



US00D650478S

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

(10) **Patent No.:** **US D650,478 S**

(45) **Date of Patent:** **** *Dec. 13, 2011**

(54) **FEMALE DUAL LUMEN CONNECTOR**

(74) *Attorney, Agent, or Firm* — Dorsey & Whitney LLP

(75) Inventor: **Peter D. Lewis**, Fort Collins, CO (US)

(57) **CLAIM**

What is claimed is the ornamental design for a female dual lumen connector, substantially as shown and described.

(73) Assignee: **Value Plastics, Inc.**, Fort Collins, CO (US)

(**) Term: **14 Years**

DESCRIPTION

(21) Appl. No.: **29/352,637**

(22) Filed: **Dec. 23, 2009**

(51) **LOC (9) Cl.** **24-02**

(52) **U.S. Cl.** **D24/129**

(58) **Field of Classification Search** D24/128–130, D24/133, 135, 176, 152, 156, 140, 141, 143, D24/137, 138; 600/206, 214, 164, 157, 156, 600/200, 113, 135, 138, 121, 131, 153, 462, 600/101, 142, 154, 125; 606/191, 196, 197, 606/198

See application file for complete search history.

FIG. 1 is a front isometric view of a first embodiment of a female dual lumen connector taken from the top, right side.

FIG. 2 is a rear isometric view of the female dual lumen connector of FIG. 1 taken from the top, left side.

FIG. 3 is a right side elevation view of the female dual lumen connector of FIG. 1.

FIG. 4 is a left side elevation view of the female dual lumen connector of FIG. 1.

FIG. 5 is a rear elevation view of the female dual lumen connector of FIG. 1.

FIG. 6 is a front elevation view of the female dual lumen connector of FIG. 1.

FIG. 7 is a top plan view of the female dual lumen connector of FIG. 1.

FIG. 8 is a bottom plan view of the female dual lumen connector of FIG. 1.

FIG. 9 is a front isometric view of a second embodiment of a female dual lumen connector taken from the top, right side.

FIG. 10 is a rear isometric view of the female dual lumen connector of FIG. 9 taken from the top, left side.

FIG. 11 is a right side elevation view of the female dual lumen connector of FIG. 9.

FIG. 12 is a left side elevation view of the female dual lumen connector of FIG. 9.

FIG. 13 is a rear elevation view of the female dual lumen connector of FIG. 9.

FIG. 14 is a front elevation view of the female dual lumen connector of FIG. 9.

FIG. 15 is a top plan view of the female dual lumen connector of FIG. 9; and,

FIG. 16 is a bottom plan view of the female dual lumen connector of FIG. 9.

The broken lines shown in the drawings are for illustrative purposes only and form no part of the claimed design.

(56) **References Cited**

U.S. PATENT DOCUMENTS

163,261 A	5/1875	Ruppenthal
185,896 A	1/1877	Curtis
187,982 A	3/1877	Pirsson et al.
200,944 A	3/1878	Smith
235,580 A	12/1880	Smith et al.
327,509 A	10/1885	Aldridge

(Continued)

FOREIGN PATENT DOCUMENTS

DE 1868896 3/1963

(Continued)

OTHER PUBLICATIONS

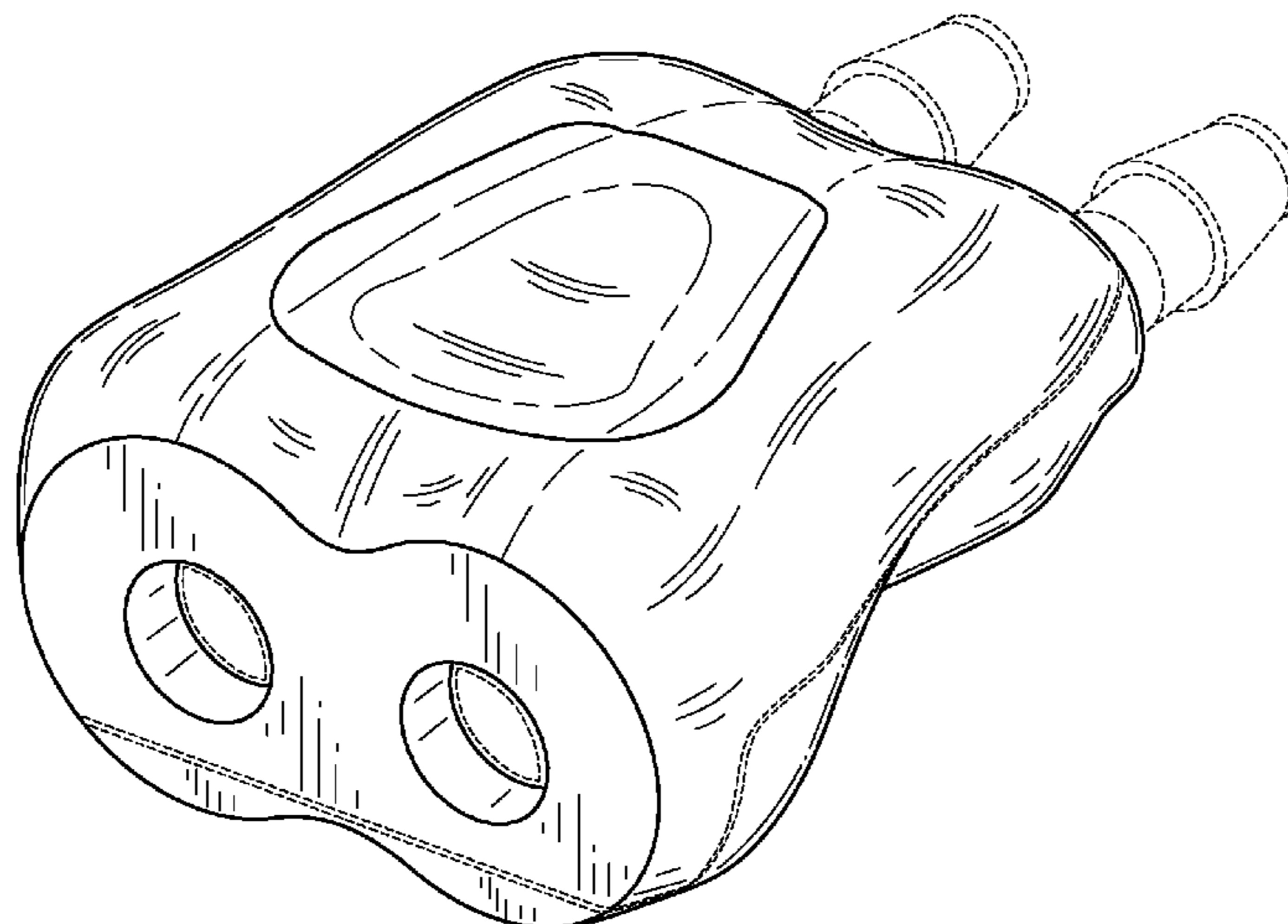
Brochure, "Precision Components", Value Plastics, Inc., 2002.

(Continued)

Primary Examiner — T. Chase Nelson

Assistant Examiner — Eric L. Goodman

1 Claim, 12 Drawing Sheets



US D650,478 S

Page 2

U.S. PATENT DOCUMENTS							
584,008	A	6/1887	Munson	3,217,400	A	11/1965	Illesy et al.
465,868	A	12/1891	List	3,217,771	A	11/1965	Beall et al.
725,421	A	4/1903	Dinkins	3,227,380	A	1/1966	Pinkston
727,982	A	5/1903	Ludwig	3,237,974	A	3/1966	Press
874,957	A	12/1907	Godley	3,245,703	A	4/1966	Manly
884,461	A	4/1908	Browne	3,276,799	A	10/1966	Moore et al.
909,131	A	1/1909	Antic	3,279,497	A	10/1966	Norton et al.
951,889	A	3/1910	Teuer	3,314,696	A	4/1967	Ferguson et al.
1,029,819	A	6/1912	Nylander	3,317,214	A	5/1967	Durgom
1,033,187	A	7/1912	Metzger	D209,166	S	11/1967	Hunt
1,039,354	A	9/1912	Bonadio	D209,168	S	11/1967	Hunt
1,077,417	A	11/1913	McCracken	3,352,576	A	11/1967	Thomas
1,078,112	A	11/1913	Storm	3,382,892	A	5/1968	Cerbin
1,115,945	A	11/1914	Kunz	3,403,930	A	10/1968	Bernier
1,193,446	A	8/1916	Wells	3,432,176	A	3/1969	Valenziano
1,239,345	A	9/1917	Brown	3,448,760	A	6/1969	Cranage
1,255,847	A	2/1918	Arkin	3,450,424	A	6/1969	Calisher
1,259,684	A	3/1918	Vinten	3,512,808	A	5/1970	Graham
1,489,310	A	4/1924	Critchlow	3,523,701	A	8/1970	Graham
1,526,218	A	2/1925	Johnson	3,538,940	A	11/1970	Graham
1,578,504	A	3/1926	Bronson et al.	3,542,338	A	11/1970	Scaramucci
1,587,079	A	6/1926	Machino	3,545,490	A	12/1970	Burrus
1,767,073	A	6/1930	Ingold	3,550,626	A	12/1970	Daniels et al.
1,863,360	A	6/1932	Weatherhead	3,560,027	A	2/1971	Graham
1,950,947	A	3/1934	Mulroyan	3,563,265	A	2/1971	Graham
2,023,428	A	12/1935	Liebhardt	3,574,314	A	4/1971	Quercia
2,056,524	A	10/1936	Johnson	3,588,149	A	6/1971	Demler
2,066,473	A	1/1937	Jorgensen	3,596,933	A	8/1971	Luckenbill
2,097,628	A	11/1937	Liebhardt	3,599,843	A	8/1971	Johnston
2,099,335	A	11/1937	Hansen	3,600,917	A	8/1971	Krock
2,108,714	A	2/1938	Hirsch et al.	3,649,050	A	3/1972	Woodling
2,116,705	A	5/1938	Marx et al.	3,666,297	A	5/1972	Marks
2,139,745	A	12/1938	Goodall	3,690,336	A	9/1972	Drum
2,147,355	A	2/1939	Scholtes	3,712,583	A	1/1973	Martindale et al.
2,159,116	A	5/1939	Zacharias	3,747,964	A	7/1973	Nilsen
2,211,147	A	8/1940	Miller	3,750,238	A	8/1973	Tanner
2,257,321	A	9/1941	Arnold	3,815,887	A	6/1974	Curtis et al.
2,263,293	A	11/1941	Ewald	3,817,561	A	6/1974	Kay
2,264,815	A	12/1941	Thomsen	3,829,135	A	8/1974	Forni
2,340,119	A	1/1944	Graham	3,876,234	A	4/1975	Harms
2,346,445	A	4/1944	Merker et al.	3,889,710	A	6/1975	Brost
2,352,728	A	7/1944	Merker et al.	3,899,200	A	8/1975	Gamble
2,429,782	A	10/1947	Versoy	3,921,656	A	11/1975	Meisenheimer, Jr. et al.
2,432,946	A	12/1947	Theunissen	3,979,934	A	9/1976	Isenmann
2,470,800	A	5/1949	Ashton	3,990,674	A	11/1976	Schattenberg
2,479,499	A	8/1949	Le Clair	4,025,049	A	5/1977	Schmidt
2,500,720	A	3/1950	Van der Heem	4,039,213	A	8/1977	Walters
2,507,536	A	5/1950	Goodson	4,072,330	A	2/1978	Brysch
2,516,583	A	7/1950	Moore	4,099,748	A	7/1978	Kavick
2,535,740	A	12/1950	Knopp	4,113,627	A	9/1978	Leason
2,577,009	A	12/1951	Frantz	4,129,145	A	12/1978	Wynn
2,626,974	A	1/1953	Howard et al.	4,142,546	A	3/1979	Sandau
2,630,131	A	3/1953	Snyder	D252,470	S	7/1979	Pawlak
2,661,018	A	12/1953	Snyder	4,181,149	A	1/1980	Cox
2,701,147	A	2/1955	Summerville	4,182,519	A	1/1980	Wilson
2,722,399	A	11/1955	Oetiker	D254,505	S	3/1980	Parsons et al.
2,753,195	A	7/1956	Palmer	4,200,605	A	4/1980	Imamura
2,774,616	A	12/1956	Dodd et al.	D255,145	S	5/1980	Nederman
2,790,571	A	4/1957	Flaith et al.	4,220,360	A	9/1980	Jacek et al.
2,864,628	A	12/1958	Edleson	D258,526	S	3/1981	Nederman
2,915,325	A	12/1959	Foster	4,253,687	A	3/1981	Maples
2,926,934	A	3/1960	Gill	D259,278	S	5/1981	McCaw
2,931,668	A	4/1960	Baley	4,271,865	A	6/1981	Galloway et al.
2,937,892	A	5/1960	Prescott, Jr.	4,282,175	A	8/1981	Volgstadt et al.
2,948,553	A	8/1960	Gill et al.	4,287,644	A	9/1981	Durand
2,967,067	A	1/1961	Singer	4,294,285	A	10/1981	Joslyn
2,991,090	A	7/1961	De Cenzo	4,296,949	A	10/1981	Muetterties et al.
3,017,203	A	1/1962	Macleod	4,319,774	A	3/1982	Kavick
3,037,497	A	6/1962	Roberson	4,330,010	A	5/1982	Drescher et al.
3,046,028	A	7/1962	Nathan	4,330,142	A	5/1982	Paini
3,048,415	A	8/1962	Shook	4,331,175	A	5/1982	Brake et al.
3,073,342	A	1/1963	Magorien	4,331,177	A	5/1982	Makishima
3,078,068	A	2/1963	Romney	4,340,200	A	7/1982	Stegmeier
D196,473	S	10/1963	Hill	4,345,786	A	8/1982	Egert
3,124,157	A	3/1964	Krzewina	4,346,703	A	8/1982	Dennehey
3,129,020	A	4/1964	Bujnowski	4,351,351	A	9/1982	Flory et al.
3,171,196	A	3/1965	Helitas	4,366,816	A	1/1983	Bayard et al.
3,191,628	A	6/1965	Kirkwood et al.	4,393,548	A	7/1983	Herb
				4,397,442	A	8/1983	Larkin

US D650,478 S

4,407,526 A	10/1983	Cicenas	5,094,482 A	3/1992	Petty et al.
4,431,031 A	2/1984	Ettlenger	5,104,158 A	4/1992	Meyer et al.
4,431,218 A	2/1984	Paul	5,106,127 A	4/1992	Hutchinson
4,434,121 A	2/1984	Schaper	D326,155 S *	5/1992	Boehringer et al. D24/129
4,436,125 A	3/1984	Blenkush	5,110,163 A	5/1992	Benson et al.
4,437,689 A	3/1984	Goebel et al.	5,112,084 A	5/1992	Washizu
4,439,188 A	3/1984	Dennehey	5,114,250 A	5/1992	Usui
4,458,719 A	7/1984	Strybel	5,123,677 A	6/1992	Kreczko et al.
4,489,914 A	12/1984	Stevenson et al.	5,143,381 A	9/1992	Temple
4,489,961 A	12/1984	Laidig	5,160,177 A	11/1992	Washizu
4,500,118 A	2/1985	Blenkush	5,160,474 A	11/1992	Huff
4,527,745 A	7/1985	Butterfield et al.	5,165,733 A	11/1992	Sampson
4,541,457 A	9/1985	Blenkush	5,169,161 A	12/1992	Jones
4,541,657 A	9/1985	Smyth	D332,482 S	1/1993	Petty et al.
4,553,587 A	11/1985	Traylor	5,176,406 A	1/1993	Straghan
D282,962 S	3/1986	Gerber	5,181,752 A	1/1993	Benson et al.
4,580,816 A	4/1986	Campbell et al.	D333,178 S	2/1993	Novy
4,603,888 A	8/1986	Goodall et al.	5,190,224 A	3/1993	Hamilton
4,603,890 A	8/1986	Huppee	5,222,279 A	6/1993	Franco et al.
4,613,112 A	9/1986	Philipot et al.	5,228,724 A	7/1993	Godeau
4,616,859 A	10/1986	Brunet	5,232,020 A	8/1993	Mason et al.
4,626,001 A	12/1986	Lee	D339,417 S	9/1993	Sampson et al.
4,632,436 A	12/1986	Kimura	5,251,025 A *	10/1993	Cooper et al. 348/66
4,635,972 A	1/1987	Lyll	5,273,053 A	12/1993	Pohndorf
4,645,245 A	2/1987	Cunningham	5,297,826 A	3/1994	Percebois et al.
4,658,326 A	4/1987	Clark et al.	5,316,041 A	5/1994	Ramacier, Jr. et al.
4,659,116 A	4/1987	Cameron	5,318,332 A	6/1994	Hohmann et al.
4,694,544 A	9/1987	Chapman	5,330,235 A	7/1994	Wagner et al.
4,699,298 A	10/1987	Grant et al.	5,348,051 A	9/1994	Kallenbach
4,700,926 A	10/1987	Hansen	5,348,354 A	9/1994	Badoureaux
4,703,957 A	11/1987	Blenkush	5,356,183 A	10/1994	Cole
4,706,847 A	11/1987	Sankey et al.	5,374,088 A	12/1994	Moretti et al.
4,712,280 A	12/1987	Fildan	5,385,311 A	1/1995	Morikawa et al.
4,733,890 A	3/1988	Vyse	5,385,331 A	1/1995	Allread et al.
4,738,401 A	4/1988	Filicicchia	D357,307 S	4/1995	Ramacier, Jr. et al.
4,753,268 A	6/1988	Palau	5,405,333 A	4/1995	Richmond
4,768,558 A	9/1988	Weber	5,405,339 A	4/1995	Kohnen et al.
4,776,067 A	10/1988	Sorensen	5,405,340 A	4/1995	Fageol et al.
4,790,567 A	12/1988	Kawano et al.	5,411,300 A	5/1995	Mitsui
4,790,569 A	12/1988	Chaffee	5,417,442 A	5/1995	Jornhagen
4,792,115 A	12/1988	Jindra et al.	5,421,622 A	6/1995	Hutchinson
4,793,637 A	12/1988	Laipply et al.	5,437,650 A	8/1995	Larkin et al.
D300,361 S	3/1989	Tokarz	5,462,313 A	10/1995	Rea et al.
4,824,148 A	4/1989	Grabowski	5,494,074 A	2/1996	Ramacier, Jr. et al.
4,827,921 A	5/1989	Rugheimer	D369,409 S	4/1996	Salter
4,832,237 A	5/1989	Hurford, Jr.	5,507,733 A	4/1996	Larkin et al.
4,834,423 A	5/1989	DeLand	5,511,527 A	4/1996	Lorraine et al.
4,844,512 A	7/1989	Gahwiler	D372,093 S	7/1996	Sampson et al.
4,863,201 A	9/1989	Carstens	5,536,258 A	7/1996	Folden
4,863,202 A	9/1989	Oldford	5,542,712 A	8/1996	Klinger et al.
4,896,402 A	1/1990	Jansen et al.	5,547,166 A	8/1996	Engdahl
4,900,065 A	2/1990	Houck	5,547,230 A	8/1996	Bank et al.
4,903,995 A	2/1990	Blenkush et al.	5,553,895 A	9/1996	Karl et al.
4,923,228 A	5/1990	Laipply et al.	D375,160 S	10/1996	Sampson et al.
4,928,999 A	5/1990	Landriault et al.	5,568,946 A	10/1996	Jackowski
4,934,655 A	6/1990	Blenkush et al.	5,595,217 A	1/1997	Gillen et al.
4,935,992 A	6/1990	Due	5,601,317 A	2/1997	Crouse et al.
4,946,204 A	8/1990	Boticki	5,607,190 A	3/1997	Hutchinson
4,949,745 A	8/1990	McKeon	5,617,609 A	4/1997	Bently
4,966,398 A	10/1990	Peterson	5,620,025 A	4/1997	Lewin
4,969,879 A	11/1990	Lichte	5,628,726 A	5/1997	Cotter
D313,067 S	12/1990	Kotake et al.	D380,262 S	6/1997	Van Funderburk et al.
D313,277 S	12/1990	Haining	D382,639 S	8/1997	Musgrave et al.
D314,050 S	1/1991	Sone	5,681,062 A	10/1997	Fukao et al.
D314,233 S	1/1991	Medvick	5,682,662 A	11/1997	Coules et al.
4,982,736 A	1/1991	Schneider	5,683,117 A	11/1997	Corbett et al.
4,991,880 A	2/1991	Bernart	D387,147 S	12/1997	Vandermaast et al.
5,009,252 A	4/1991	Faughn	5,695,223 A	12/1997	Boticki
5,015,014 A	5/1991	Sweeney	D388,876 S	1/1998	Sampson
5,029,908 A	7/1991	Belisair	5,709,244 A	1/1998	Patriquin et al.
5,033,777 A	7/1991	Blenkush	5,725,258 A	3/1998	Kujawski
D319,312 S	8/1991	Schneider	5,737,810 A	4/1998	Krauss
5,052,725 A	10/1991	Meyer et al.	5,745,957 A	5/1998	Khokhar et al.
5,074,601 A	12/1991	Spors et al.	5,746,414 A	5/1998	Weldon et al.
5,076,615 A	12/1991	Sampson	5,762,646 A	6/1998	Cotter
5,078,429 A	1/1992	Braut et al.	5,784,750 A	7/1998	Sankovic et al.
5,085,472 A	2/1992	Guest	5,799,987 A	9/1998	Sampson
5,090,448 A	2/1992	Truchet	5,820,614 A	10/1998	Erskine et al.
5,090,747 A	2/1992	Kotake	5,837,180 A	11/1998	Linder et al.

US D650,478 S

5,845,943 A	12/1998	Ramacier, Jr. et al.	6,520,546 B2	2/2003	Szabo	
5,855,568 A	1/1999	Battiato et al.	D471,261 S	3/2003	Kozu	
5,879,033 A	3/1999	Hansel et al.	6,540,263 B1	4/2003	Sausner	
5,882,047 A	3/1999	Ostrander et al.	6,543,745 B1	4/2003	Enerson	
5,884,531 A	3/1999	Koenig	6,595,964 B2	7/2003	Finley et al.	
D407,803 S	4/1999	Redman	6,609,696 B2	8/2003	Enerson	
5,897,142 A	4/1999	Kulevsky	6,612,634 B1	9/2003	Zoppas	
5,911,367 A	6/1999	McInerney	6,626,465 B2	9/2003	Lacroix et al.	
5,911,403 A	6/1999	deCler et al.	D481,125 S *	10/2003	Hayamizu	D24/138
5,911,404 A	6/1999	Cheng	6,641,177 B1	11/2003	Pinciario	
5,930,424 A	7/1999	Heimberger et al.	6,649,829 B2	11/2003	Garber et al.	
5,937,501 A	8/1999	Imgram	6,652,007 B1	11/2003	Hwang	
5,938,244 A	8/1999	Meyer	D484,241 S	12/2003	Peters et al.	
5,941,577 A	8/1999	Musellec	6,669,681 B2	12/2003	Jepson et al.	
5,942,730 A	8/1999	Schwarz et al.	6,676,172 B2	1/2004	Alksnis	
D413,967 S	9/1999	Yuen	D486,909 S	2/2004	Cise et al.	
5,957,898 A	9/1999	Jepson et al.	6,688,654 B2	2/2004	Romero	
5,961,157 A	10/1999	Baron et al.	6,692,038 B2	2/2004	Braun	
5,964,485 A	10/1999	Hame et al.	6,695,817 B1	2/2004	Fangrow	
5,965,077 A	10/1999	Rowley et al.	6,722,705 B2	4/2004	Korkor	
5,975,489 A	11/1999	deCler et al.	6,722,708 B2	4/2004	Morohoshi et al.	
5,984,378 A	11/1999	Ostrander et al.	6,762,365 B2	7/2004	Inoue et al.	
5,988,704 A	11/1999	Ryhman	6,767,017 B2	7/2004	Crapart et al.	
6,012,743 A	1/2000	Godeau et al.	D495,050 S	8/2004	Guala	
6,015,171 A	1/2000	Schorn	6,783,520 B1	8/2004	Candray et al.	
D419,861 S	2/2000	Khokhar	D497,428 S	10/2004	Hayamizu	
6,019,348 A	2/2000	Powell	6,799,747 B1	10/2004	Lai	
6,024,124 A	2/2000	Braun et al.	D498,533 S *	11/2004	Hayamizu	D24/138
6,029,701 A	2/2000	Chaffardon et al.	6,814,726 B1	11/2004	Lauer	
6,032,691 A	3/2000	Powell et al.	6,840,277 B1	1/2005	Nimberger	
6,041,805 A	3/2000	Gydesen et al.	6,846,021 B2	1/2005	Rohde et al.	
D422,487 S	4/2000	Khokhar	6,848,723 B2	2/2005	Lamich	
6,050,297 A	4/2000	Ostrowski et al.	6,863,314 B2	3/2005	Guest	
6,076,234 A	6/2000	Khokhar et al.	6,871,878 B2	3/2005	Miros	
6,077,245 A	6/2000	Heinrich et al.	D503,778 S	4/2005	Wicks	
6,077,259 A	6/2000	Caizza et al.	6,886,803 B2	5/2005	Mikiya et al.	
6,082,401 A	7/2000	Braun et al.	6,897,374 B2	5/2005	Garber et al.	
6,086,044 A	7/2000	Guest	6,899,315 B2	5/2005	Maiville et al.	
6,089,540 A	7/2000	Heinrichs et al.	D507,647 S	7/2005	Beck et al.	
6,099,045 A	8/2000	Pirona	6,916,007 B2	7/2005	deCler et al.	
6,112,855 A	9/2000	Camacho et al.	6,916,050 B2	7/2005	Milhas	
6,123,690 A	9/2000	Mejslov	6,926,311 B2	8/2005	Chang et al.	
6,135,150 A	10/2000	Powell et al.	6,929,246 B2	8/2005	Arzenton et al.	
6,135,992 A	10/2000	Wang	6,945,273 B2	9/2005	Reid	
6,142,538 A	11/2000	Volgstadt et al.	6,949,084 B2	9/2005	Marggi et al.	
6,145,896 A	11/2000	Vitel et al.	6,981,547 B2	1/2006	Maguire et al.	
6,152,914 A	11/2000	Van De Kerkhof et al.	6,997,486 B2	2/2006	Milhas	
6,155,610 A	12/2000	Hutchinson	6,997,919 B2	2/2006	Olsen et al.	
6,161,578 A	12/2000	Braun et al.	7,005,581 B2	2/2006	Burnette	
6,176,523 B1	1/2001	Winslett	7,011,342 B2	3/2006	Guivarc'h et al.	
6,182,694 B1	2/2001	Sievers et al.	7,014,214 B2	3/2006	Kaneko	
6,189,560 B1	2/2001	Reynolds	D522,109 S	5/2006	White et al.	
6,199,915 B1	3/2001	Becker	7,044,161 B2	5/2006	Tiberghien	
6,199,919 B1	3/2001	Kawasaki et al.	7,044,506 B2	5/2006	Dong	
6,199,920 B1	3/2001	Neustadtl	D523,553 S	6/2006	Beck et al.	
6,221,064 B1	4/2001	Nadal	7,081,223 B2	7/2006	Khoury	
6,231,089 B1	5/2001	DeCler et al.	7,108,297 B2	9/2006	Takayanagi et al.	
D444,054 S	6/2001	Bernard et al.	7,118,138 B1	10/2006	Rowley et al.	
6,250,688 B1	6/2001	Kirby	7,128,348 B2	10/2006	Kawamura et al.	
6,257,626 B1	7/2001	Campau	7,137,654 B2	11/2006	Segal et al.	
6,260,851 B1	7/2001	Baron	7,140,592 B2	11/2006	Phillips	
6,261,282 B1	7/2001	Jepson et al.	7,147,252 B2	12/2006	Teuscher et al.	
6,293,596 B1	9/2001	Kinder	7,150,478 B2	12/2006	Poirier et al.	
6,296,796 B1	10/2001	Gordon	7,153,296 B2	12/2006	Mitchell	
6,302,147 B1	10/2001	Rose et al.	D540,944 S	4/2007	Guala	
6,318,764 B1	11/2001	Trede et al.	7,210,917 B2	5/2007	Lai et al.	
6,344,033 B1	2/2002	Jepson et al.	D547,446 S	7/2007	Racz et al.	
D459,206 S	6/2002	Caveney et al.	D550,355 S	9/2007	Racz et al.	
6,402,207 B1	6/2002	Segal et al.	D557,409 S	12/2007	Veliss et al.	
6,422,574 B1	7/2002	Mooklar	7,316,428 B2	1/2008	Takayanagi et al.	
6,423,053 B1	7/2002	Lee	D564,660 S *	3/2008	Hayashi	D24/138
6,439,620 B1	8/2002	Guest	7,343,931 B2	3/2008	Packham	
6,454,314 B1	9/2002	Grosspietsch et al.	D567,340 S	4/2008	Tiberghien	
6,481,758 B1	11/2002	Andre et al.	D569,507 S	5/2008	Blanchard	
6,481,759 B1	11/2002	Kawasaki et al.	D569,955 S	5/2008	Chen	
6,485,064 B1	11/2002	Davidson	7,377,553 B2	5/2008	Takayanagi	
6,485,483 B1	11/2002	Fujii	D570,457 S	6/2008	Brown	
6,505,866 B1	1/2003	Nakamura et al.	7,390,029 B2	6/2008	Matsubara	
6,508,807 B1	1/2003	Peters	7,434,842 B2	10/2008	Schmidt	

OTHER PUBLICATIONS

Capabilities [online], Jay Manufacturing Corp., retrieved on Apr. 9, 2010, retrieved from the Internet: <URL: <http://www.jaymfg.com/capabilities.htm>>, 2 pages.

About Us [online], Thuro Metal Products [retrieved on Apr. 9, 2010], retrieved from the Internet: <URL: <http://www.thurometal.com/about.html>>, 2 pages.

Mills, The Process of Vacuum-forming Plastic Parts, IPFrontline.com [online], retrieved on Apr. 9, 2010, retrieved from the Internet: <URL: <http://www.ipfrontline.com/depts/article.asp?id=453&deptid=2>>, 3 pages.

Stainless Steel Overview: History [online], Stainless Steel Industry of North America, retrieved on Apr. 9, 2010, retrieved from the Internet: <URL: <http://www.ssina.com/overview/history.html>>, 1page.

Barbed Tee Adapter, 1/2 in to 2/8 in to 1/2 in [Item # F1728], http://www.horticulturesource.com/product_info.php/products_id/4016/language/en; dated accessed Sep. 14, 2009, 3 pages.

Flojet "Quick Connect" Port System Adapter 90 Elbow Type Quad Port X 1/2" Hose Barb, http://www.amazon.com/Quick-Connect-Port-System-Quad-Barb-90/dp/B0000AZ771/ref=sr_1_16?s=sporting-goods&ie=UTF8&qid=1300220596&sr=1-16, date accessed Sep. 14, 2009; 3 pages.

Nylon, Polypropylene Kynar (PVDF) Plastic Fittings for Flexible Tubing & Hose, http://www.omega.com/pdf/tubing/fittings_tubing_hose/nylon_poly_kynar/nylon.asp; dated accessed Sep. 14, 2009, 2 pages.

Science of Hose Barbs, Colder Products Company, <http://www.pddnet.com/article-the-science-of-hose-barbs/>, date accessed Sep. 4, 2009, 6 page.

U.S. Appl. No. 12/853,063, filed Aug. 9, 2010, Jensen et al., Published.

U.S. Appl. No. 12/893,432, filed Sep. 29, 2010, Packham et al., Published.

U.S. Appl. No. 29/380,098, filed Nov. 30, 2010, Lombardi et al., Pending.

U.S. Appl. No. 13/016,636, filed Jan. 28, 2011, Wicks et al., Pending.

U.S. Appl. No. 12/818,973, filed Dec. 23, 2010, Williams et al., Pending.

U.S. Appl. No. 12/976,894, filed Dec. 23, 2010, Lewis et al., Pending.

U.S. Appl. No. 12/976,921, filed Dec. 22, 2010, Cairns et al., Pending.

U.S. Appl. No. 12/976,943, filed Dec. 23, 2010, Lewis et al., Pending.

U.S. Appl. No. 29/385,357, filed Feb. 11, 2011, Lombardi et al., Pending.

U.S. Appl. No. 29/385,360, filed Feb. 11, 2011, Lombardi et al., Pending.

U.S. Appl. No. 29/385,363, filed Feb. 11, 2011, Lombardi et al., Pending.

High-Flow Quick Disconnect Couplings; http://www.coleparmer.com/catalog/product_view.asp?sku=3130355; date accessed Sep. 14, 2009, 3 pages.

Stackable Hose Barb Elbow—1/2" CTS x 1/2 ID Barb, http://www.freshwatersystems.com/p-1714-stackable-hose-barb-elbow-12-cts-x-12-id-barb.aspx?affiliated=10052&utm_source=shopzilla&utm_medium=Feed&utm_campaign=Product&utm_term=3512-1008, date accessed Sep. 14, 2009, 1 page.

* cited by examiner

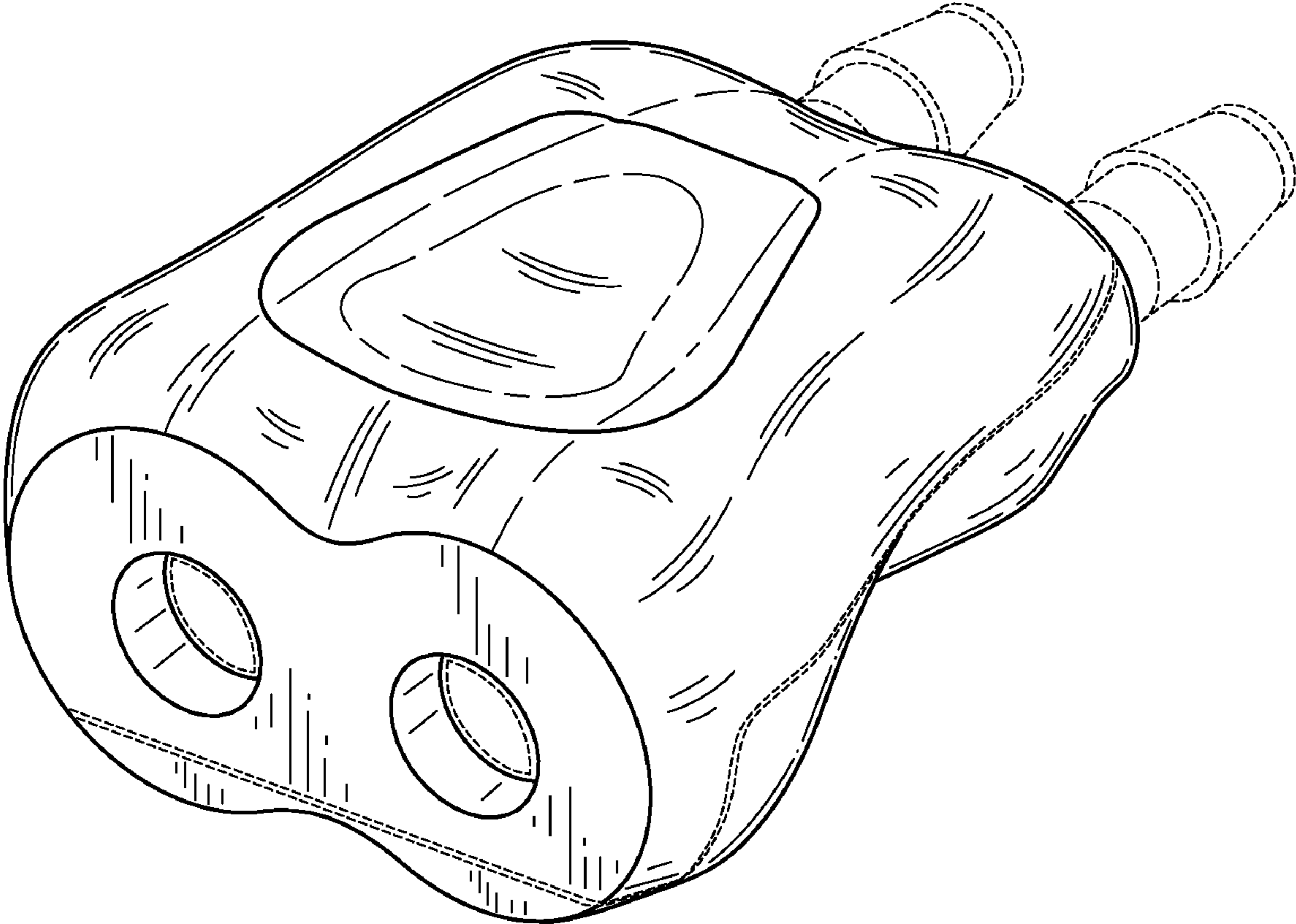


FIG.1

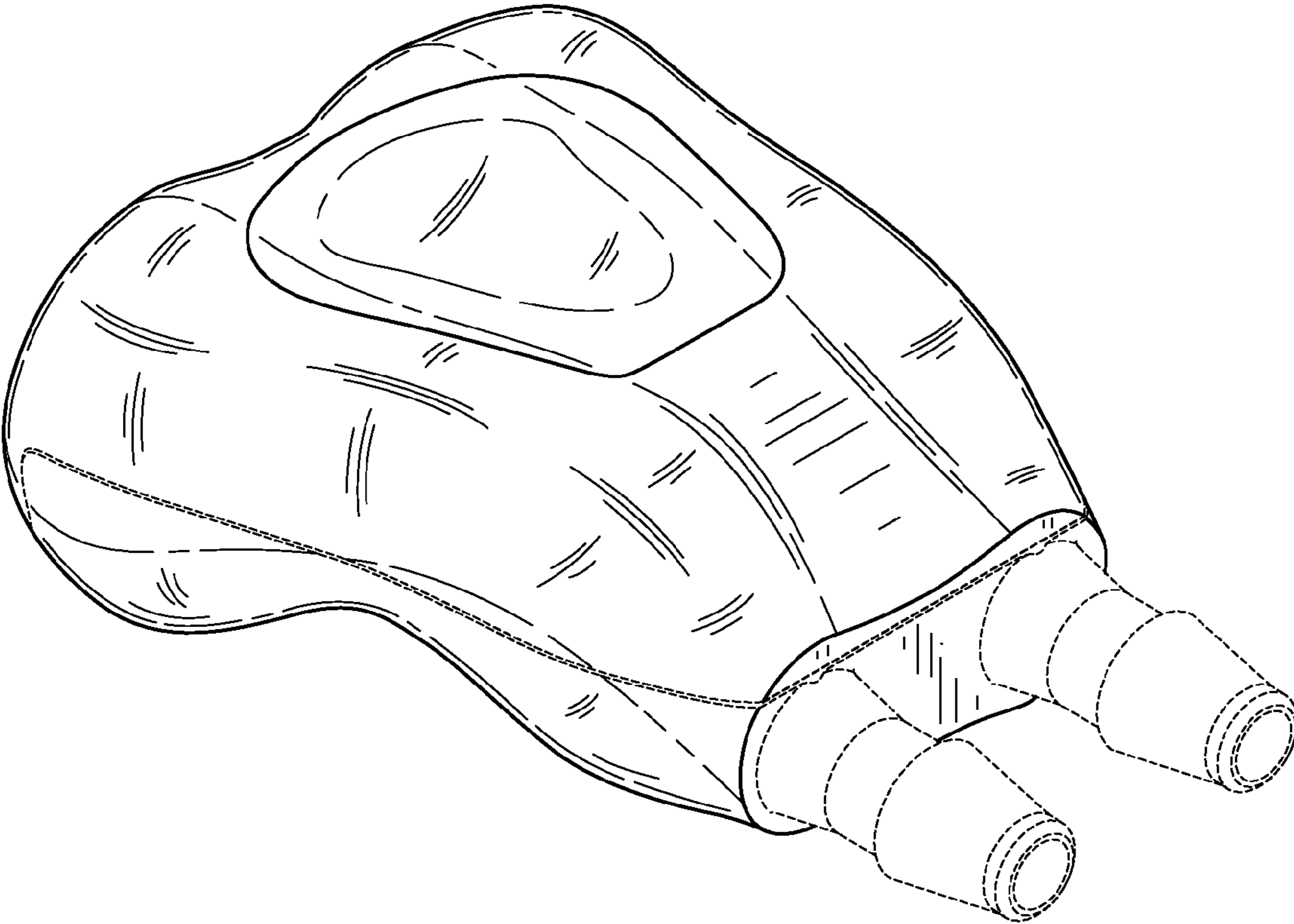


FIG.2

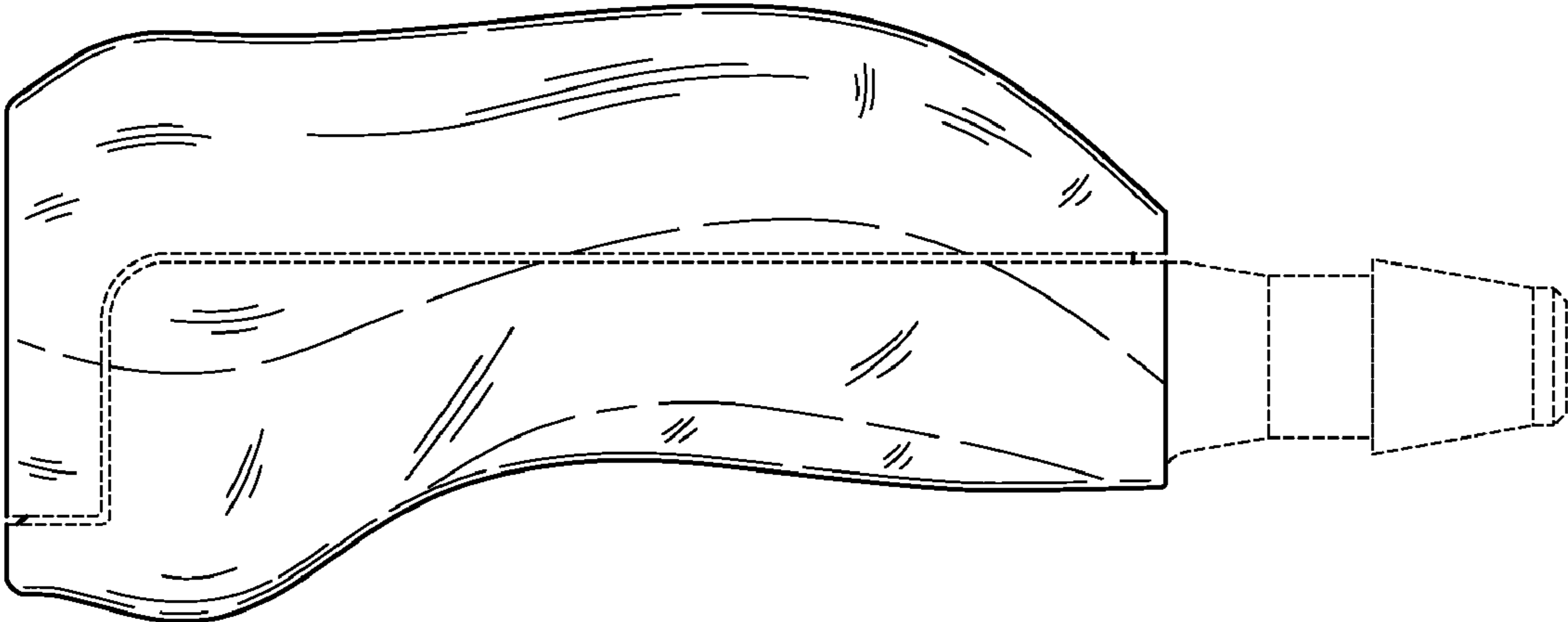


FIG.3

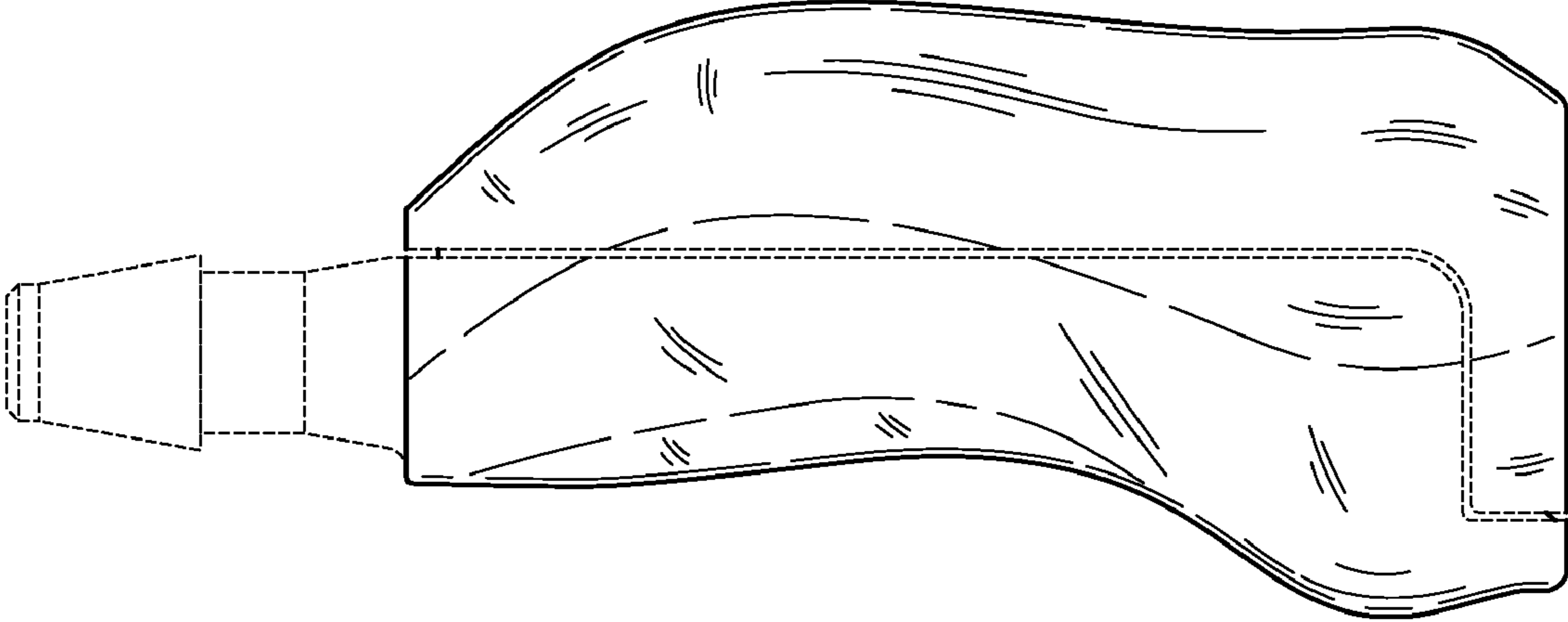


FIG.4

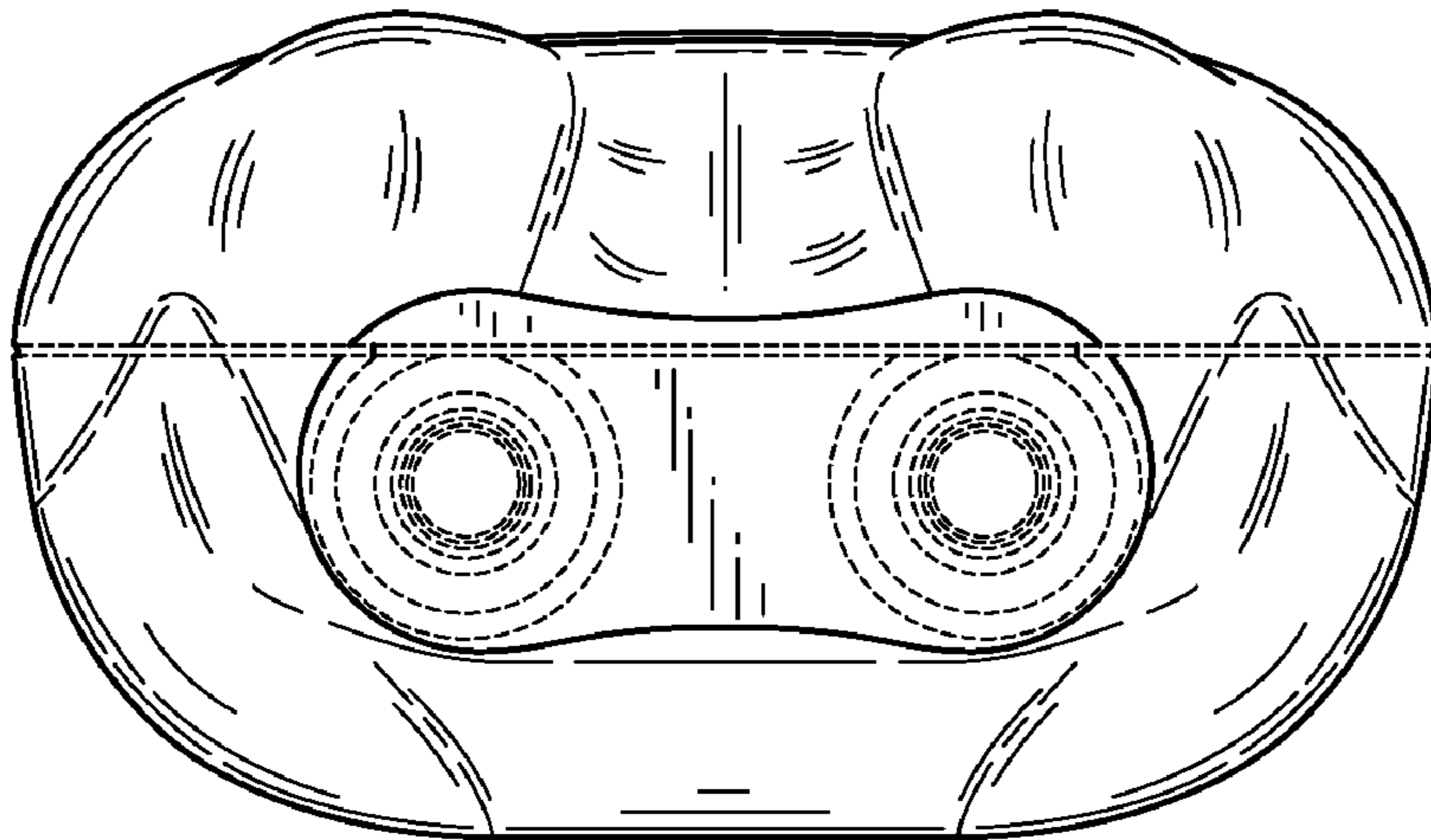


FIG. 5

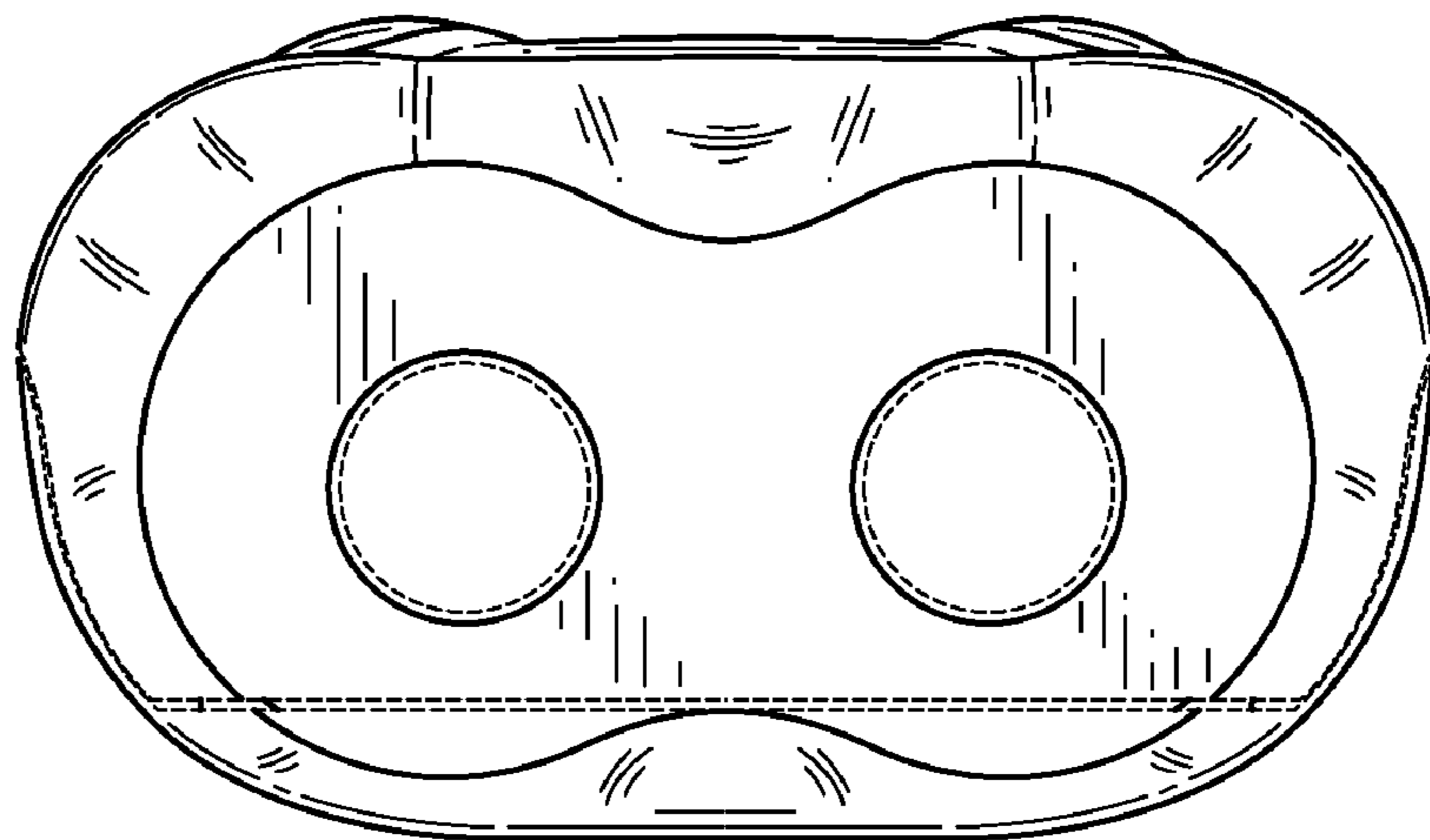


FIG. 6

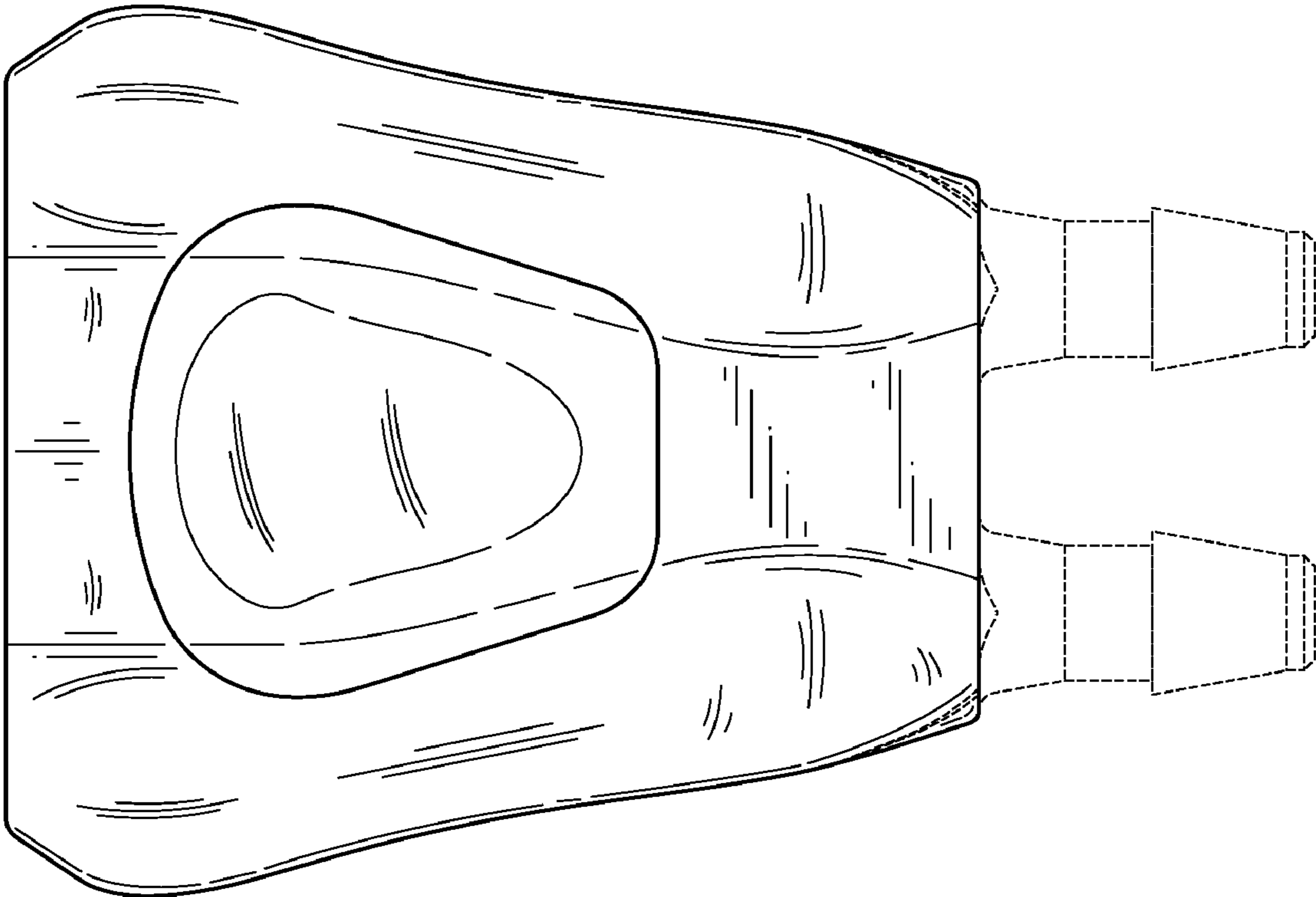


FIG.7

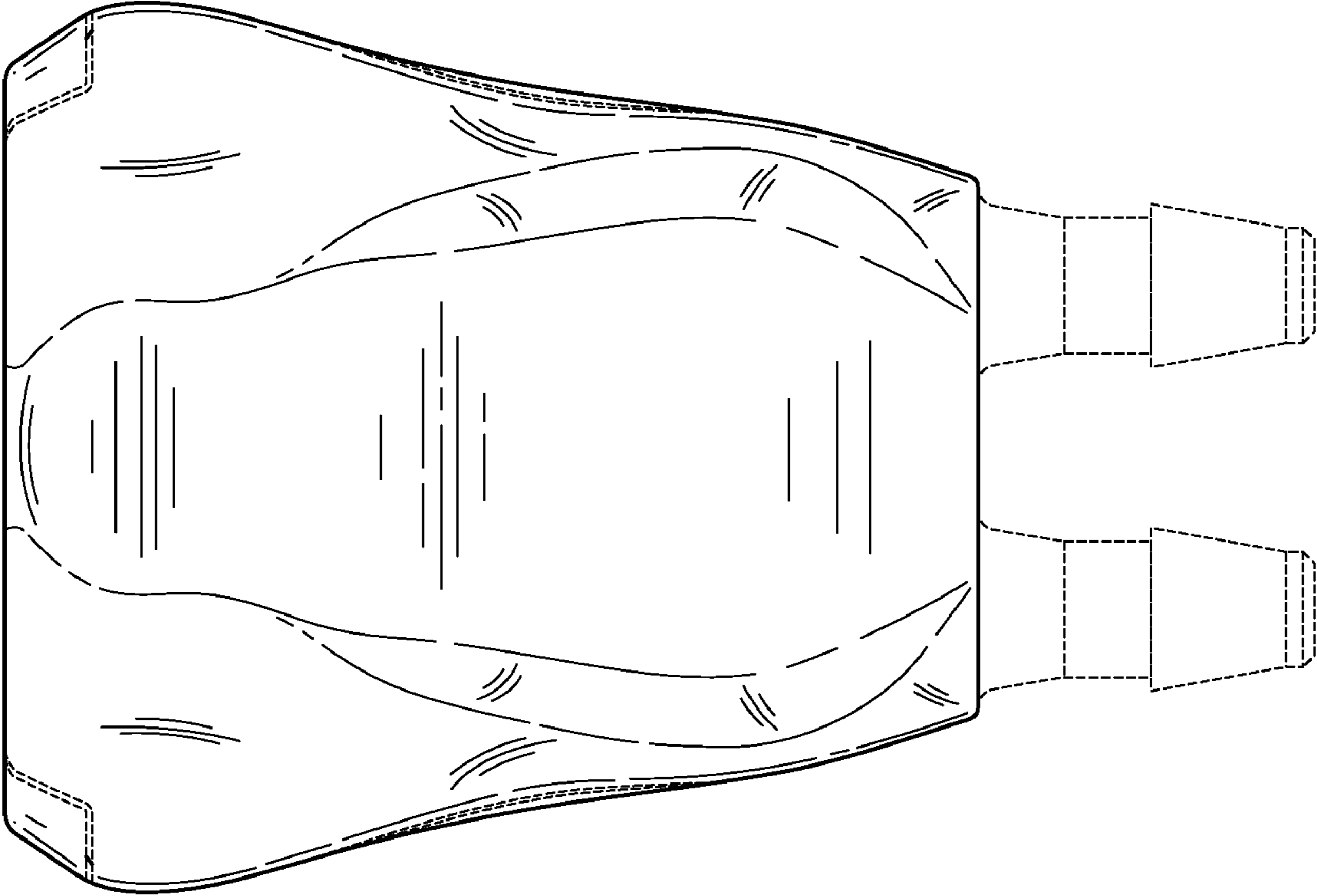


FIG.8

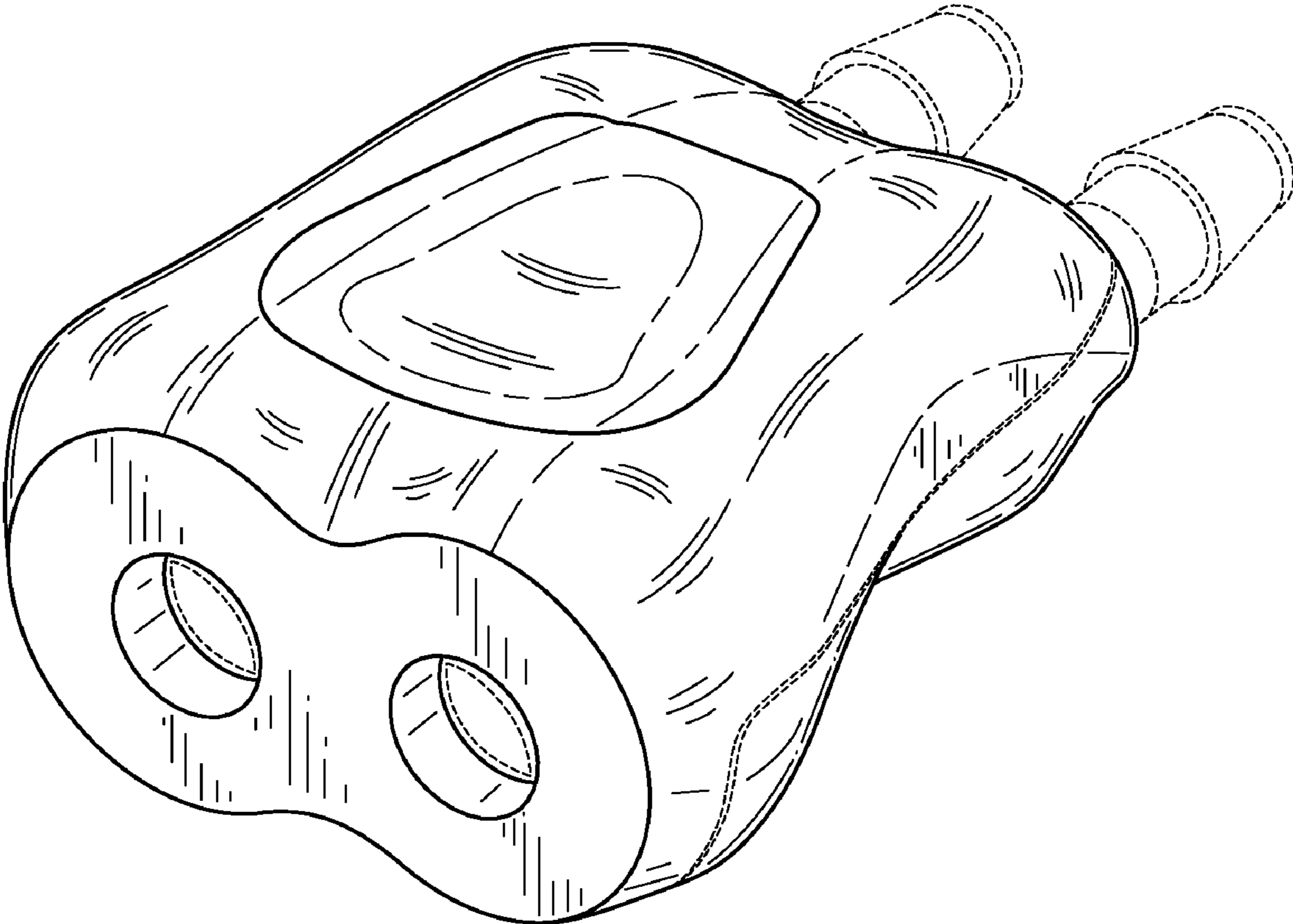


FIG.9

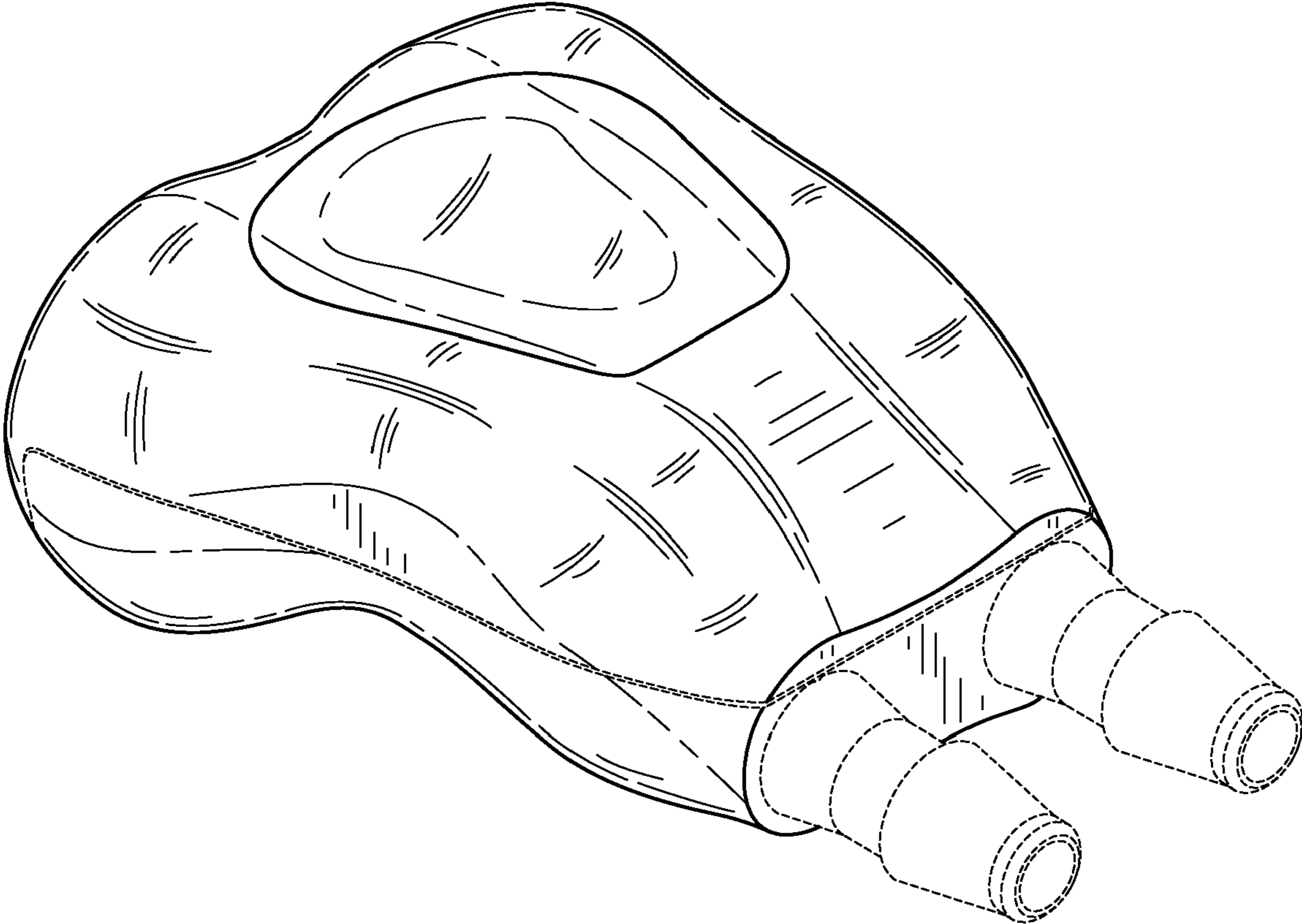


FIG.10

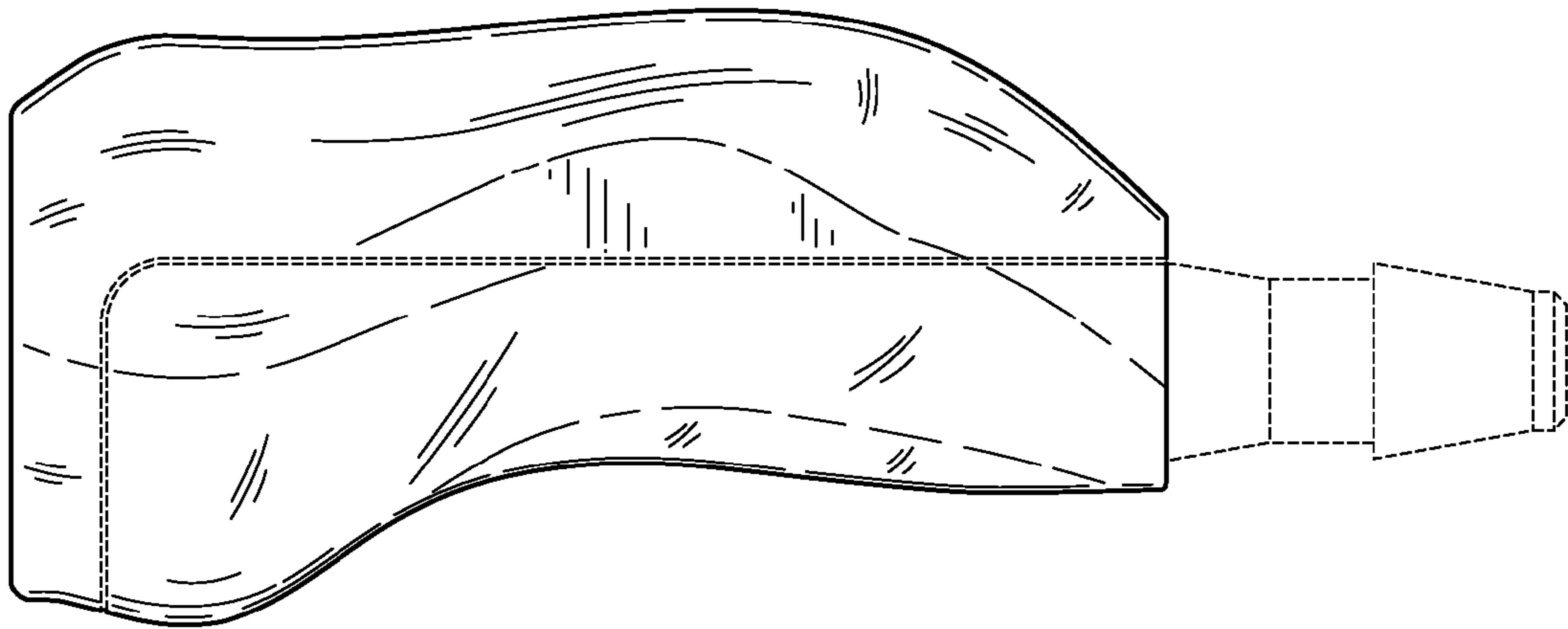


FIG.11

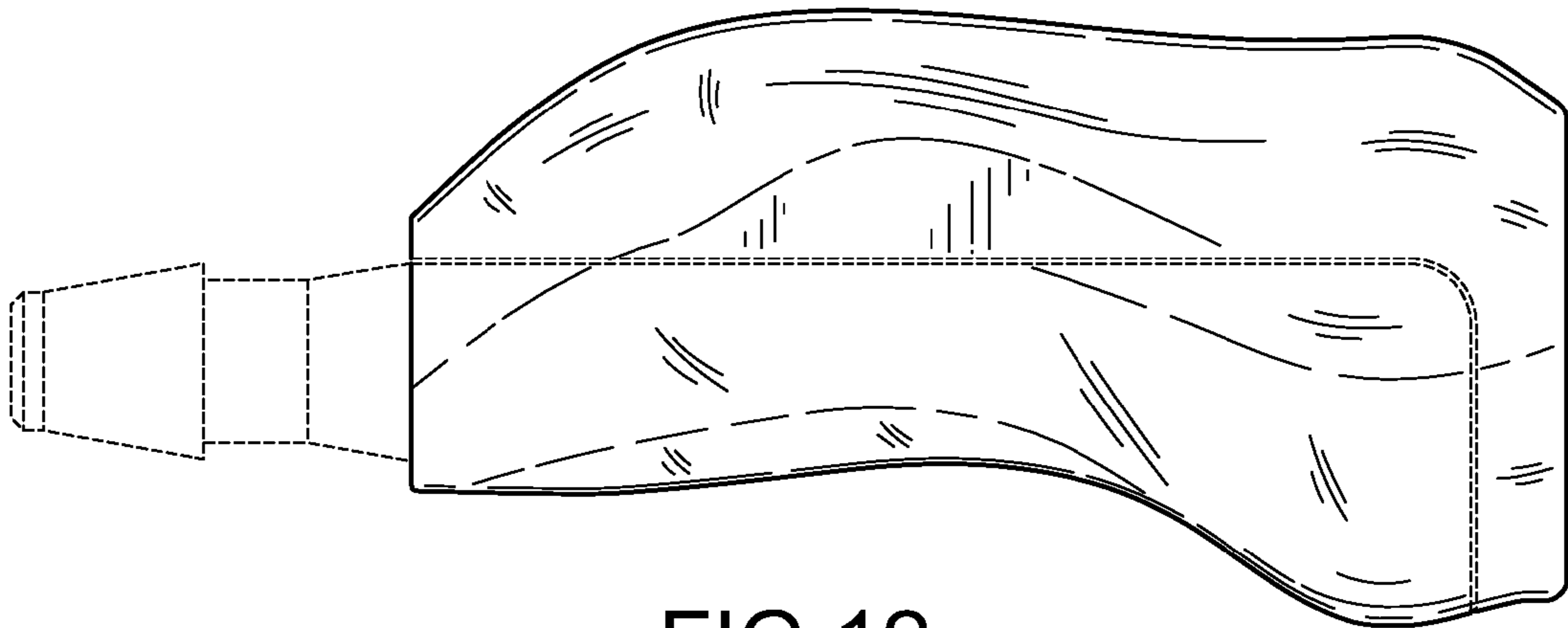


FIG.12

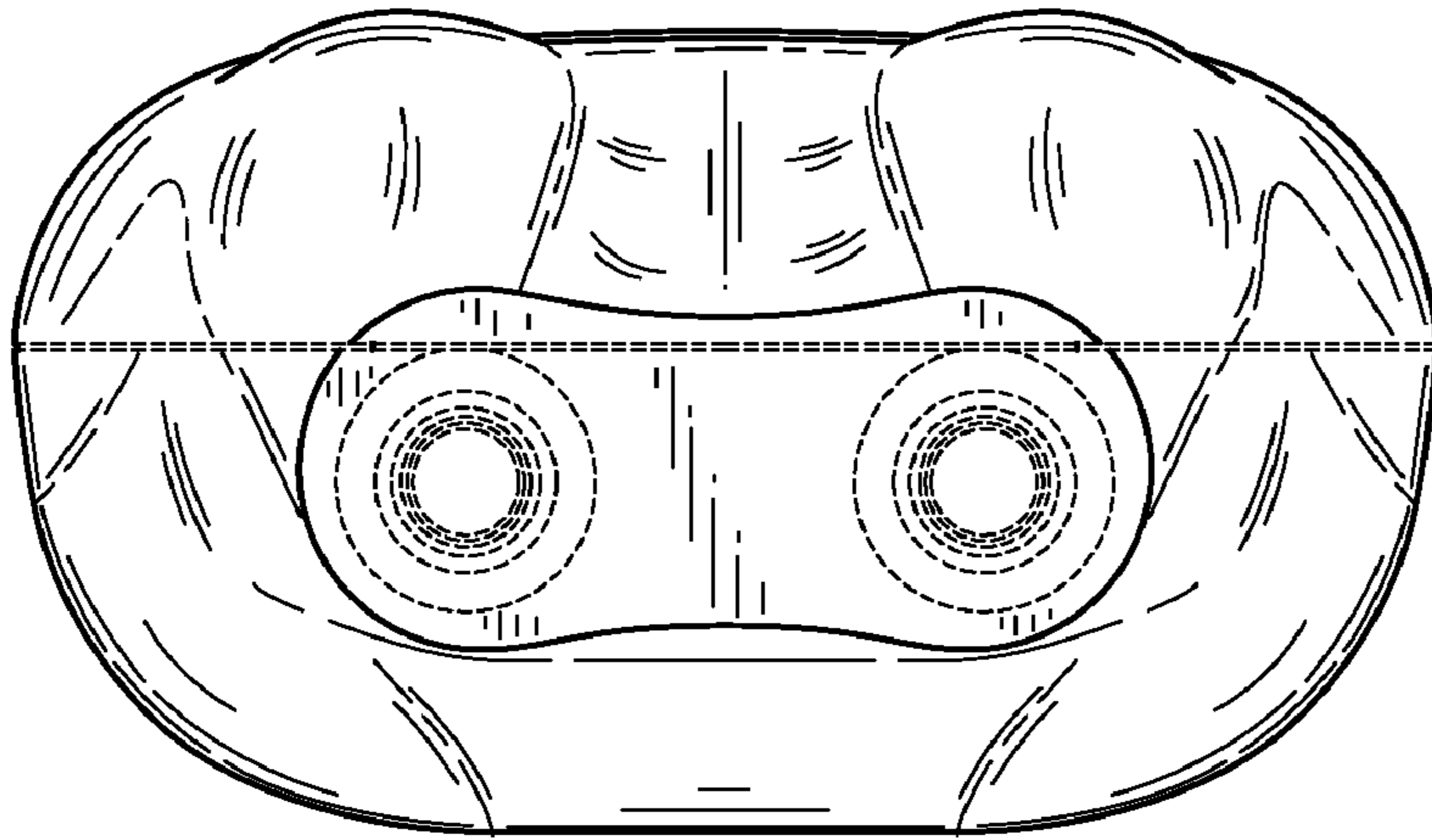


FIG.13

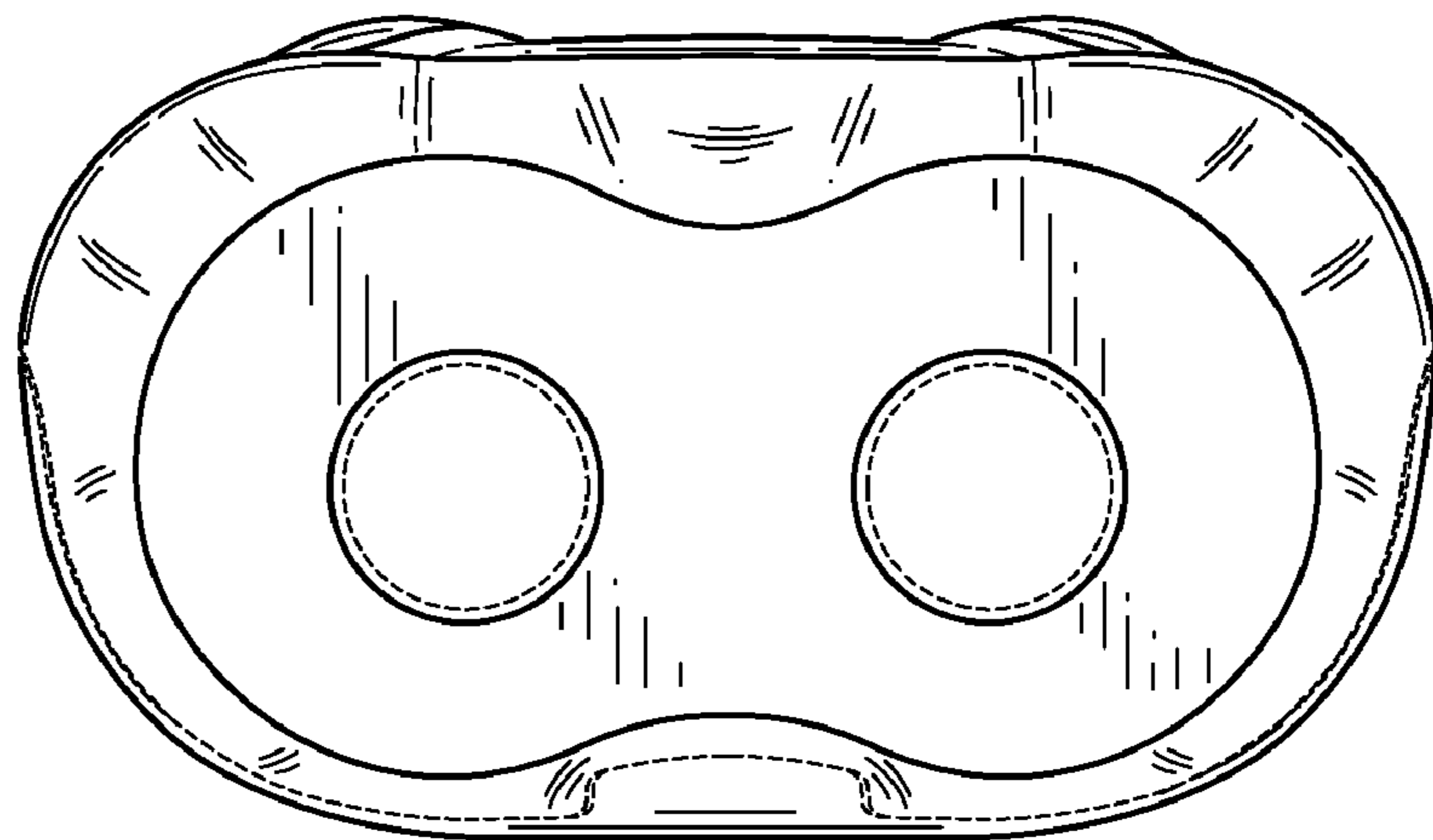


FIG.14

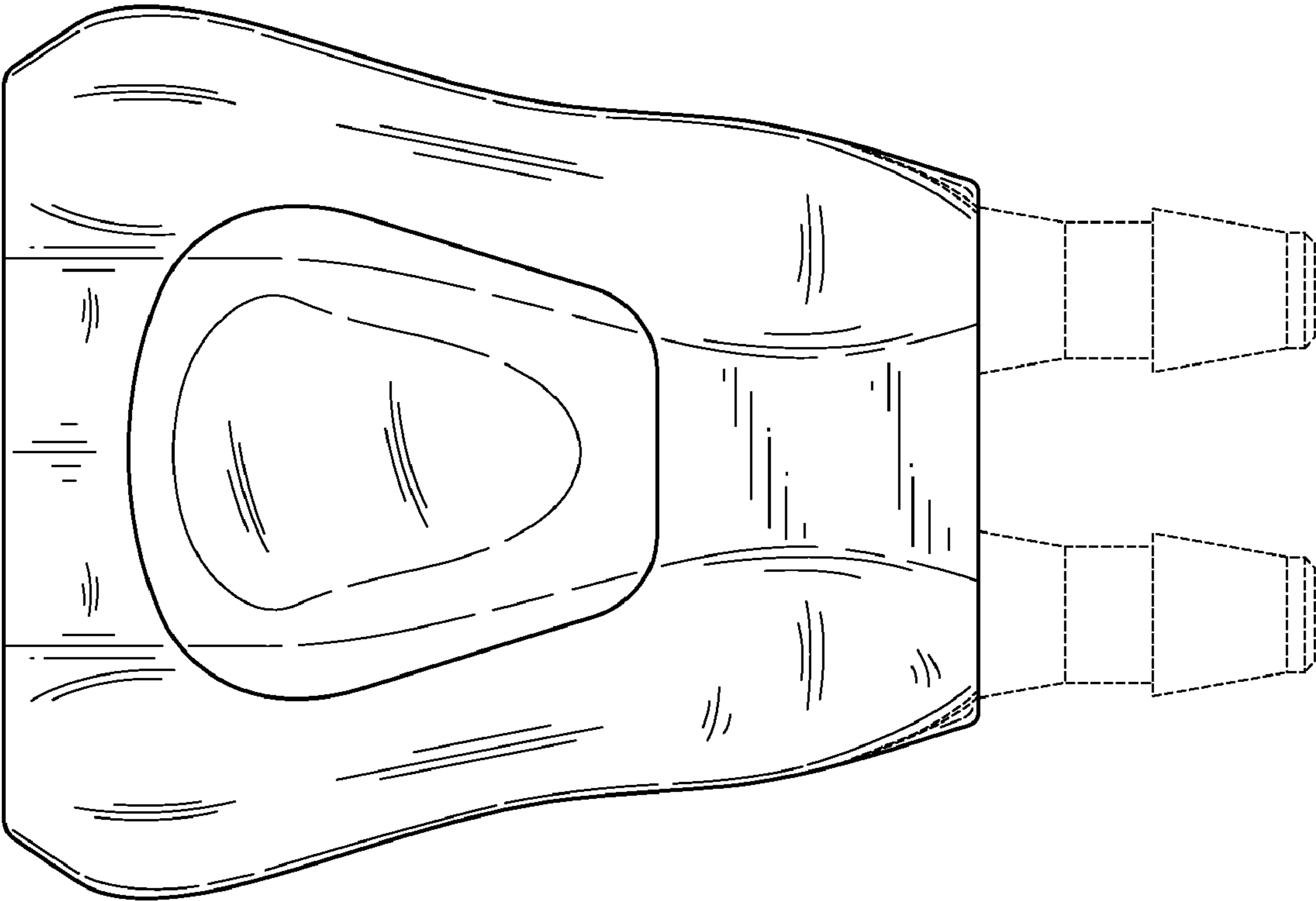


FIG.15

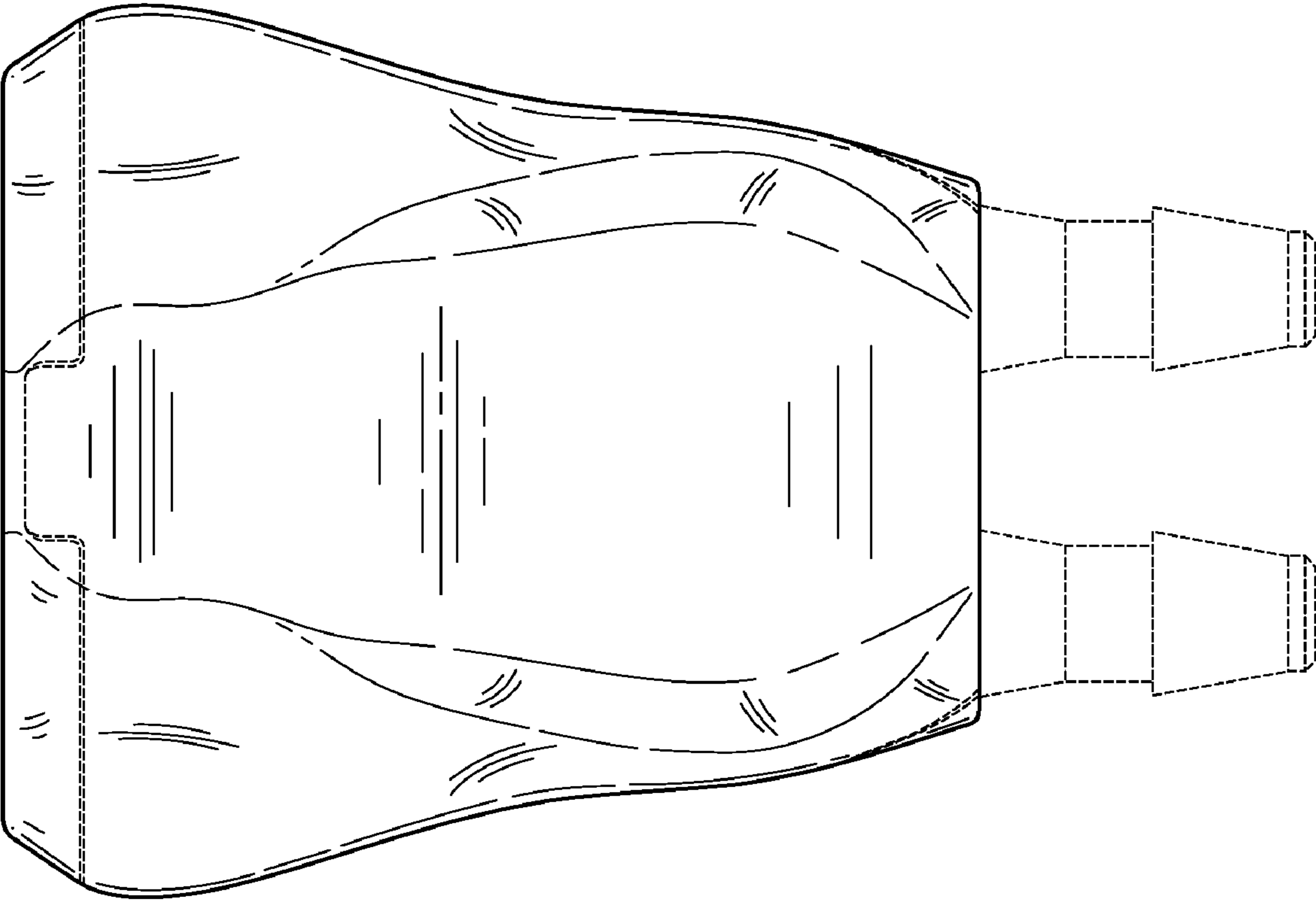


FIG.16