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(54) **DENTAL IMAGING ATTACHMENT FOR A SMARTPHONE**

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

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(52) **U.S. Cl.**
USPC **D24/176**

(58) **Field of Classification Search**
USPC D24/107, 152, 158, 176, 137; D14/217, D14/253
CPC ... A61B 1/05; A61B 1/00194; A61B 1/00172; A61B 5/1079; A61B 5/0088; A61B 5/4547; A61C 1/088; G06T 2207/30036
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,971,954	A *	7/1976	Kleinberg	A61B 6/14 250/475.2
D368,523	S *	4/1996	Mendoza	D24/176
D371,199	S *	6/1996	Mendoza	D24/176
D372,088	S *	7/1996	Frush	D24/181
5,975,893	A	11/1999	Chishti et al.	
6,227,850	B1	5/2001	Chishti et al.	
6,227,851	B1	5/2001	Chishti et al.	
6,299,440	B1	10/2001	Phan et al.	
6,318,994	B1	11/2001	Chishti et al.	
6,371,761	B1	4/2002	Cheang et al.	
6,386,878	B1	5/2002	Pavlovskaia et al.	
6,406,292	B1	6/2002	Chishti et al.	
6,409,504	B1	6/2002	Jones et al.	
6,457,972	B1	10/2002	Chishti et al.	
6,488,499	B1	12/2002	Miller	
6,514,074	B1	2/2003	Chishti et al.	
6,554,611	B2	4/2003	Chishti et al.	
6,582,229	B1	6/2003	Miller et al.	
6,602,070	B2	8/2003	Miller et al.	
6,621,491	B1	9/2003	Baumrind et al.	

(Continued)

FOREIGN PATENT DOCUMENTS

EP	3297517	B1	2/2021
KR	101583547	B1	1/2016
KR	101584737	B1	1/2016

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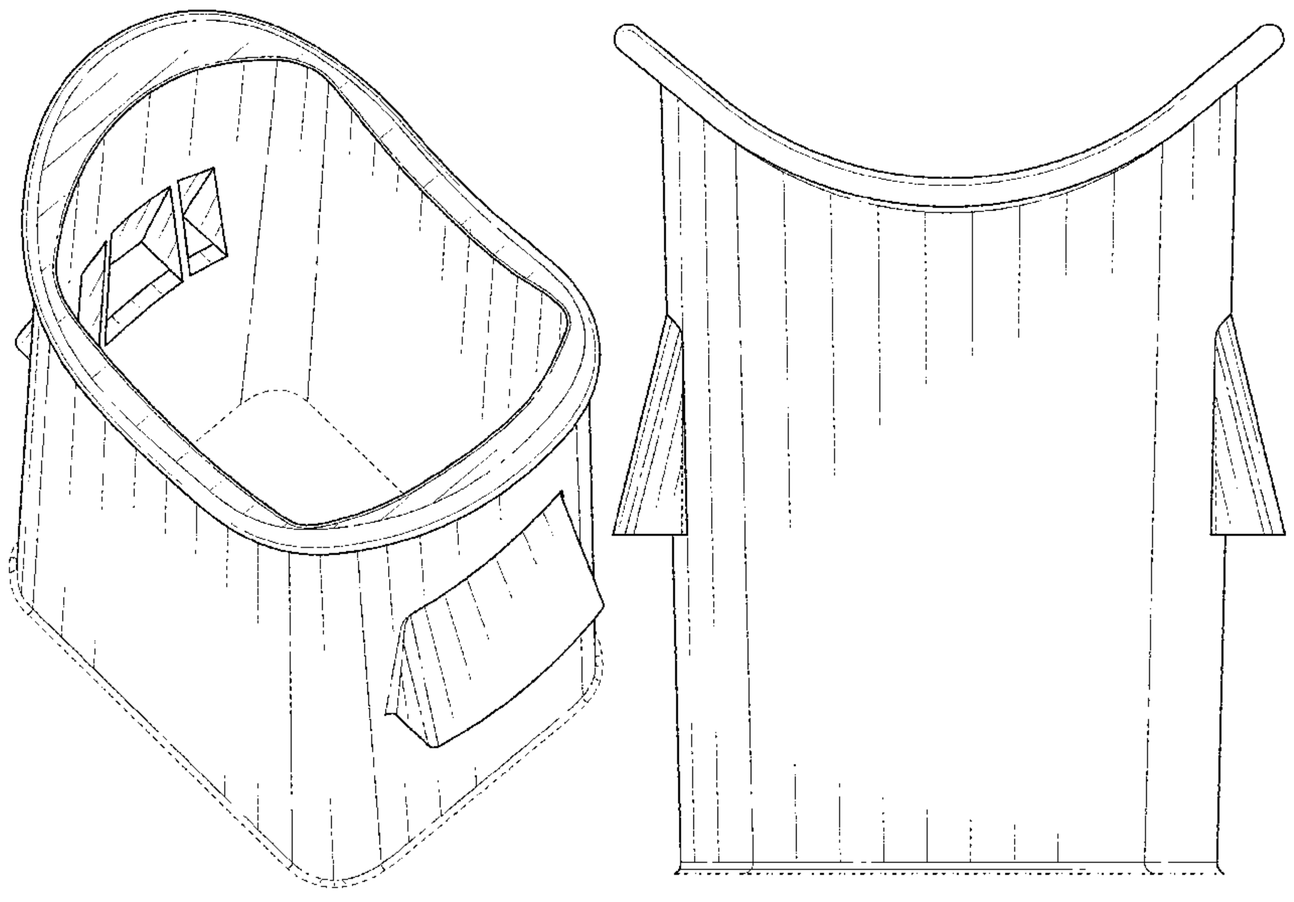
(57) **CLAIM**

The ornamental design for a dental imaging attachment for a smartphone, as shown and described.

DESCRIPTION

FIG. **1** is a top perspective view of a dental imaging attachment for a smartphone;
FIG. **2** is a back elevation view thereof;
FIG. **3** a front elevation view thereof;
FIG. **4** a right side elevation view thereof;
FIG. **5** is a left side elevation view thereof;
FIG. **6** is a bottom plan view thereof;
FIG. **7** is a top plan view thereof; and,
FIG. **8** is a bottom perspective view thereof.
The broken lines shown in the drawings are for the purpose of illustrating environmental structure and form no part of the claimed design.

1 Claim, 8 Drawing Sheets



(56) **References Cited**

U.S. PATENT DOCUMENTS

6,688,886	B2	2/2004	Hughes et al.	
6,726,478	B1	4/2004	Isiderio et al.	
6,729,876	B2	5/2004	Chishti et al.	
6,739,869	B1	5/2004	Taub et al.	
6,767,208	B2	7/2004	Kaza	
6,783,360	B2	8/2004	Chishti	
D513,322	S *	12/2005	Jackson, III	D24/176
7,001,270	B2	2/2006	Taub	
7,040,896	B2	5/2006	Pavlovskaia et al.	
7,063,532	B1	6/2006	Jones et al.	
7,074,038	B1	7/2006	Miller	
7,074,039	B2	7/2006	Kopelman et al.	
7,077,647	B2	7/2006	Choi et al.	
7,108,508	B2	9/2006	Hedge et al.	
7,134,874	B2	11/2006	Chishti et al.	
7,156,661	B2	1/2007	Choi et al.	
7,160,107	B2	1/2007	Kopelman et al.	
7,241,142	B2	7/2007	Abolfathi et al.	
D553,980	S *	10/2007	VerWeyst	D9/432
7,293,988	B2	11/2007	Wen	
7,309,230	B2	12/2007	Wen	
7,357,634	B2	4/2008	Knopp	
7,383,198	B1	6/2008	Sepe	
7,555,403	B2	6/2009	Kopelman et al.	
7,580,846	B2	8/2009	Chishti et al.	
7,637,740	B2	12/2009	Knopp	
D608,888	S *	1/2010	Braynin	D24/107
7,689,398	B2	3/2010	Cheng et al.	
7,736,147	B2	6/2010	Kaza et al.	
7,746,339	B2	6/2010	Matov et al.	
7,844,356	B2	11/2010	Matov et al.	
7,844,429	B2	11/2010	Matov et al.	
7,865,259	B2	1/2011	Kuo et al.	
7,870,280	B2	1/2011	Kuo	
7,878,804	B2	2/2011	Korytov et al.	
7,880,751	B2	2/2011	Kuo et al.	
7,904,307	B2	3/2011	Abolfathi et al.	
7,904,308	B2	3/2011	Arnone et al.	
7,930,189	B2	4/2011	Kuo	
7,942,672	B2	5/2011	Kuo	
7,970,627	B2	6/2011	Kuo et al.	
7,970,628	B2	6/2011	Kuo et al.	
7,987,099	B2	7/2011	Kuo et al.	
8,024,198	B2	9/2011	Kuo	
8,038,444	B2	10/2011	Kitching et al.	
8,044,954	B2	10/2011	Kitching et al.	
8,075,306	B2	12/2011	Kitching et al.	
8,092,215	B2	1/2012	Stone-Collonge et al.	
8,099,268	B2	1/2012	Kitching et al.	
8,108,189	B2	1/2012	Chelnokov et al.	
8,126,726	B2	2/2012	Matov et al.	
8,260,591	B2	9/2012	Kass et al.	
8,275,180	B2	9/2012	Kuo	
8,401,826	B2	3/2013	Cheng et al.	
8,439,672	B2	5/2013	Matov et al.	
8,562,338	B2	10/2013	Kitching et al.	
D693,919	S *	11/2013	Miu	D24/107
8,591,225	B2	11/2013	Wu et al.	
8,738,394	B2	5/2014	Kuo	
8,788,285	B2	7/2014	Kuo	
8,843,381	B2	9/2014	Kuo et al.	
8,874,452	B2	10/2014	Kuo	
8,896,592	B2	11/2014	Boltunov et al.	
8,930,219	B2	1/2015	Trosien et al.	
9,037,439	B2	5/2015	Kuo et al.	
9,060,829	B2	6/2015	Sterental et al.	
9,125,709	B2	9/2015	Matty	
9,211,166	B2	12/2015	Kuo et al.	
9,220,580	B2	12/2015	Borovinskih et al.	
9,364,296	B2	6/2016	Kuo	
9,375,300	B2	6/2016	Matov et al.	
9,414,897	B2	8/2016	Wu et al.	
D770,623	S *	11/2016	Robichaud	D24/156
9,492,245	B2	11/2016	Sherwood et al.	
D774,193	S *	12/2016	Makmel	A61C 9/0053 D24/152
9,642,678	B2	5/2017	Kuo	
10,248,883	B2	4/2019	Borovinskih et al.	
D847,787	S *	5/2019	Weirun	D14/217
D854,694	S *	7/2019	Wardius, Jr.	D24/176
10,342,638	B2	7/2019	Kitching et al.	
10,463,452	B2	11/2019	Matov et al.	
10,467,815	B2	11/2019	Marom et al.	
10,504,386	B2	12/2019	Levin et al.	
10,595,966	B2	3/2020	Carrier, Jr. et al.	
10,617,489	B2	4/2020	Grove et al.	
10,695,150	B2	6/2020	Kopelman et al.	
10,722,328	B2	7/2020	Velazquez et al.	
D892,333	S *	8/2020	Warlick	D24/158
10,758,322	B2	9/2020	Pokotilov et al.	
10,779,718	B2	9/2020	Meyer et al.	
10,792,127	B2	10/2020	Kopelman et al.	
10,828,130	B2	11/2020	Pokotilov et al.	
10,835,349	B2	11/2020	Cramer et al.	
D906,523	S *	12/2020	Pellissard	D24/158
10,885,521	B2	1/2021	Miller et al.	
10,888,399	B2	1/2021	Kopelman et al.	
10,973,611	B2	4/2021	Pokotilov et al.	
10,980,612	B2	4/2021	Jang	
10,980,613	B2	4/2021	Shanjani et al.	
10,996,813	B2	5/2021	Makarenkova et al.	
10,997,727	B2	5/2021	Xue et al.	
11,020,205	B2	6/2021	Li et al.	
11,020,206	B2	6/2021	Shi et al.	
11,026,766	B2	6/2021	Chekh et al.	
11,033,359	B2	6/2021	Velazquez et al.	
11,071,608	B2	7/2021	Derakhshan et al.	
11,096,763	B2	8/2021	Akopov et al.	
11,116,605	B2	9/2021	Nyukhtikov et al.	
11,147,652	B2	10/2021	Mason et al.	
11,151,753	B2	10/2021	Gao et al.	
D958,370	S *	7/2022	Mirelez, Jr.	D24/176
D962,437	S *	8/2022	Oren-Artzi	D24/152
D971,407	S *	11/2022	Liu	D24/152
D982,752	S *	4/2023	Pellissard	D24/152
D988,514	S *	6/2023	Oren-Artzi	D24/152
D989,312	S *	6/2023	Frenkler	D24/176
D1,027,186	S *	5/2024	Farkash	A61B 1/24 D24/152
2002/0188478	A1	12/2002	Breeland et al.	
2003/0008259	A1	1/2003	Kuo et al.	
2003/0143509	A1	7/2003	Kopelman et al.	
2003/0148243	A1 *	8/2003	Kerschbaumer	A61B 1/00052 433/29
2003/0207227	A1	11/2003	Abolfathi	
2004/0137400	A1	7/2004	Chishti et al.	
2004/0152036	A1	8/2004	Abolfathi	
2004/0186390	A1	9/2004	Ross et al.	
2004/0197728	A1	10/2004	Abolfathi et al.	
2004/0259049	A1	12/2004	Kopelman et al.	
2005/0159986	A1	7/2005	Breeland et al.	
2005/0182654	A1	8/2005	Abolfathi et al.	
2005/0244791	A1	11/2005	Davis et al.	
2006/0127836	A1	6/2006	Wen	
2006/0127852	A1	6/2006	Wen	
2006/0127854	A1	6/2006	Wen	
2006/0275731	A1	12/2006	Wen et al.	
2006/0275736	A1	12/2006	Wen et al.	
2008/0288289	A1	11/2008	Sah	
2008/0306724	A1	12/2008	Kitching et al.	
2010/0009308	A1	1/2010	Wen et al.	
2010/0068672	A1	3/2010	Arjomand et al.	
2010/0068676	A1	3/2010	Mason et al.	
2010/0092907	A1	4/2010	Knopp	
2010/0167243	A1	7/2010	Spiridonov et al.	
2013/0204599	A1	8/2013	Matov et al.	
2016/0242870	A1	8/2016	Matov et al.	
2016/0310235	A1	10/2016	Derakhshan et al.	
2017/0273760	A1	9/2017	Morton et al.	
2018/0280118	A1	10/2018	Cramer	
2018/0303579	A1	10/2018	Salah et al.	
2019/0029784	A1	1/2019	Moalem et al.	
2019/0053876	A1	2/2019	Sterental et al.	

(56) **References Cited**

U.S. PATENT DOCUMENTS

2019/0167115	A1	6/2019	Dorodvand et al.	
2019/0192259	A1	6/2019	Kopelman et al.	
2019/0299055	A1	10/2019	Poulsen et al.	
2019/0328487	A1	10/2019	Levin et al.	
2019/0328488	A1	10/2019	Levin et al.	
2019/0333622	A1	10/2019	Levin et al.	
2019/0343601	A1	11/2019	Roschin et al.	
2020/0000552	A1	1/2020	Mednikov et al.	
2020/0000554	A1	1/2020	Makarenkova et al.	
2020/0000555	A1	1/2020	Yuryev et al.	
2020/0085546	A1	3/2020	Li et al.	
2020/0107915	A1	4/2020	Roschin et al.	
2020/0155274	A1	5/2020	Pimenov et al.	
2020/0160947	A1	5/2020	Rasovsky et al.	
2020/0214800	A1	7/2020	Matov et al.	
2020/0297458	A1	9/2020	Roschin et al.	
2020/0306011	A1	10/2020	Chekhonin et al.	
2020/0306012	A1	10/2020	Roschin et al.	
2020/0315744	A1	10/2020	Cramer	
2020/0360109	A1	11/2020	Gao et al.	
2021/0073998	A1	3/2021	Brown et al.	
2021/0134436	A1	5/2021	Meyer et al.	
2021/0174477	A1	6/2021	Shi et al.	
2021/0282634	A1*	9/2021	Oren-Artzi	A61C 19/00
2022/0338723	A1*	10/2022	Farkash	A61B 1/053
2022/0338727	A1	10/2022	Chambers et al.	
2023/0149129	A1	5/2023	Oren-Artzi et al.	
2023/0293001	A1	9/2023	Zhao et al.	
2024/0122689	A1	4/2024	Pellissard et al.	
2024/0126153	A1	4/2024	Pellissard et al.	
2024/0164629	A1	5/2024	Pellissard et al.	
2024/0164631	A1*	5/2024	Eilat-Bloch	A61B 1/0014

* cited by examiner

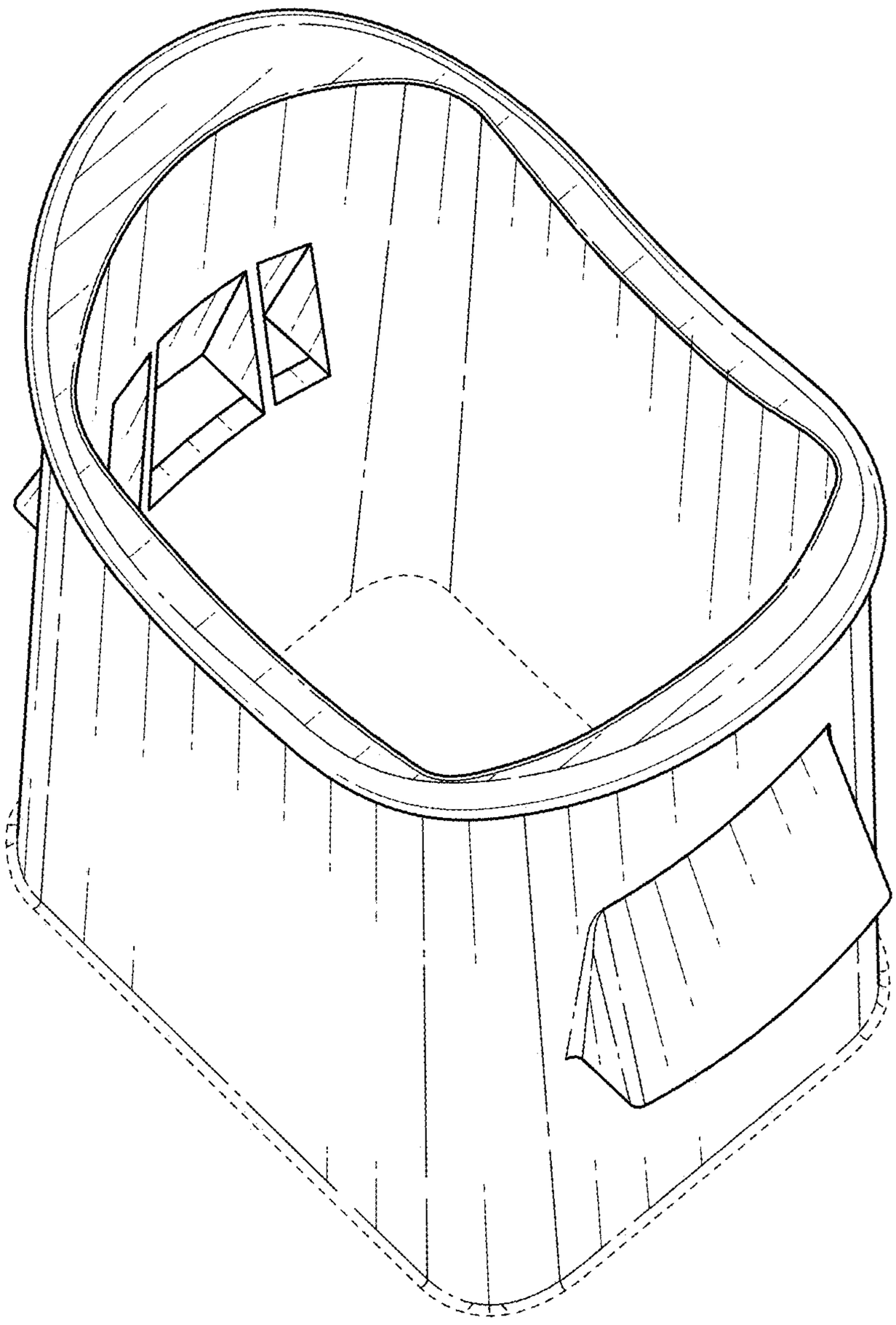


FIG. 1

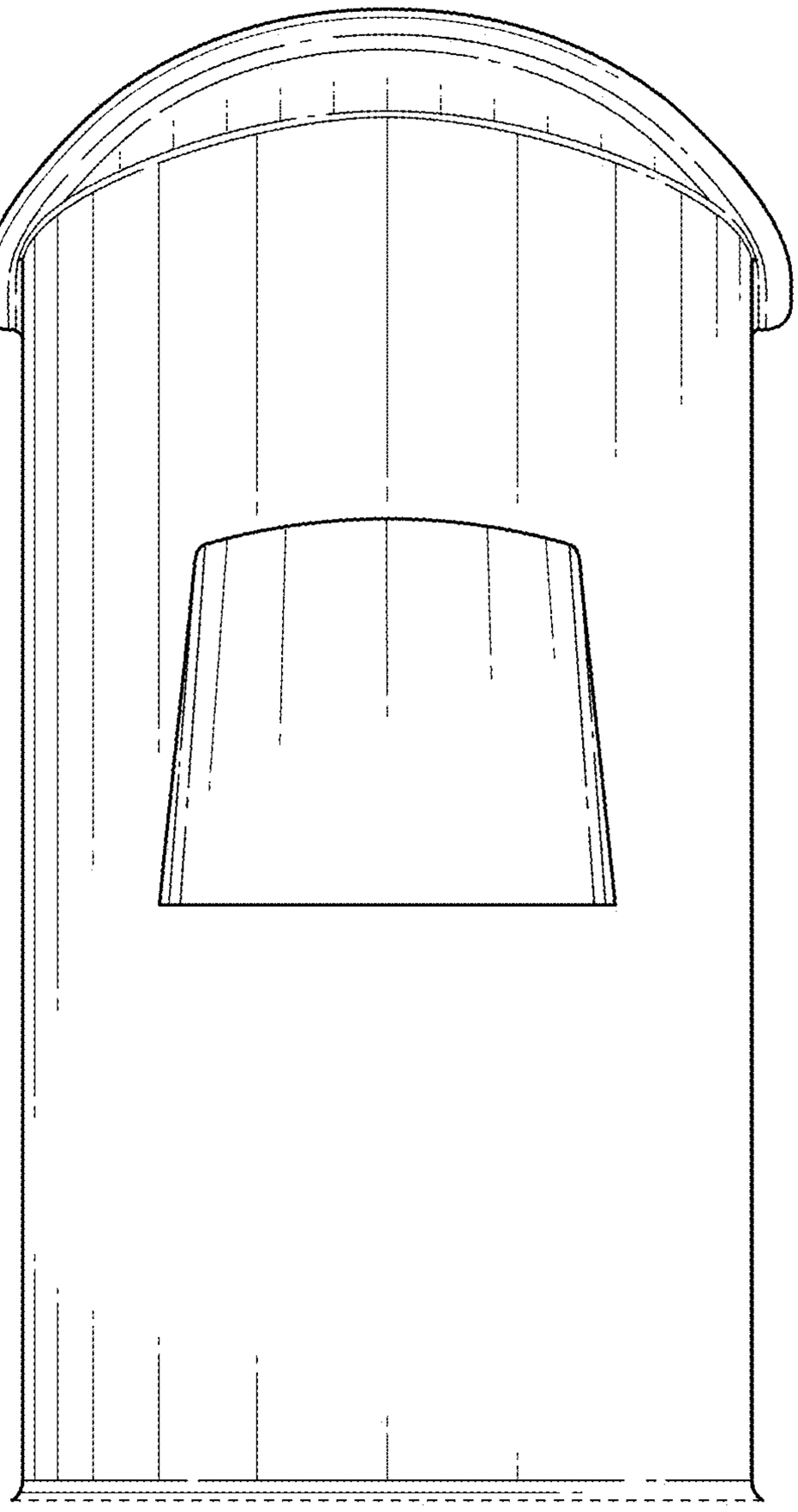
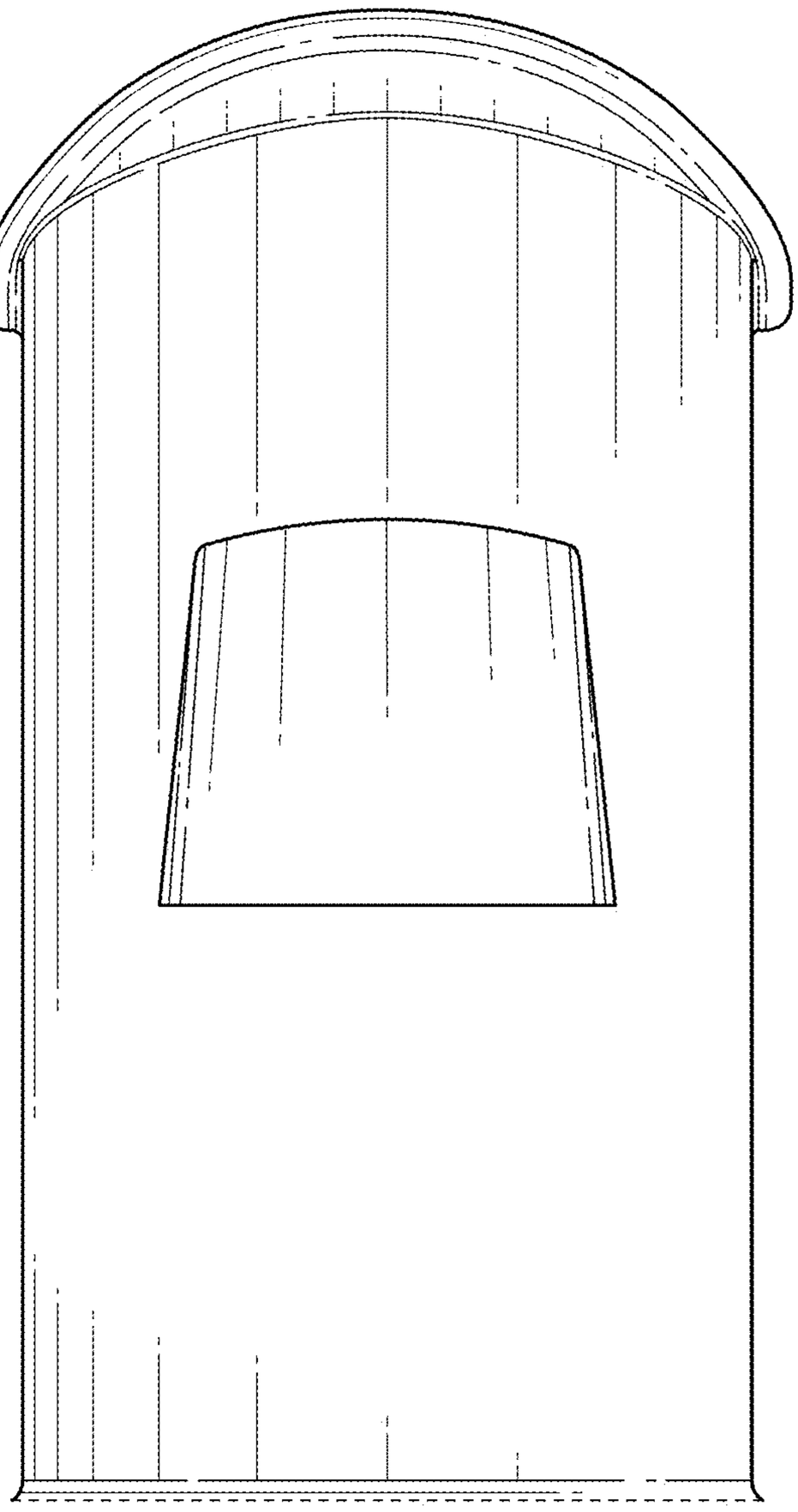


FIG. 2



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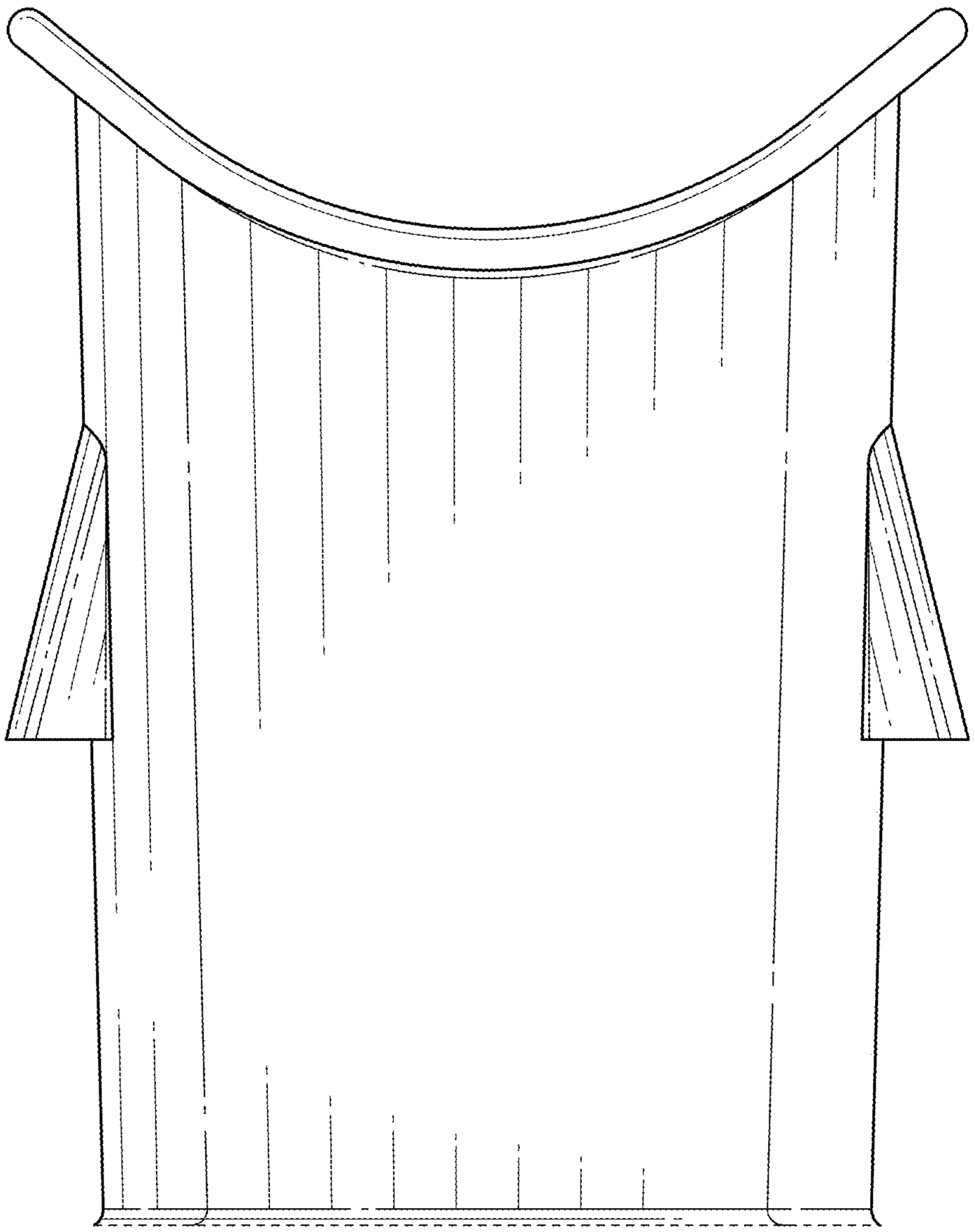


FIG. 4

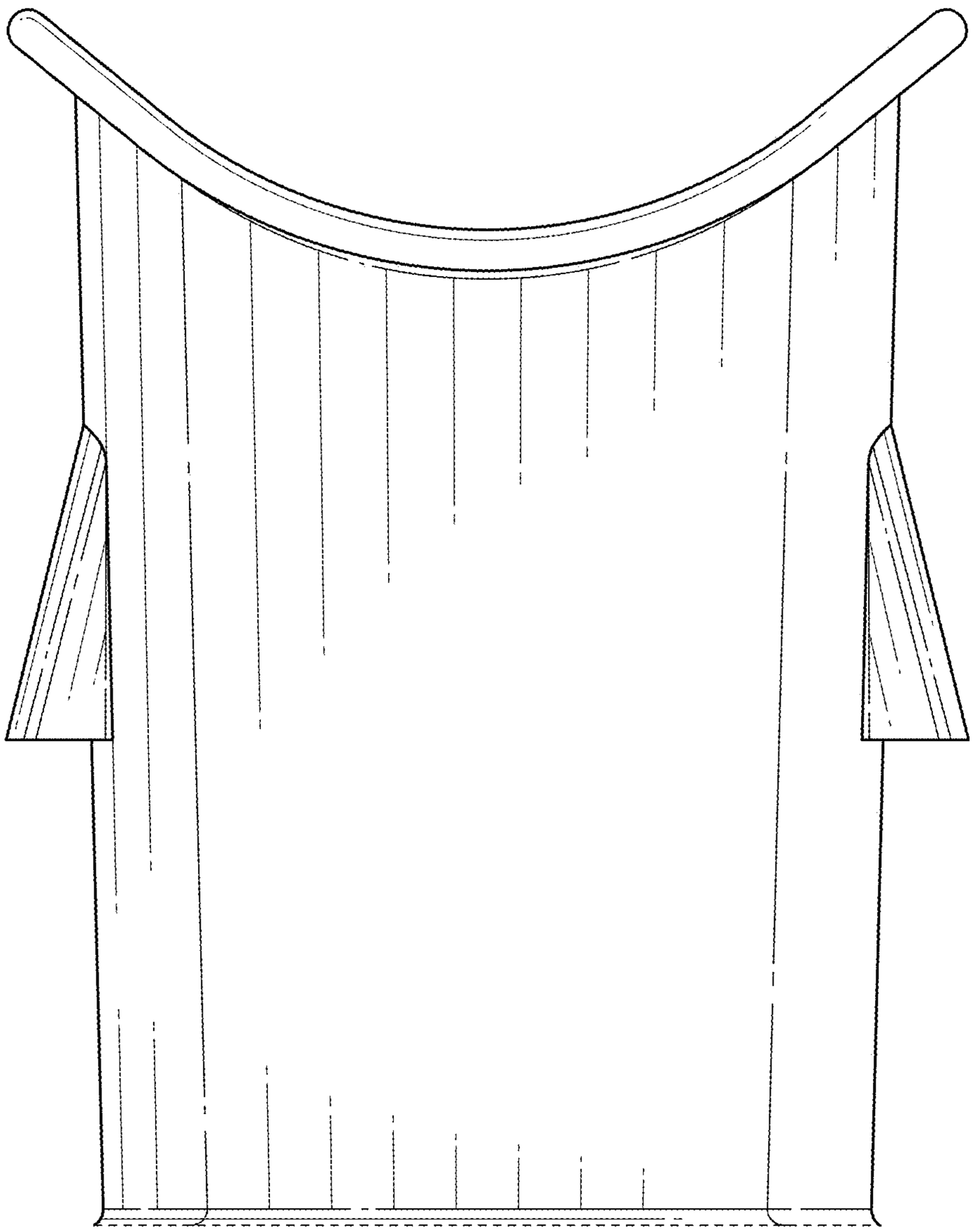
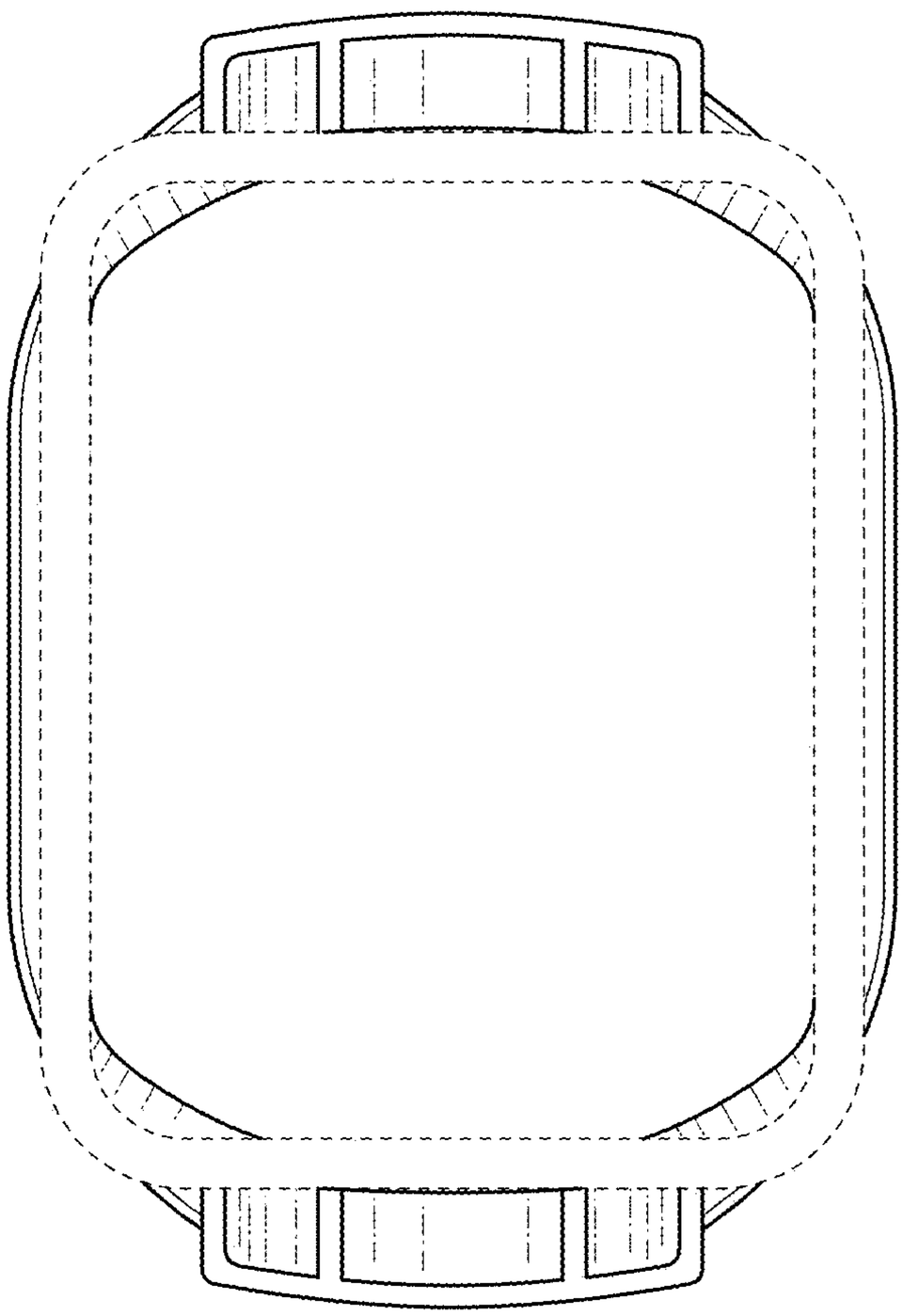


FIG. 5



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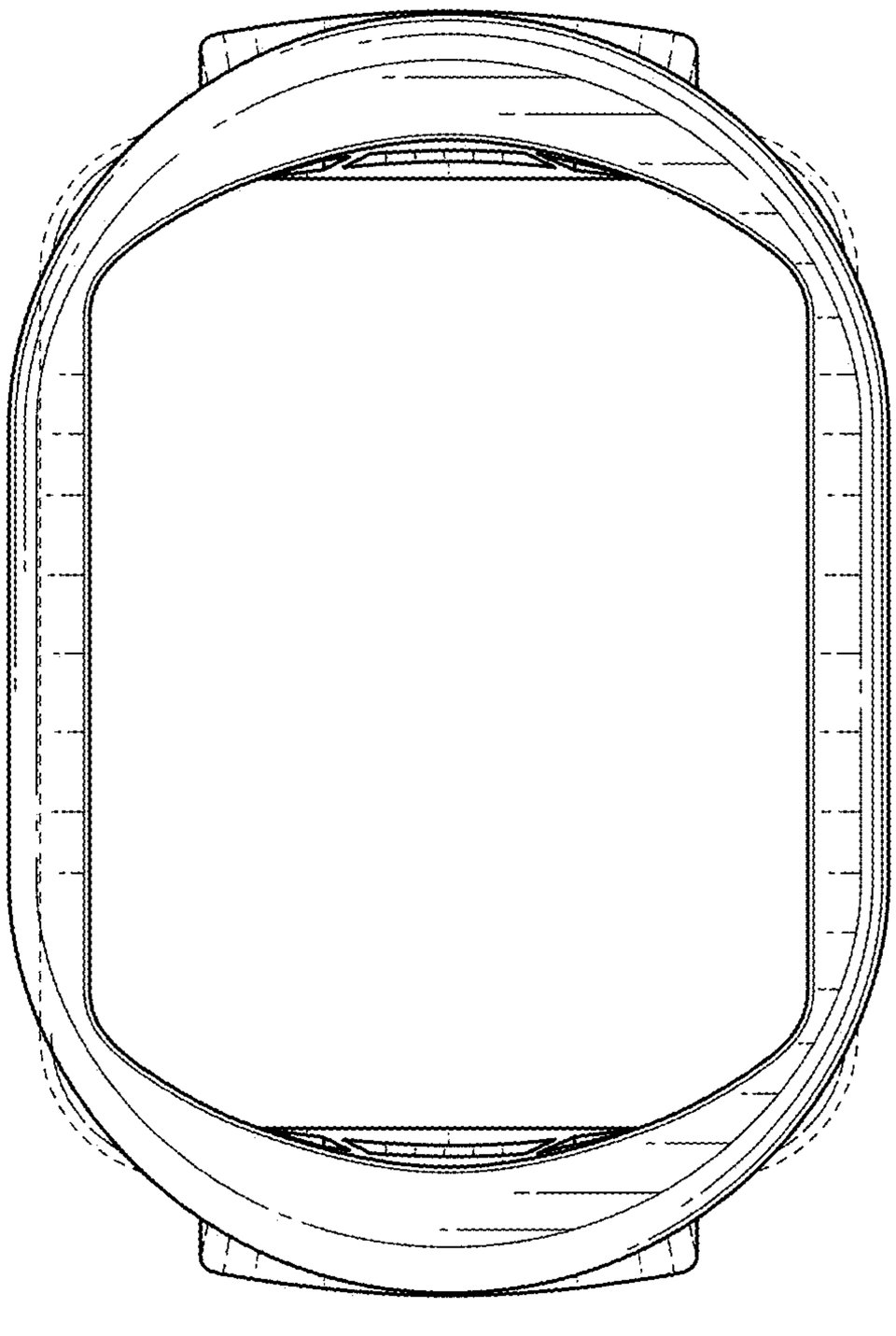

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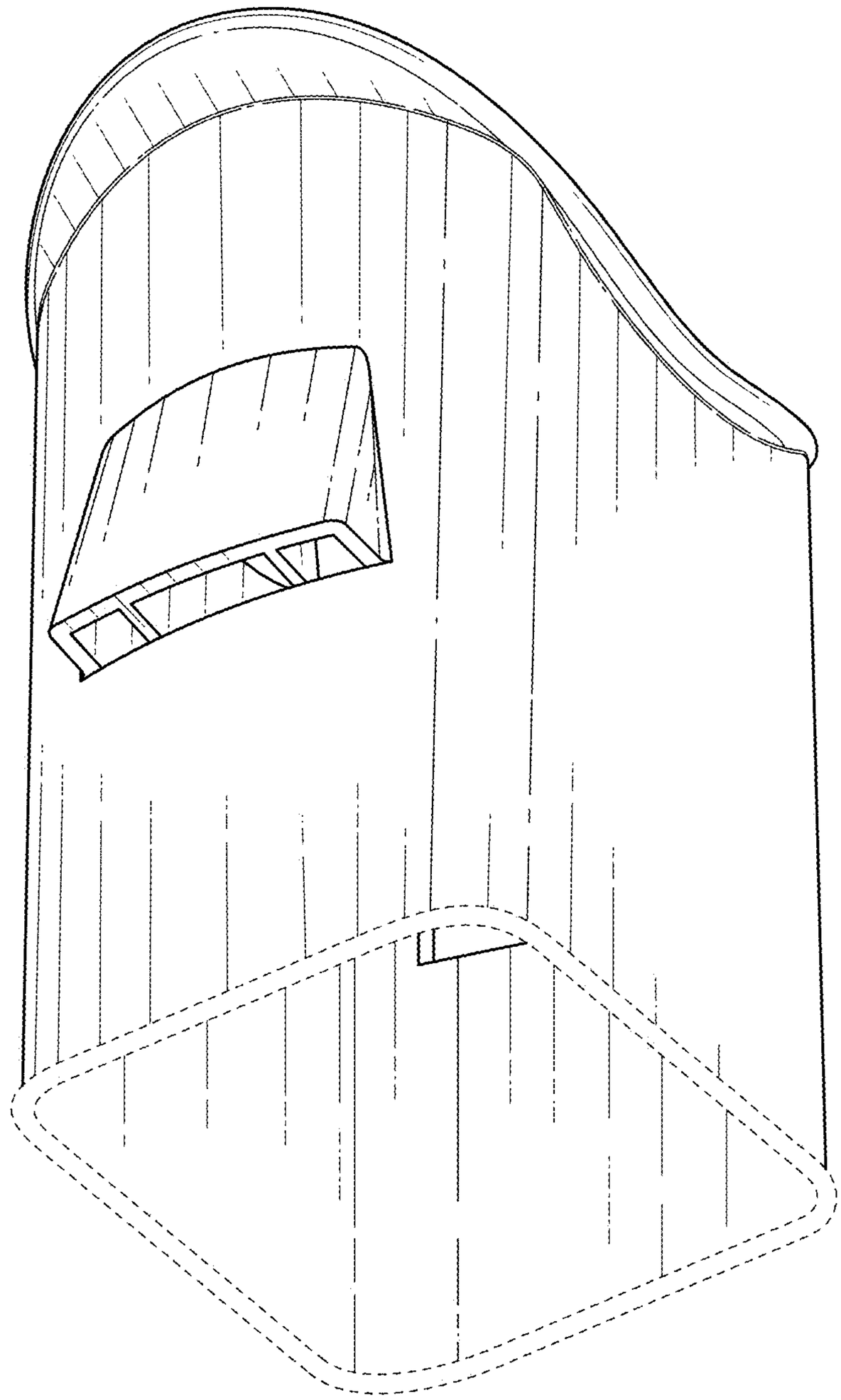

FIG. 8