



US00D719342S

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

(10) **Patent No.:** **US D719,342 S**

(45) **Date of Patent:** **** Dec. 16, 2014**

(54) **UMBRELLA RIB CONNECTOR**

FOREIGN PATENT DOCUMENTS

(76) Inventor: **Oliver Joen-an Ma**, Arcadia, CA (US)

CN 202190859 4/2012
DE 3820573 8/1989

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

(Continued)

(21) Appl. No.: **29/425,486**

OTHER PUBLICATIONS

(22) Filed: **Jun. 22, 2012**

Operation Manual Easy Sun Parasol Sunshade (Issue: Jul. 2004) pp. 1-17.

(30) **Foreign Application Priority Data**

Primary Examiner — John Windmuller

Dec. 26, 2011 (CN) 2011 3 0499431
Jan. 16, 2012 (CN) 2012 3 0011967

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

(51) **LOC (10) CL.** **03-03**

(52) **U.S. Cl.**
USPC **D3/5; D3/10**

(57) **CLAIM**

(58) **Field of Classification Search**
USPC D3/5, 10; 135/15.1, 33.2, 20.1
See application file for complete search history.

The ornamental design for an umbrella rib connector, as shown and described.

(56) **References Cited**

DESCRIPTION

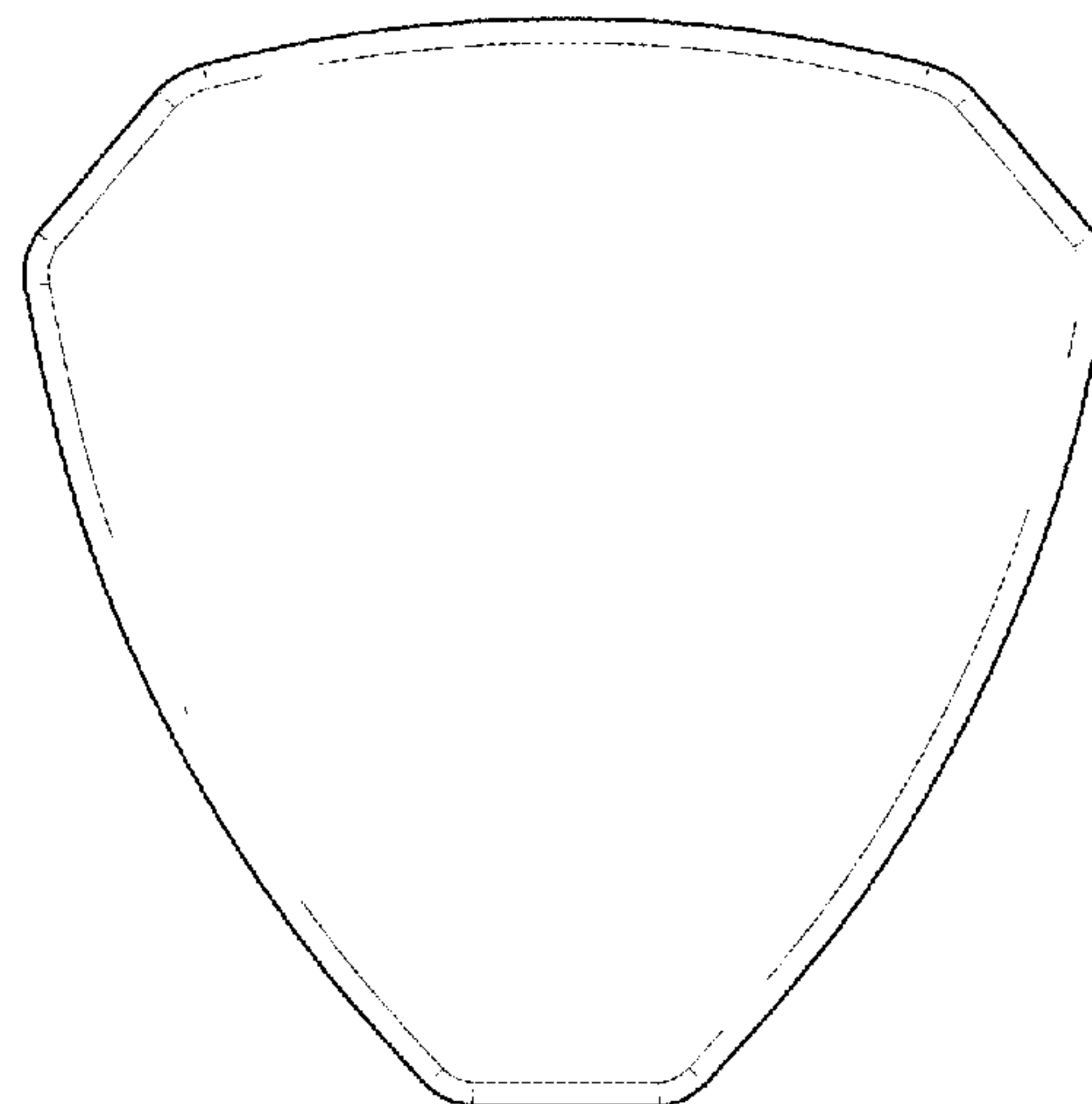
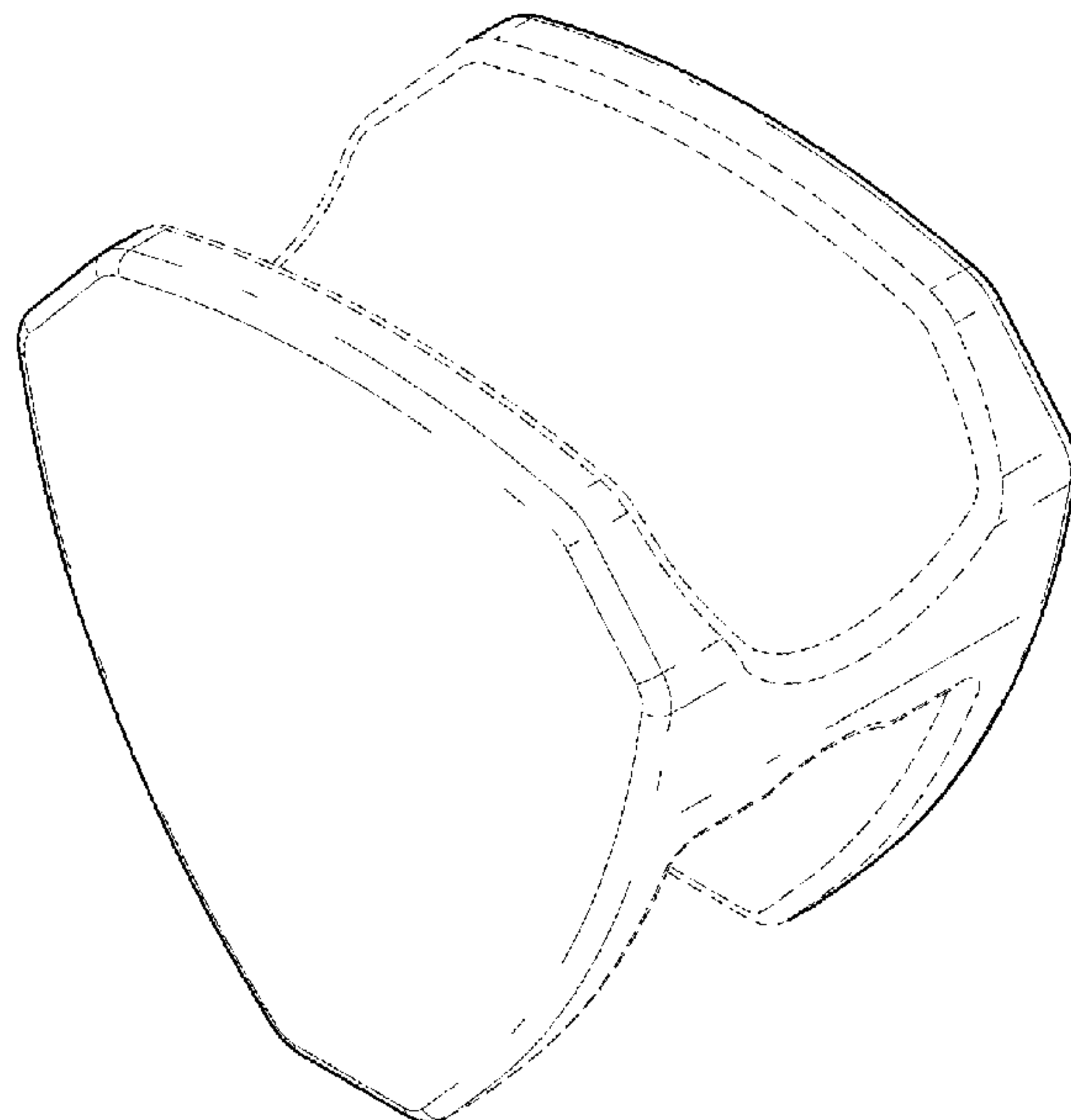
U.S. PATENT DOCUMENTS

878,270	A	2/1908	Blake et al.
956,657	A	5/1910	Wetteroth
957,528	A	5/1910	Wetteroth
D45,227	S	2/1914	Glauber
1,136,887	A	4/1915	Penn
1,235,296	A	7/1917	Dillingham
1,243,594	A	10/1917	Dillingham
1,255,627	A	2/1918	Morrow et al.
1,268,354	A	6/1918	Howard
D90,772	S	9/1933	Kasch
D127,735	S	6/1941	Dreyfuss
2,447,972	A	8/1948	Weinert
2,475,406	A	7/1949	Russell
D162,678	S	3/1951	Muller-Munk
D167,619	S	9/1952	Coran

FIG. 1 is a perspective view of an umbrella rib connector showing a new design;
FIG. 2 is another perspective view of the design of FIG. 1;
FIG. 3 is a right side view of the design of FIG. 1;
FIG. 4 is a left side view of the design of FIG. 1;
FIG. 5 is a front view of the design of FIG. 1;
FIG. 6 is a rear view of the design of FIG. 1;
FIG. 7 is a top view of the design of FIG. 1;
FIG. 8 is a bottom view of the design of FIG. 1; and,
FIG. 9 is a perspective view thereof in use with an umbrella.
The broken lines in FIGS. 1, 2, and 5-8 depict portions of the umbrella rib connector that form no part of the claimed design. The broken lines in FIG. 9 depict environment only and form no part of the claimed design.

(Continued)

1 Claim, 5 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2,762,383 A 9/1956 Wittman
 2,937,653 A 5/1960 Danciar et al.
 D190,597 S 6/1961 Nelson
 3,120,238 A 2/1964 Glatz
 3,145,720 A 8/1964 Torii
 3,340,352 A * 9/1967 Teagno et al. 174/94 R
 3,424,180 A 1/1969 Giancarlo
 D230,115 S * 1/1974 Beams D8/394
 3,856,032 A 12/1974 Schafer
 D265,498 S 7/1982 Paul
 4,368,749 A 1/1983 Lindler et al.
 D276,838 S 12/1984 Hill et al.
 D277,934 S * 3/1985 Beckrot D8/395
 4,586,525 A 5/1986 Glatz et al.
 D284,920 S * 8/1986 Van Horn D6/491
 4,622,987 A 11/1986 Redl et al.
 4,674,523 A 6/1987 Glatz
 4,811,670 A 3/1989 Kolvites et al.
 4,878,509 A 11/1989 Tung
 5,002,081 A 3/1991 Stromeyer
 5,029,596 A 7/1991 Tung
 5,050,627 A 9/1991 Hengtzu
 5,161,909 A * 11/1992 Crouse et al. 403/391
 D331,462 S * 12/1992 Kraus et al. D24/143
 D344,786 S 3/1994 Short et al.
 5,349,975 A 9/1994 Valdner
 5,357,994 A 10/1994 Chung
 D362,833 S * 10/1995 McKelvey D12/133
 5,499,644 A 3/1996 Geniele
 D372,854 S 8/1996 Jimenez
 5,584,564 A 12/1996 Phyle
 5,588,455 A 12/1996 Kuo
 5,611,364 A 3/1997 Woods et al.
 5,655,557 A 8/1997 Martin
 5,740,823 A 4/1998 Lin et al.
 5,785,069 A 7/1998 Glatz
 D397,054 S 8/1998 Brantley et al.
 D398,443 S 9/1998 Bolle
 5,809,734 A 9/1998 Turner
 D400,777 S 11/1998 Carsello
 5,884,645 A 3/1999 Chen et al.
 D408,621 S 4/1999 Kuo
 5,899,210 A 5/1999 Letherby et al.
 D410,862 S 6/1999 Mihov
 5,937,882 A 8/1999 Harbaugh
 6,014,980 A 1/2000 Glatz
 D434,215 S 11/2000 Lin
 D434,476 S 11/2000 Meda
 6,145,523 A 11/2000 Lo
 6,152,156 A 11/2000 Tung
 D434,556 S 12/2000 Lin
 6,192,907 B1 2/2001 Wu
 6,220,261 B1 4/2001 Glatz
 6,230,728 B1 5/2001 Reese
 6,247,483 B1 6/2001 Rung
 6,305,394 B1 10/2001 Reese
 6,311,705 B1 11/2001 Ma
 6,311,707 B1 11/2001 Wu et al.
 6,314,976 B1 11/2001 Clarke
 6,371,141 B1 4/2002 Lin et al.
 6,371,686 B1 4/2002 Wu
 6,386,214 B1 5/2002 Clarke
 6,386,215 B1 5/2002 Chang
 6,412,506 B1 7/2002 Reese
 6,422,251 B1 7/2002 Tseng
 6,478,037 B2 11/2002 Tung
 6,571,813 B2 6/2003 Lin et al.
 6,575,182 B2 6/2003 Tung
 6,575,183 B2 6/2003 Tung
 D477,458 S 7/2003 Goldwitz
 6,588,438 B1 7/2003 Steiner
 D478,416 S 8/2003 Clarke

D479,797 S * 9/2003 Wall D8/382
 6,619,306 B2 9/2003 Ma
 6,662,815 B2 12/2003 Tung
 6,732,753 B2 5/2004 Chang
 6,758,229 B2 7/2004 Wang
 D497,478 S 10/2004 Clarke
 D497,479 S 10/2004 Yu
 6,837,255 B2 1/2005 Bunch et al.
 6,851,823 B2 2/2005 Bilotti
 D503,035 S 3/2005 Ko
 6,889,699 B2 5/2005 Clarke
 6,941,960 B2 9/2005 Huang
 7,000,624 B2 2/2006 Chang
 7,040,587 B2 * 5/2006 Thompson et al. 248/214
 D525,721 S 7/2006 Landes
 7,082,953 B2 8/2006 Liu
 7,089,950 B2 8/2006 Lin
 D539,632 S 4/2007 Ma
 D549,557 S * 8/2007 Mori et al. D8/356
 7,293,573 B2 11/2007 Clarke
 D558,444 S 1/2008 Ma
 7,318,444 B2 1/2008 Clakre
 7,328,715 B2 2/2008 Neubardt
 D563,780 S * 3/2008 Pitcher D8/395
 D565,944 S * 4/2008 Pitcher D8/395
 D575,143 S * 8/2008 Kuo et al. D8/394
 D593,653 S * 6/2009 Mitrani D23/304
 7,546,845 B2 6/2009 Prusmack
 D596,482 S * 7/2009 Marinucci D8/394
 D606,379 S * 12/2009 Hughes D8/72
 7,665,477 B1 2/2010 Hathaway
 7,686,024 B1 3/2010 Lai
 7,703,464 B2 4/2010 Ma
 D631,243 S 1/2011 Forthuber et al.
 7,861,734 B2 1/2011 Ma
 7,891,367 B2 2/2011 Ma
 7,900,643 B2 3/2011 Ma
 7,913,708 B2 3/2011 Yung
 8,061,375 B2 11/2011 Ma
 8,082,935 B2 12/2011 Ma
 8,096,310 B2 1/2012 Clarke
 D658,977 S * 5/2012 Riddell et al. D8/394
 D679,581 S * 4/2013 Liu et al. D8/395
 D696,104 S * 12/2013 Kampl D8/394
 2002/0083969 A1 7/2002 Tung
 2002/0139405 A1 10/2002 Lee
 2003/0015230 A1 1/2003 Glatz
 2004/0031513 A1 2/2004 Bunch et al.
 2004/0055627 A1 3/2004 Moga
 2004/0055628 A1 3/2004 Yu
 2004/0069333 A1 4/2004 Ma
 2004/0154525 A1 8/2004 Wirth et al.
 2004/0182429 A1 9/2004 Chen
 2004/0206382 A1 10/2004 Clarke
 2004/0206383 A1 10/2004 Clarke
 2005/0098200 A1 5/2005 Su
 2006/0005867 A1 1/2006 Chang
 2006/0151019 A1 7/2006 Lo
 2008/0202570 A1 8/2008 Clarke
 2010/0139724 A1 6/2010 Lai
 2010/0139725 A1 6/2010 Lai
 2011/0061694 A1 3/2011 Vanderminden, Sr.
 2011/0132418 A1 6/2011 Ma
 2011/0209732 A1 9/2011 Ma
 2011/0214705 A1 9/2011 Ma
 2011/0277800 A1 11/2011 Tung

FOREIGN PATENT DOCUMENTS

FR 2672781 A3 8/1992
 JP 2006-110317 A 4/2006
 JP 2007-222591 9/2007
 JP 2008-142310 6/2008
 WO WO 2005/058089 6/2005

* cited by examiner

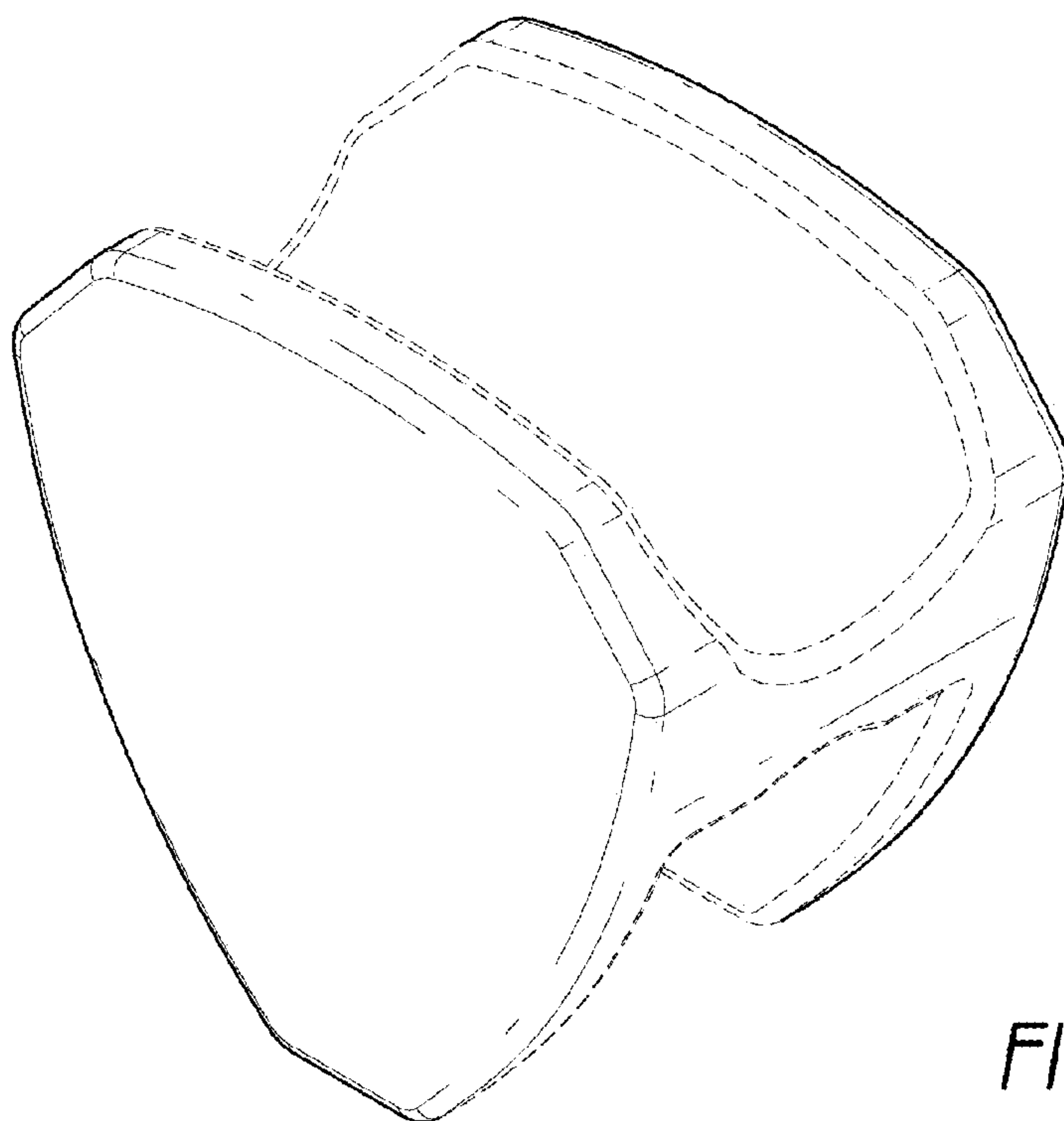


FIG. 1

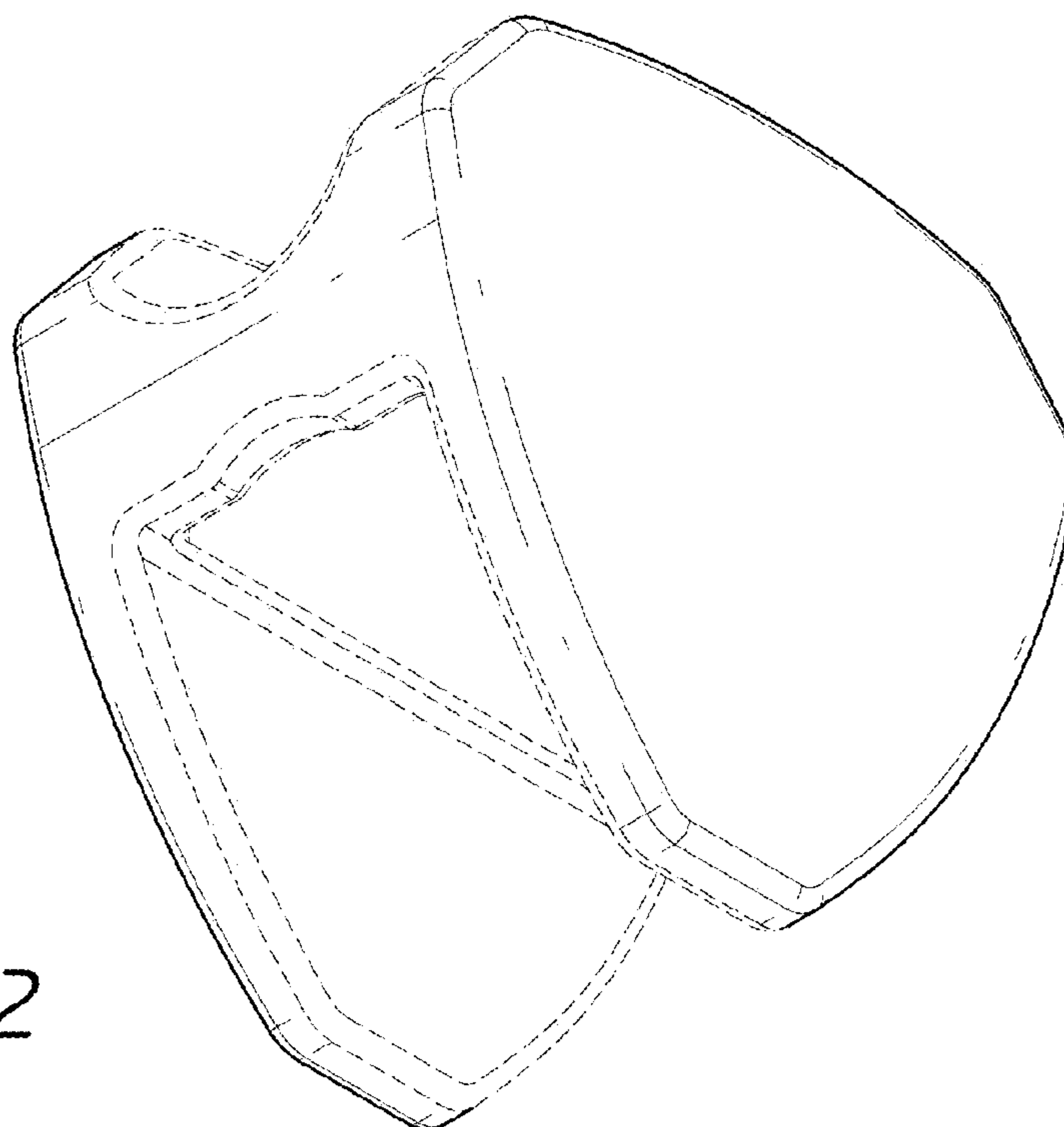


FIG. 2

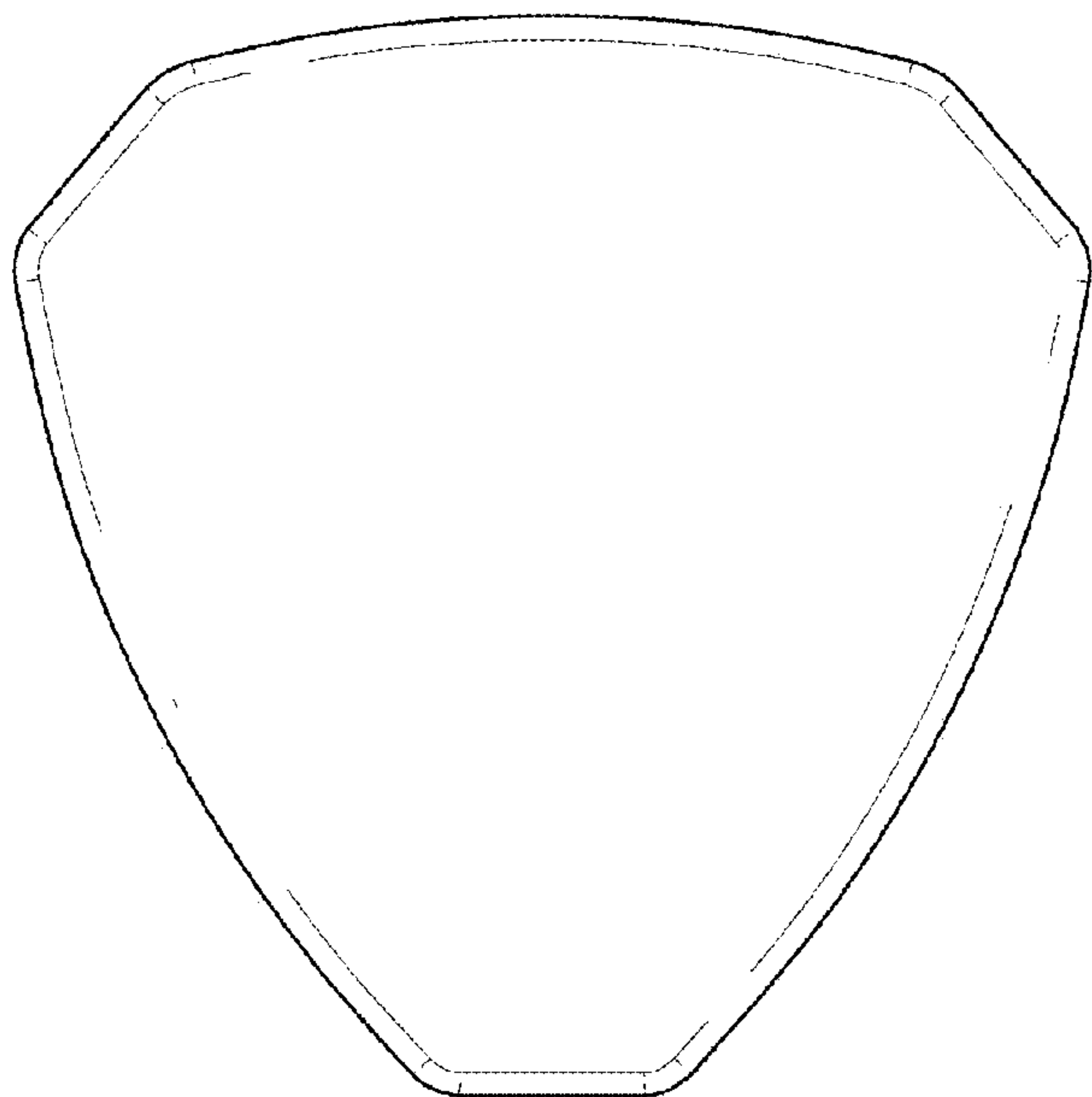


FIG. 3

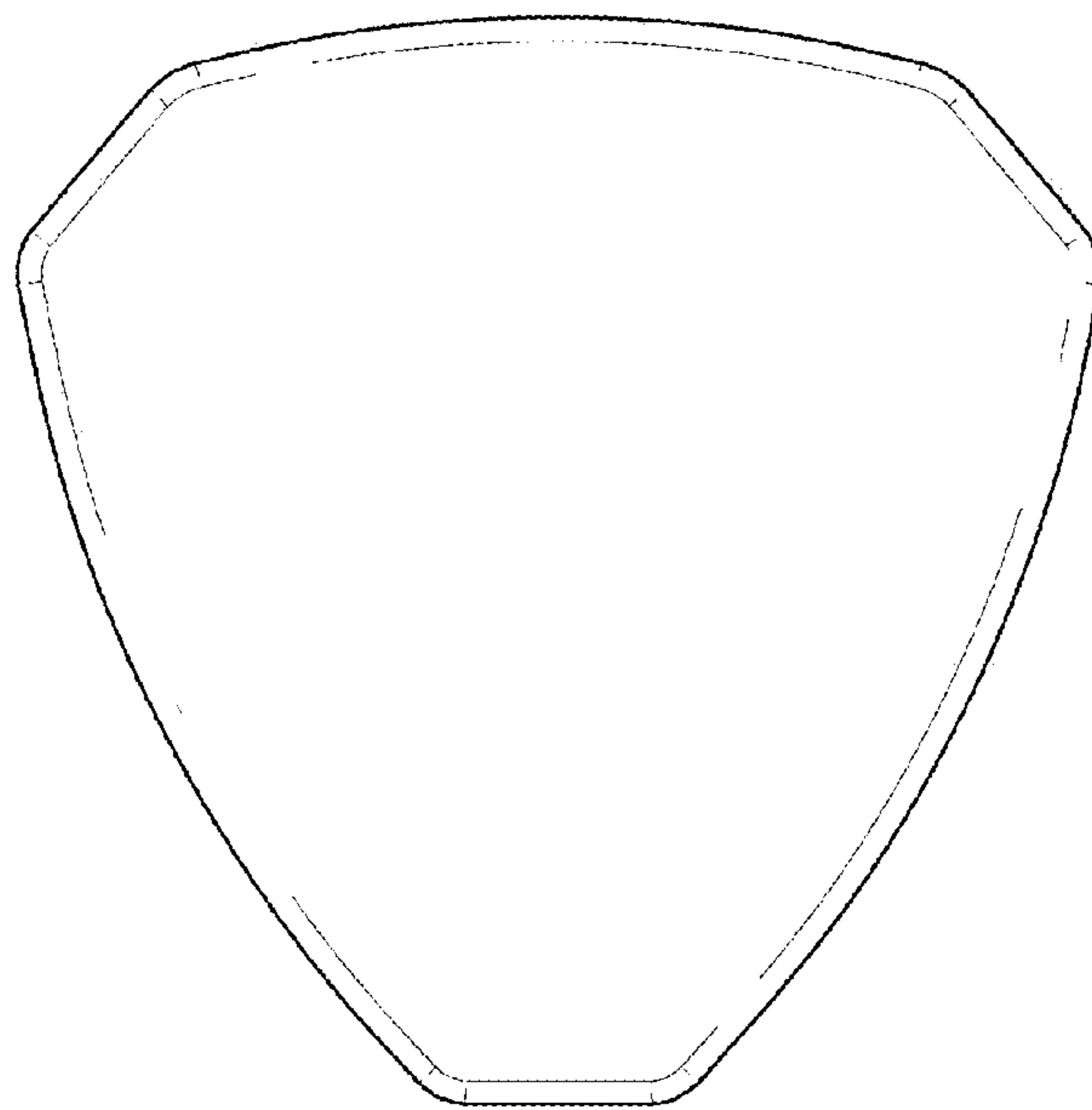


FIG. 4

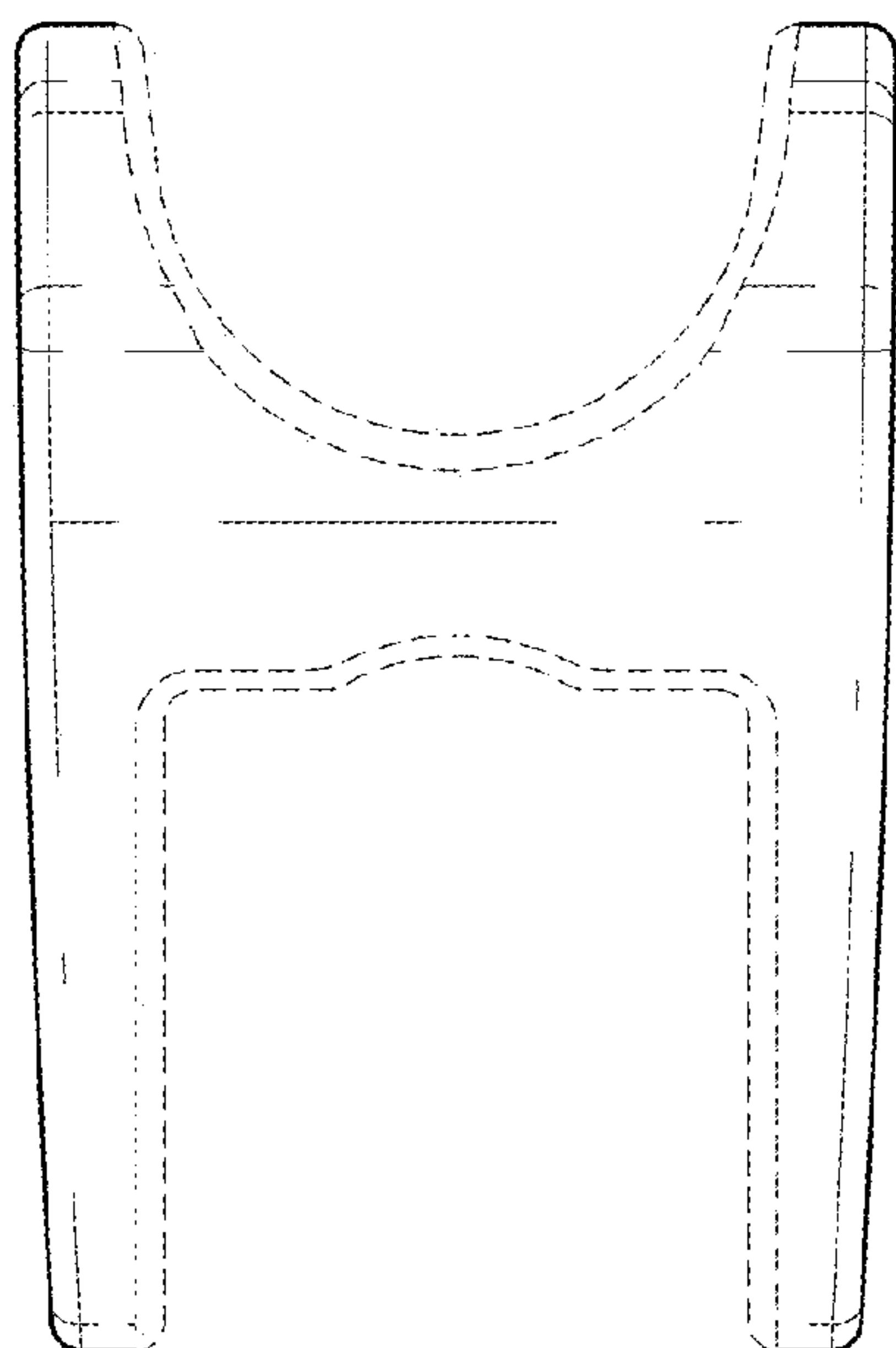


FIG. 5

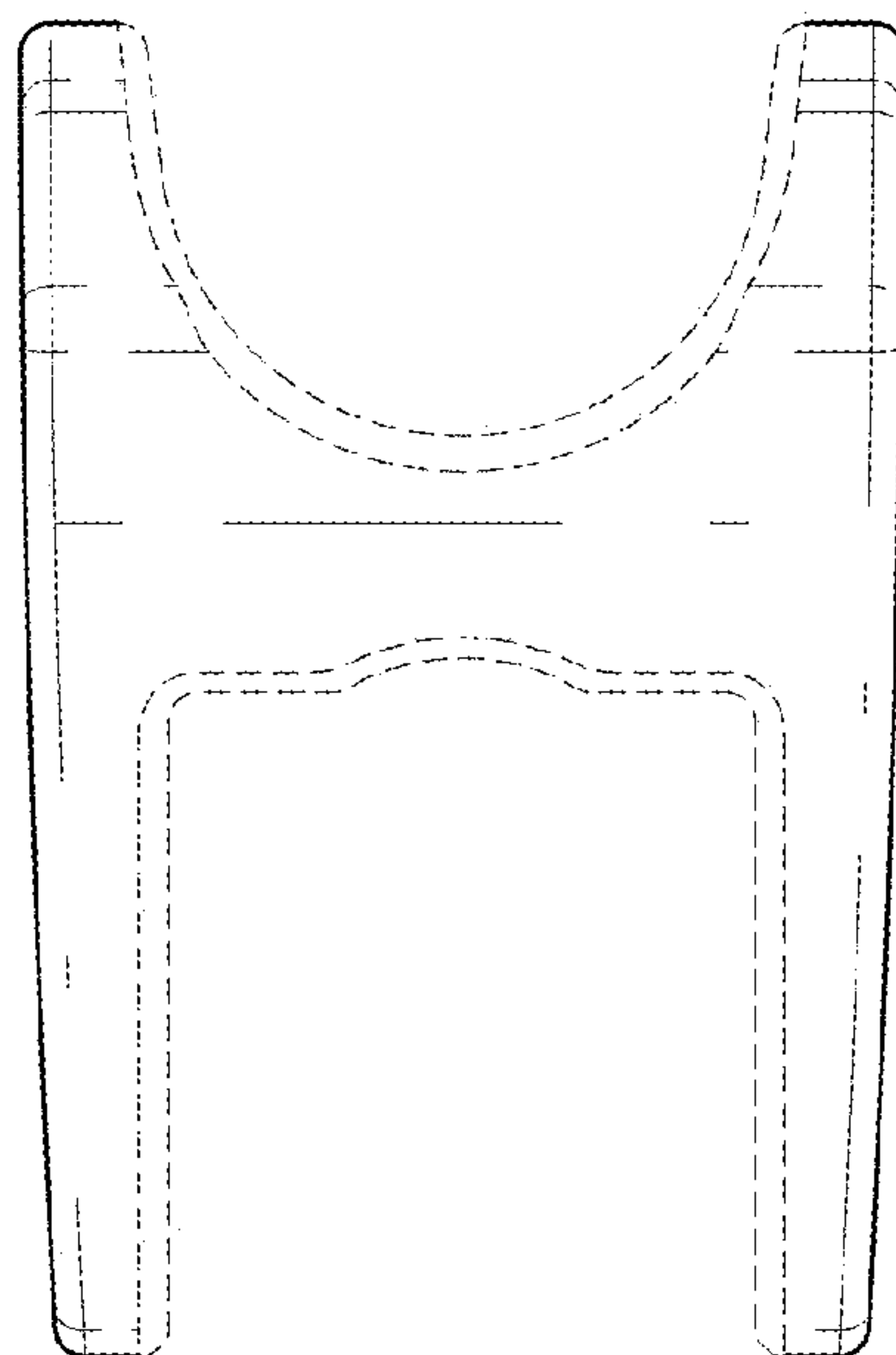


FIG. 6

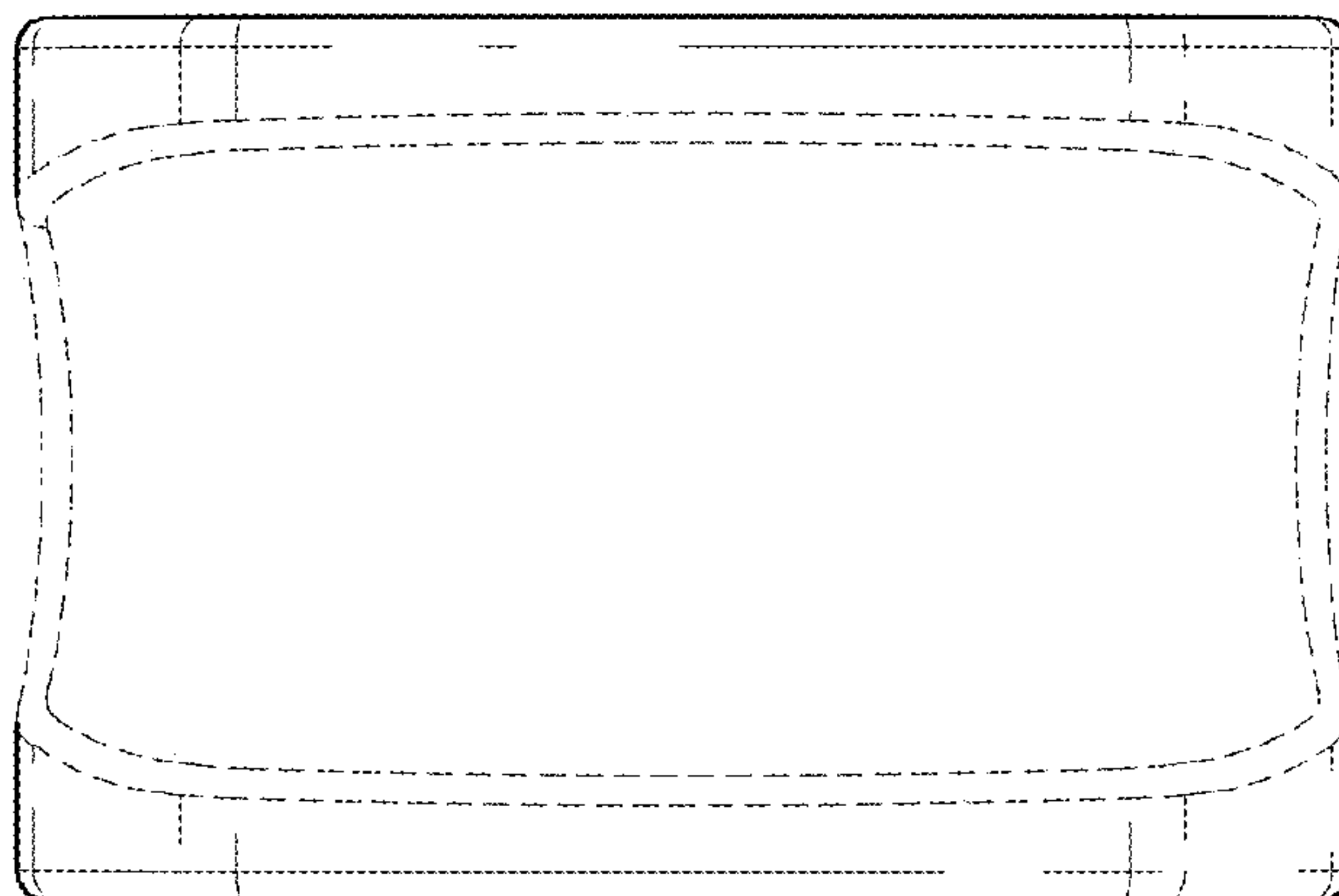


FIG. 7

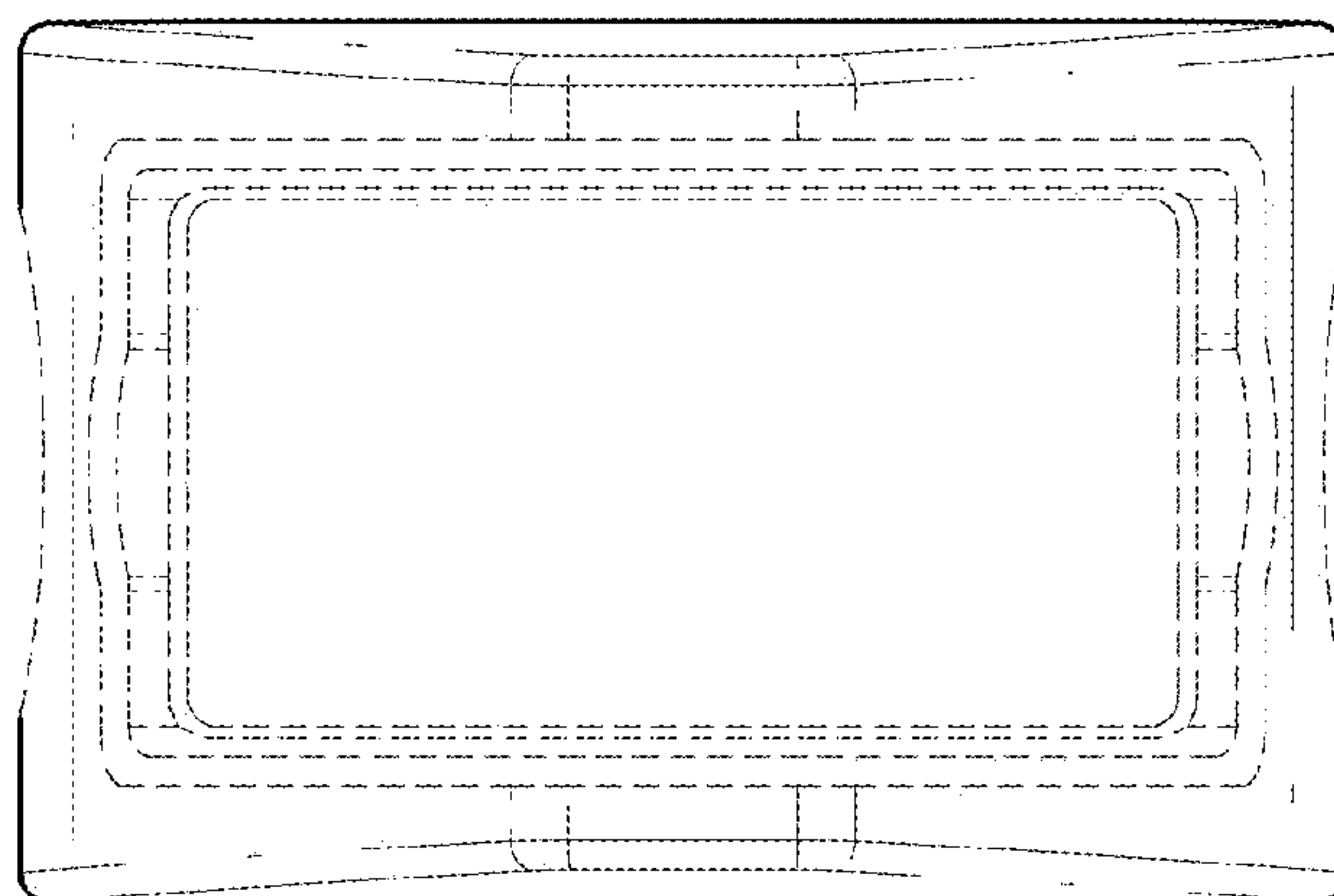


FIG. 8

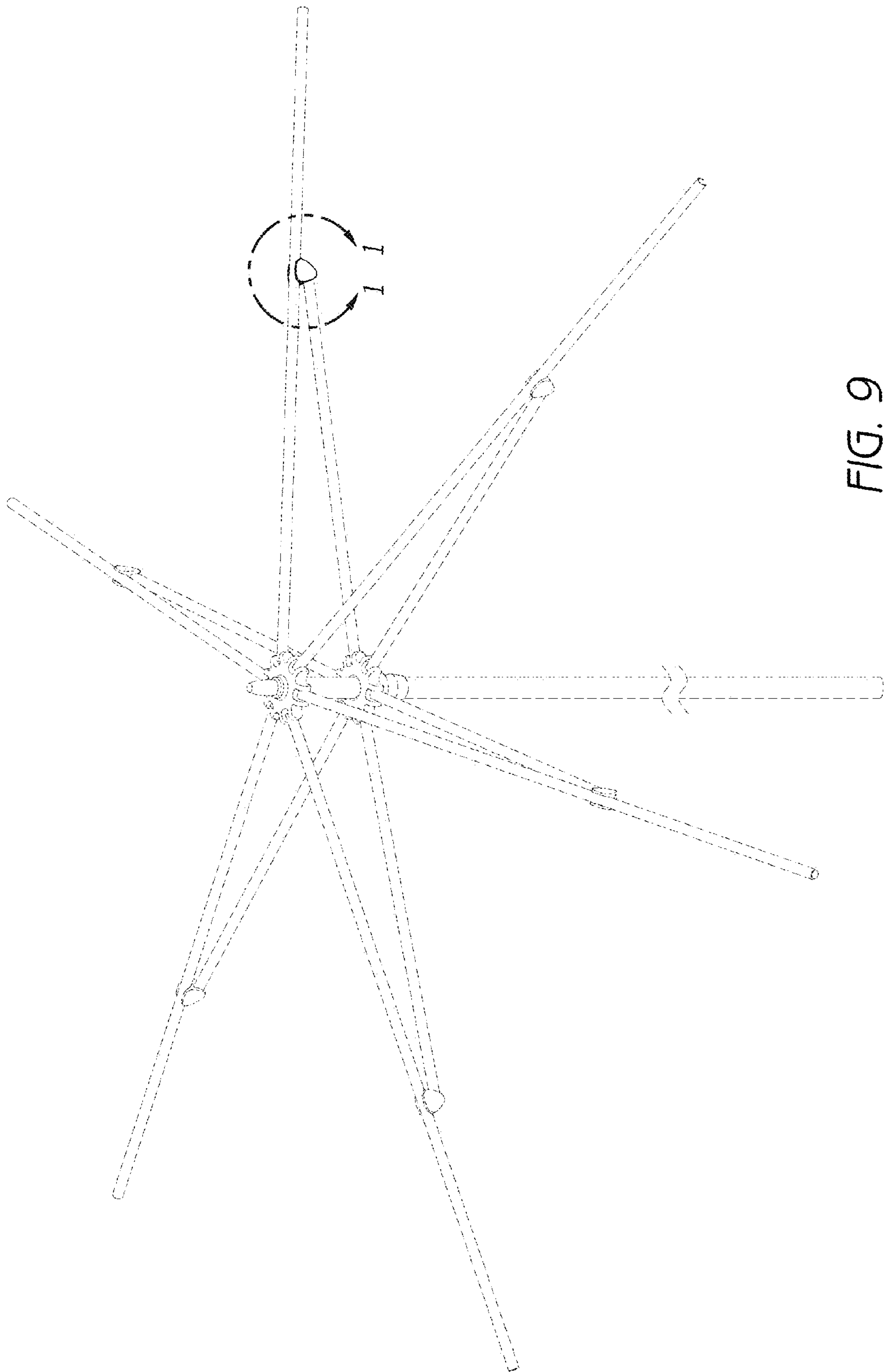


FIG. 9