



US00D884153S

(12) **United States Design Patent** (10) **Patent No.:** **US D884,153 S**
Patel et al. (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)

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)

(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

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.

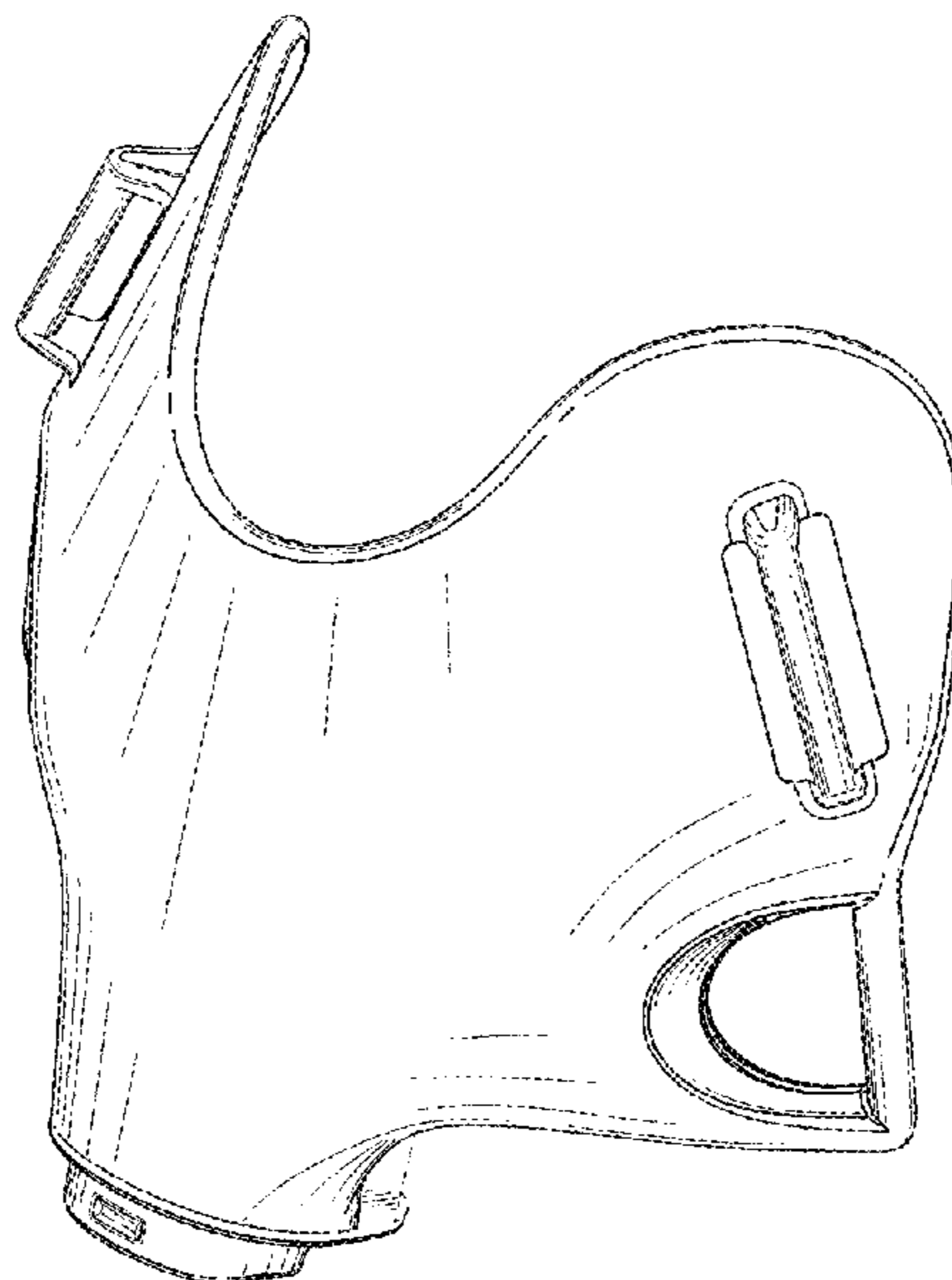
FIG. 5 is a right side view thereof.

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

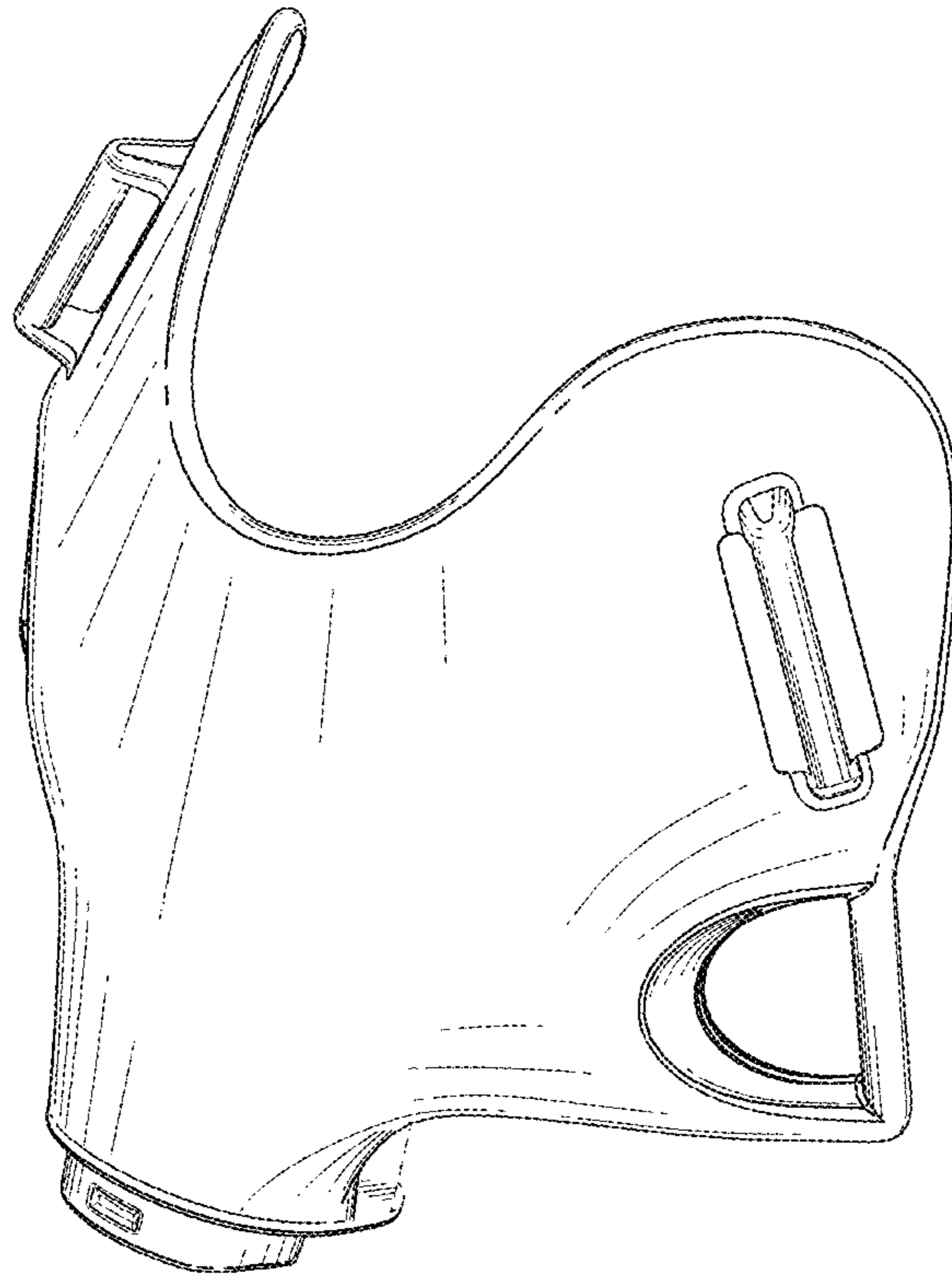


FIG. 1

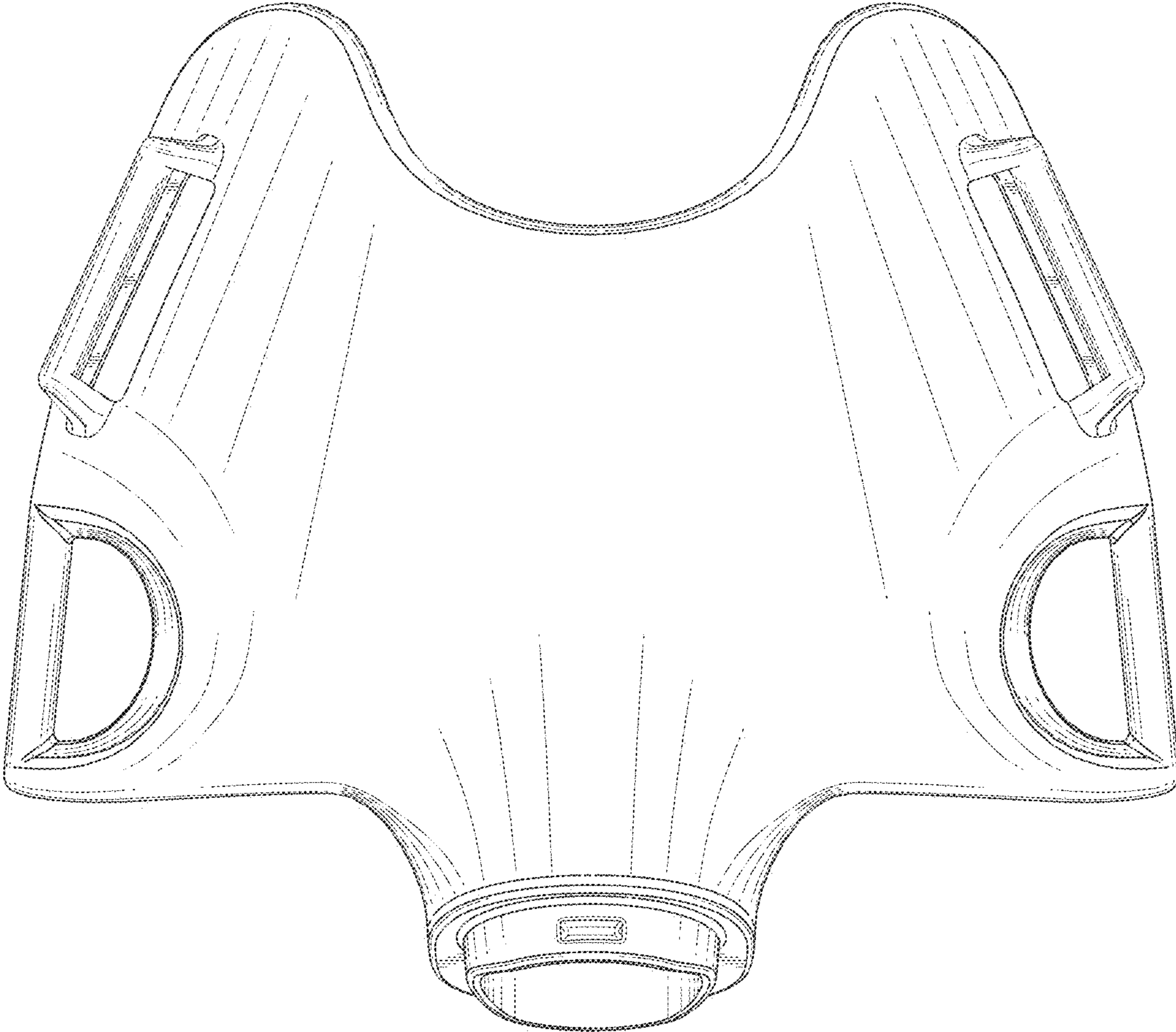


FIG. 2

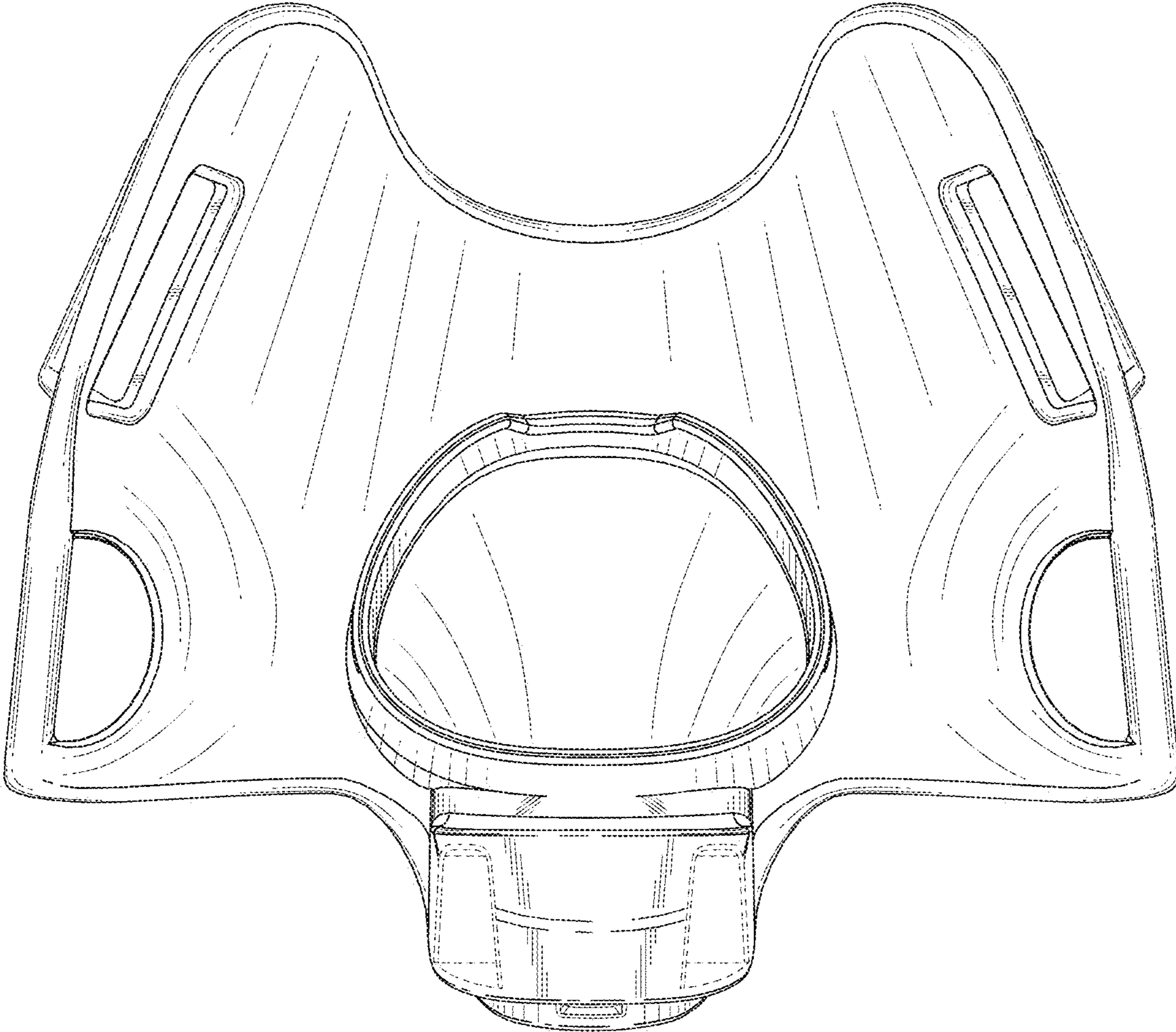


FIG. 3

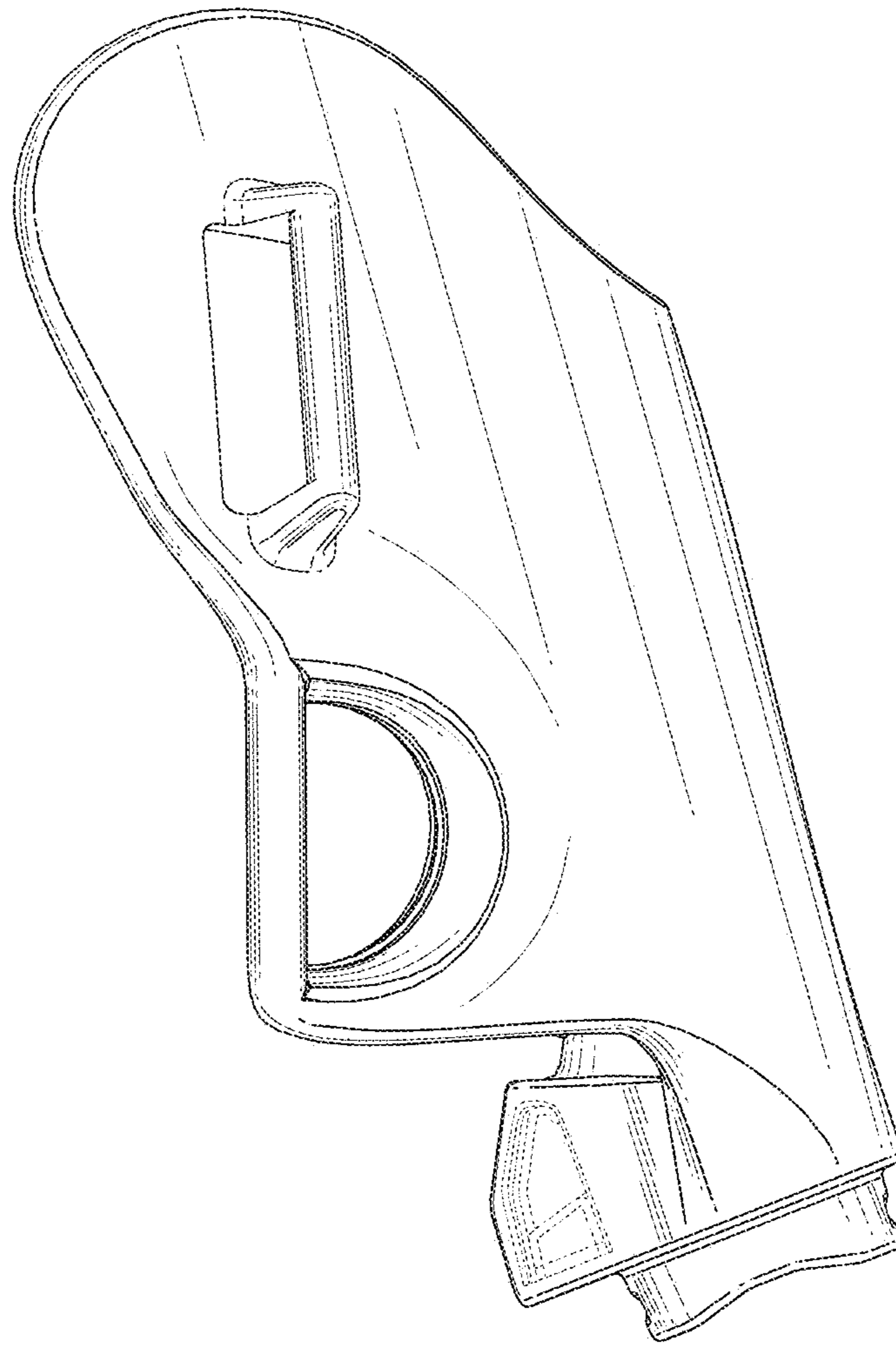


FIG. 4

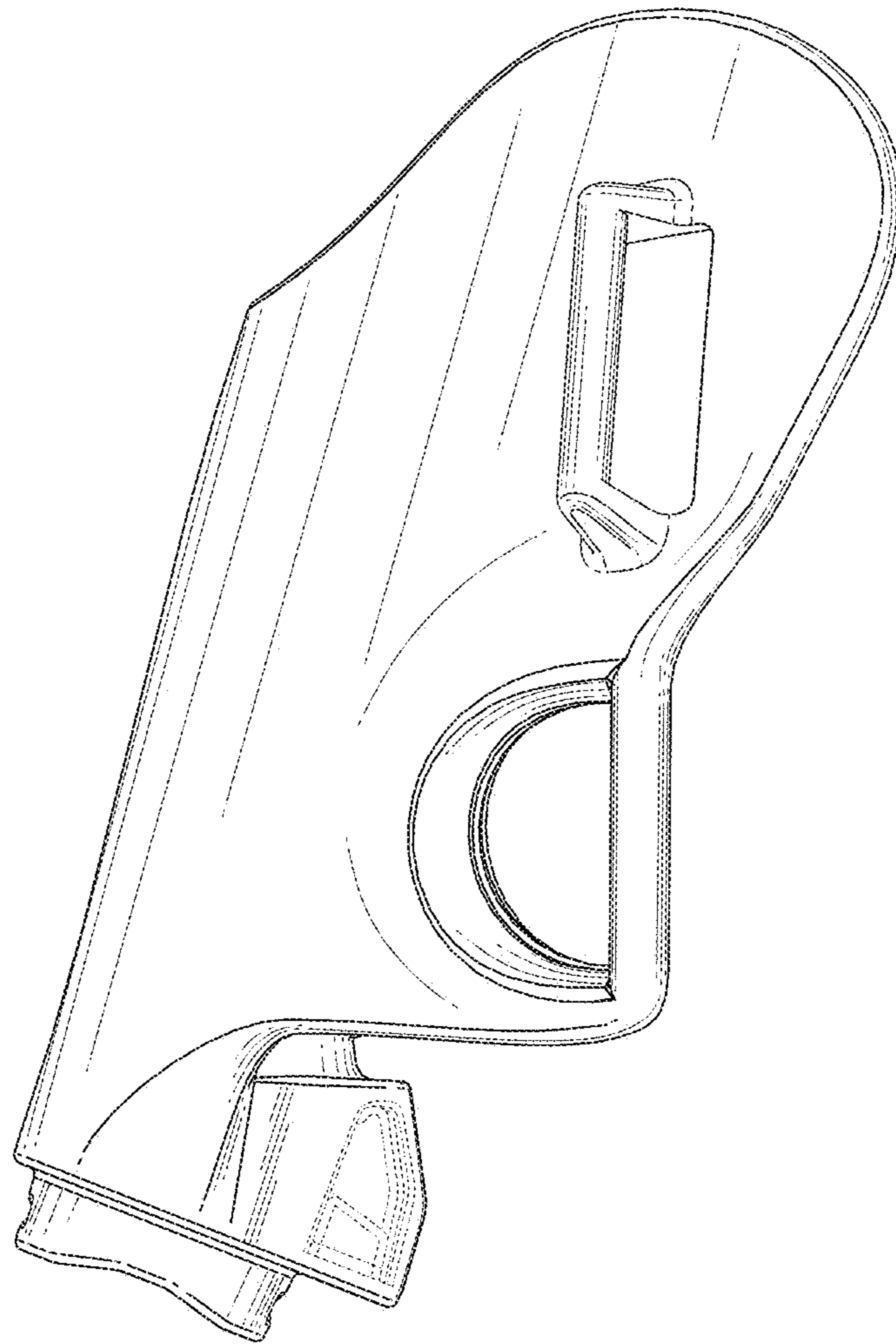


FIG. 5

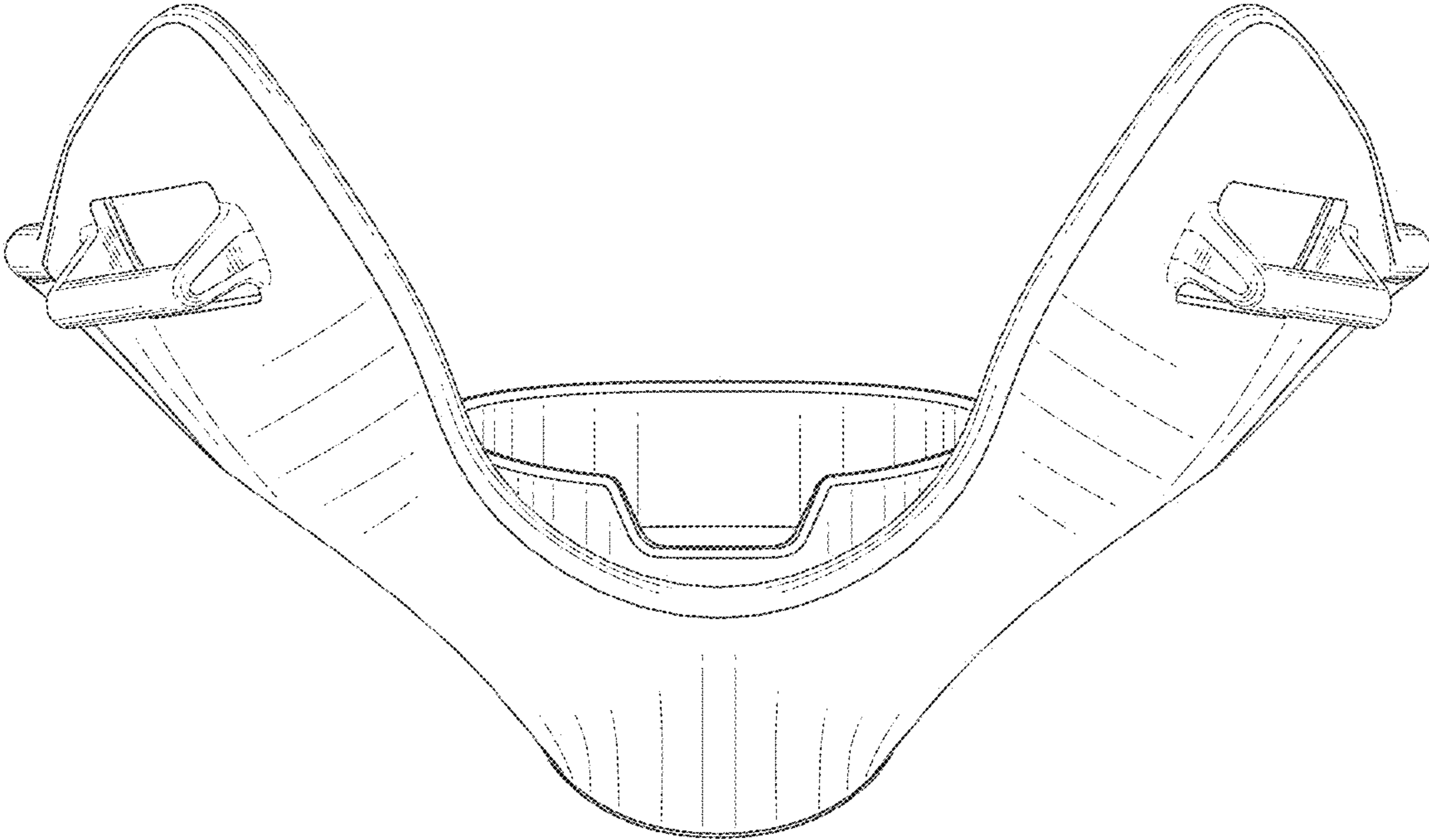


FIG. 6

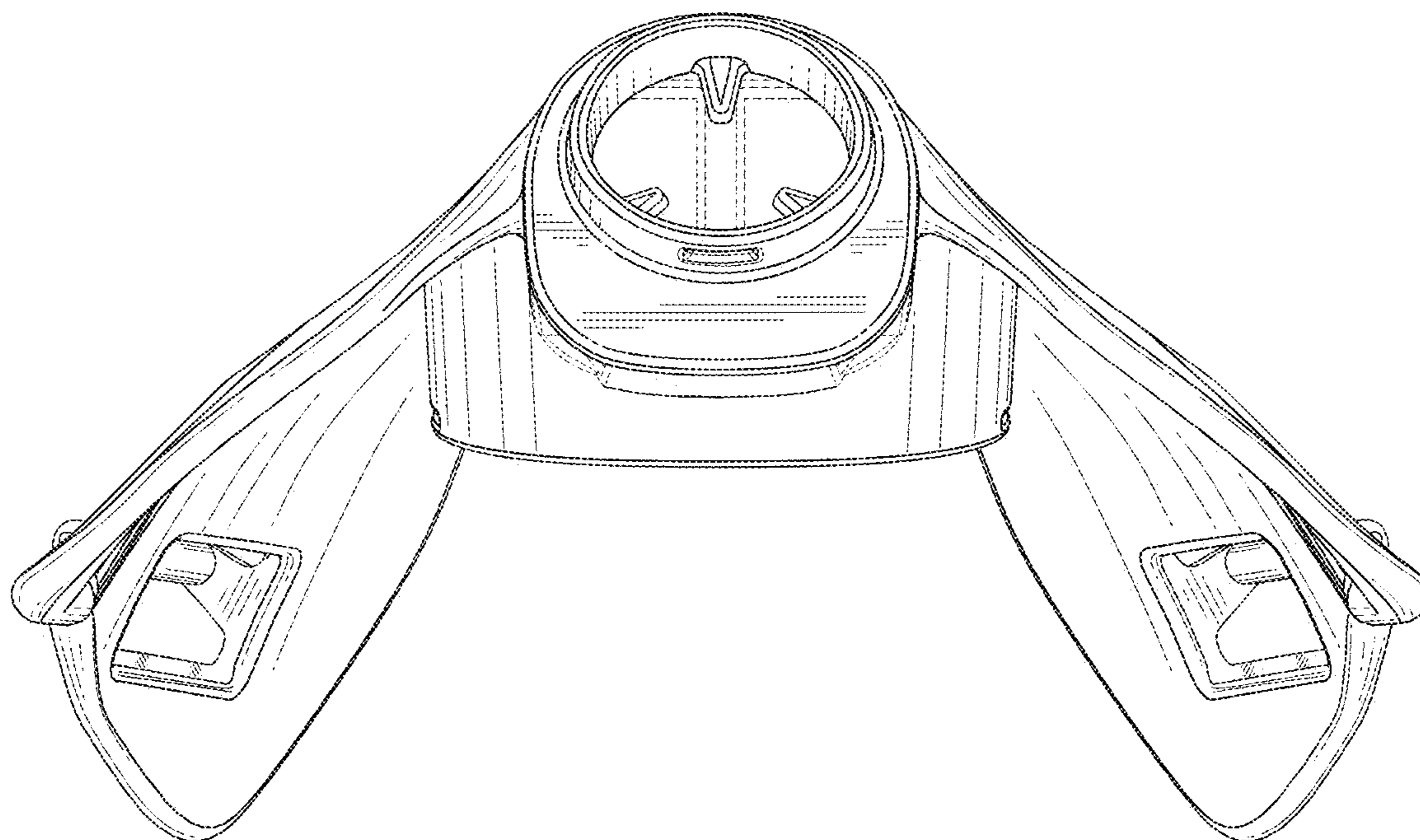


FIG. 7

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.

Page 1 of 1

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

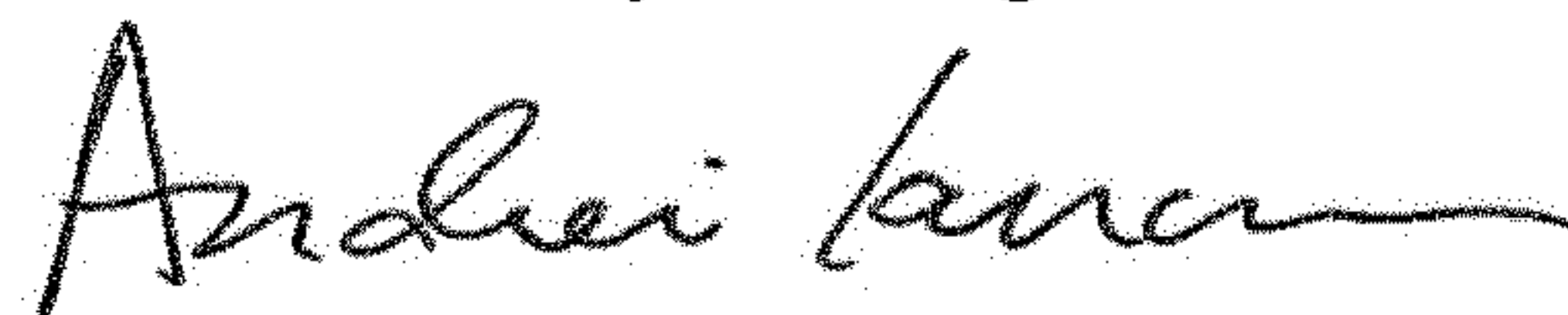
On the Title Page

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