US00D884153S

(12) United States Design Patent

Patel et al.

(10) Patent No.: US D884,153 S
(45) Date of Patent: ** May 12, 2020

(54) **FRAME FOR A MASK ASSEMBLY**

(71) Applicant: **Fisher & Paykel Healthcare Limited**, Auckland (NZ)

(72) Inventors: **Roheet Patel**, Auckland (NZ); **Michael John Henri Cox**, Queensland (AU); **Max Leon Betteridge**, Auckland (NZ); **Bruce Michael Walls**, Auckland (NZ); **Ronan Leahy**, Croom Co (IE); **Matthew James Pedersen**, Auckland (NZ); **Jae Yun Lim**, Auckland (NZ)

(73) Assignee: **Fisher & Paykel Healthcare Limited**, Auckland (NZ)

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

(21) Appl. No.: **29/643,155**

(22) Filed: **Apr. 4, 2018**

(51) **LOC (12) Cl.** **29-02**

(52) **U.S. Cl.**
USPC **D24/110.4**

(58) **Field of Classification Search**
USPC D24/110, 110.1, 110.4–110.6, 127
CPC A61M 16/06; A61M 16/0683; A61M 16/0622; A61M 16/0616; A61M 16/0666
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

443,191	A	12/1890	Illing
804,272	A	11/1905	Schwarz
1,229,050	A	6/1917	Donald
1,445,010	A	2/1923	Feinberg
2,228,218	A	1/1941	Schwartz
2,353,643	A	7/1944	Bulbulian
2,403,046	A	7/1946	Bulbulian
2,415,846	A	2/1947	Eugene
2,706,983	A	4/1955	Matheson et al.
2,931,356	A	4/1960	Hermann
2,939,458	A	6/1960	Lundquist
3,680,555	A	8/1972	Warncke
4,263,908	A	4/1981	Mizerak
4,384,577	A	5/1983	Huber et al.
4,470,413	A	9/1984	Warncke
4,907,584	A	3/1990	McGinnis
5,005,571	A	4/1991	Dietz
5,243,971	A	9/1993	Sullivan et al.
5,513,634	A	5/1996	Jackson
5,540,223	A	7/1996	Starr et al.
5,560,354	A	10/1996	Berthon-Jones et al.
5,570,689	A	11/1996	Starr et al.

(Continued)

FOREIGN PATENT DOCUMENTS

AU	2004201337	A1	10/2005
DE	3719009		12/1988

(Continued)

Primary Examiner — Lilyana Bekic
(74) *Attorney, Agent, or Firm* — Knobbe, Martens, Olson & Bear, LLP

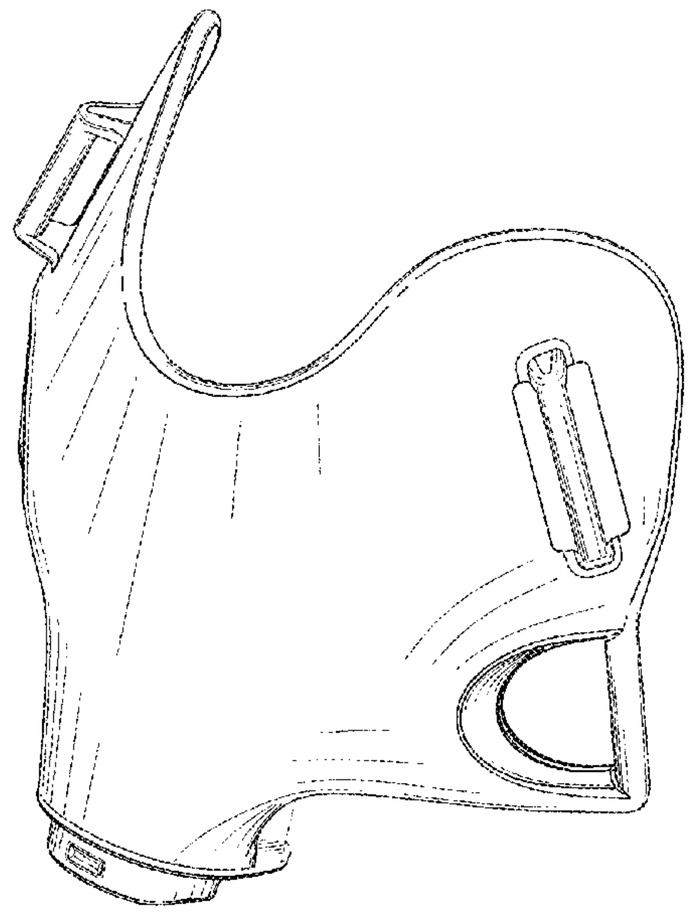
(57) **CLAIM**

The ornamental design for a frame for a mask assembly, as shown and described.

DESCRIPTION

FIG. **1** is a front perspective view of a frame for a mask assembly.
FIG. **2** is a front view thereof.
FIG. **3** is a rear view thereof.
FIG. **4** is a left side view thereof.
FIG. **5** is a right side view thereof.
FIG. **6** is a top view thereof; and,
FIG. **7** is a bottom view thereof.
The broken lines in the drawings depict portions of the frame for a mask assembly that form no part of the claimed design.

1 Claim, 7 Drawing Sheets



(56) **References Cited**

U.S. PATENT DOCUMENTS

5,697,363	A	12/1997	Hart	
5,896,857	A	4/1999	Hely et al.	
6,016,804	A	1/2000	Gleason et al.	
6,119,694	A	9/2000	Correa et al.	
6,123,071	A	9/2000	Berthon-Jones et al.	
6,467,483	B1	10/2002	Kopacko et al.	
6,470,886	B1	10/2002	Jestrabek-Hart	
6,491,034	B1	12/2002	Gunaratnam et al.	
6,584,975	B1	7/2003	Elridge	
6,584,977	B1	7/2003	Serowski	
6,631,718	B1 *	10/2003	Lovell	A61M 16/06 128/206.24
6,644,316	B2	11/2003	Bowman et al.	
6,651,663	B2	11/2003	Barnett et al.	
6,729,333	B2	5/2004	Barnett et al.	
6,823,865	B2	11/2004	Drew et al.	
6,851,425	B2	2/2005	Jaffre et al.	
6,851,428	B2	2/2005	Dennis	
7,000,614	B2	2/2006	Lang et al.	
7,152,602	B2	12/2006	Bateman et al.	
7,260,440	B2	8/2007	Selim et al.	
7,318,437	B2	1/2008	Gunaratnam et al.	
7,353,826	B2	4/2008	Sleeper et al.	
7,353,827	B2 *	4/2008	Geist	A61M 16/06 128/206.21
7,448,386	B2	11/2008	Ho et al.	
7,523,754	B2	4/2009	Lithgow et al.	
7,556,043	B2	7/2009	Ho et al.	
7,597,100	B2	10/2009	Ging et al.	
7,658,189	B2	2/2010	Davidson et al.	
7,708,017	B2	5/2010	Davidson et al.	
7,721,737	B2	5/2010	Radney	
7,810,497	B2	10/2010	Pittman et al.	
7,827,990	B1	11/2010	Melidis et al.	
7,856,982	B2	12/2010	Matula, Jr. et al.	
7,942,148	B2	5/2011	Davidson et al.	
7,942,150	B2	5/2011	Guney et al.	
7,958,893	B2	6/2011	Lithgow et al.	
7,971,590	B2	7/2011	Frater et al.	
7,975,694	B2	7/2011	Ho	
8,042,539	B2	10/2011	Chandran et al.	
8,122,886	B2	2/2012	Kwok et al.	
8,127,764	B2	3/2012	Ho et al.	
8,136,524	B2	3/2012	Ging et al.	
8,136,525	B2	3/2012	Lubke et al.	
8,146,596	B2	4/2012	Smith et al.	
8,146,597	B2	4/2012	Kwok et al.	
8,205,615	B1	6/2012	Ho	
8,251,066	B1	8/2012	Ho et al.	
8,254,637	B2	8/2012	Abourizk et al.	
8,261,745	B2	9/2012	Chandran et al.	
8,267,089	B2	9/2012	Ho et al.	
8,291,906	B2	10/2012	Kooji et al.	
8,342,181	B2	1/2013	Selvarajan et al.	
8,353,294	B2	1/2013	Frater et al.	
8,397,728	B2	3/2013	D'Souza et al.	
8,439,035	B2	5/2013	Dantanarayana et al.	
D692,554	S *	10/2013	Siew	D24/110.1
8,573,212	B2	11/2013	Lynch et al.	
8,616,211	B2	12/2013	Davidson et al.	
8,622,057	B2	1/2014	Ujhazy et al.	
8,646,449	B2	2/2014	Bowsher	
8,684,004	B2	4/2014	Eifler	
8,701,667	B1	4/2014	Ho et al.	
8,720,443	B2	5/2014	Kooij et al.	
8,807,134	B2	8/2014	Ho et al.	
8,857,435	B2	10/2014	Matula, Jr. et al.	
8,875,709	B2	11/2014	Davidson et al.	
8,910,626	B2	12/2014	Matula, Jr. et al.	
8,931,484	B2	1/2015	Melidis et al.	
8,944,061	B2	2/2015	D'Souza et al.	
8,967,146	B2	3/2015	Veliss et al.	
8,978,653	B2	3/2015	Frater et al.	
8,997,742	B2	4/2015	Moore et al.	
9,010,330	B2	4/2015	Barlow et al.	
9,010,331	B2	4/2015	Lang et al.	
9,044,564	B2	6/2015	Dravitzki et al.	
9,056,177	B2	6/2015	Ho	
9,067,033	B2	6/2015	Davidson et al.	
9,095,673	B2	8/2015	Barlow et al.	
9,144,654	B2	9/2015	Kwok	
9,149,594	B2	10/2015	Kooij et al.	
9,155,857	B2	10/2015	Lalonde	
9,174,018	B2	11/2015	Ho et al.	
9,220,860	B2	12/2015	Davidson et al.	
9,295,805	B2	3/2016	Worboys et al.	
9,381,316	B2	7/2016	Ng et al.	
9,399,105	B2	7/2016	Frater	
9,427,544	B2	8/2016	Frater et al.	
D767,117	S *	9/2016	Angert	D24/110.4
D770,036	S *	10/2016	Walls	D24/110.4
D771,240	S *	11/2016	Angert	D24/110.4
9,717,870	B2	8/2017	Kwok et al.	
9,737,678	B2	8/2017	Formica et al.	
D797,921	S *	9/2017	Huang	D24/110.4
D798,439	S *	9/2017	Siew	D24/110.4
9,757,534	B2	9/2017	Lang et al.	
9,764,107	B2	9/2017	Grashow et al.	
9,962,511	B2	5/2018	Ng et al.	
9,981,102	B2	5/2018	Veliss et al.	
9,993,606	B2	6/2018	Gibson et al.	
1,018,881	A1	1/2019	Chodkowski	
1,026,549	A1	4/2019	Barlow et al.	
1,036,931	A1	8/2019	Barlow et al.	
2002/0096178	A1	7/2002	Ziaee	
2003/0127101	A1	7/2003	Carnell	
2003/0196655	A1	10/2003	Ging et al.	
2005/0098183	A1	5/2005	Nash et al.	
2005/0199239	A1	9/2005	Lang et al.	
2006/0124131	A1	6/2006	Chandran et al.	
2006/0174887	A1	8/2006	Chandran et al.	
2006/0266365	A1	11/2006	Stallard	
2006/0283461	A1	12/2006	Lubke et al.	
2007/0006879	A1	1/2007	Thonton	
2007/0144525	A1	6/2007	Davidson et al.	
2008/0041373	A1	2/2008	Doshi et al.	
2009/0038619	A1	2/2009	Ho et al.	
2009/0044810	A1	2/2009	Kwok et al.	
2009/0114229	A1	5/2009	Frater et al.	
2009/0120442	A1	5/2009	Ho	
2009/0277452	A1	11/2009	Lubke et al.	
2010/0132717	A1	6/2010	Davidson et al.	
2010/0192955	A1	8/2010	Biener et al.	
2010/0218768	A1	9/2010	Radney	
2010/0229872	A1	9/2010	Ho	
2010/0313891	A1	12/2010	Veliss et al.	
2011/0000492	A1	1/2011	Veliss et al.	
2011/0067704	A1	3/2011	Kooij et al.	
2011/0146685	A1	6/2011	Allan et al.	
2011/0162654	A1	7/2011	Carroll et al.	
2011/0265796	A1	11/2011	Amarasinghe et al.	
2011/0315143	A1	12/2011	Frater	
2012/0067349	A1	3/2012	Barlow et al.	
2012/0080035	A1	4/2012	Guney et al.	
2012/0138063	A1	6/2012	Eves et al.	
2012/0234326	A1	9/2012	Mazzone et al.	
2013/0037033	A1	2/2013	Hitchcock et al.	
2013/0068230	A1	3/2013	Jablonski	
2013/0186404	A1 *	7/2013	Chien	A61M 16/0666 128/206.21
2013/0199537	A1	8/2013	Formica et al.	
2013/0213400	A1	8/2013	Barlow et al.	
2013/0220327	A1	8/2013	Barlow et al.	
2013/0319422	A1	12/2013	Ho et al.	
2013/0327336	A1	12/2013	Burnham et al.	
2014/0158136	A1	6/2014	Romagnoli et al.	
2014/0174444	A1	6/2014	Darkin et al.	
2014/0216462	A1	8/2014	Law et al.	
2014/0224253	A1	8/2014	Law et al.	
2014/0261432	A1	9/2014	Eves et al.	
2014/0261435	A1	9/2014	Rothermel	
2014/0283822	A1	9/2014	Price et al.	
2014/0283831	A1	9/2014	Foote et al.	
2014/0326243	A1	11/2014	Znamenskiy et al.	

(56) **References Cited**

U.S. PATENT DOCUMENTS

2014/0326246	A1	11/2014	Chodkowski et al.	
2014/0352134	A1	12/2014	Ho	
2015/0007822	A1	1/2015	Berthon-Jones et al.	
2015/0040911	A1	2/2015	Davidson et al.	
2015/0047640	A1	2/2015	McCaslin	
2015/0059759	A1	3/2015	Frater et al.	
2015/0105590	A1	4/2015	Xiao	
2015/0144139	A1	5/2015	Lockhart	
2015/0174435	A1	6/2015	Jones	
2015/0182719	A1	7/2015	Grashow et al.	
2015/0193650	A1	7/2015	Ho et al.	
2015/0246199	A1	9/2015	Matula, Jr. et al.	
2015/0283349	A1*	10/2015	McLaren	A61M 16/06 128/206.21
2015/0352306	A1	12/2015	Scheiner et al.	
2015/0352308	A1	12/2015	Cullen et al.	
2016/0001029	A1	1/2016	Bayer et al.	
2016/0022944	A1*	1/2016	Chodkowski	A61M 16/0622 128/206.24
2016/0082214	A1	3/2016	Barlow et al.	
2016/0082216	A1	3/2016	Lynch et al.	
2016/0082217	A1*	3/2016	McLaren	A61M 16/0683 128/207.11
2016/0151596	A1*	6/2016	Slight	A61M 16/0622 128/207.18
2016/0175552	A1	6/2016	Harrington	
2016/0271351	A1	9/2016	Frater et al.	
2016/0287830	A1*	10/2016	Walls	A61M 16/0683
2016/0296720	A1	10/2016	Henry et al.	
2016/0367778	A1	12/2016	Eves et al.	
2017/0000964	A1	1/2017	Shafer	
2017/0021123	A1	1/2017	Chang	
2017/0028153	A1	2/2017	Judson et al.	
2017/0080174	A1	3/2017	Eves et al.	
2017/0136200	A1	5/2017	Matula, Jr.	
2017/0165444	A1	6/2017	Rummery et al.	
2017/0182273	A1	6/2017	Ho	
2017/0246411	A1*	8/2017	Mashal	A61M 16/0683
2017/0312467	A1	11/2017	Davidson et al.	
2017/0326321	A1	11/2017	Grashow et al.	
2017/0361048	A1	12/2017	Moiler et al.	
2017/0368286	A1	12/2017	Grashow et al.	
2018/0001044	A1	1/2018	Stephens et al.	
2018/0071475	A1	3/2018	Howard et al.	
2018/0099113	A1	4/2018	Bell et al.	
2018/0104430	A1	4/2018	Ng et al.	
2018/0140791	A1	5/2018	Jones et al.	
2018/0169367	A1	6/2018	Chodkowski et al.	
2018/0177965	A1*	6/2018	Patel	A61M 16/0622
2018/0236198	A1	8/2018	Veliss et al.	
2018/0304036	A1*	10/2018	Huang	A61M 16/0666
2019/0224436	A1	7/2019	Cheng et al.	
2019/0232013	A1	8/2019	Yu et al.	

FOREIGN PATENT DOCUMENTS

DE	4004157	4/1991
DE	4307754	4/1994
EP	1099452	5/2001
EP	1258266	11/2002
EP	1938856	7/2008
EP	2474335	7/2012
EP	2510968	10/2012
EP	2708258	3/2014
EP	3254721	12/2017
EP	3305354	4/2018
NZ	536545	12/2006
NZ	547748	7/2010
WO	WO 1998/034665	8/1998
WO	WO 00/38772	7/2000
WO	WO 2000/074758	12/2000
WO	WO 2001/062326	8/2001
WO	WO 2003/076020	9/2003
WO	WO 2003/090827	11/2003
WO	WO 2004/071565	8/2004
WO	WO 2004/073778	9/2004
WO	WO 2005/018523	3/2005
WO	WO 2005/076874	8/2005
WO	WO 2005/086943	9/2005
WO	WO 2005/118040	12/2005
WO	WO 2008/023028	2/2008
WO	WO 2010/067235	6/2010
WO	WO 2010/073138	7/2010
WO	WO 2012/025843	3/2012
WO	WO 2012/055886	5/2012
WO	WO 2012/104757	8/2012
WO	WO 2013/056389	4/2013
WO	WO 2013/186654	12/2013
WO	WO 2014/020468	2/2014
WO	WO 2014/181214	11/2014
WO	WO 2014/183167	11/2014
WO	WO 2015/092621	6/2015
WO	WO 2015/161345	10/2015
WO	WO 2016/041008	3/2016
WO	WO 2016/041019	3/2016
WO	WO 2017/049361	3/2017
WO	WO 2017/103724	6/2017
WO	WO 2017/120643	7/2017
WO	WO 2017/124152	7/2017
WO	WO 2017/185140	11/2017
WO	WO 2018/177794	10/2018

* cited by examiner

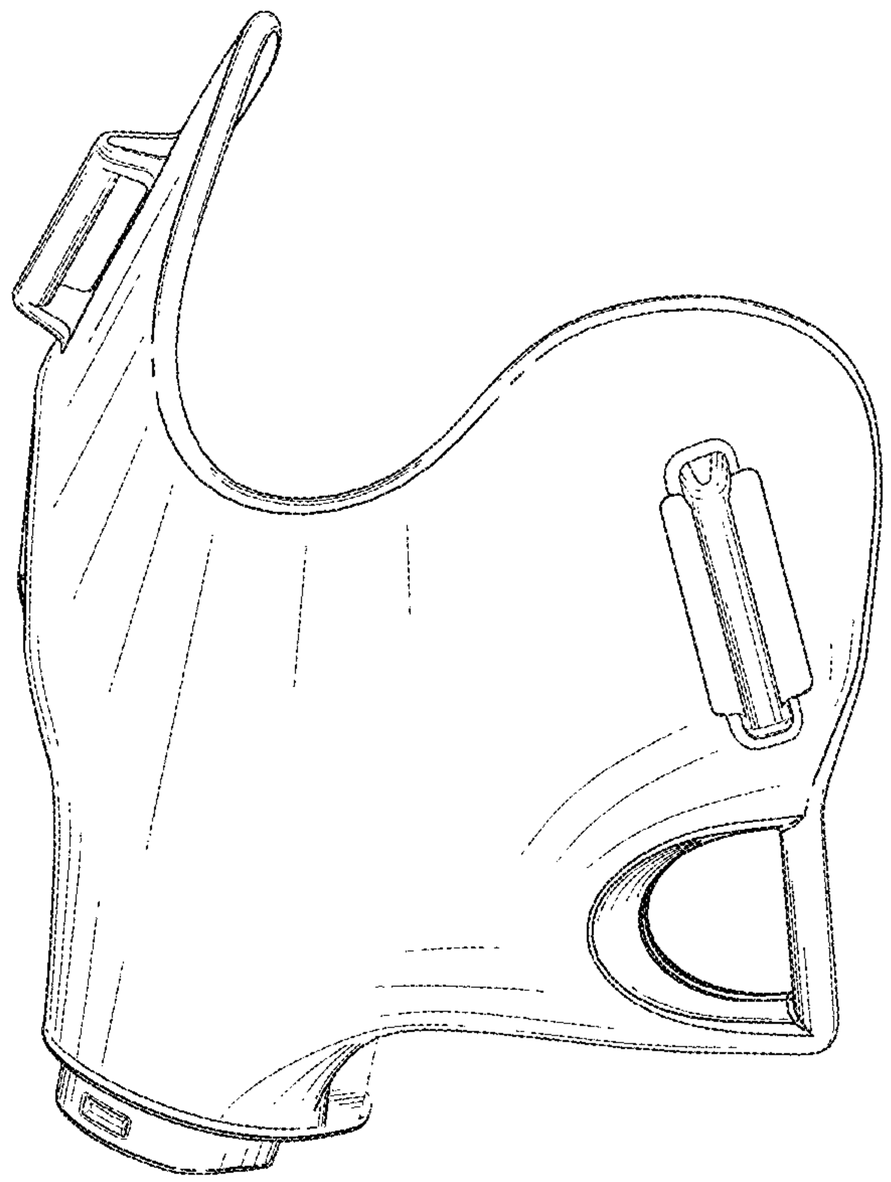


FIG. 1

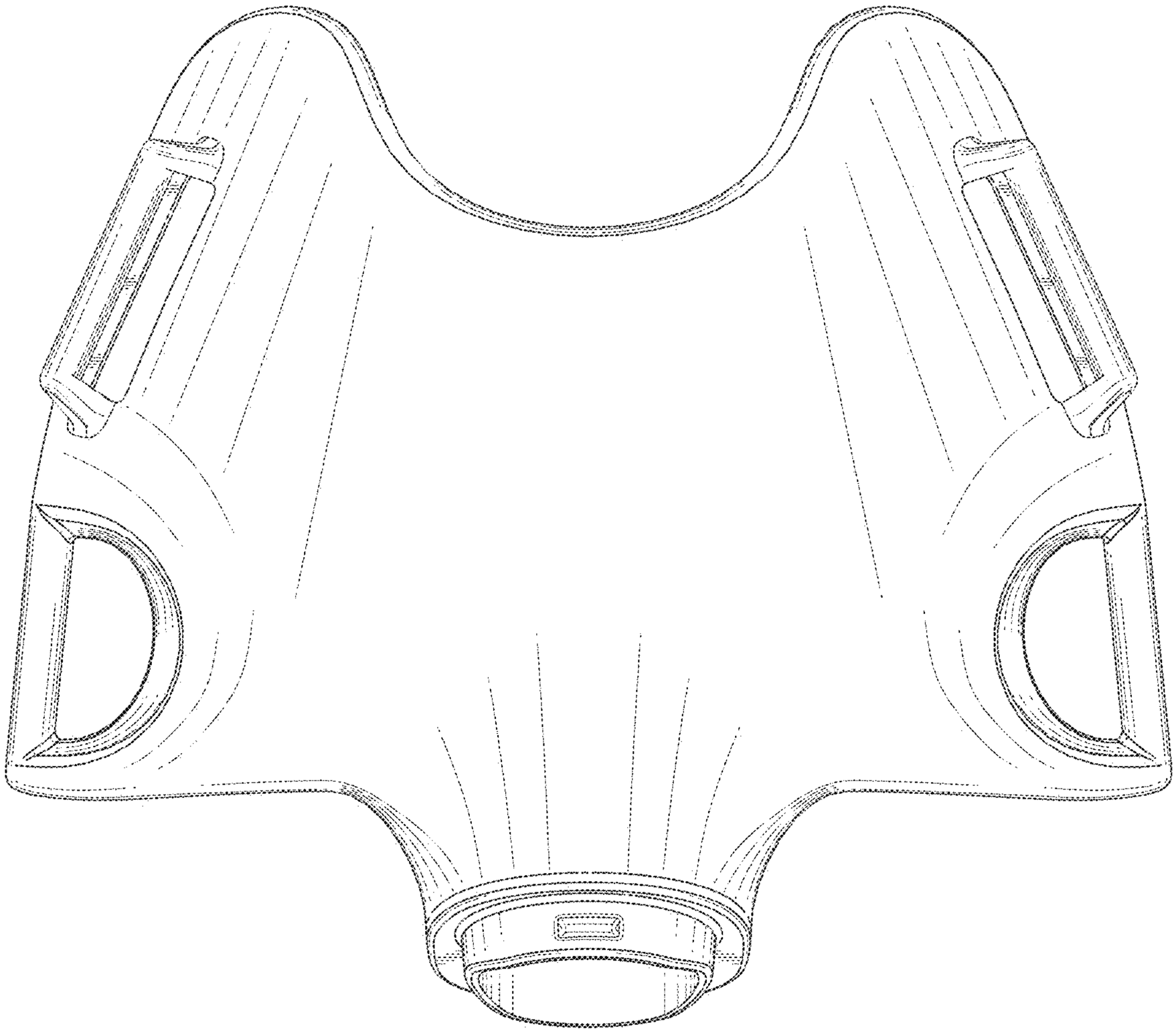


FIG. 2

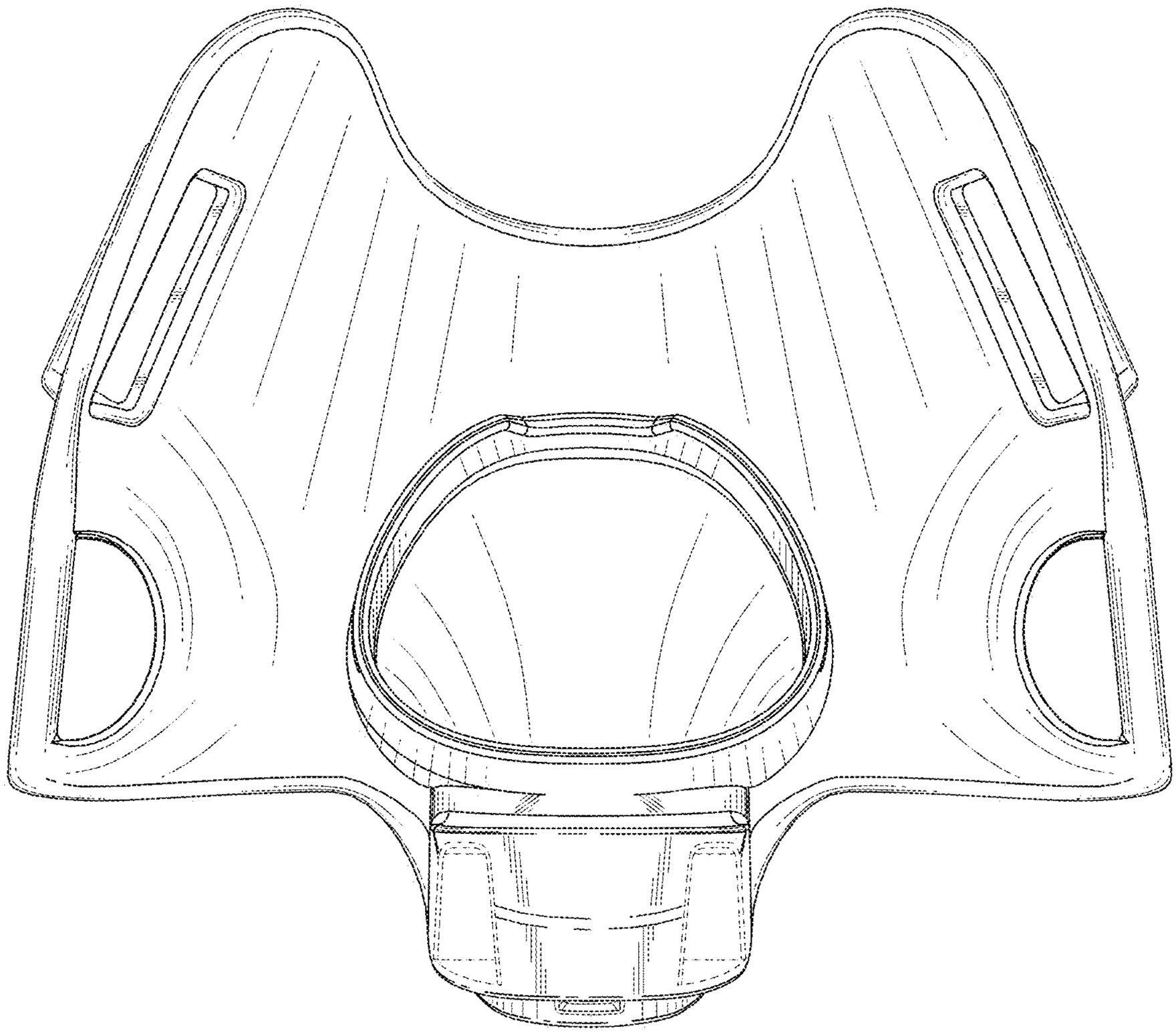


FIG. 3

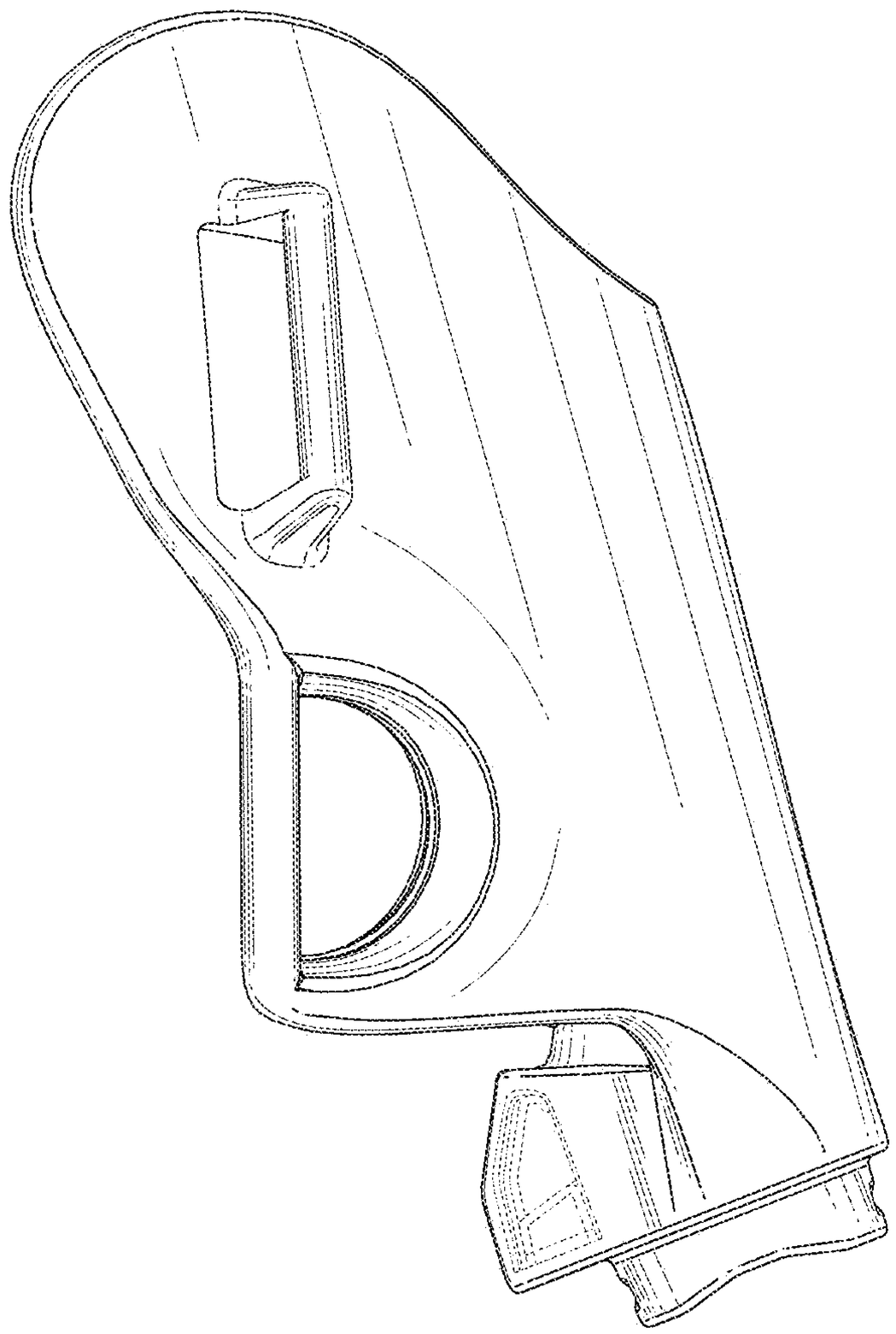


FIG. 4

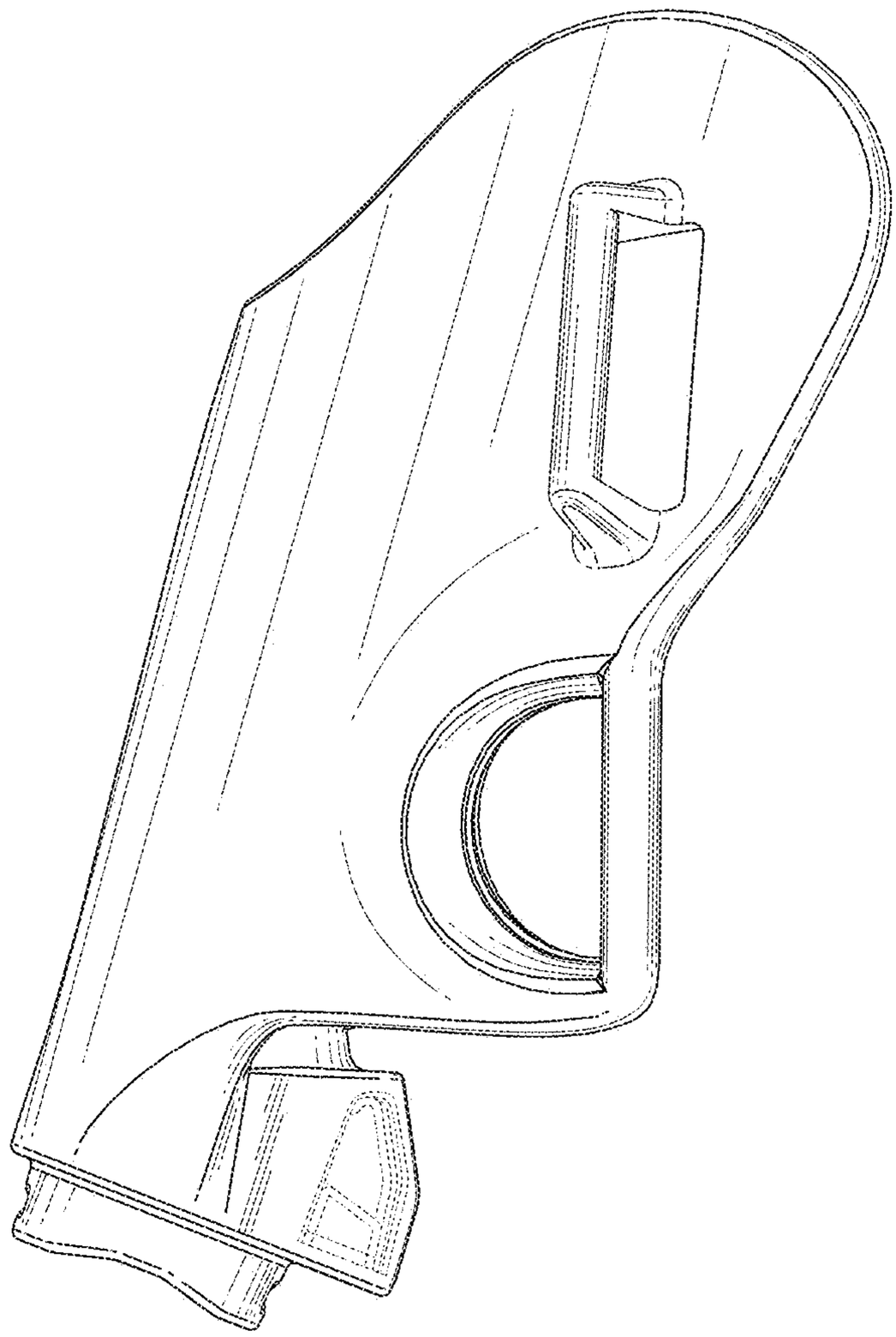


FIG. 5

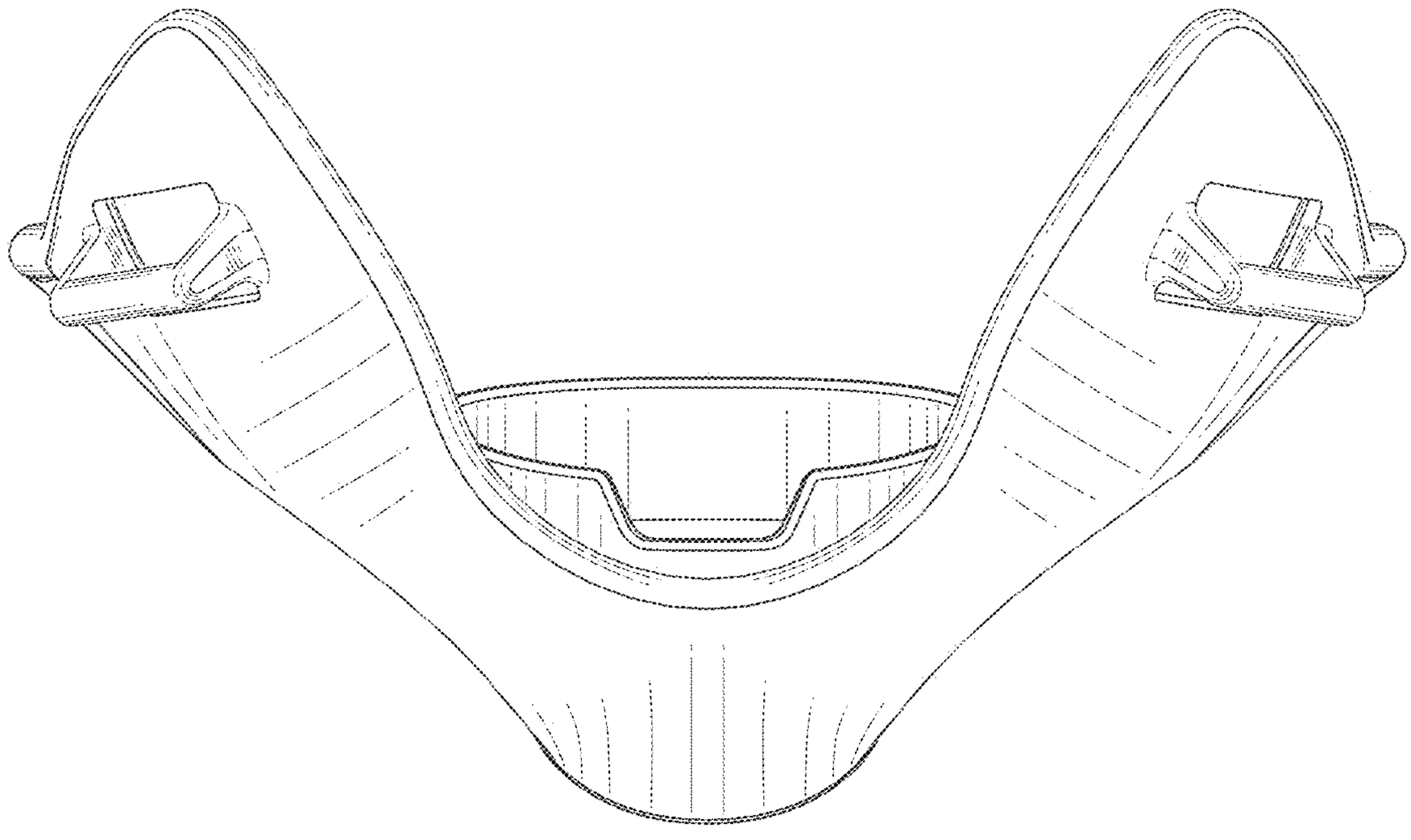


FIG. 6

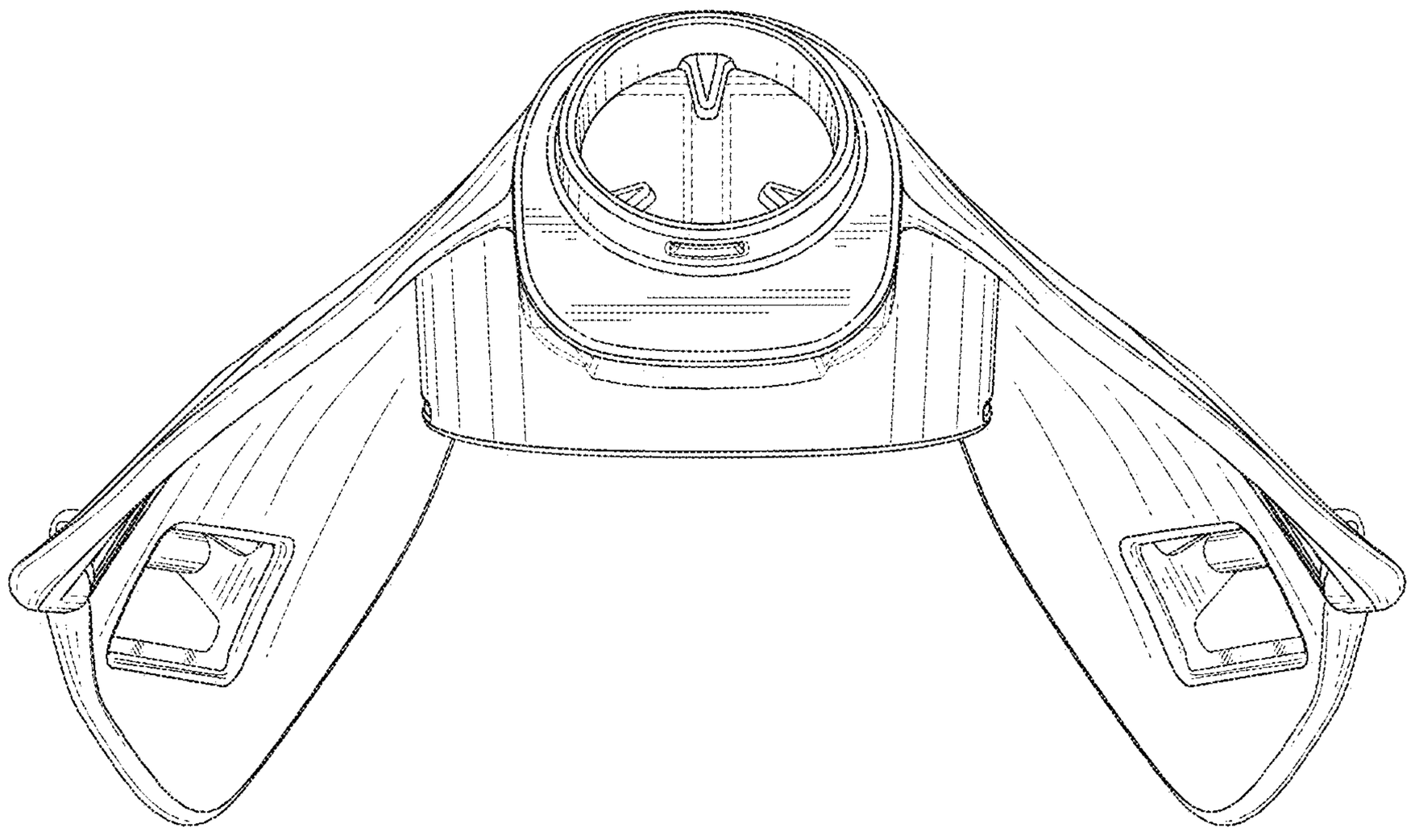


FIG. 7

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : D884,153 S
APPLICATION NO. : 29/643155
DATED : May 12, 2020
INVENTOR(S) : Patel et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the Title Page

On Page 2, Column 2, Item (56), Line 27, under U.S. Patent Documents, delete "1,018,881" and insert --10,188,819--.

On Page 2, Column 2, Item (56), Line 28, under U.S. Patent Documents, delete "1,026,549" and insert --10,265,490--.

On Page 2, Column 2, Item (56), Line 29, under U.S. Patent Documents, delete "1,036,931" and insert --10,369,318--.

Signed and Sealed this
Fourth Day of August, 2020

Andrei Iancu
Director of the United States Patent and Trademark Office