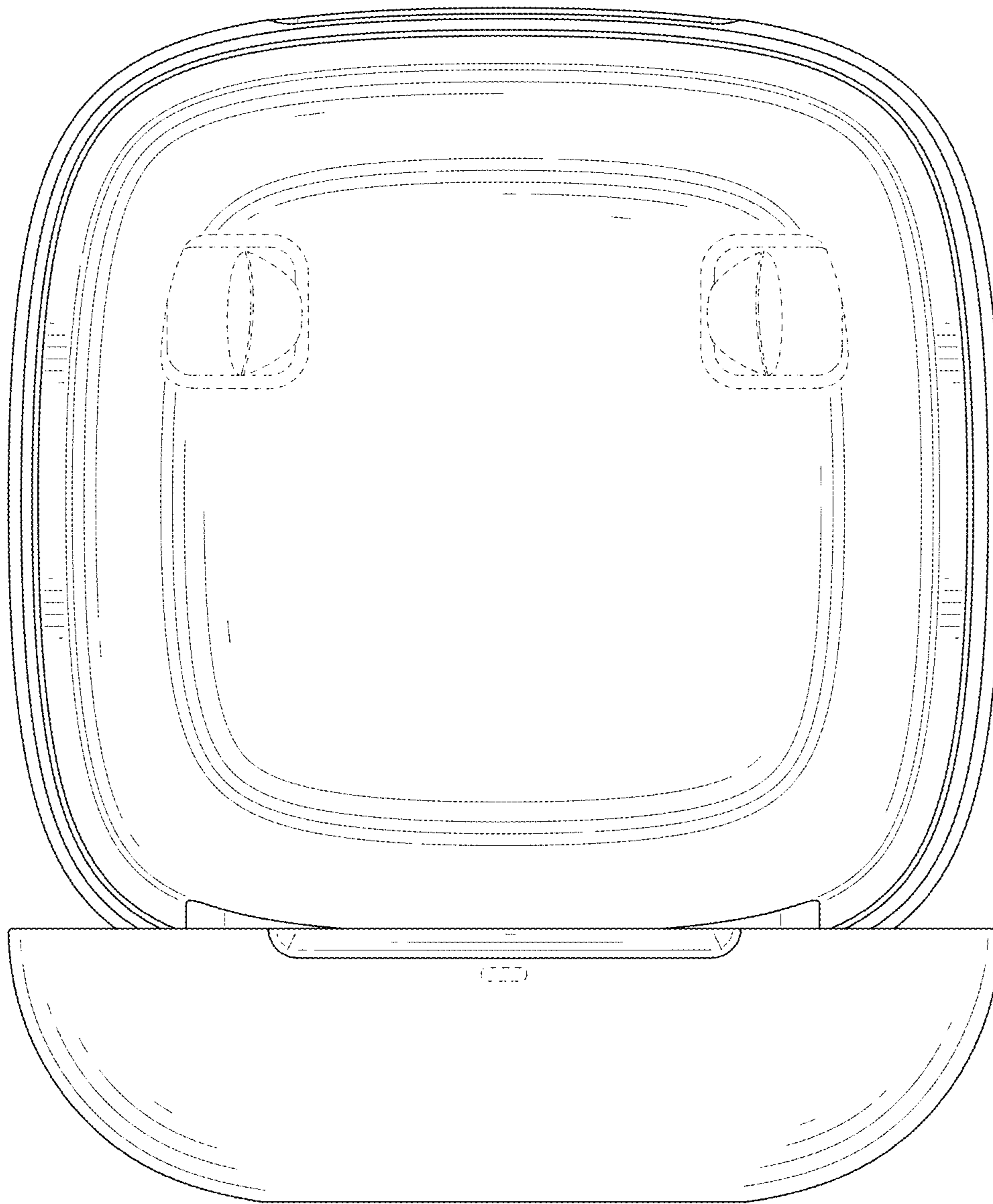


FIG. 6

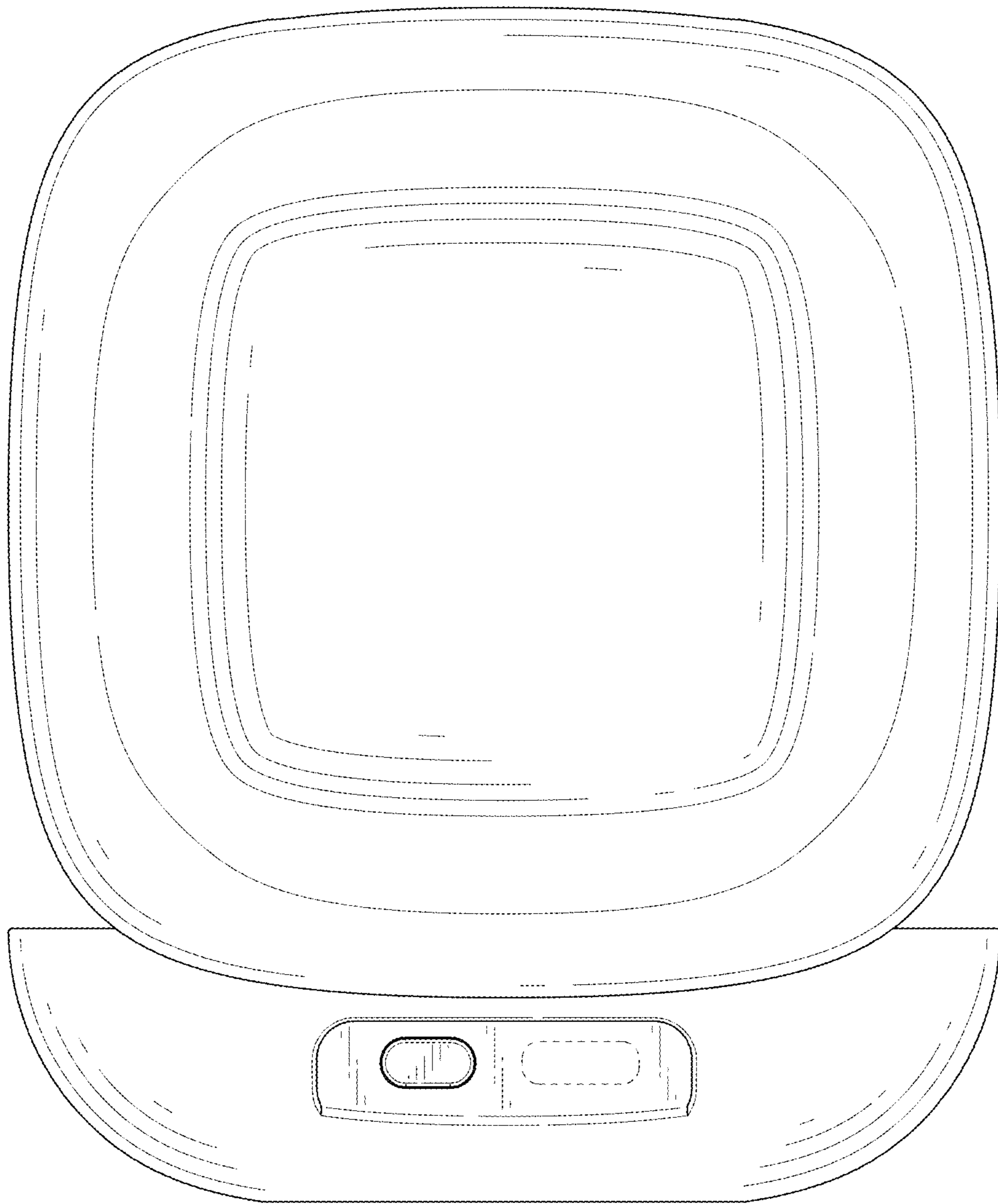


FIG. 7

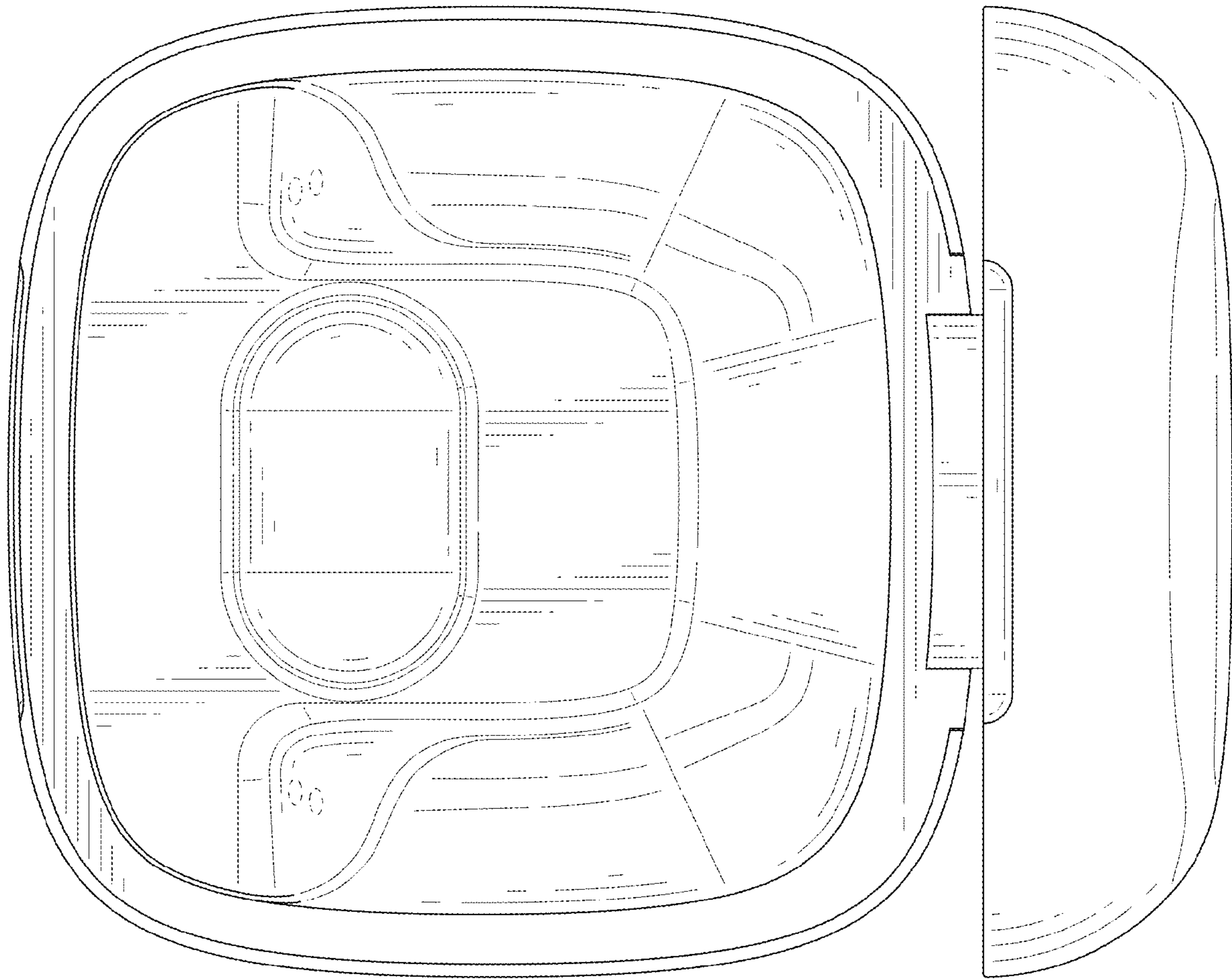


FIG. 8

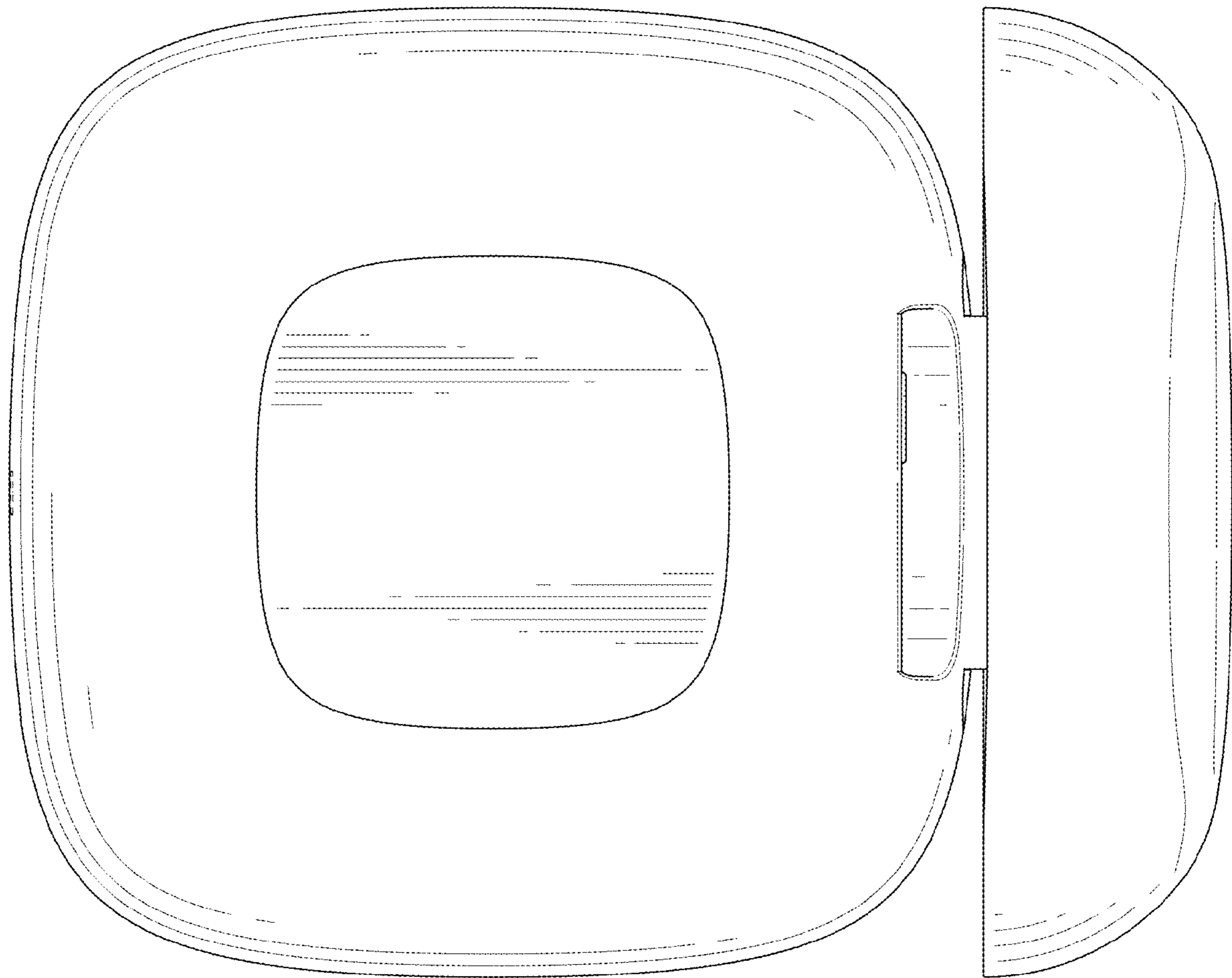


FIG. 9

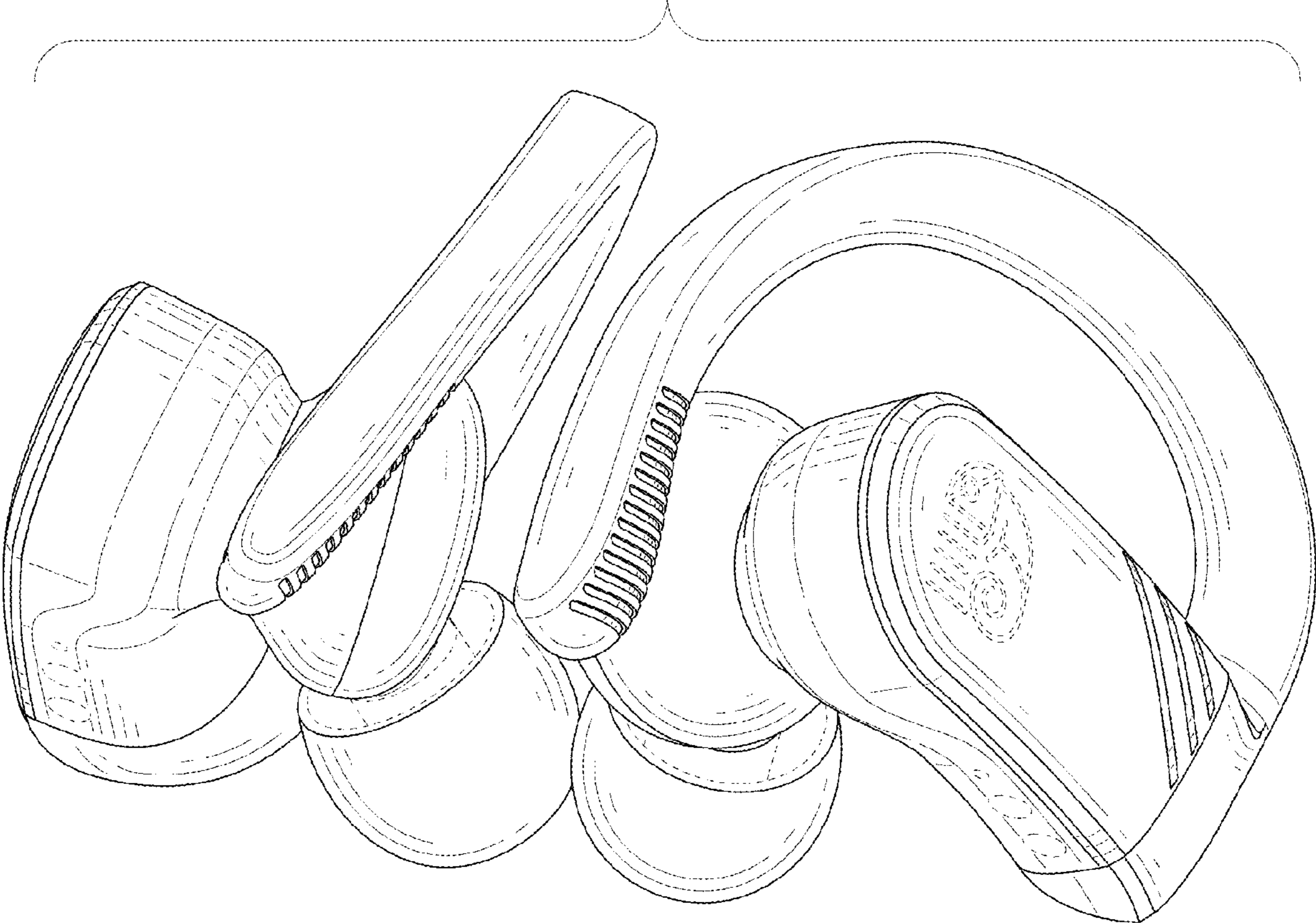


FIG. 10

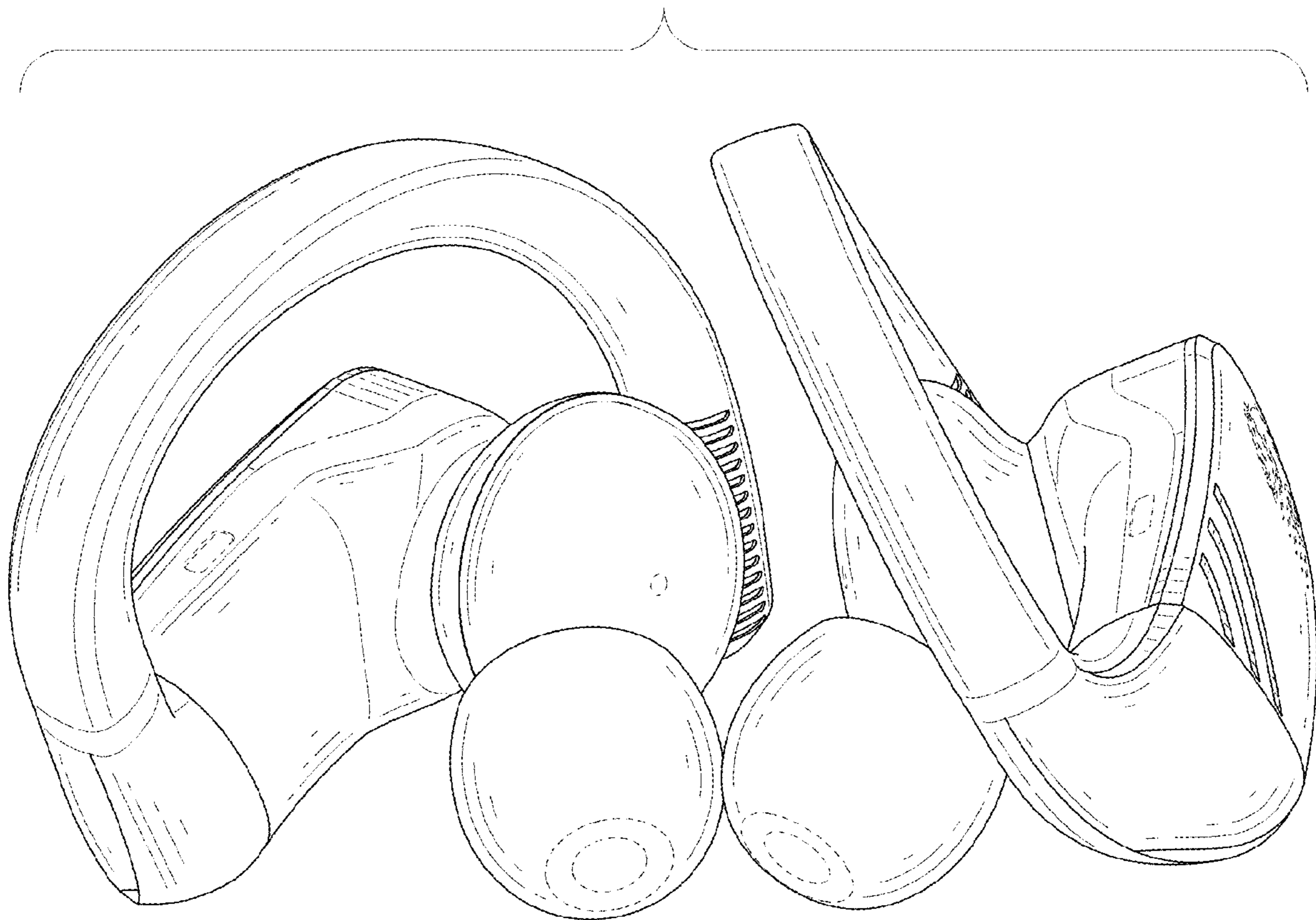


FIG. 11

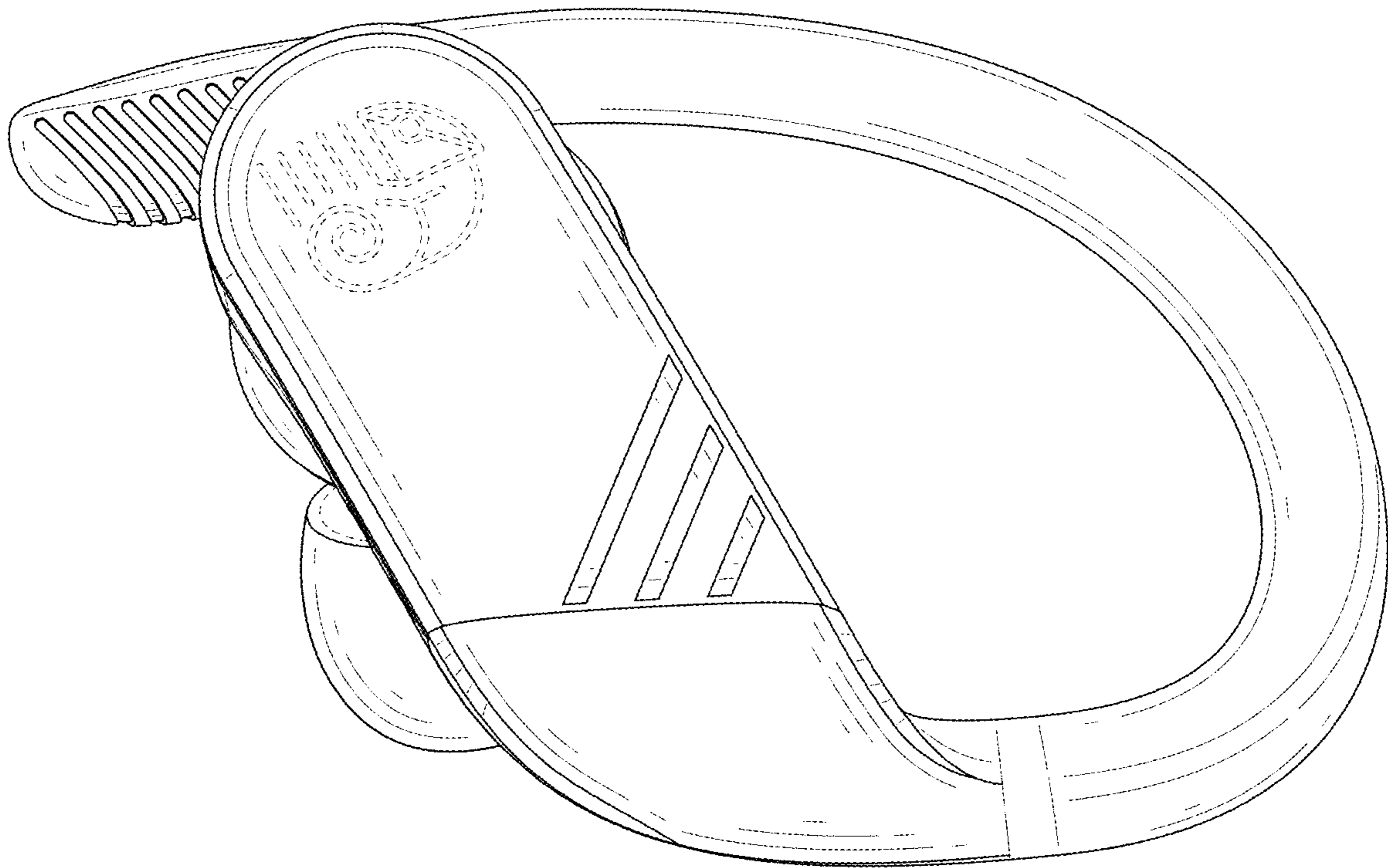


FIG. 12

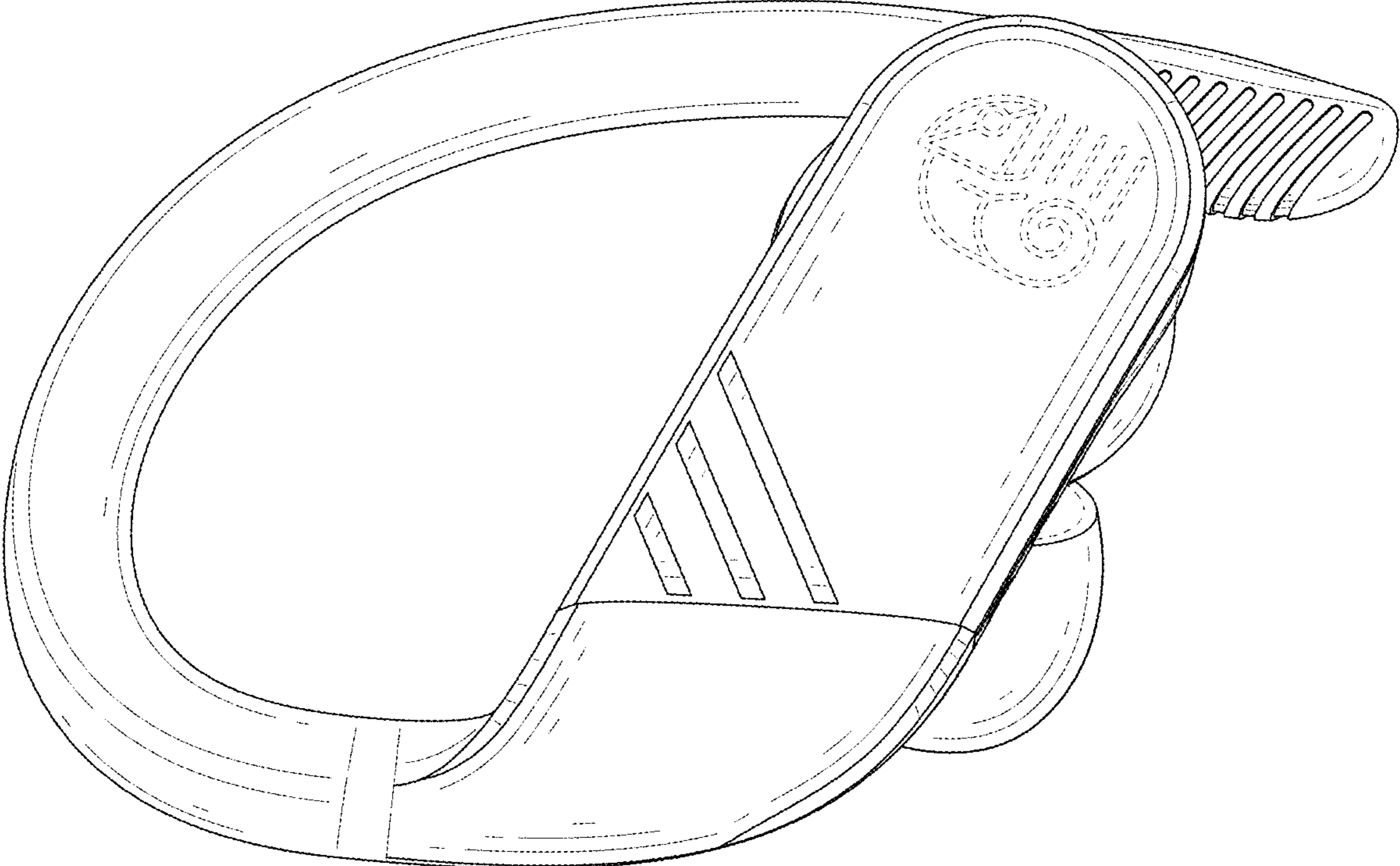


FIG. 13

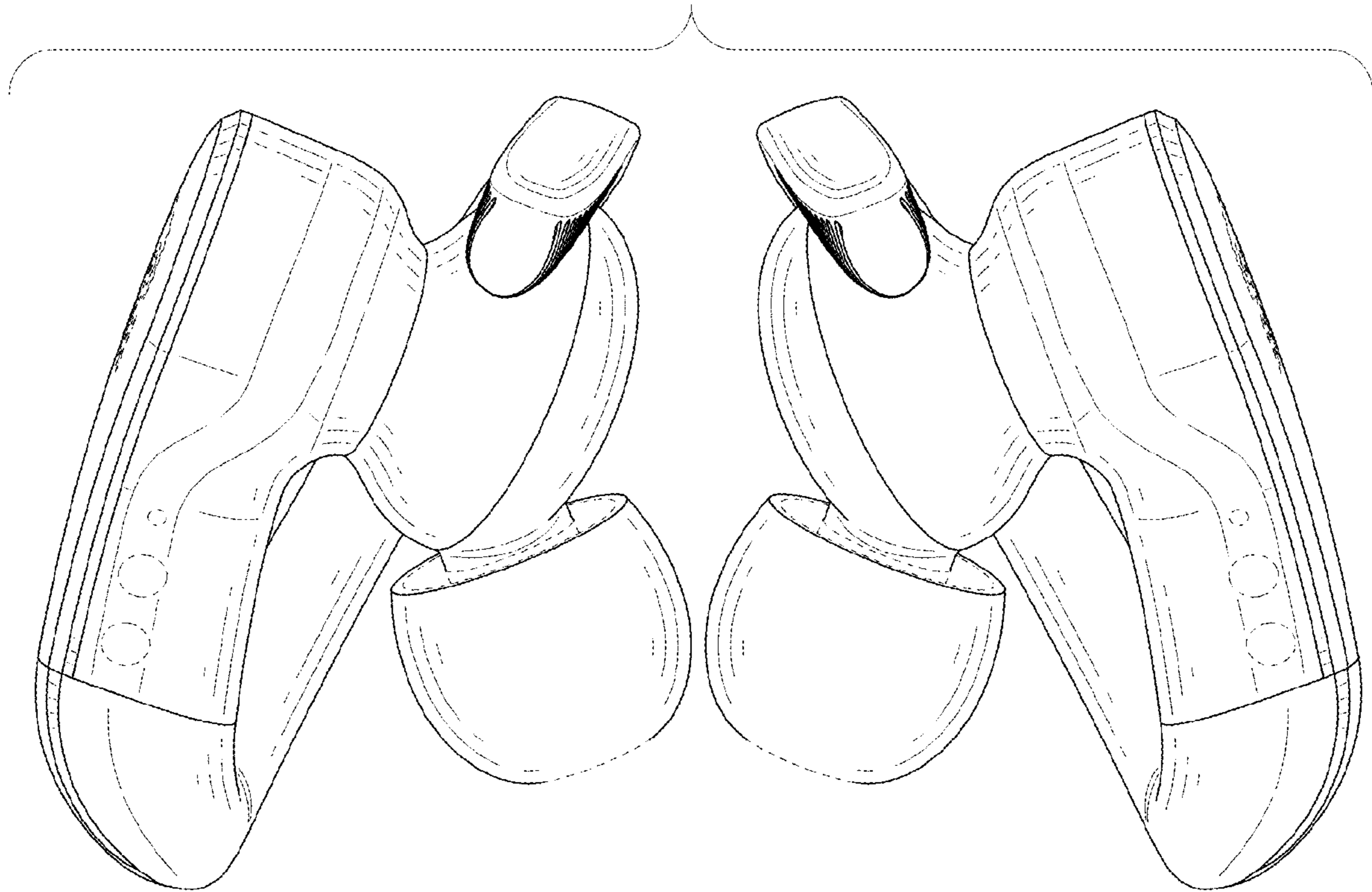


FIG. 14

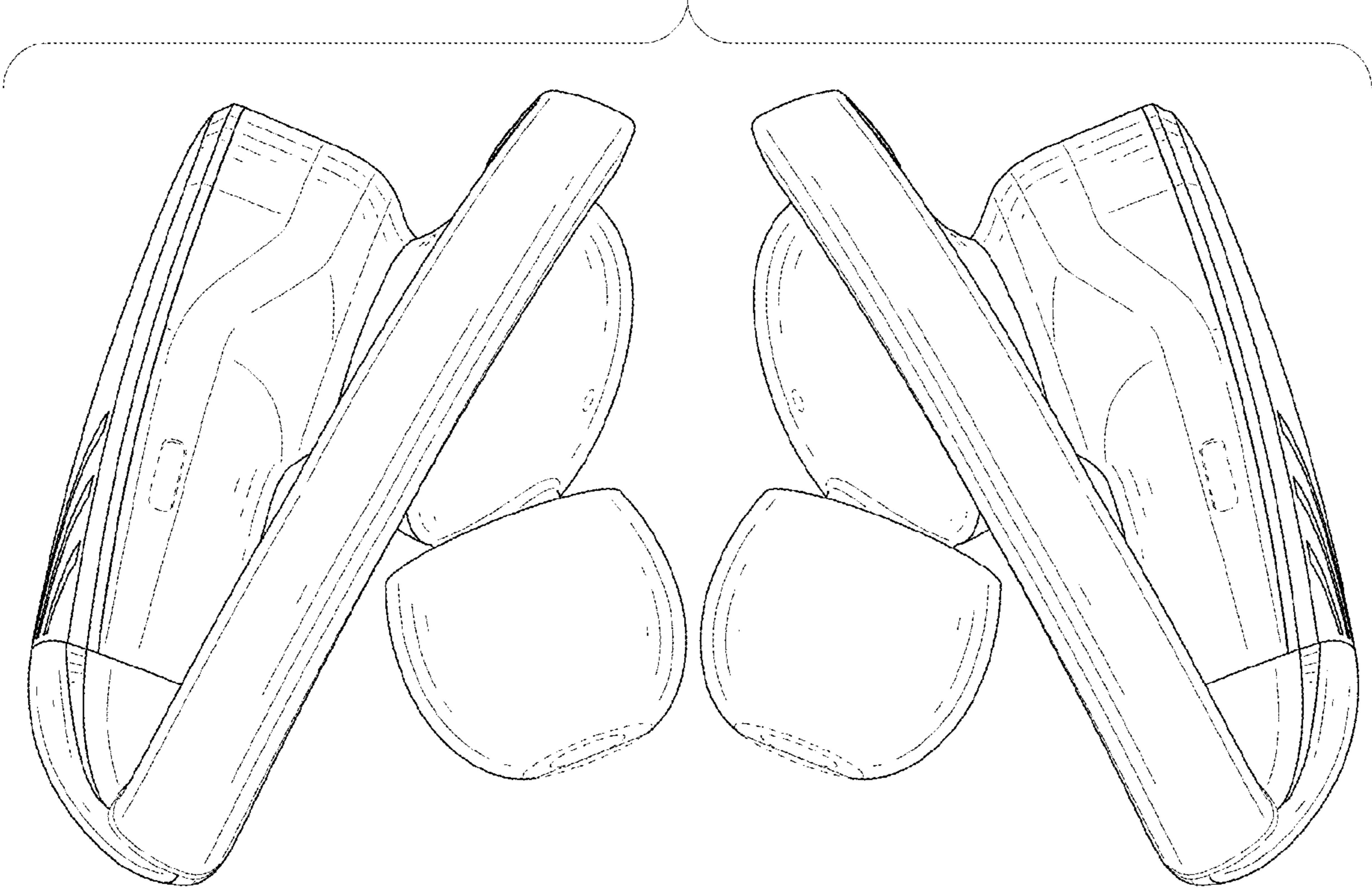


FIG. 15

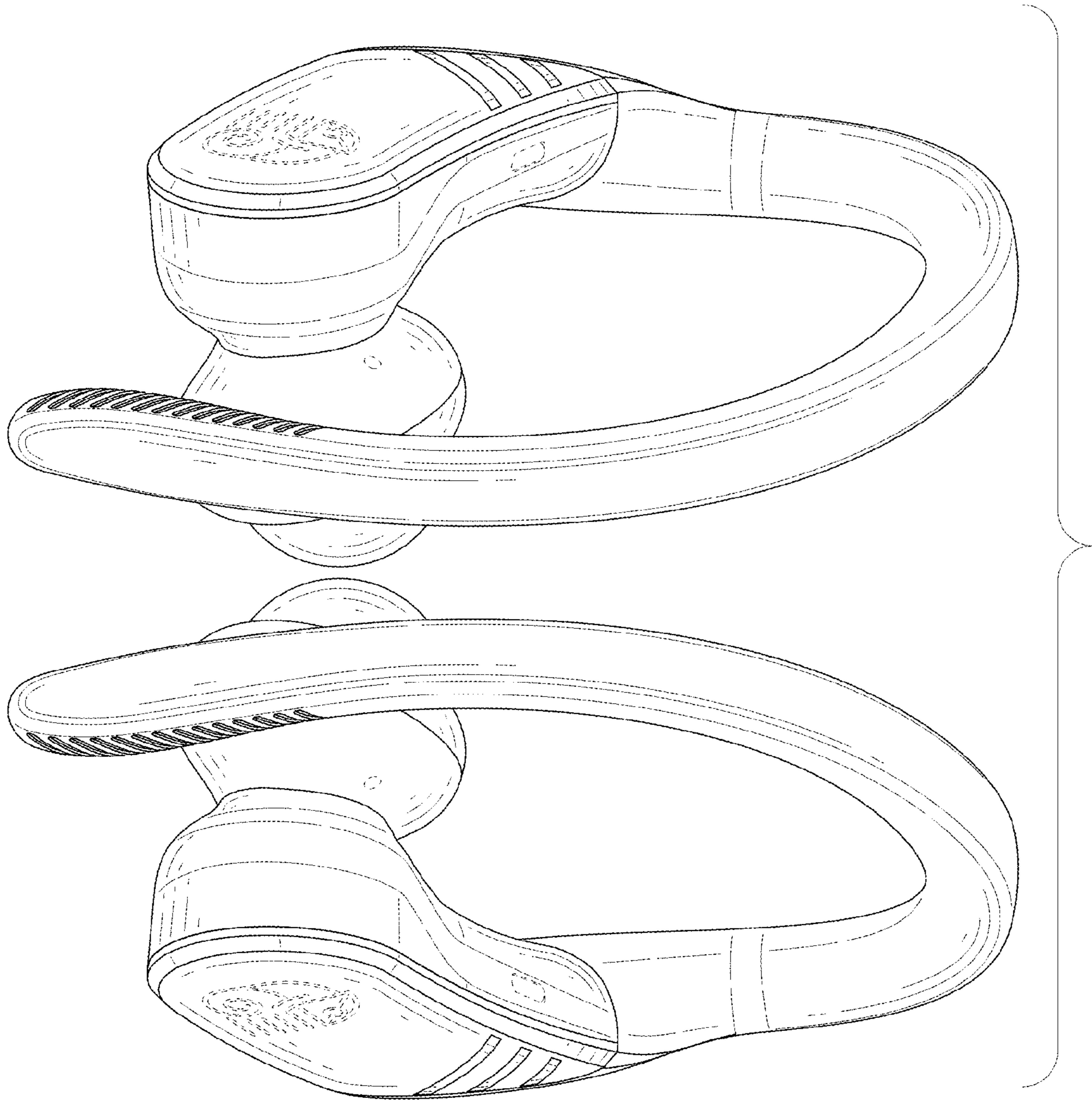


FIG. 16



FIG. 17

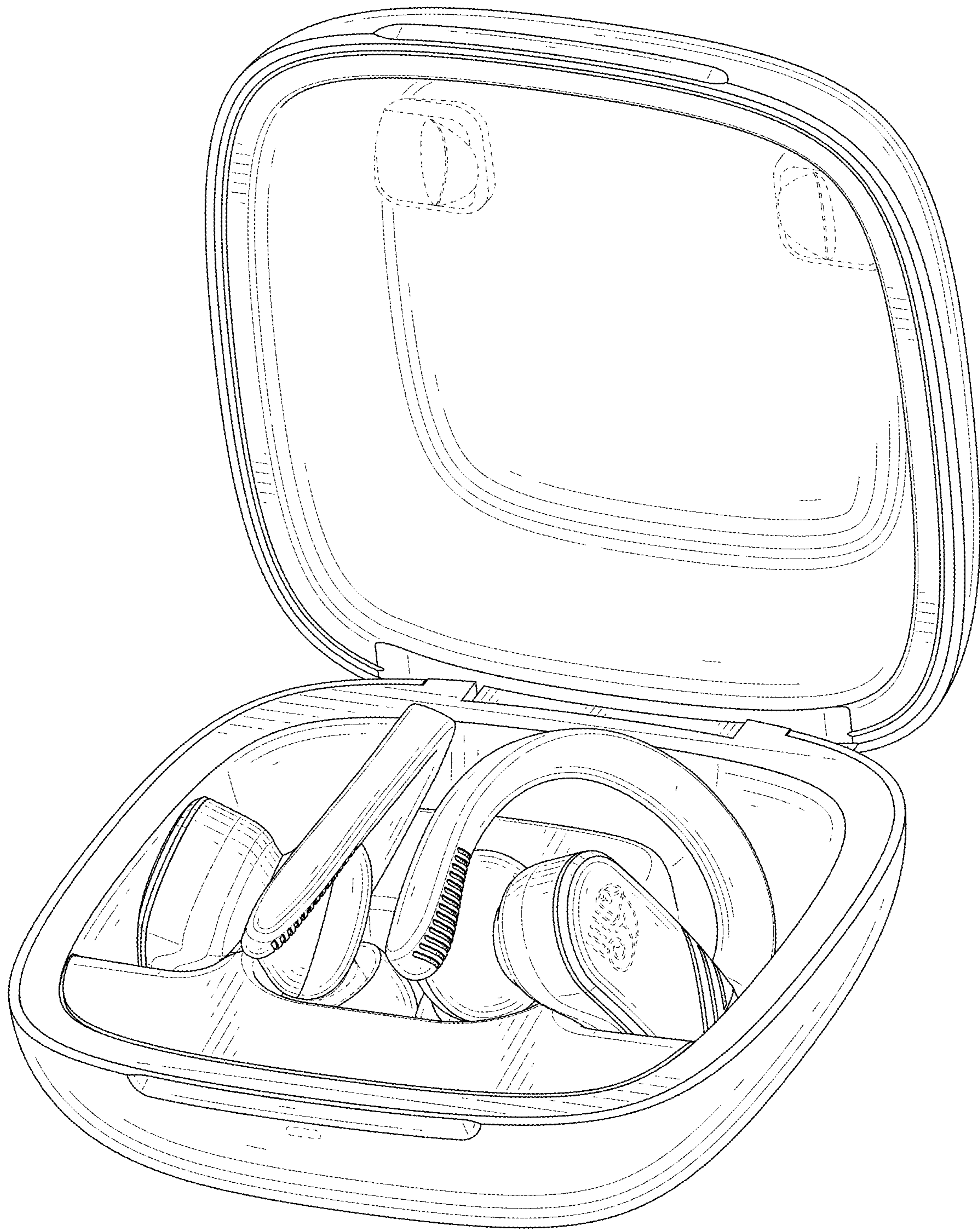


FIG. 18

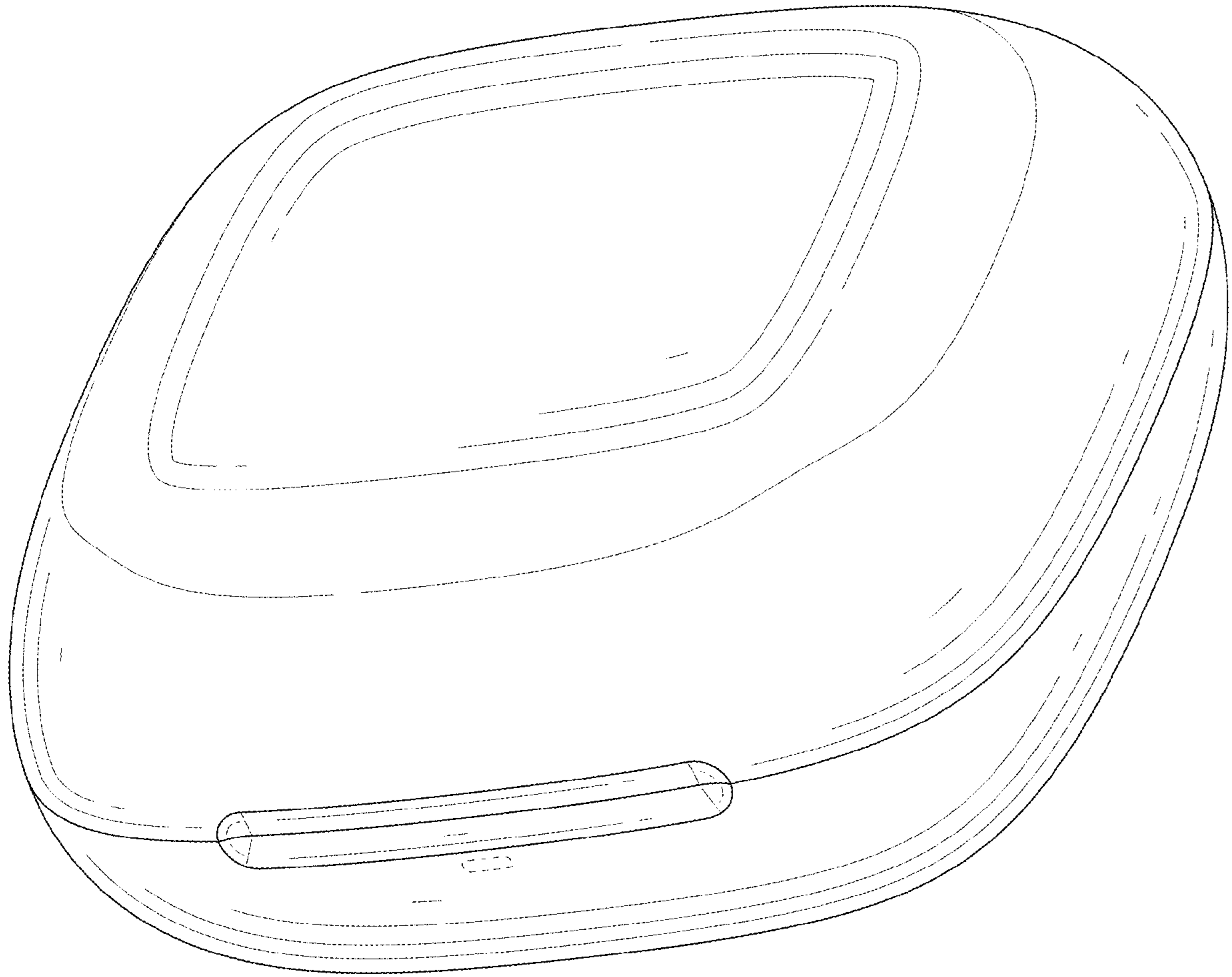


FIG. 19