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(12) **United States Design Patent** (10) **Patent No.:** **US D827,143 S**
Dayal et al. (45) **Date of Patent:** **** Aug. 28, 2018**

(54) **BLIND AID DEVICE**

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

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(52) **U.S. Cl.**
USPC **D24/187**

(58) **Field of Classification Search**
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D10/38-39, 46, 65, 70, 97, 98, 114.9;
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D14/480.3; D30/152-153; D24/167,
D24/168, 186, 187, 200; D6/601
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12/06; G06F 3/013; G06F 3/16; G06T
7/004; G06T 2207/10016; G06T
2207/30232; H04N 5/225; H04N
13/0239; G01C 21/00; G01C 21/206;
H04M 1/05; A61H 2201/1609; A61H
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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,070,553 A * 1/1978 Hass H04M 1/05
381/151
4,786,966 A 11/1988 Hanson
(Continued)

FOREIGN PATENT DOCUMENTS

JP 4727352 7/2011
KR 1250929 4/2013
WO WO 2015/108882 7/2015

OTHER PUBLICATIONS

Zhang, Shanjun; Yoshino, Kazuyoshi; A Braille Recognition System by the Mobile Phone with Embedded Camera; 2007; IEEE.
(Continued)

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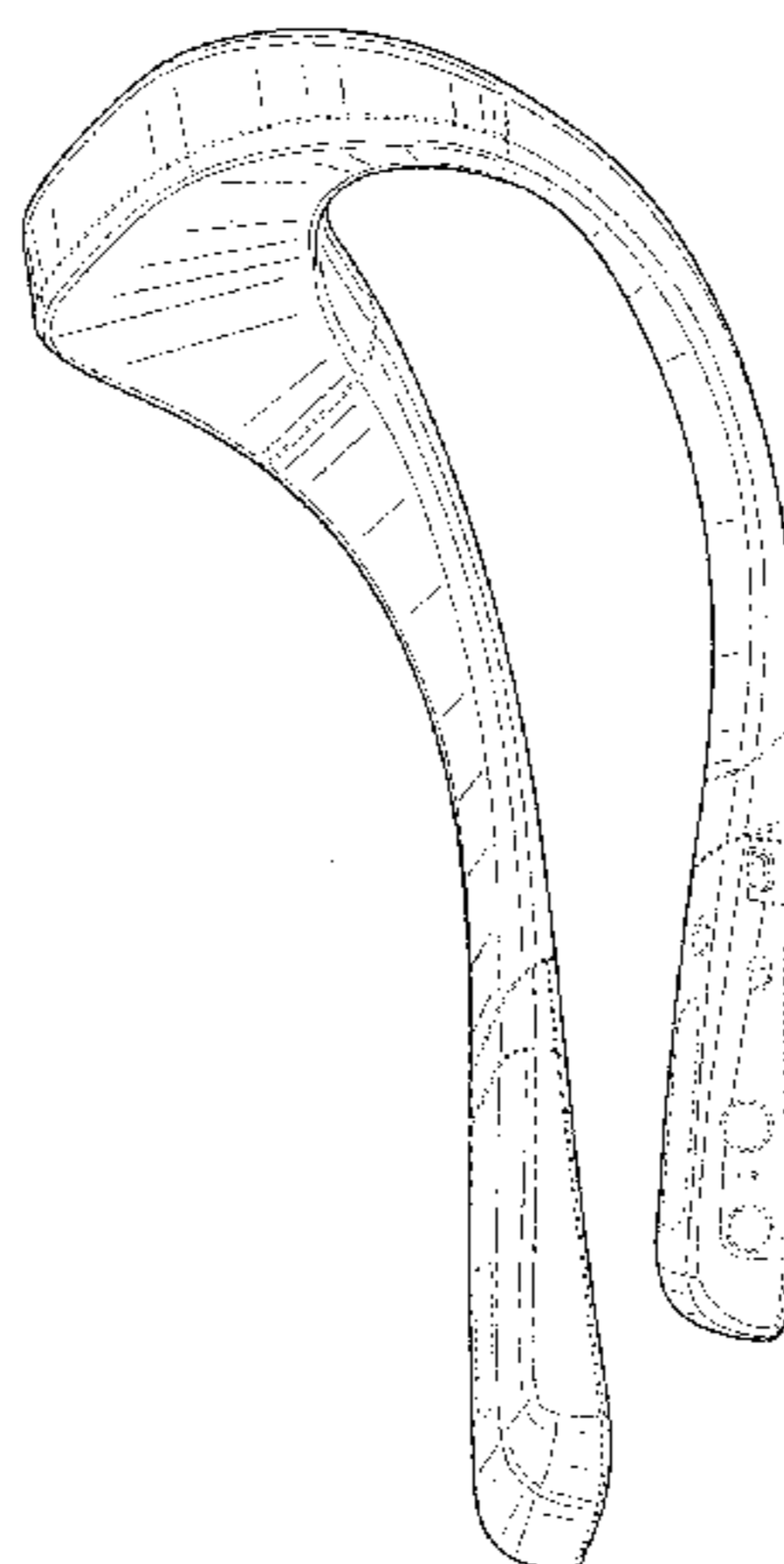
(57) **CLAIM**

We claim the ornamental design for a blind aid device, as shown and described.

DESCRIPTION

FIG. 1 is a rear perspective view of the blind aid device; FIG. 2 is a front view of the blind aid device of FIG. 1; FIG. 3 is a rear view of the blind aid device of FIG. 1; FIG. 4 is a left side view of the blind aid device of FIG. 1; FIG. 5 is a right side view of the blind aid device of FIG. 1; FIG. 6 is a top view of the blind aid device of FIG. 1; and, FIG. 7 is a bottom view of the blind aid device of FIG. 1.

(Continued)



The broken or dashed lines in the Figures depict portions of the blind aid device that form no part of the claimed design.

1 Claim, 5 Drawing Sheets

(56)

References Cited

U.S. PATENT DOCUMENTS

5,233,520	A	8/1993	Kretsch et al.	
6,477,239	B1	11/2002	Ohki	
7,525,568	B2	4/2009	Raghunath	
7,843,351	B2	11/2010	Bourne	
8,591,412	B2	11/2013	Kovarik et al.	
8,718,672	B2	5/2014	Xie et al.	
8,805,929	B2	8/2014	Erol et al.	
8,812,244	B2	8/2014	Angelides	
D721,673	S *	1/2015	Park	D14/205
8,994,498	B2	3/2015	Agrafioti	
9,042,596	B2	5/2015	Connor	
D743,933	S *	11/2015	Park	D14/205
9,185,489	B2	11/2015	Gerber et al.	
9,104,806	B2	12/2015	Stivoric et al.	
9,232,366	B1	1/2016	Charlier et al.	
D752,766	S *	3/2016	Guarraia	D24/200
9,275,376	B2	3/2016	Barraclough et al.	
D756,959	S *	5/2016	Lee	D14/205
D768,024	S *	10/2016	Dayal	D10/65
D797,701	S *	9/2017	Miller	D14/205
D800,089	S *	10/2017	Park	D14/205
2002/0173346	A1	11/2002	Wang	
2003/0133008	A1	7/2003	Stephenson	
2004/0056907	A1	3/2004	Sharma	
2005/0259035	A1	11/2005	Iwaki	
2005/0283752	A1	12/2005	Fruchter	
2007/0182812	A1	8/2007	Ritchey	
2007/0202865	A1	8/2007	Moride	
2007/0230786	A1	10/2007	Foss	
2008/0144854	A1	6/2008	Abreu	
2008/0208455	A1	8/2008	Hartman	
2009/0058611	A1	3/2009	Kawamura	
2009/0106016	A1	4/2009	Athsani	
2009/0210596	A1	8/2009	Furuya	
2010/0080418	A1	4/2010	Ito	
2011/0125735	A1	5/2011	Patrou	
2011/0234584	A1	9/2011	Endo	
2011/0246064	A1	10/2011	Nicholson	
2012/0082962	A1	4/2012	Schmidt	
2013/0066636	A1	3/2013	Singhal	

2013/0090133	A1	4/2013	D'Jesus Bencchi	
2013/0115578	A1	5/2013	Shiina	
2013/0115579	A1	5/2013	Taghavi	
2013/0144629	A1	6/2013	Johnston	
2013/0201344	A1	8/2013	Sweet, III	
2013/0204605	A1	8/2013	Illgner-Fehns	
2013/0243250	A1	9/2013	France	
2013/0265450	A1	10/2013	Barnes, Jr.	
2014/0055353	A1	2/2014	Takahama	
2014/0160250	A1	6/2014	Pomerantz	
2014/0184775	A1	7/2014	Drake	
2014/0204245	A1	7/2014	Wexler	
2014/0233859	A1	8/2014	Cho	
2014/0236932	A1	8/2014	Ikonomov	
2014/0249847	A1	9/2014	Soon-Shiong	
2014/0379251	A1	12/2014	Tolstedt	
2015/0058237	A1	2/2015	Bailey	
2015/0135310	A1	5/2015	Lee	
2015/0196101	A1	7/2015	Dayal et al.	
2015/0198454	A1	7/2015	Moore et al.	
2015/0198455	A1 *	7/2015	Chen	G01C 21/3629 701/428
2015/0199566	A1 *	7/2015	Moore	G06K 9/00442 348/47
2015/0201181	A1	7/2015	Moore et al.	
2015/0324646	A1	11/2015	Kimia	
2015/0338917	A1	11/2015	Steiner et al.	
2015/0356345	A1	12/2015	Veloze	
2016/0078289	A1	3/2016	Michel	
2016/0098138	A1 *	4/2016	Park	G06F 3/0416 345/173
2016/0350514	A1	12/2016	Rajendran	
2017/0270347	A1 *	9/2017	Lee	G06K 9/00201

OTHER PUBLICATIONS

Diallo, Amadou; Sep. 18, 2014; Apple iOS8: Top New Features, Forbes Magazine.

N. Kalar, T. Lawers, D. Dewey, T. Stepleton, M.B. Dias; Iterative Design of a Braille Writing Tutor to Combat Illiteracy; Aug. 30, 2007; IEEE.

Newegg; Motorola Behind the Neck Stereo Bluetooth Headphone Black/Red Bulk (S9)—OEM; <http://www.newegg.com/Product/Product.aspx?Item=N82E16875982212&Tpk=n82e16875982212>; 3 pages.

Newegg; Motorola S10-HD Bluetooth Stereo Headphone w/ Comfortable Sweat Proof Design; <http://www.newegg.com/Product/Product.aspx?Item=9SIA0N2G39901&Tpk=9sia0nw2g39901>; 4 pages.

* cited by examiner

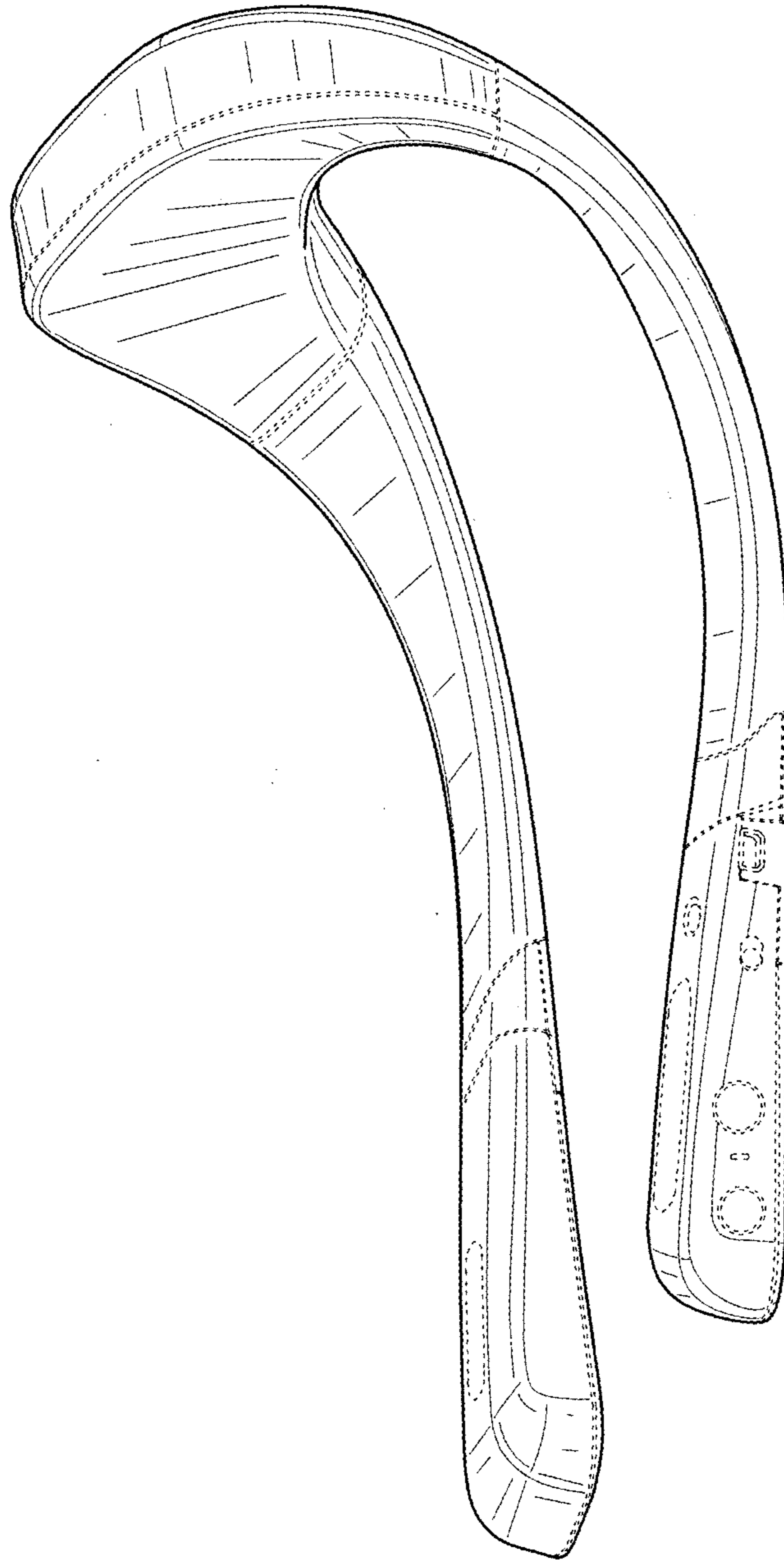


FIG. 1

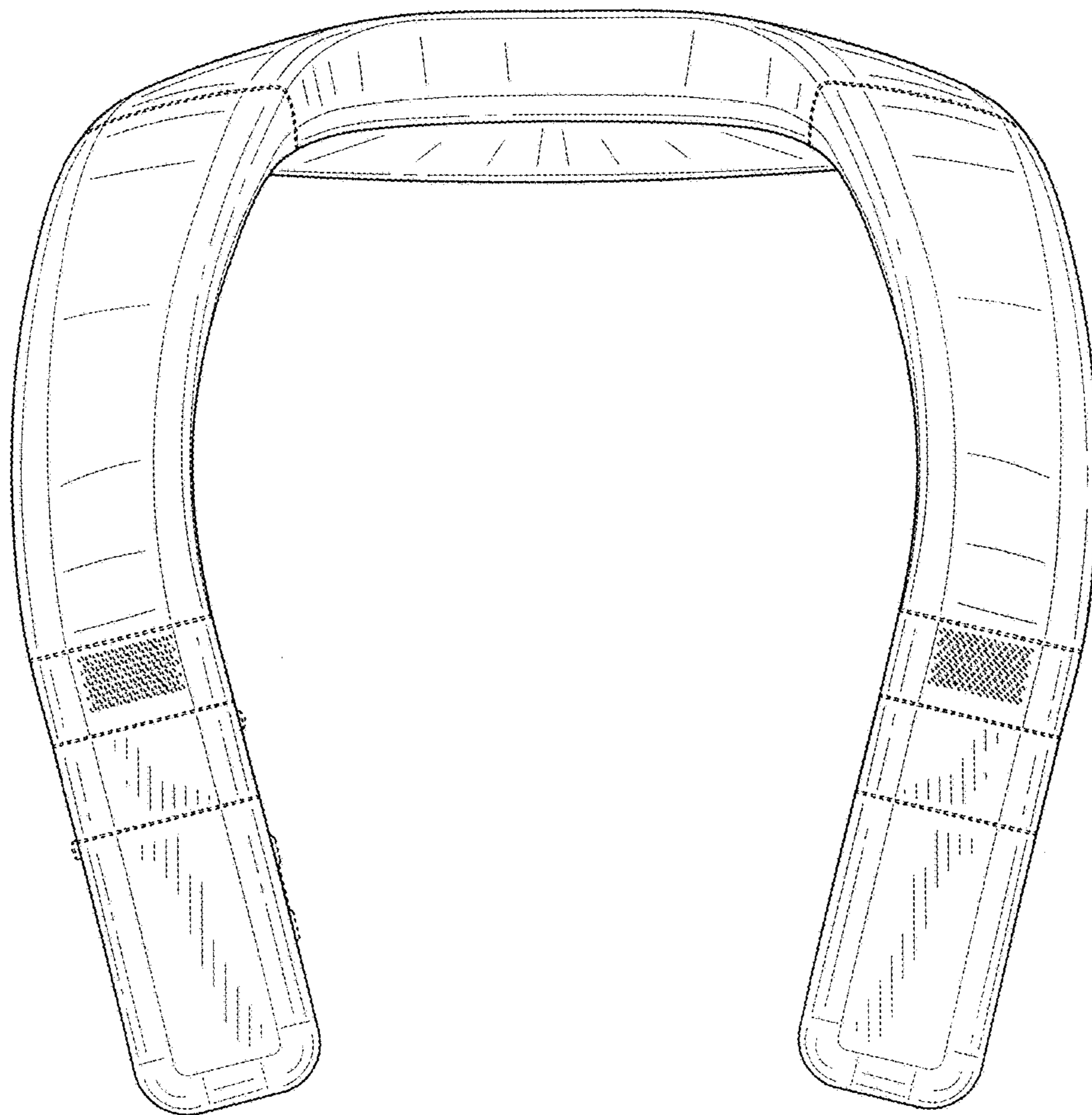


FIG. 2

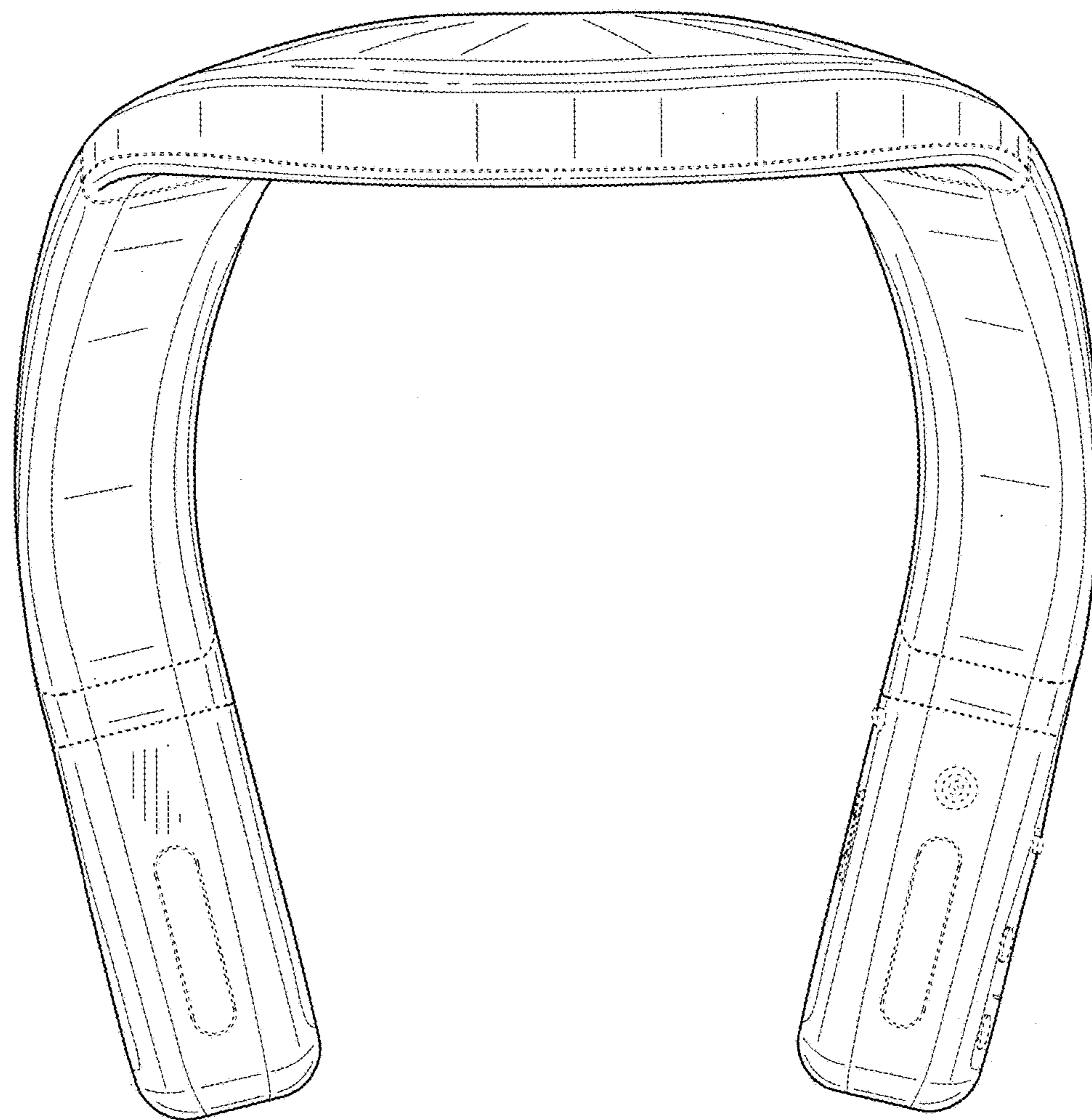


FIG. 3

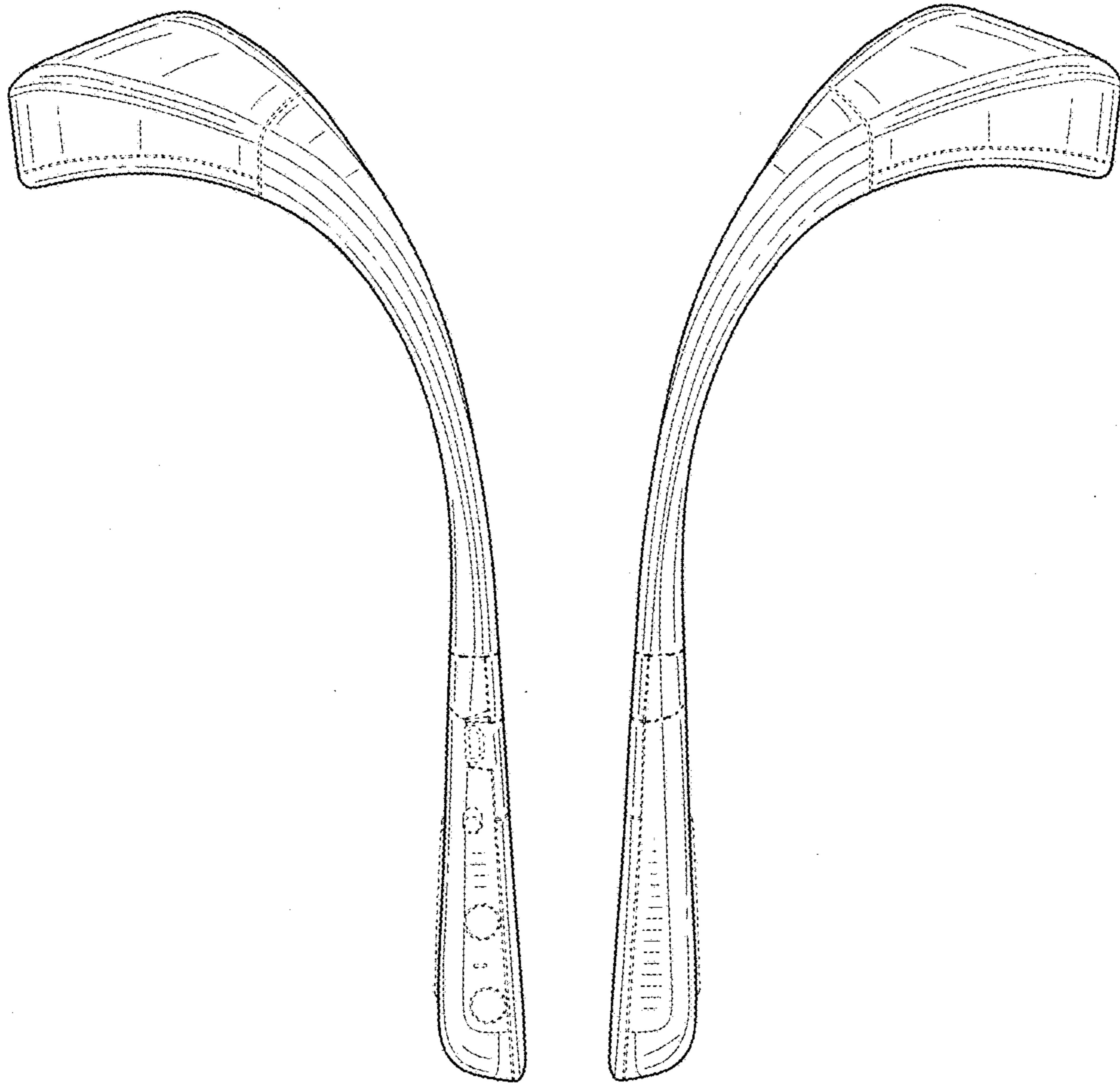


FIG. 4

FIG. 5

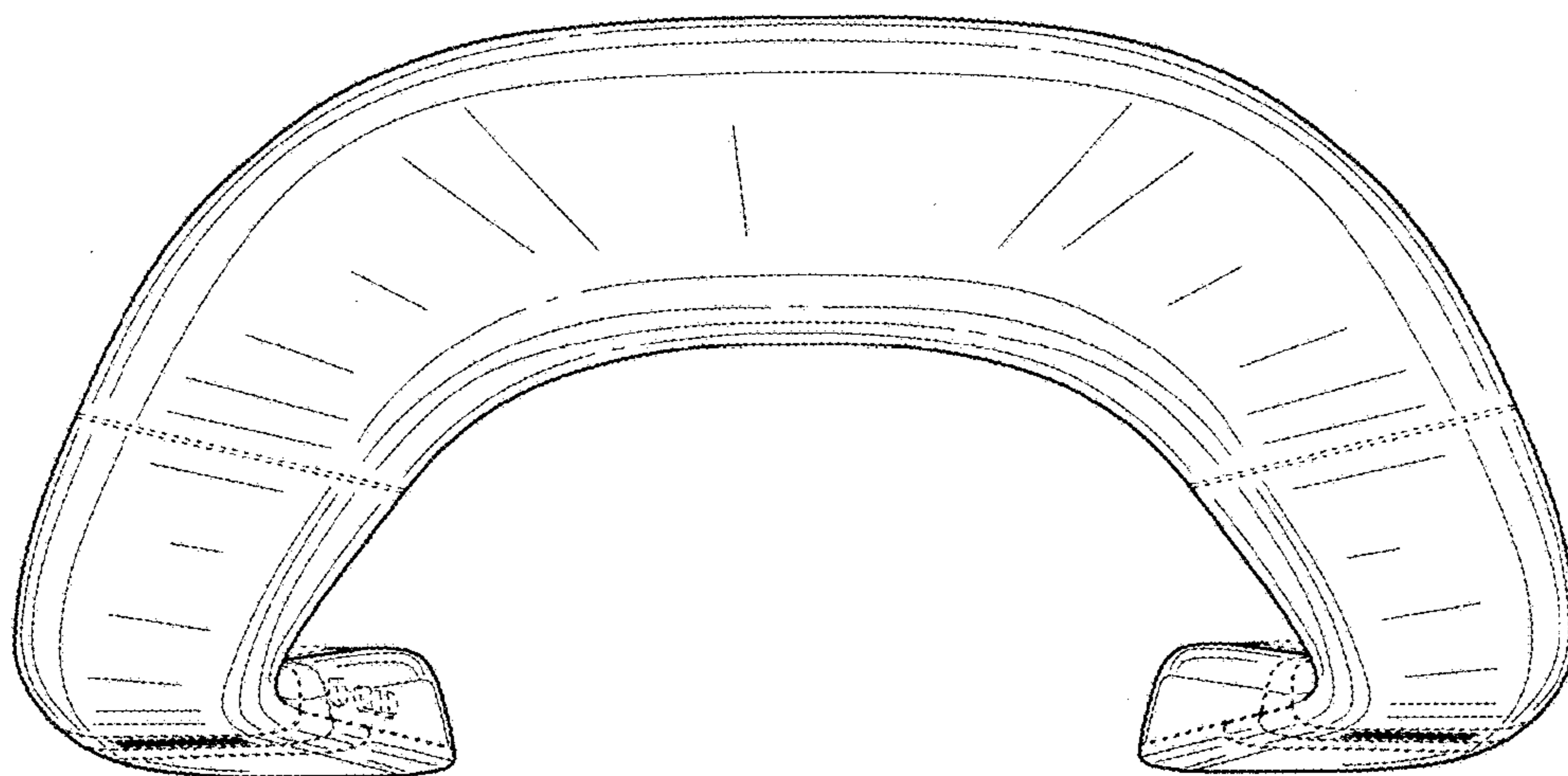


FIG. 6

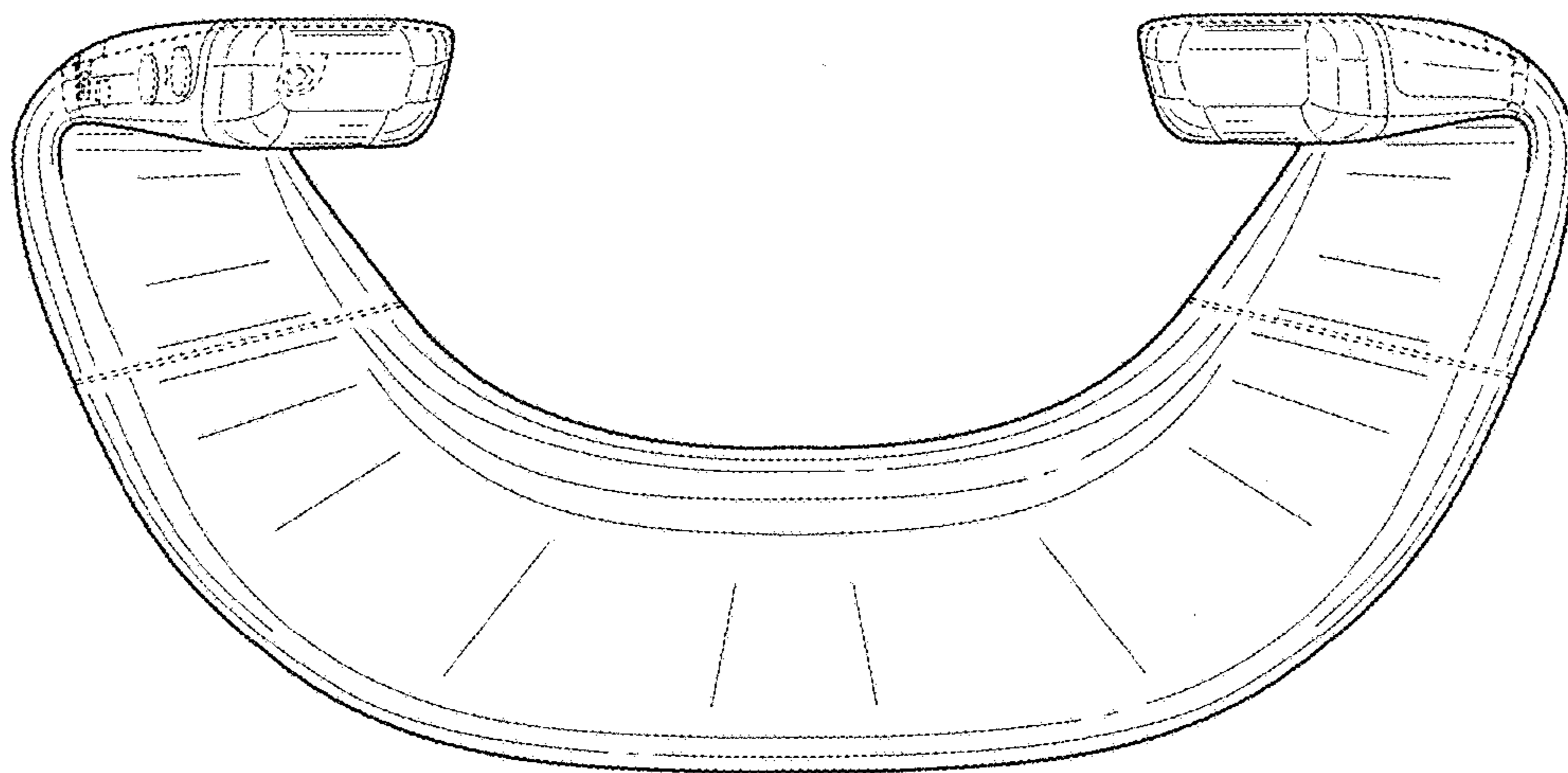


FIG. 7