



US00D857190S

(12) **United States Design Patent** (10) **Patent No.:** **US D857,190 S**
Siew et al. (45) **Date of Patent:** **** Aug. 20, 2019**

(54) **PATIENT INTERFACE**
(71) Applicant: **Fisher & Paykel Healthcare Limited,**
Auckland (NZ)
(72) Inventors: **Silas Sao Jin Siew,** Auckland (NZ);
Wen Dong Huang, Auckland (NZ);
Craig Robert Prentice, Auckland (NZ);
Andrew Paul Maxwell Salmon,
Auckland (NZ)
(73) Assignee: **Fisher & Paykel Healthcare Limited,**
Auckland (NZ)

D335,367 S 5/1993 Mieskoski
5,671,732 A 9/1997 Bowen
5,782,236 A 7/1998 Ess
D399,950 S 10/1998 Shepard
6,374,826 B1 4/2002 Gunaratnam et al.
D476,732 S 7/2003 Smart
D479,876 S 9/2003 Gradon et al.
D485,905 S 1/2004 Moore et al.
D486,226 S 2/2004 Guney
D496,726 S 9/2004 Amarasinghe
D532,511 S 11/2006 Amarasinghe

(Continued)

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

(21) Appl. No.: **29/616,082**

(22) Filed: **Sep. 1, 2017**

Related U.S. Application Data

(63) Continuation of application No. 29/541,452, filed on Oct. 2, 2015, now Pat. No. Des. 798,439, which is a continuation of application No. 29/469,110, filed on Oct. 7, 2013, now Pat. No. Des. 740,409, which is a continuation of application No. 29/368,392, filed on Aug. 23, 2010, now Pat. No. Des. 691,257.

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

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

(58) **Field of Classification Search**
USPC D24/110.1-110.5, 127
CPC A61M 16/0622; A61M 16/0616; A61M 16/0816; A61M 16/08; A61M 16/0633; A61M 16/06; A61M 16/0666; A61M 2210/0618; A61M 16/0683
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,449,527 A 5/1984 Hinton
5,010,884 A 4/1991 Van Derdoes

FOREIGN PATENT DOCUMENTS

WO WO 2001/097892 12/2001
WO WO 2007/022562 3/2007

(Continued)

Primary Examiner — Lilyana Bekic

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

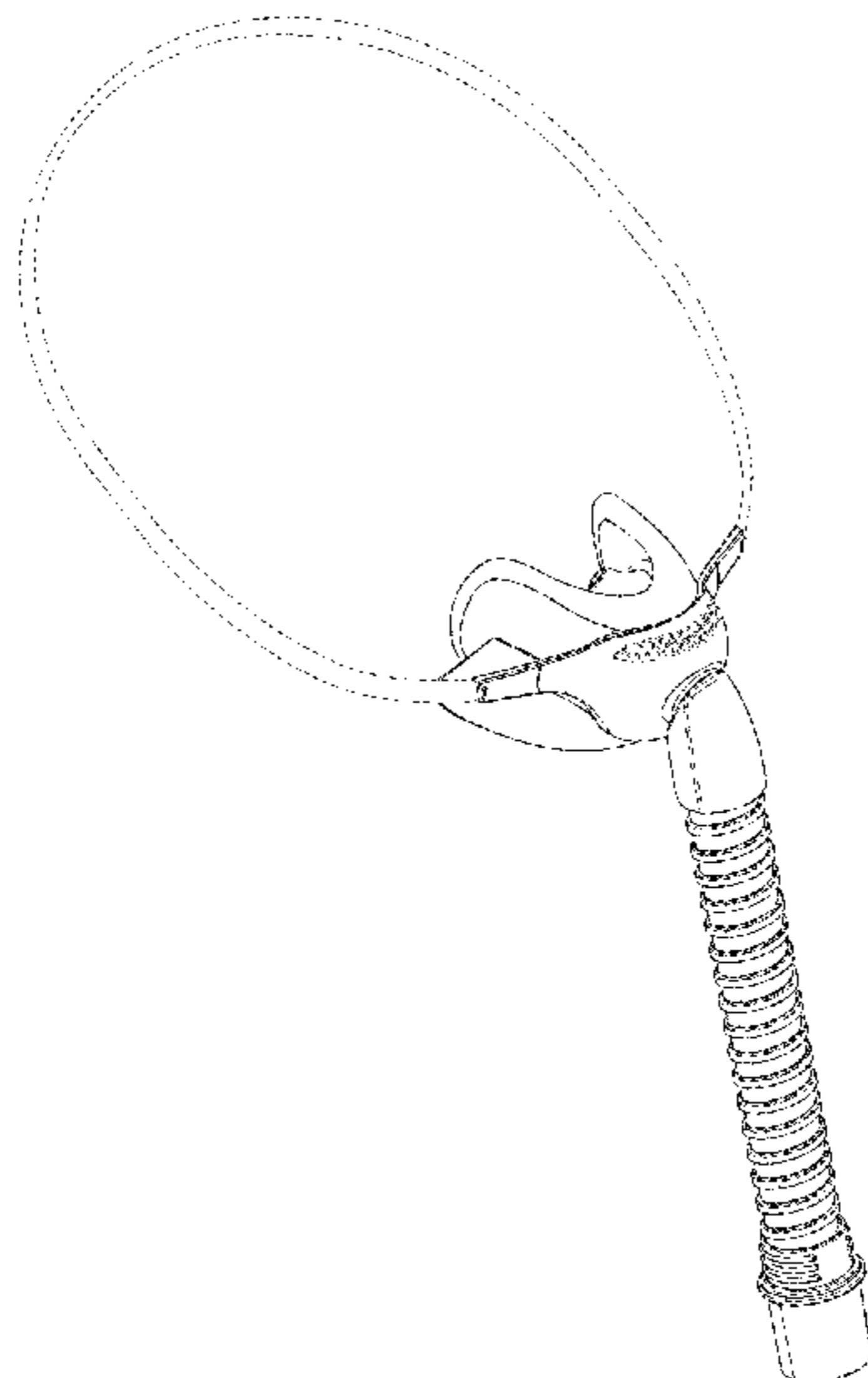
(57) **CLAIM**

The ornamental design for a patient interface, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of a patient interface showing our new design;
FIG. 2 is a rear perspective view thereof;
FIG. 3 is a top plan view thereof;
FIG. 4 is a bottom plan view thereof;
FIG. 5 is a left side elevational view thereof;
FIG. 6 is a front elevational view thereof;
FIG. 7 is a right side elevational view thereof; and,
FIG. 8 is a rear elevational view thereof.
The broken lines in the drawings depict portions of the patient interface that form no part of the claimed design.

1 Claim, 8 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D532,512 S 11/2006 Amarasinghe
 D536,092 S 1/2007 Amarasinghe
 D540,940 S 4/2007 Amarasinghe
 D542,912 S 5/2007 Gunaratnam et al.
 D545,961 S 7/2007 Hitchcock
 D546,441 S 7/2007 Hitchcock
 D549,322 S 8/2007 Stallard et al.
 D549,323 S 8/2007 Kwok et al.
 D550,352 S 9/2007 Chandran et al.
 D550,836 S 9/2007 Chandran et al.
 D555,785 S 11/2007 McAuley et al.
 D557,411 S 12/2007 Smart et al.
 D557,802 S 12/2007 Miceli et al.
 D558,334 S 12/2007 Stallard et al.
 D561,332 S 2/2008 Amarasinghe
 D561,893 S 2/2008 Gunaratnam
 D562,976 S 2/2008 Guney et al.
 D564,089 S 3/2008 Chandran et al.
 D568,985 S 5/2008 Chandran et al.
 D582,546 S 12/2008 Fujiura et al.
 D583,047 S 12/2008 Chandran et al.
 D583,049 S 12/2008 Chandran et al.
 D583,930 S 12/2008 McAuley et al.
 D586,458 S 2/2009 Kooij et al.
 D586,906 S 2/2009 Stallard
 D586,907 S 2/2009 Judson et al.
 D588,258 S 3/2009 Judson et al.
 D589,139 S 3/2009 Guney et al.
 D589,140 S 3/2009 Guney et al.
 D591,854 S 5/2009 Brookshire
 D595,841 S 7/2009 McAuley et al.
 D597,199 S 7/2009 Smart et al.
 D597,661 S 8/2009 Reid et al.
 D612,483 S 3/2010 Chang
 D612,932 S 3/2010 Davidson et al.
 D612,933 S 3/2010 Prentice
 D614,288 S 4/2010 Judson et al.
 D614,289 S 4/2010 Veliss et al.
 D614,763 S 4/2010 Maurer et al.
 D615,187 S 5/2010 Bowden
 D618,399 S 6/2010 Manzo
 7,743,767 B2 6/2010 Ging
 D624,642 S 9/2010 Collazo et al.
 7,861,718 B2 1/2011 Janbakhsh et al.
 D637,279 S 5/2011 Scheiner
 D639,419 S 6/2011 Eves et al.
 D639,932 S 6/2011 D'Souza et al.
 D645,138 S 9/2011 Leckie
 D645,955 S 9/2011 Kooij et al.
 D650,064 S 12/2011 Gunaratnam et al.
 D651,303 S 12/2011 Gunaratnam
 D652,505 S 1/2012 Pidcock
 D653,328 S 1/2012 Eves et al.
 D656,231 S 3/2012 Henry et al.
 D656,607 S 3/2012 Gunaratnam et al.
 D659,237 S 5/2012 Lubke et al.
 D665,494 S 8/2012 Stallard et al.
 D669,576 S 10/2012 Smart et al.
 D674,480 S 1/2013 Prentice et al.
 D683,446 S 5/2013 Eves
 D687,539 S 8/2013 Matula et al.
 D691,257 S 10/2013 Siew et al.
 D691,712 S 10/2013 Judson et al.
 D692,554 S 10/2013 Siew et al.
 D696,396 S 12/2013 Scheiner

D696,767 S 12/2013 Scheiner
 D704,329 S 5/2014 Collazo et al.
 D706,413 S 6/2014 Veliss
 D708,736 S 7/2014 Judson et al.
 D709,181 S 7/2014 Henry et al.
 D729,381 S 5/2015 Himes
 D735,317 S 7/2015 Collazo
 D737,953 S 9/2015 Wells
 D740,409 S 10/2015 Siew et al.
 D746,436 S 12/2015 Guney et al.
 D747,460 S * 1/2016 Hogeia D24/110.1
 D762,844 S 8/2016 Siew et al.
 D770,036 S * 10/2016 Walls D24/110.4
 D787,661 S * 5/2017 Edwards D24/110.4
 D797,921 S * 9/2017 Huang D24/110.4
 D798,439 S * 9/2017 Siew D24/110.4
 10,039,894 B2 * 8/2018 Walls A61M 16/0683
 2005/0188993 A1 9/2005 Steeves
 2005/0241644 A1 11/2005 Gunaratnam et al.
 2006/0124131 A1 6/2006 Chandran et al.
 2006/0174887 A1 8/2006 Chandran et al.
 2007/0235033 A1 10/2007 Reier
 2008/0092906 A1 4/2008 Gunaratnam et al.
 2009/0044808 A1 2/2009 Guney
 2009/0151729 A1 6/2009 Judson et al.
 2009/0178680 A1 7/2009 Chang
 2009/0320851 A1 12/2009 Selvarajan et al.
 2010/0000534 A1 1/2010 Kooij et al.
 2010/0122701 A1 5/2010 Gunaratnam et al.
 2010/0258136 A1 10/2010 Doherty
 2010/0313891 A1 12/2010 Veliss et al.
 2011/0041855 A1 2/2011 Gunaratnam et al.
 2011/0146685 A1 6/2011 Allan et al.
 2011/0155140 A1 6/2011 Ho et al.
 2011/0232649 A1 9/2011 Collazo et al.
 2011/0259335 A1 10/2011 Sullivan
 2012/0012114 A1 1/2012 Chandran et al.
 2012/0090622 A1 4/2012 Chang
 2012/0204880 A1 8/2012 Smith et al.
 2013/0042871 A1 2/2013 Chang
 2013/0186403 A1 7/2013 Chang
 2013/0199537 A1 8/2013 Formica et al.
 2014/0000614 A1 1/2014 Chang
 2014/0026890 A1 1/2014 Haskard
 2014/0261433 A1 9/2014 Guney
 2014/0326248 A1 11/2014 Haibach et al.
 2015/0209541 A1 7/2015 Harwood
 2015/0224274 A1 8/2015 Siew
 2015/0283349 A1 10/2015 McLaren
 2016/0051784 A1 * 2/2016 Eury A61M 16/0666
 128/207.18
 2016/0082217 A1 3/2016 McLaren
 2016/0151596 A1 * 6/2016 Slight A61M 16/0622
 128/207.18
 2016/0166792 A1 * 6/2016 Allan A61M 16/06
 128/205.25
 2016/0166793 A1 * 6/2016 McLaren A61M 16/06
 128/207.11
 2016/0287830 A1 * 10/2016 Walls A61M 16/0683
 2017/0119988 A1 * 5/2017 Allan A61M 16/0666
 2018/0078725 A1 * 3/2018 Richardson A61M 16/0666

FOREIGN PATENT DOCUMENTS

WO WO 2009/139647 11/2009
 WO WO 2010/131189 11/2010
 WO WO 2011/059346 5/2011

* cited by examiner

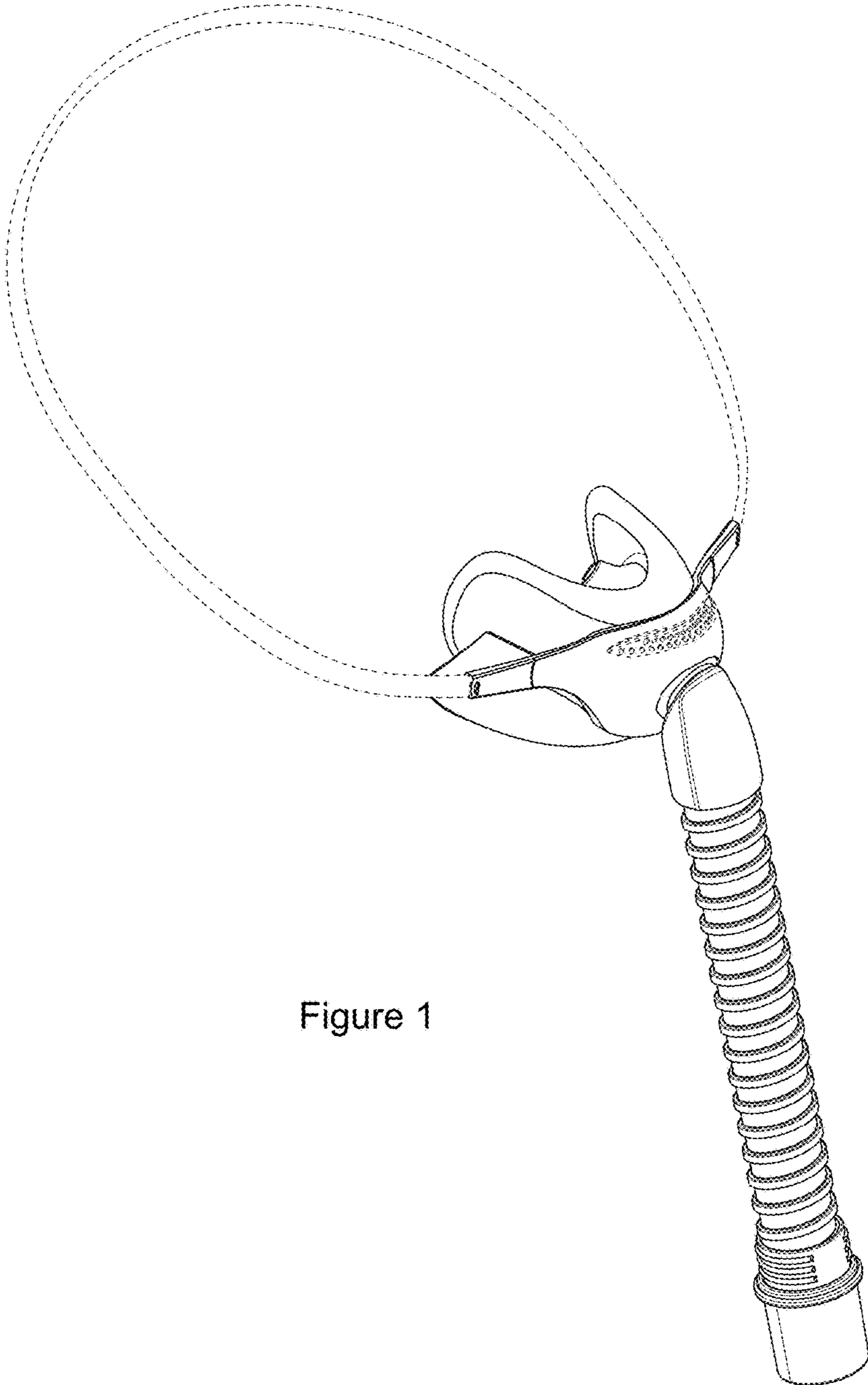


Figure 1

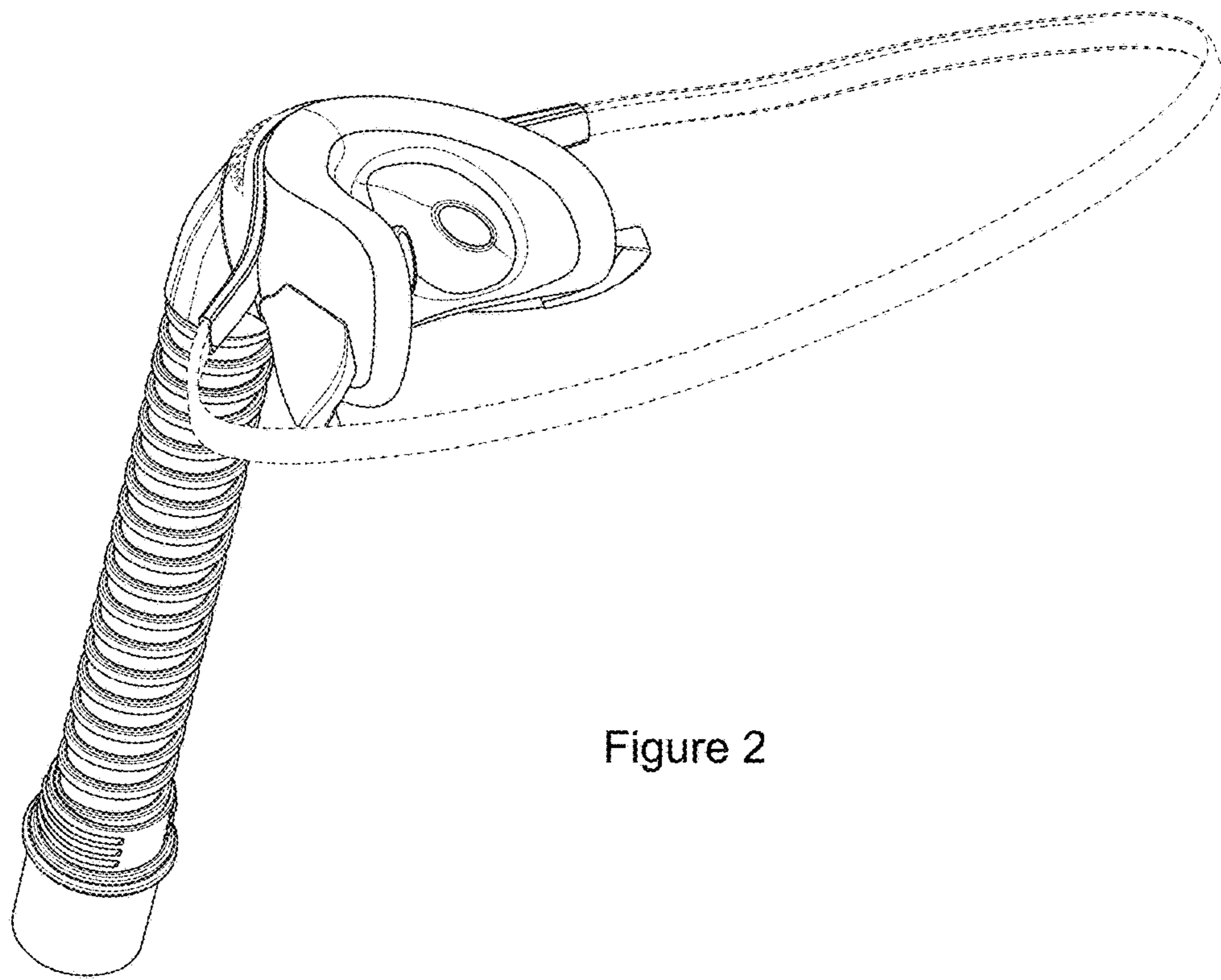


Figure 2

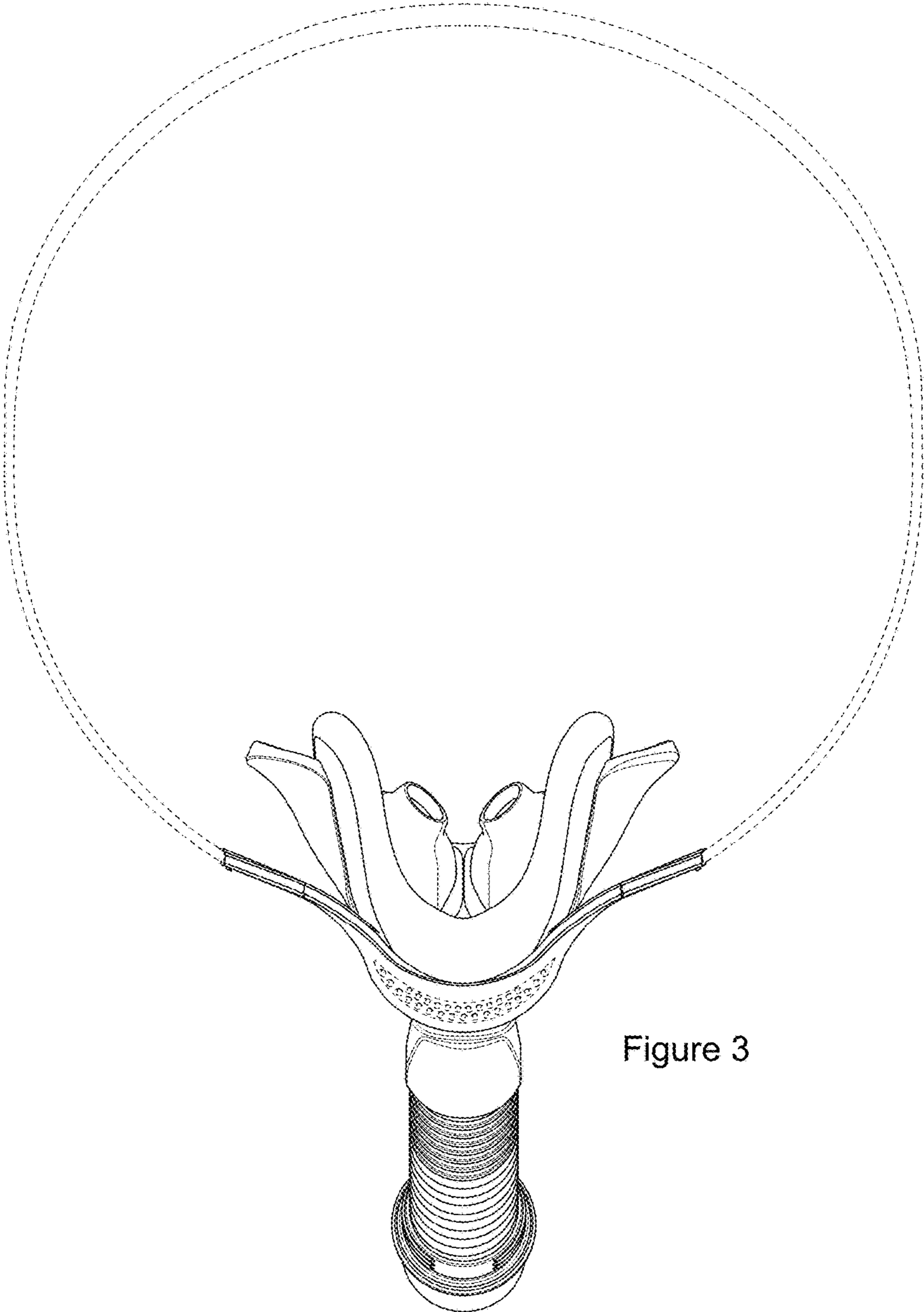


Figure 3

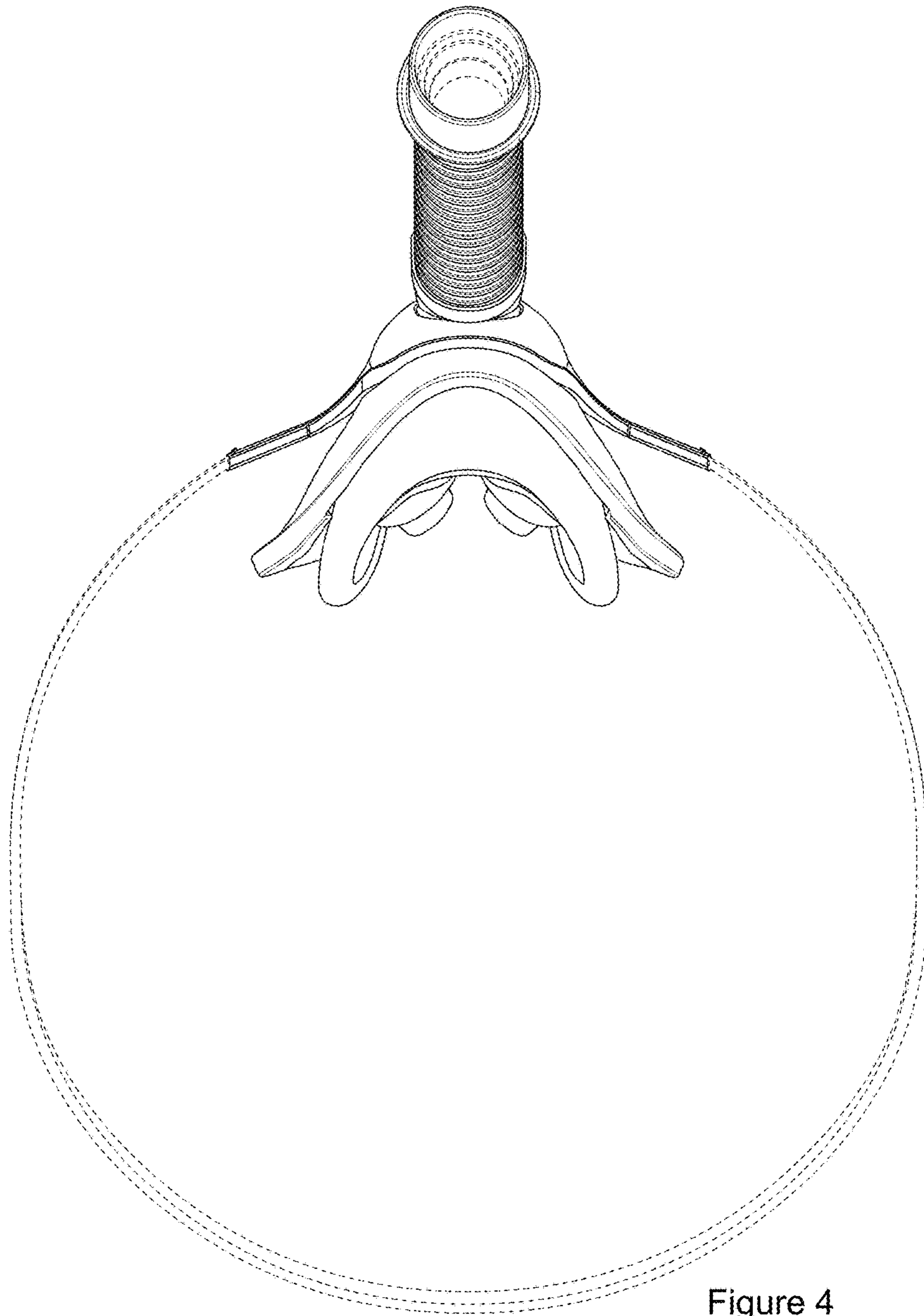


Figure 4

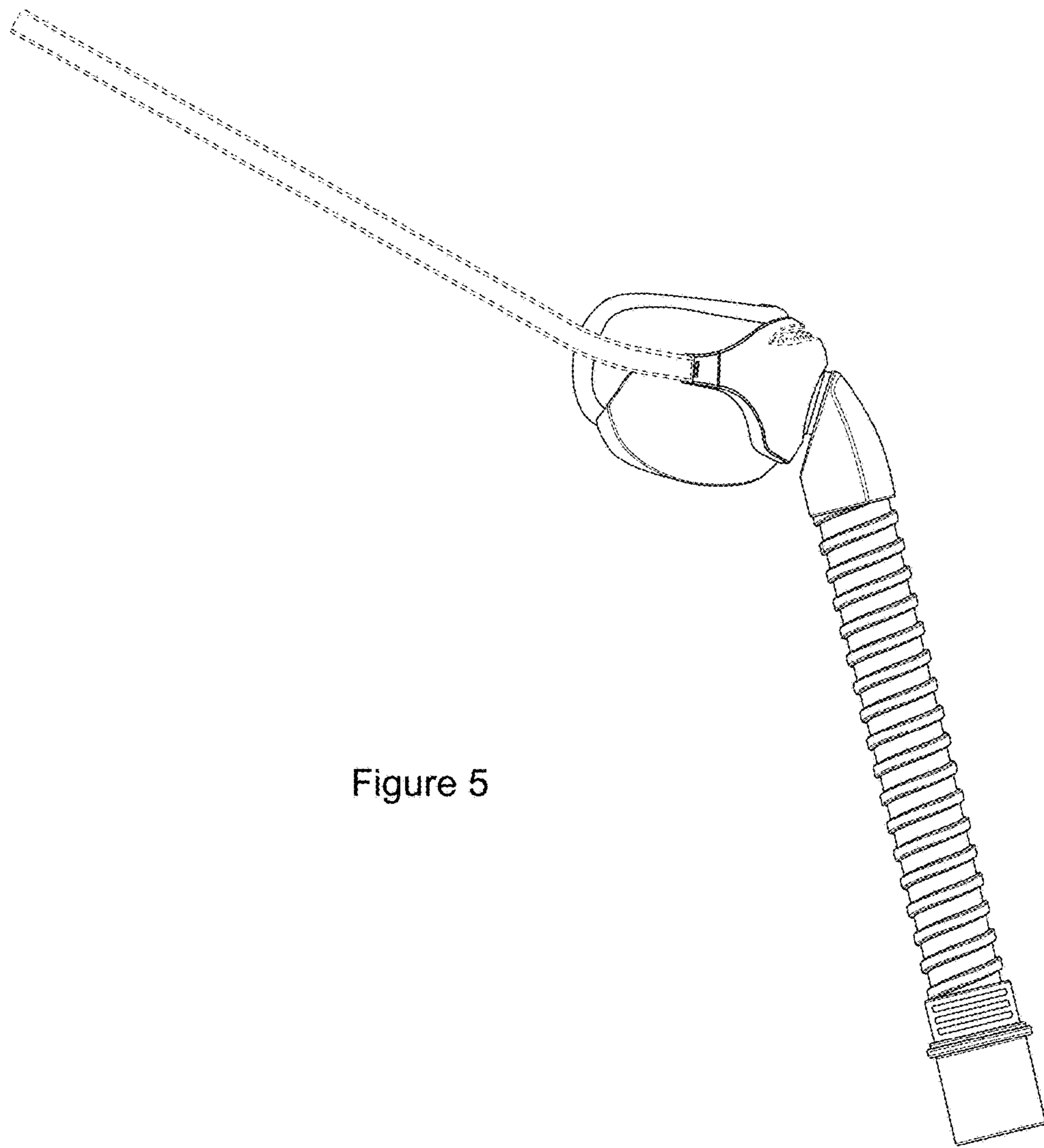


Figure 5

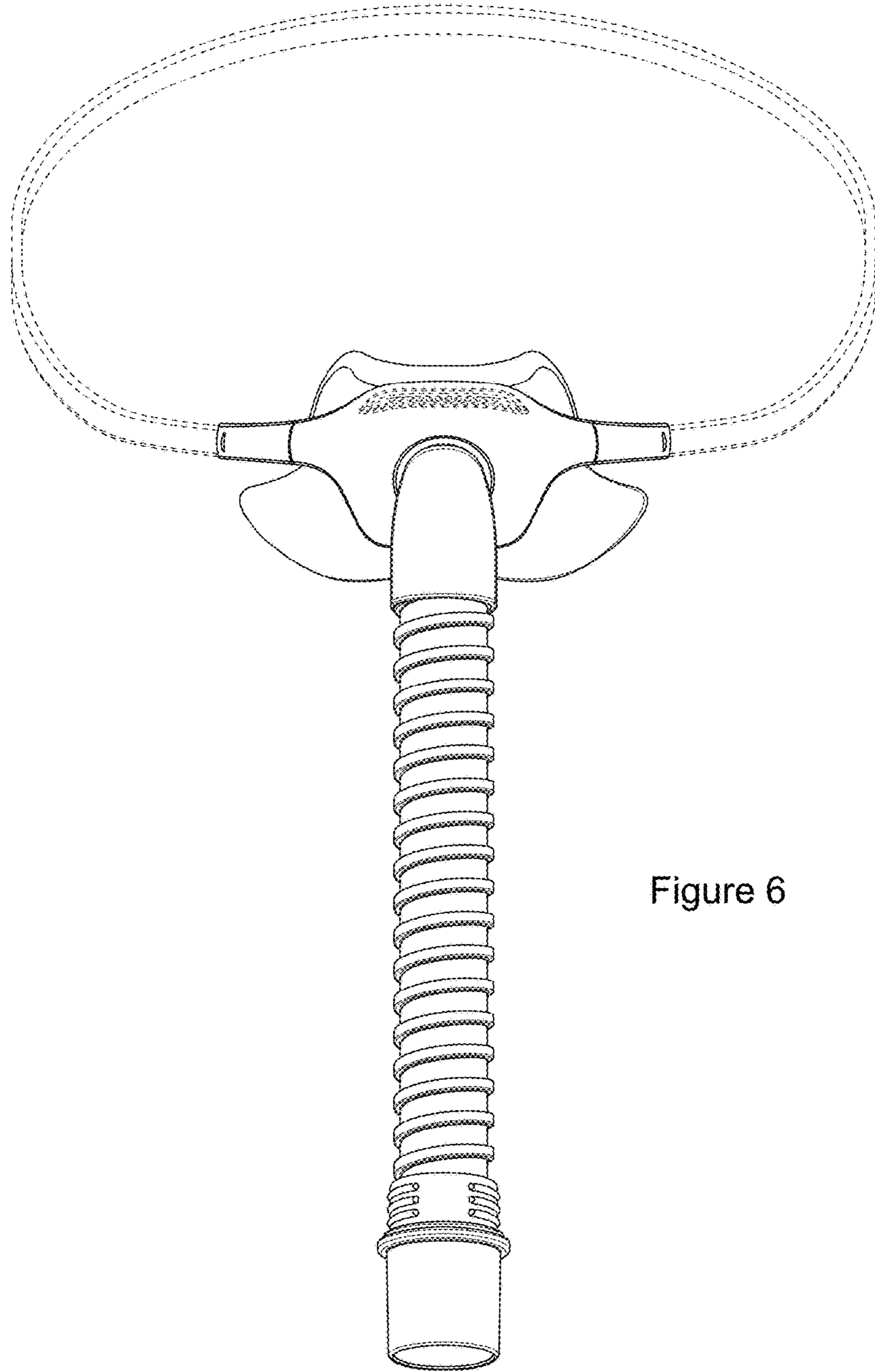


Figure 6

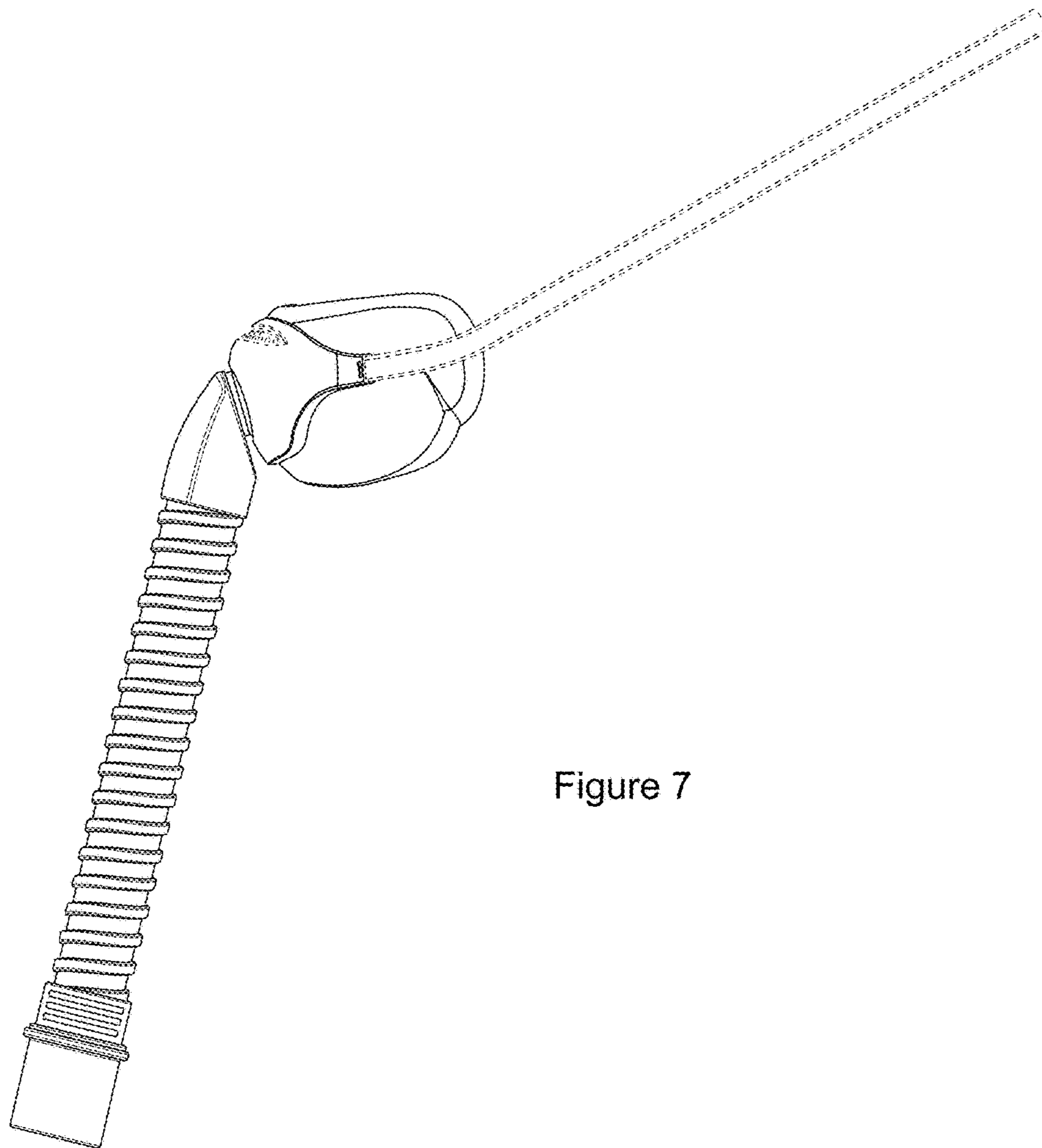


Figure 7

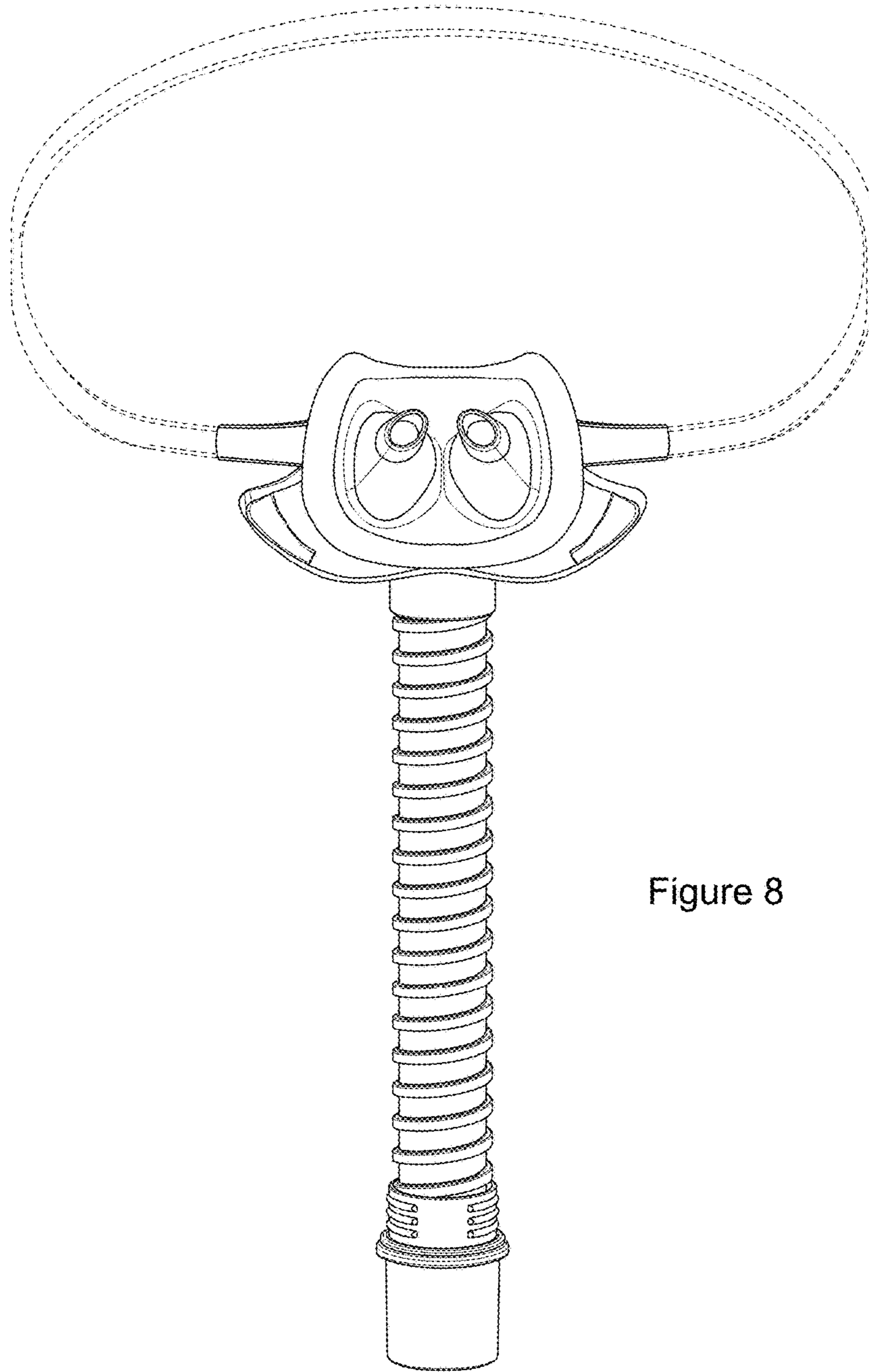


Figure 8