



US00D916056S

(12) **United States Design Patent** (10) **Patent No.:** **US D916,056 S**
Boyd et al. (45) **Date of Patent:** **** Apr. 13, 2021**

(54) **EARPHONE**
(71) Applicant: **Apple Inc.**, Cupertino, CA (US)
(72) Inventors: **Robert Boyd**, Los Angeles, CA (US); **Sean Stewart Corbin**, South Lake Tahoe, CA (US); **Duy P. Le**, Los Angeles, CA (US); **Guillaume Raoult**, San Francisco, CA (US); **Christopher Kuh**, San Francisco, CA (US); **Robert Brunner**, Glen Ellen, CA (US)

2,261,448 A 11/1939 Peterson
2,248,837 A 7/1941 Walters
2,430,229 A 11/1947 Kelsey
2,474,135 A 6/1949 White
2,545,731 A 3/1951 French
2,719,523 A 10/1955 von Gierke
2,739,660 A 3/1956 French
3,319,736 A 5/1967 Reynolds
D233,444 S 10/1974 Christian et al.
D241,881 S 10/1976 Peterson et al.
4,133,984 A 1/1979 Akiyama
4,253,452 A 3/1981 Powers et al.
D259,279 S 5/1981 Takeda

(Continued)

(73) Assignee: **Apple Inc.**, Cupertino, CA (US)

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

(21) Appl. No.: **29/721,503**

(22) Filed: **Jan. 21, 2020**

Related U.S. Application Data

(63) Continuation of application No. 29/685,002, filed on Mar. 25, 2019, now Pat. No. Des. 897,320.

(51) **LOC (13) Cl.** **14-01**

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

(58) **Field of Classification Search**
USPC D14/223, 205; D24/174; 128/864, 865, 128/866; 381/380, 381, 328, 322; 455/90.3, 575.1, 569.1
CPC H04R 1/10; H04R 25/00; H04R 1/1033; H04R 1/1066; H04R 1/1016; H04R 5/033; H04R 5/0335; H04R 1/105
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

968,008 A 8/1910 Waller
1,558,191 A 10/1925 Lindemann
2,009,390 A 7/1935 Bayardi

FOREIGN PATENT DOCUMENTS

CN 306140801 * 10/2020
CN 306161834 * 11/2020

(Continued)

Primary Examiner — Paula Allen Greene

(74) *Attorney, Agent, or Firm* — Sterne, Kessler, Goldstein & Fox P.L.L.C.

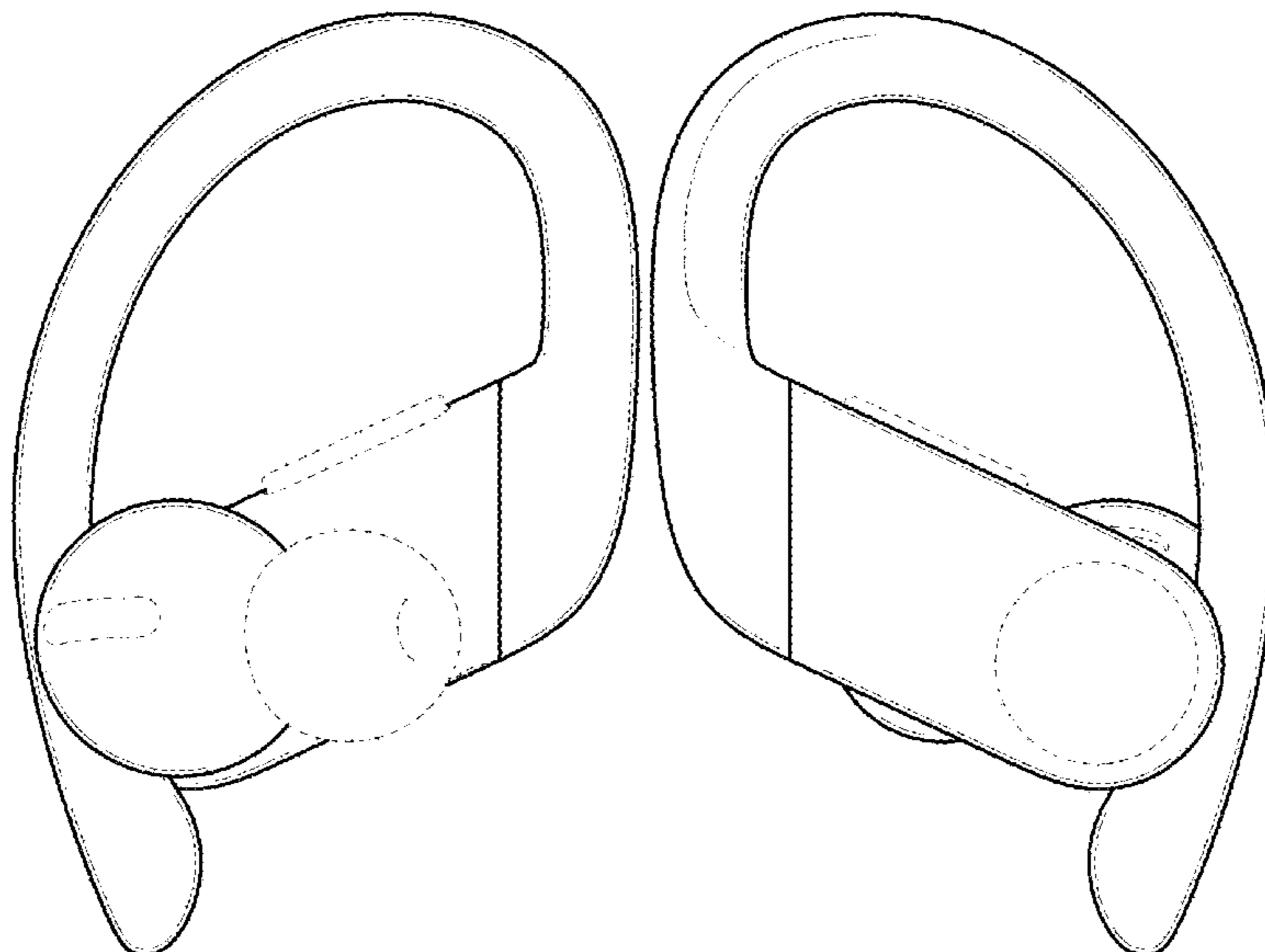
(57) **CLAIM**

The ornamental design for an earphone, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of an earphone showing the claimed design;
FIG. 2 is a bottom front perspective view thereof;
FIG. 3 is a front view thereof;
FIG. 4 is a rear view thereof;
FIG. 5 is a left side view thereof;
FIG. 6 is a right side view thereof;
FIG. 7 is a top view thereof; and,
FIG. 8 is a bottom view thereof.
The broken lines in the figures show portions of the earphone that form no part of the claimed design.

1 Claim, 4 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D270,634 S	9/1983	Ungar	D564,495 S	3/2008	Sasaki
D276,143 S	10/1984	Williams	D566,104 S	4/2008	Suzuki
4,646,872 A	3/1987	Kamon et al.	D569,841 S	5/2008	Chung et al.
D299,344 S	1/1989	Stevens	D574,361 S	8/2008	Sasaki
D299,454 S	1/1989	Kwong	D574,367 S	8/2008	Jaakkola et al.
D304,191 S	10/1989	Sekine	D575,772 S	8/2008	Schultz et al.
D309,306 S	7/1990	Weiser et al.	D576,154 S	9/2008	Ledbetter et al.
4,997,055 A	3/1991	Grady	D578,507 S	10/2008	Ando
D316,550 S	4/1991	Sogabe	D579,005 S	10/2008	Wilhelmsen
D318,670 S	7/1991	Taniguchi	D579,444 S	10/2008	Ewert et al.
D326,655 S	6/1992	Tribe	D579,923 S	11/2008	Andre et al.
D326,855 S	6/1992	Bose et al.	D582,398 S	12/2008	Nam et al.
D331,966 S	12/1992	Gardner, Jr.	D584,293 S	1/2009	Kim et al.
5,179,501 A	1/1993	Ocken et al.	D584,294 S	1/2009	Nam et al.
D334,043 S	3/1993	Taniguchi et al.	D585,881 S	2/2009	Nam et al.
5,210,792 A	5/1993	Kajihara	D587,681 S	3/2009	Yanai
5,410,608 A	4/1995	Lucey et al.	D587,685 S	3/2009	Densho
D375,959 S	11/1996	Davis et al.	D589,493 S	3/2009	Densho
5,625,171 A	4/1997	Marshall	D591,264 S	4/2009	Hong et al.
5,659,156 A	8/1997	Mauney et al.	D591,721 S	5/2009	Densho
D383,757 S	9/1997	Dobmsskin et al.	D591,722 S	5/2009	Densho
D385,254 S	10/1997	Owusu	D593,075 S	5/2009	Williams et al.
D403,300 S	12/1998	Renk	D594,441 S	6/2009	Lee et al.
D421,755 S	3/2000	Pitel	7,551,748 B2	6/2009	Kamo et al.
6,056,082 A *	5/2000	Lindgren A61F 11/12	D597,084 S	7/2009	Gondo
			D598,894 S	8/2009	Masuda et al.
			D598,901 S	8/2009	Lee et al.
			D599,778 S	9/2009	Ando
			D599,781 S	9/2009	Lee et al.
			D600,675 S	9/2009	Lee et al.
			D601,126 S	9/2009	Christopher et al.
D430,060 S	8/2000	Kavalek	D601,548 S	10/2009	Morisawa
6,101,260 A	8/2000	Jensen et al.	D602,475 S	10/2009	Martin
D436,623 S	1/2001	Schmidt et al.	D602,905 S	10/2009	Morisawa
6,233,344 B1	5/2001	Clegg et al.	D603,378 S	11/2009	Paradise
D443,261 S	6/2001	Yuyama	D603,837 S	11/2009	Martin
D443,859 S	6/2001	Hogan	D603,847 S	11/2009	Chung
D457,514 S	5/2002	Marion et al.	D604,272 S	11/2009	Kitayama
D459,342 S	6/2002	Marion et al.	D605,628 S	12/2009	Ando
D460,749 S	7/2002	Liu	D606,048 S	12/2009	Soetejo et al.
6,427,018 B1	7/2002	Keliiliki	D606,971 S	12/2009	Christopher et al.
D463,791 S	10/2002	Nagai et al.	D607,875 S	1/2010	Pedersen, II
D470,129 S	2/2003	Hlas et al.	7,648,005 B2	1/2010	Leong et al.
D471,889 S	3/2003	Rath et al.	D609,698 S	2/2010	Ng
D475,996 S	6/2003	Skulley	7,664,287 B2	2/2010	Neu et al.
D477,593 S	6/2003	Komiyama	7,681,577 B2	3/2010	Blanchard
D481,377 S	10/2003	Eguchi	D613,274 S	4/2010	Lee et al.
D482,348 S	11/2003	Villaverde et al.	D614,168 S	4/2010	Rogers et al.
D484,166 S	12/2003	Senda	7,708,110 B2	5/2010	Leong et al.
6,728,388 B1	4/2004	Nageno et al.	D617,778 S *	6/2010	Birger D14/223
6,738,487 B1	5/2004	Nageno et al.	D617,780 S	6/2010	Jaakkola et al.
6,771,790 B2	8/2004	Liu	D618,211 S	6/2010	Oguro et al.
D501,196 S	1/2005	Dyer et al.	D618,669 S	6/2010	Johnson et al.
6,868,284 B2	3/2005	Bae	D619,561 S	7/2010	Yang
D508,479 S	8/2005	Okada	D622,707 S	8/2010	Chen et al.
D508,911 S	8/2005	Sanders	D623,171 S	9/2010	Chen et al.
D510,085 S	9/2005	Suzuki	D624,529 S	9/2010	Huang
D510,575 S	10/2005	Leong	D624,901 S	10/2010	Blanchard
D526,642 S	8/2006	Choe	D626,117 S	10/2010	Lowry
D528,531 S	9/2006	Rose et al.	D627,764 S	11/2010	Tsai et al.
D529,901 S	10/2006	Ohta	7,841,446 B2	11/2010	Leong et al.
D535,642 S	1/2007	Garcia et al.	D628,555 S	12/2010	Ponzio et al.
D538,269 S	3/2007	Tragatschnig	D630,179 S	1/2011	Park et al.
D538,270 S	3/2007	Kim et al.	D631,037 S	1/2011	Park et al.
D538,271 S	3/2007	Kim et al.	D631,470 S	1/2011	Yoneyama et al.
D538,792 S	3/2007	Kim et al.	D634,305 S	3/2011	Hoggarth
D539,268 S	3/2007	Suzuki	D635,960 S	4/2011	Gondo et al.
D539,787 S	4/2007	Kim et al.	D636,763 S	4/2011	Walter
D542,267 S	5/2007	Cha et al.	D637,182 S	5/2011	Lee et al.
D542,282 S	5/2007	Yoshiyama	D637,998 S	5/2011	Brunner et al.
D543,968 S	6/2007	Wong	D637,999 S	5/2011	Brunner et al.
D543,972 S	6/2007	Taylor	D638,409 S	5/2011	Walter
7,231,056 B2	6/2007	Chen	D641,008 S	7/2011	Lee et al.
D550,202 S	9/2007	Meier et al.	D641,010 S	7/2011	Kwon
D550,657 S	9/2007	Gan et al.	D641,736 S	7/2011	Brunner et al.
D554,109 S	10/2007	Ledbetter et al.	D642,163 S	7/2011	Lee et al.
D554,627 S	11/2007	Gondo	D643,414 S	8/2011	Lee et al.
D556,735 S	12/2007	Yeo	D643,416 S	8/2011	Chong et al.
D558,735 S	1/2008	Carr et al.	D643,417 S	8/2011	Lee et al.
D559,837 S	1/2008	Nakano			

(56)

References Cited

U.S. PATENT DOCUMENTS

D643,418 S 8/2011 Lee et al.
 8,068,633 B2 11/2011 Lee et al.
 D652,817 S 1/2012 Lee et al.
 D652,822 S 1/2012 Lee et al.
 8,090,135 B2 1/2012 Lin
 D656,490 S 3/2012 Birger
 D658,157 S 4/2012 McManigal
 8,265,328 B2 9/2012 Milde et al.
 D668,631 S 10/2012 Katsumata et al.
 D671,523 S 11/2012 Daniel
 D678,251 S 3/2013 Cantoni et al.
 D685,768 S 7/2013 Mogili
 D686,196 S 7/2013 Lee et al.
 D691,580 S 10/2013 Cho et al.
 D695,275 S 12/2013 Chee
 D699,213 S 2/2014 Burgett et al.
 8,655,005 B2 2/2014 Birger et al.
 D700,905 S 3/2014 Pavitsich
 D707,652 S 6/2014 Brunner et al.
 D710,333 S 8/2014 Davies et al.
 D712,382 S 9/2014 Brunner et al.
 D713,385 S 9/2014 Burgett et al.
 D713,822 S 9/2014 Paradise et al.
 D716,770 S 11/2014 Bonahoom et al.
 8,908,899 B1 12/2014 Yang
 D725,637 S 3/2015 Nakajima
 D730,876 S 6/2015 Dahlberg
 D732,509 S 6/2015 Brunner et al.
 D734,744 S 7/2015 Brunner et al.
 D739,377 S 9/2015 Yeom et al.
 D740,260 S 10/2015 Brunner et al.
 D741,299 S 10/2015 Brunner et al.
 D743,945 S 11/2015 Brunner et al.
 D743,946 S 11/2015 Brunner et al.
 9,197,956 B2 11/2015 Iseberg et al.
 D745,862 S 12/2015 Otani et al.
 D759,634 S 6/2016 Brunner et al.
 D767,532 S 9/2016 Jen
 D775,610 S * 1/2017 Nakajima D14/223
 D778,257 S 2/2017 Hu
 D780,721 S * 3/2017 Brunner D14/223
 D782,996 S 4/2017 Zhu
 D787,477 S 5/2017 Lee
 D792,378 S 6/2017 Brunner et al.
 D796,487 S 9/2017 Brunner et al.
 D799,316 S 10/2017 Thain et al.
 D806,684 S 1/2018 Tsai
 D807,331 S 1/2018 Morimoto
 D809,487 S 2/2018 Lee et al.
 D810,053 S 2/2018 Otani et al.
 D816,060 S 4/2018 Wei
 D817,301 S 5/2018 Aoyagi et al.
 D817,305 S 5/2018 Hsieh et al.
 D821,364 S 6/2018 Brunner et al.
 D831,610 S 10/2018 Aoyagi et al.
 D834,003 S 11/2018 Maeda
 10,154,334 B1 * 12/2018 Lin H04R 1/1041

D838,256 S 1/2019 Wang et al.
 D838,692 S * 1/2019 Fu D14/223
 D843,344 S 3/2019 Zhu
 D844,588 S 4/2019 Brunner et al.
 D845,926 S 4/2019 Aoyagi et al.
 D847,780 S 5/2019 Brunner et al.
 D858,482 S * 9/2019 Ma D14/205
 D860,164 S 9/2019 Lin
 D863,265 S * 10/2019 Hu D14/223
 D869,435 S 12/2019 Sanhua et al.
 D871,375 S * 12/2019 Meyer D14/223
 D873,247 S * 1/2020 Zhu D14/223
 D873,789 S 1/2020 Hu
 D878,338 S 3/2020 Yang
 D881,850 S 4/2020 Zhang
 D883,259 S 5/2020 Ma
 D885,370 S 5/2020 Hu
 D888,022 S * 6/2020 McCune D14/223
 D888,023 S * 6/2020 Gao D14/223
 D890,135 S * 7/2020 Tompson D14/217
 D890,137 S * 7/2020 Ma D14/223
 D896,204 S * 9/2020 Brunner D14/223
 D897,320 S * 9/2020 Boyd D14/223
 D899,406 S * 10/2020 Ma D14/223
 D904,761 S * 12/2020 Koneru D3/274
 D904,762 S * 12/2020 Koneru D3/274
 D904,763 S * 12/2020 Koneru D3/274
 D905,002 S * 12/2020 Koneru D14/205
 D907,608 S * 1/2021 Xie D14/223
 2007/0104345 A1 5/2007 Yang
 2009/0285434 A1 11/2009 Williams et al.
 2011/0051979 A1 3/2011 Lee et al.
 2011/0176700 A1 7/2011 Hashimoto
 2013/0216087 A1 8/2013 MacDonald
 2014/0072137 A1 3/2014 Nelson
 2014/0119555 A1 5/2014 Lu
 2014/0138150 A1 5/2014 Huang
 2014/0166389 A1 6/2014 Young-Mun
 2015/0330478 A1 11/2015 Grewal
 2017/0105679 A1 4/2017 Gil
 2020/0100011 A1 * 3/2020 Bruss H04R 1/1016
 2020/0154196 A1 * 5/2020 Kolton H04R 1/105
 2020/0314518 A1 * 10/2020 Hatfield H04R 1/1041
 2020/0413179 A1 * 12/2020 Boyd H04R 1/1016

FOREIGN PATENT DOCUMENTS

CN 306203658 * 12/2020
 EM 002765230-0001 9/2015
 EM 004596161-0001 1/2018
 EM 006377511-0001 4/2019
 EM 006950184-0001 10/2019
 EM 006910618-0001 1/2020
 EM 008330336-0001 * 12/2020
 JP D1616785 10/2018
 JP D1665322 * 3/2019
 JP D1665323 * 3/2019
 JP D1665324 * 3/2019

* cited by examiner

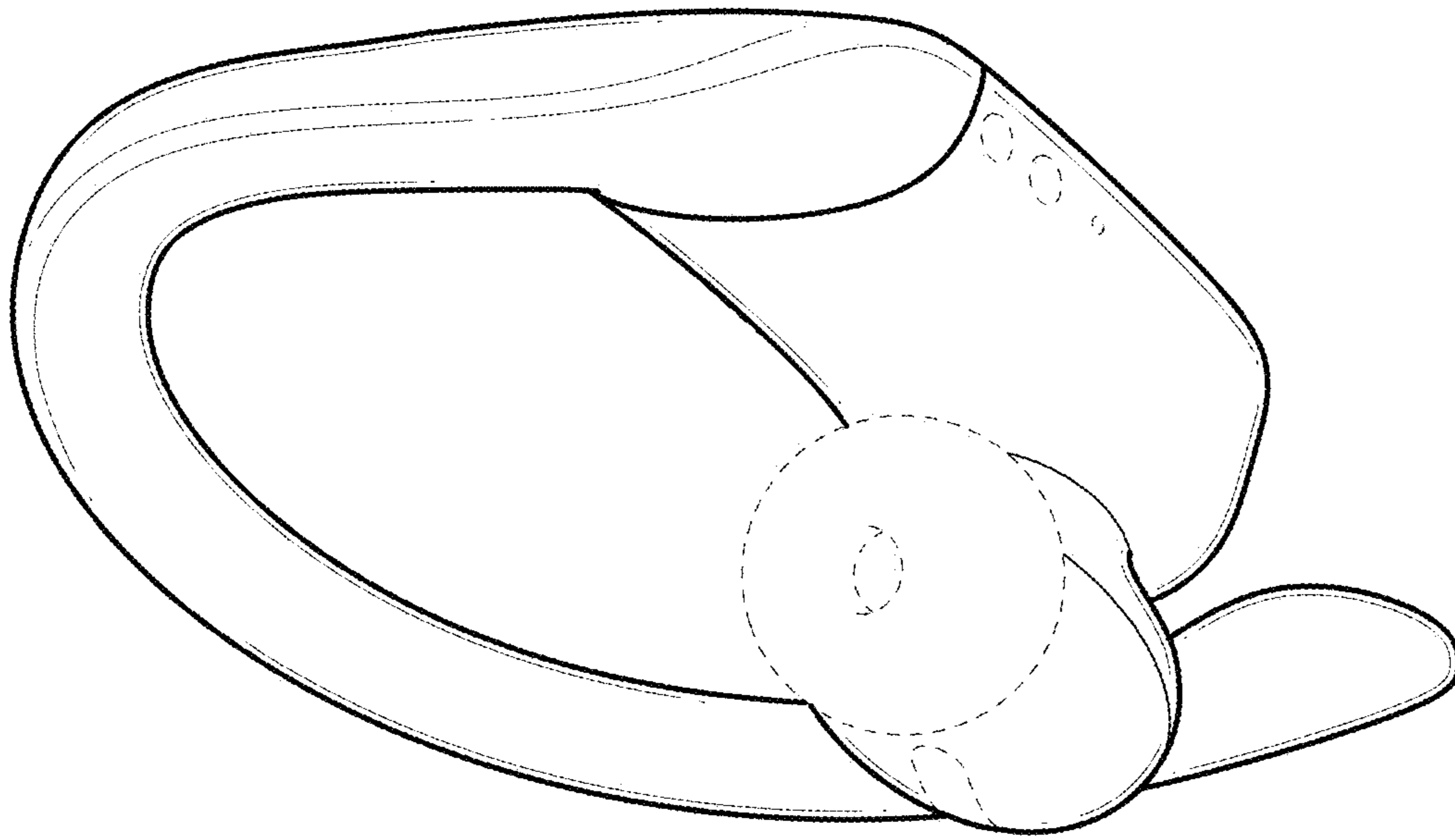


FIG. 2

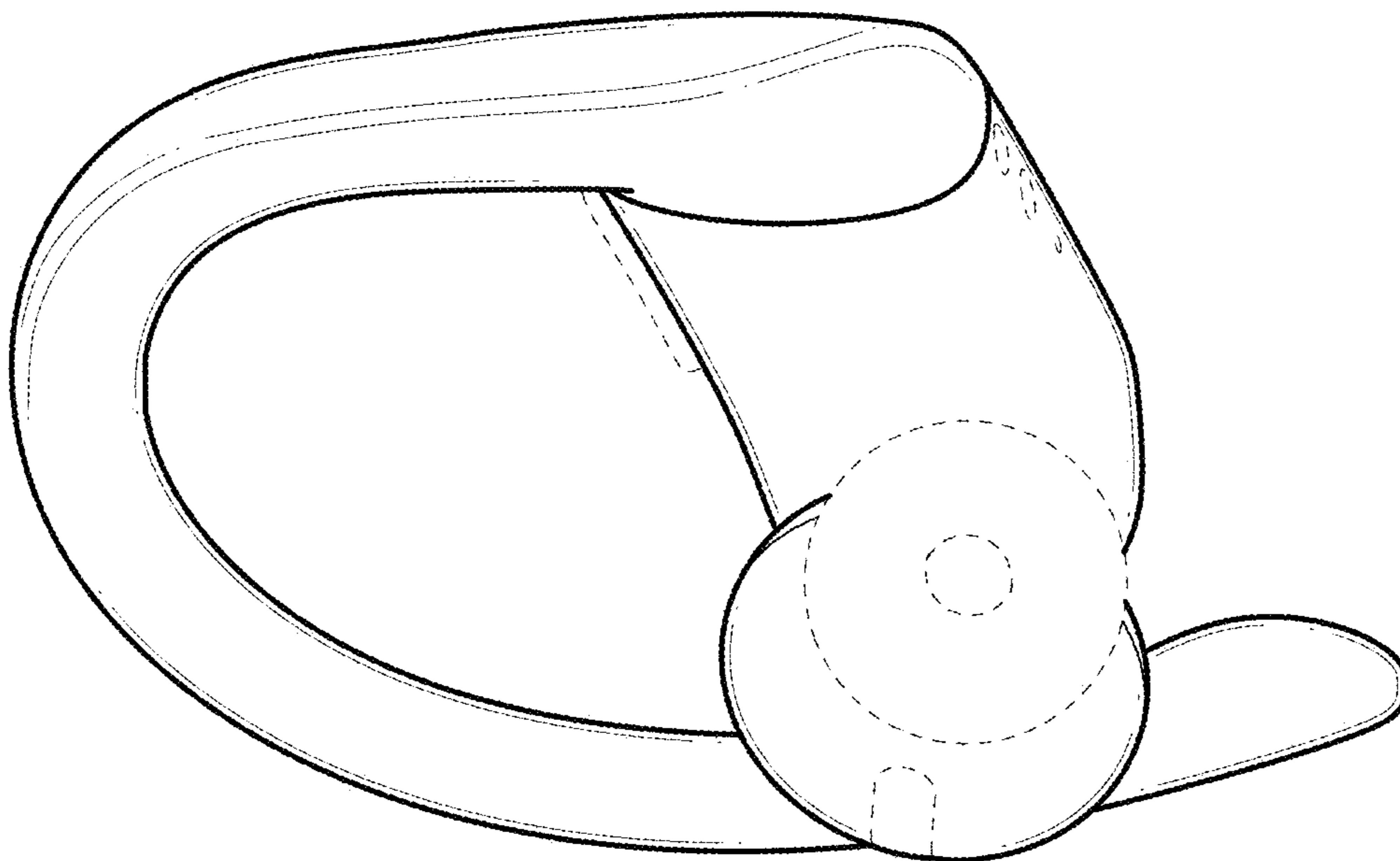


FIG. 1

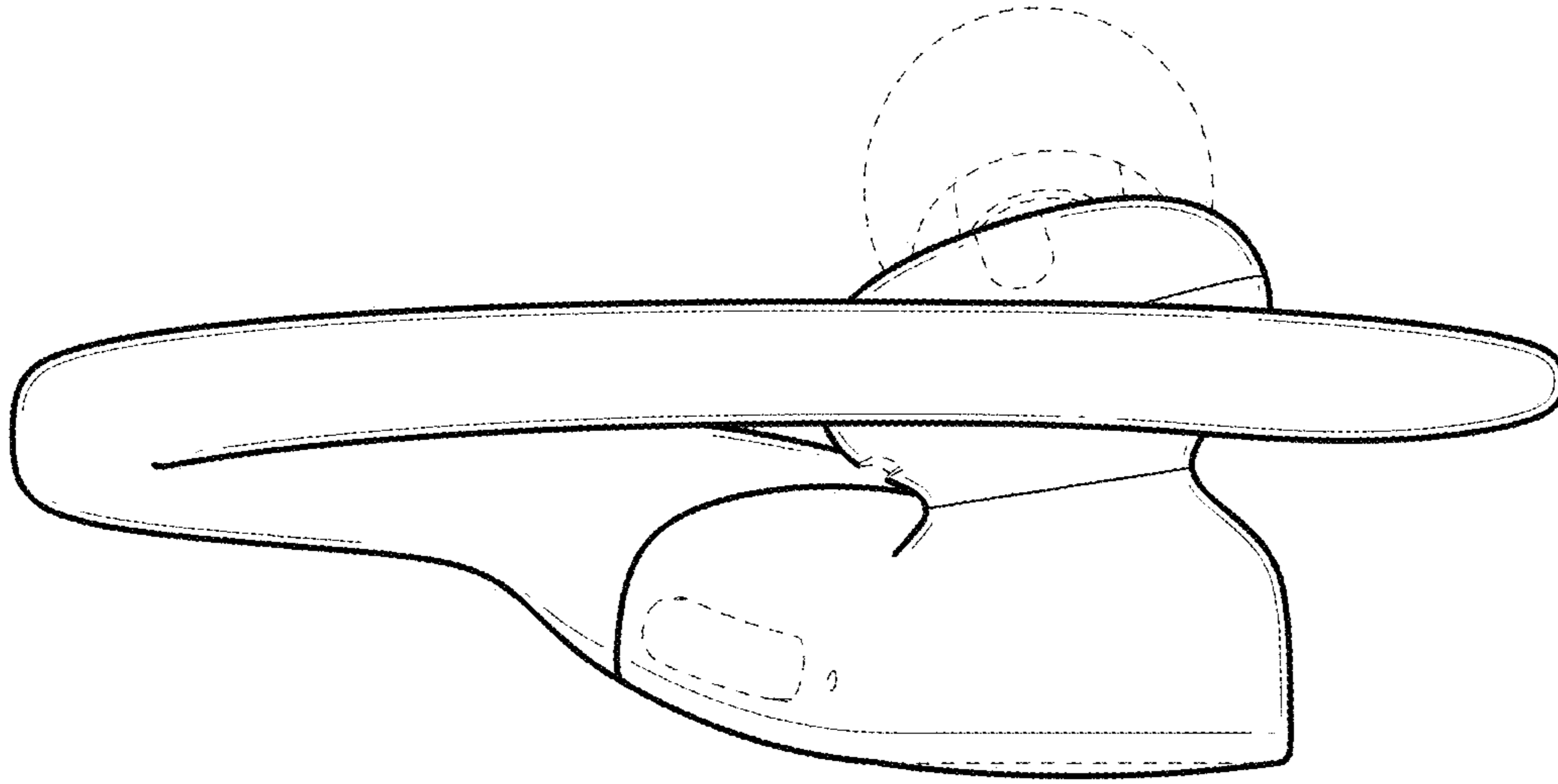


FIG. 4

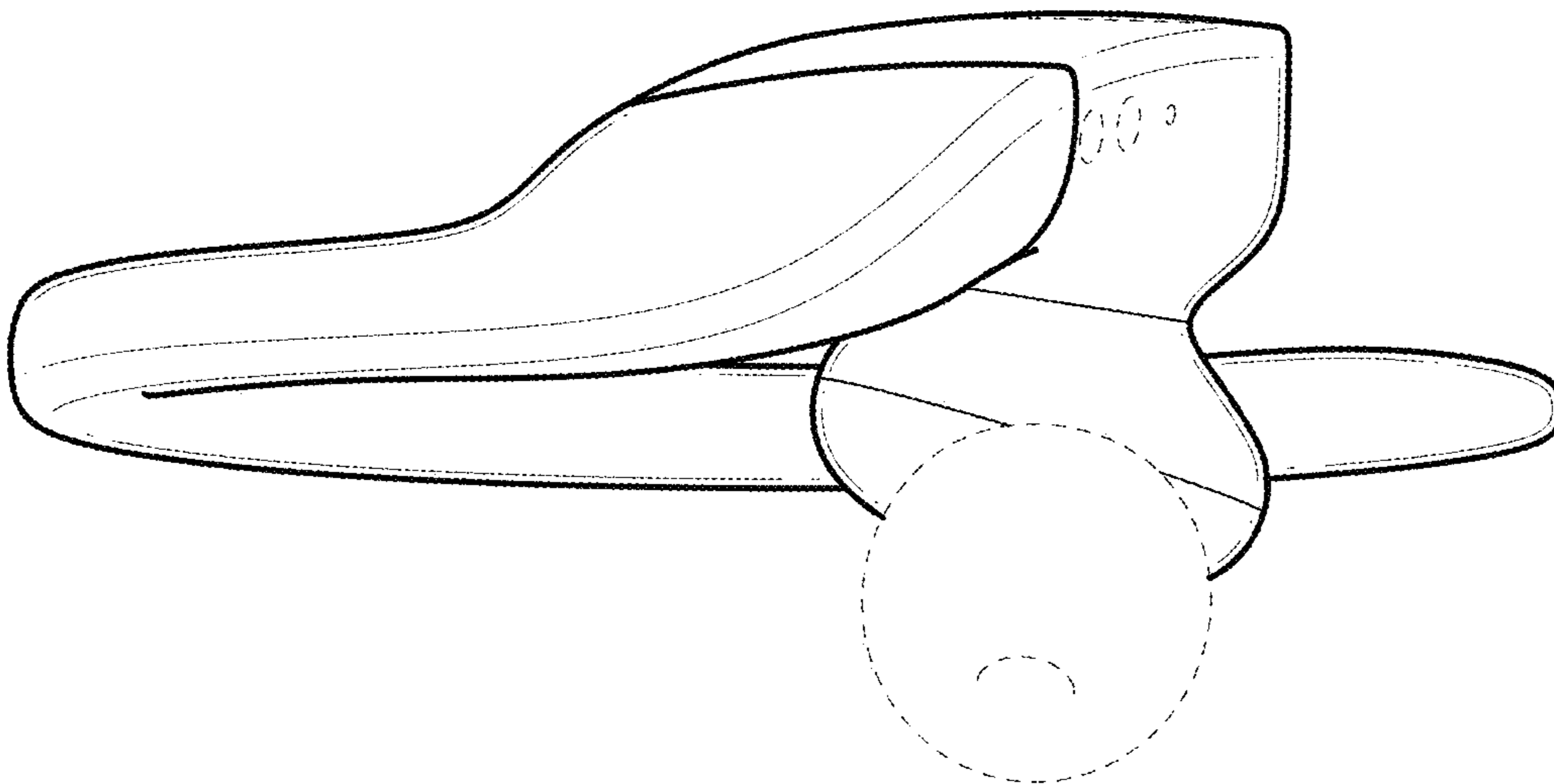


FIG. 3

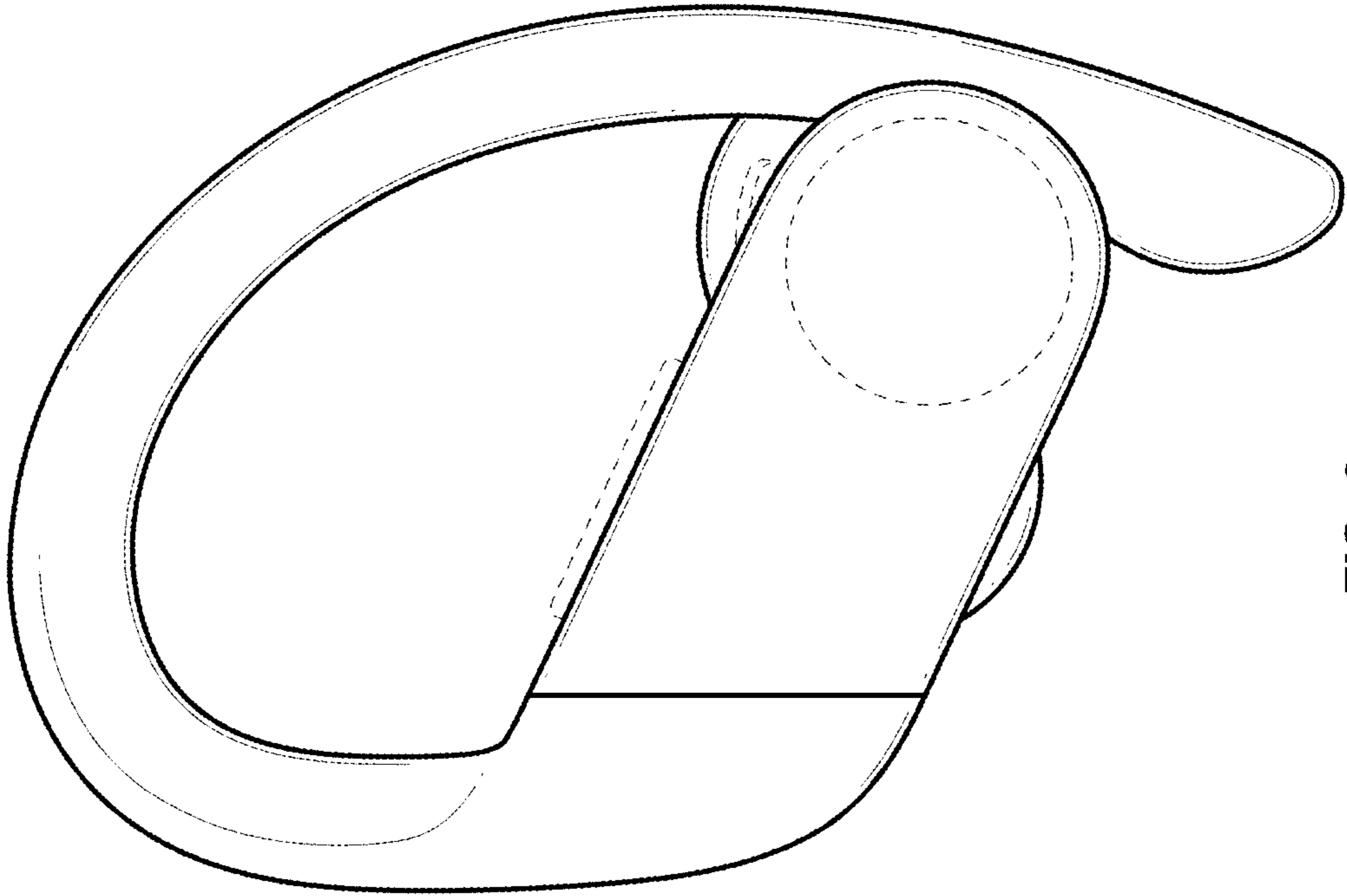


FIG. 6

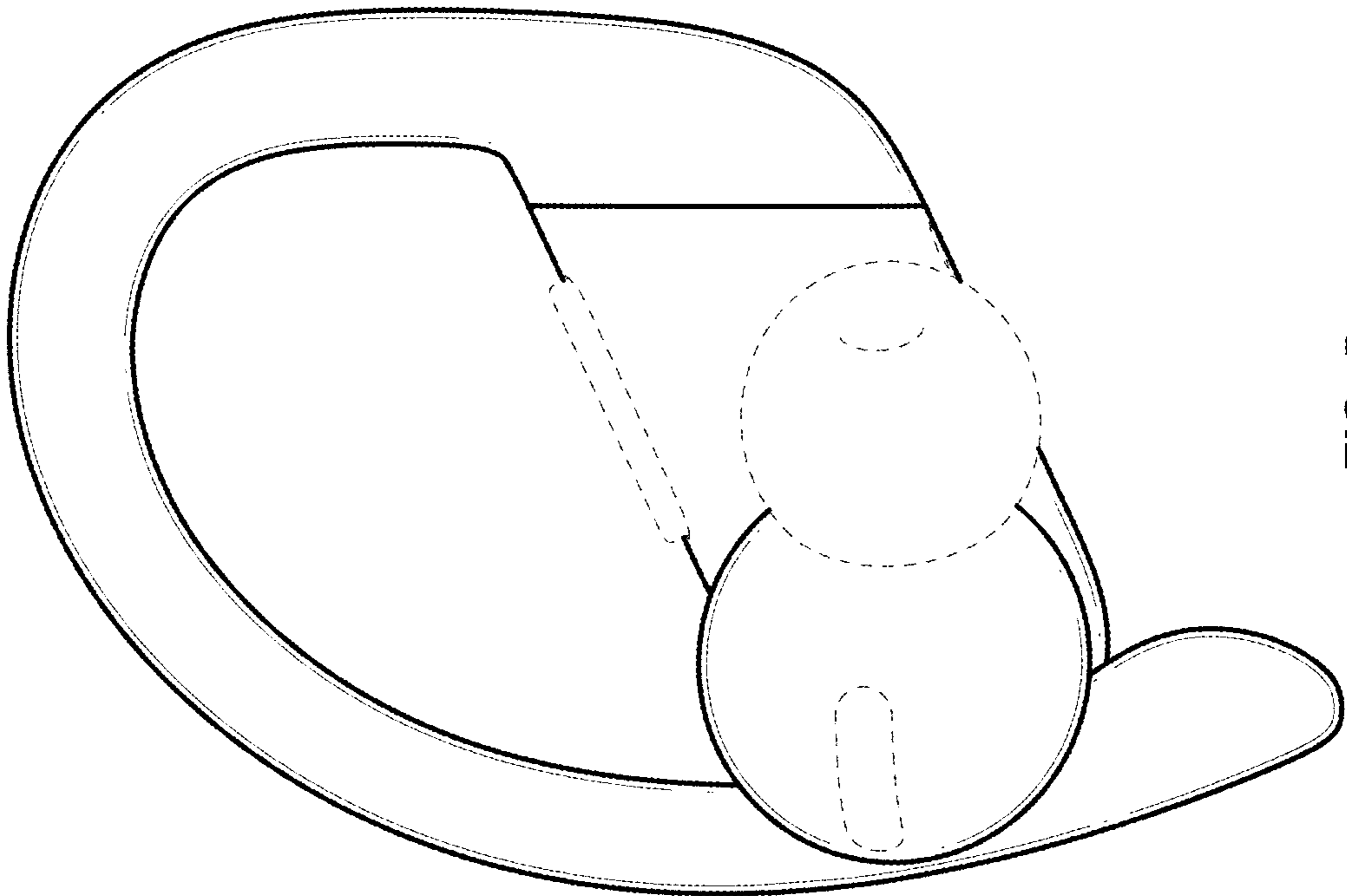


FIG. 5

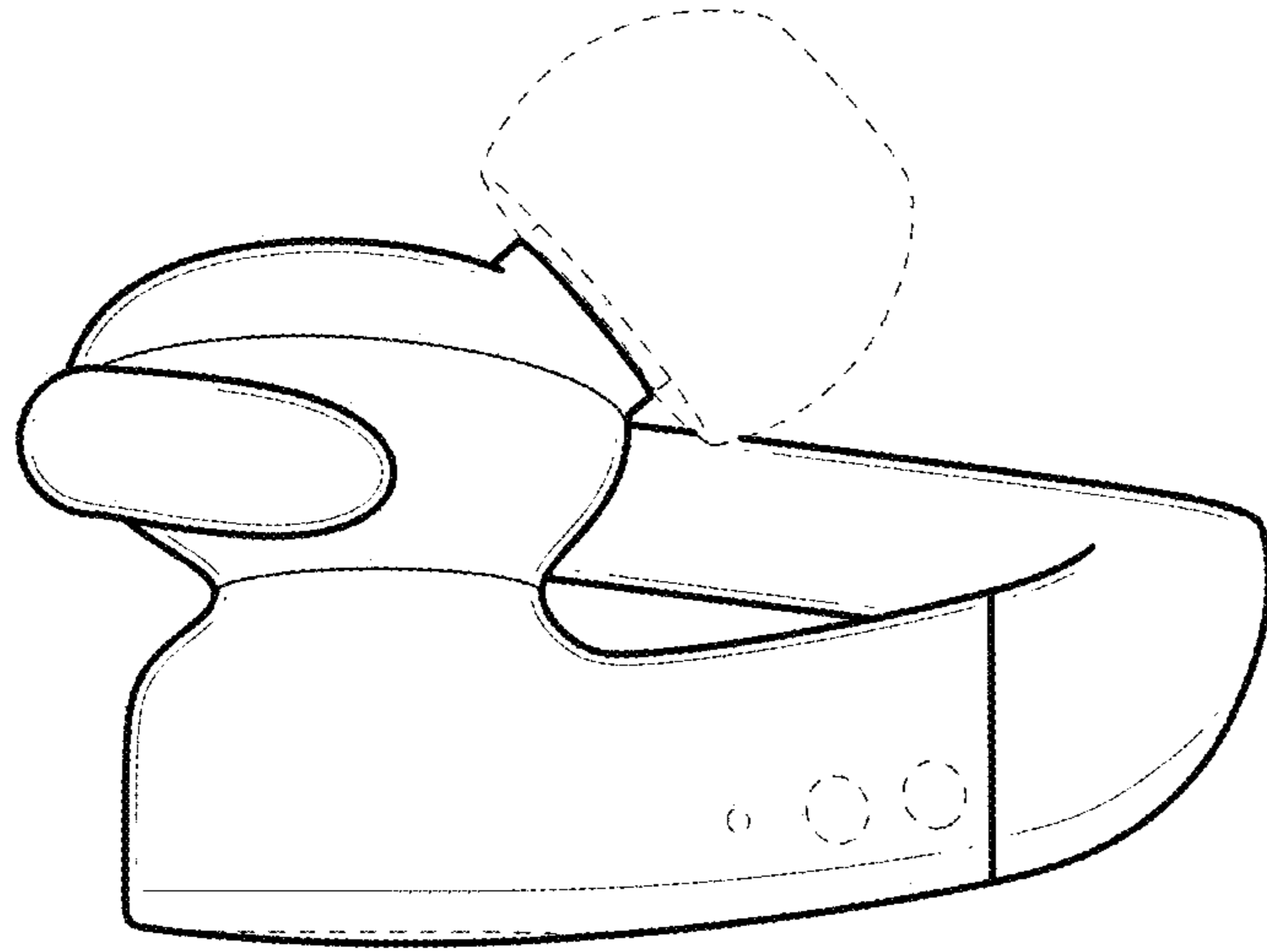


FIG. 8

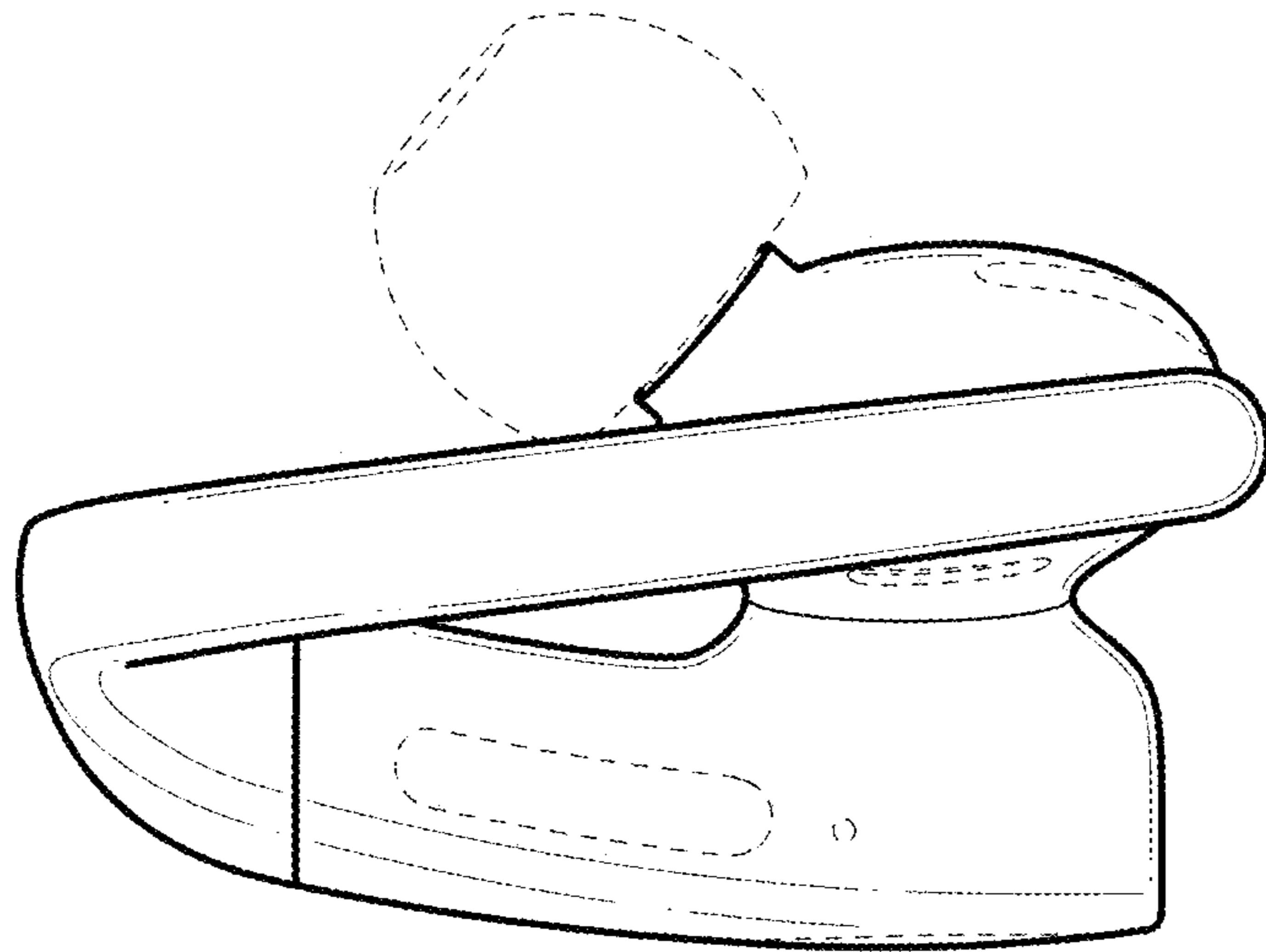


FIG. 7