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(12) **United States Design Patent**
Montalvo et al.

(10) **Patent No.: US D973,882 S**
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(54) **ADJUSTABLE AEROSOL EVACUATION DAM FRAME**

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

(21) Appl. No.: **29/807,234**

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Related U.S. Application Data

(63) Continuation of application No. PCT/US2021/049733, filed on Sep. 9, 2021, which is (Continued)

(51) **LOC (13) Cl.** **24-02**

(52) **U.S. Cl.**
USPC **D24/176; D24/108**

(58) **Field of Classification Search**
USPC D24/107, 108, 110, 110.5, 111, 127, 152, D24/176

(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

485,609 A * 11/1892 Casebeer A61C 17/08
600/219
3,080,864 A * 3/1963 Berman A61M 16/0048
128/207.14

(Continued)

FOREIGN PATENT DOCUMENTS

EM 001035414-0001 * 12/2008
IN 331533-001-0001 * 9/2020

OTHER PUBLICATIONS

[Evaluation of the spatter-reduction effectiveness and aerosol containment of eight dry-field isolation techniques], quintpub.com, by [Theodore D. Ravenel et al.], Posted: Sep. 2020 [online], site visited: [Apr. 28, 2022], URL: <http://www.quintpub.com/userhome/qi/qi_51_8_ravenel_p660.pdf>. (Year: 2020).*

(Continued)

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(57) **CLAIM**

We claim the ornamental design for an adjustable aerosol evacuation dam frame, as shown and described.

DESCRIPTION

FIG. 1 is a front, bottom, and right-side perspective view of an adjustable aerosol evacuation dam frame, showing our new design in use;

FIG. 2 is a front, top, and right-side perspective view thereof;

FIG. 3 is a front, top, and left-side perspective view thereof;

FIG. 4 is a front elevational view thereof;

FIG. 5 is a rear elevational view thereof;

FIG. 6 is a left-side elevational view thereof;

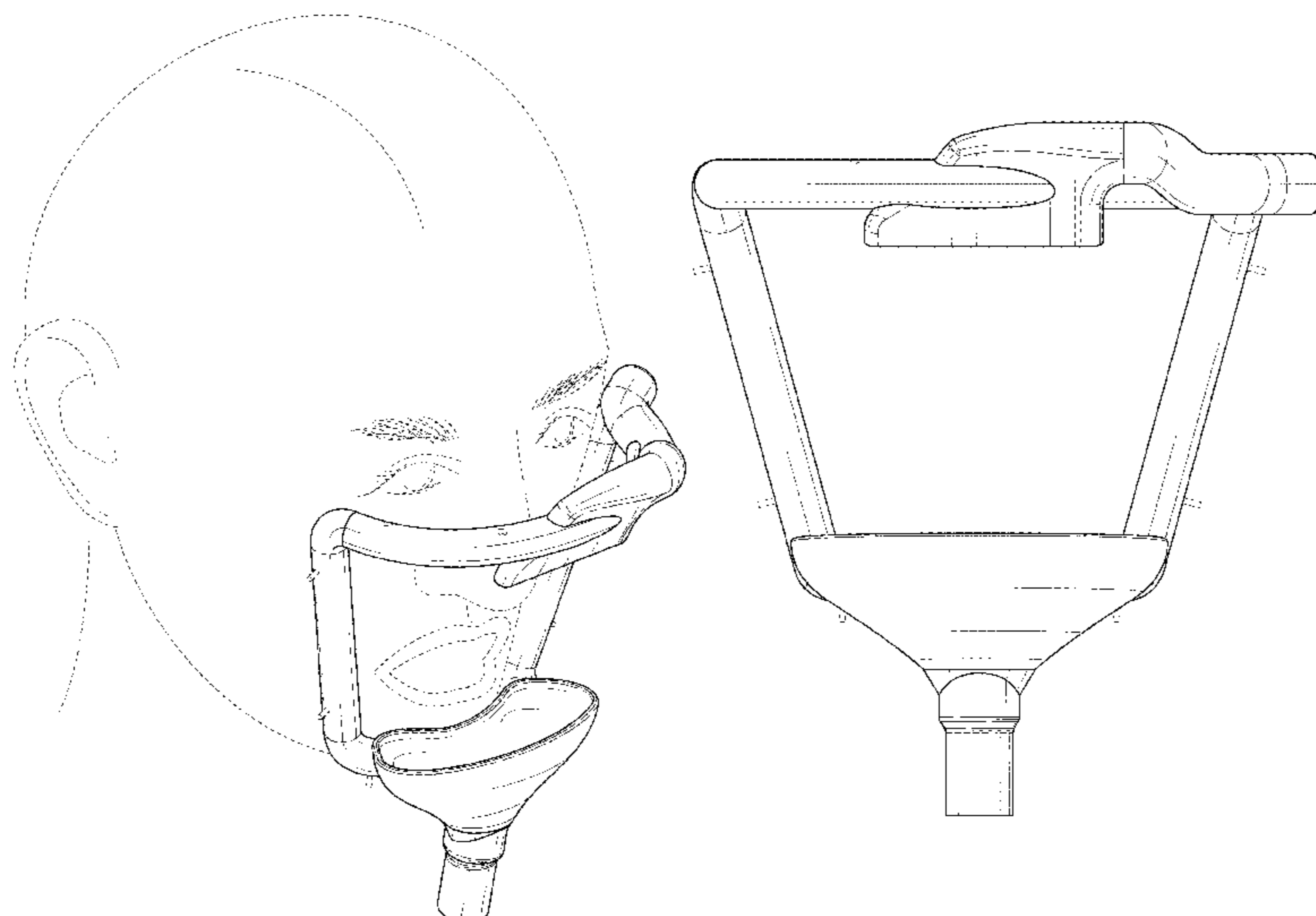
FIG. 7 is a right-side elevational view thereof;

FIG. 8 is a top plan view thereof; and,

FIG. 9 is a bottom plan view thereof.

The broken lines showing a head in FIGS. 1 and 3 represent environmental structure that forms no part of the claimed design. The remaining broken lines shown in the figures depict portions of the adjustable aerosol evacuation dam frame that form no part of the claimed design.

1 Claim, 7 Drawing Sheets



Related U.S. Application Data

a continuation-in-part of application No. 17/016,181, filed on Sep. 9, 2020, which is a continuation of application No. 29/749,861, filed on Sep. 9, 2020, and a continuation of application No. 29/749,863, filed on Sep. 9, 2020.

(58) **Field of Classification Search**

CPC A61M 1/00; A61M 1/94; A61C 17/08; A61C 17/13; A61C 17/0208

See application file for complete search history.

(56)

References Cited

U.S. PATENT DOCUMENTS

4,261,697 A * 4/1981 Newitter A61C 5/82
433/137
D287,402 S * 12/1986 Orsing 433/91
4,664,628 A * 5/1987 Totaro A61C 17/08
433/136
4,695,253 A * 9/1987 Tysse A61C 5/82
433/136
4,944,310 A * 7/1990 Sullivan A61M 16/0683
128/207.18
5,127,411 A 7/1992 Schoolman
5,547,375 A 8/1996 Schneider
D418,918 S * 1/2000 Cunningham D24/112
D449,376 S * 10/2001 McDonald A61M 16/10
D14/206
D449,883 S * 10/2001 McDonald A61M 16/10
D14/206
6,763,832 B1 * 7/2004 Kirsch A61M 16/0672
128/206.25
D515,697 S * 2/2006 Nakamura A61M 16/0683
D24/110

D578,642 S * 10/2008 White D24/128
D607,993 S * 1/2010 Cowan D24/110
D636,880 S * 4/2011 Osborn D24/177
D802,746 S * 11/2017 Ocklenburg D24/110.5
D843,561 S * 3/2019 Bonato D24/110.5
D862,686 S * 10/2019 Mohamed D24/110.4
D884,159 S * 5/2020 Moon D24/112
D942,617 S * 2/2022 Smith A61C 17/08
D24/112
2021/0338377 A1 * 11/2021 Ferone A61C 17/08
2021/0346134 A1 * 11/2021 Reingold A61C 17/10
2022/0071748 A1 * 3/2022 Montalvo A61G 13/108

OTHER PUBLICATIONS

[Henry Schein Announces New Proprietary Single-Use Aerosol Evacuator], aegisdentalnetwork.com, Posted: Jul. 14, 2021 [online], site visited: [Apr. 28, 2022], URL: <<https://www.aegisdentalnetwork.com/news/2021/07/14/henry-schein-announces-new-proprietary-single-use-aerosol-evacuator>>. (Year: 2021).*

[Aerosol and spatter mitigation in dentistry: Analysis of the effectiveness of 13 setups], wileyonlinelibrary.com, by [John C. Comisi et al.], Published: [Jan. 19, 2021] [online], site visited: [Apr. 28, 2022], URL: <<https://onlinelibrary.wiley.com/doi/epdf/10.1111/jerd.12717>>. (Year: 2021).*

Intraoral vs. Extraoral Suction Devices; A review of the effectiveness of equipment on capturing aerosols; Jun. 2, 2020; https://www.aaoms.org/docs/COVID-19/Intraoral_vs_Extraoral_Suction_Devices.pdf.
Rajeev, Karthika & Kuthiala, Parnika & Ahmad, Faisal & Tafadar, Nazamuddin & Ganorkar, Onkar & Voulligonda, Dheeraj & Vinay, Rahul & Tiwari, Chandra. (2020). Review Article Aerosol Suction Device: Mandatory Armamentarium in Dentistry Post Lock Down. vol. 8.

* cited by examiner

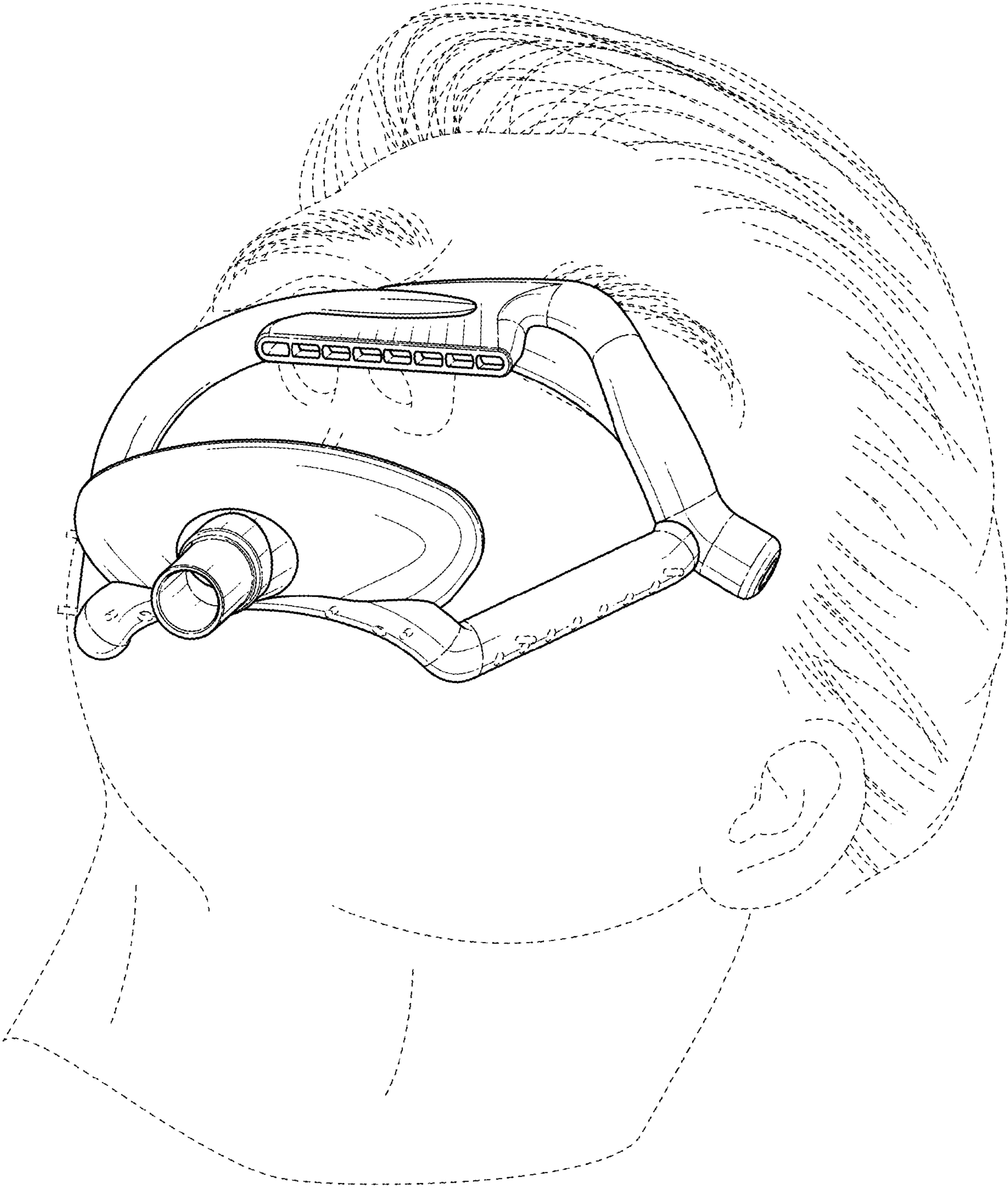


FIG. 1

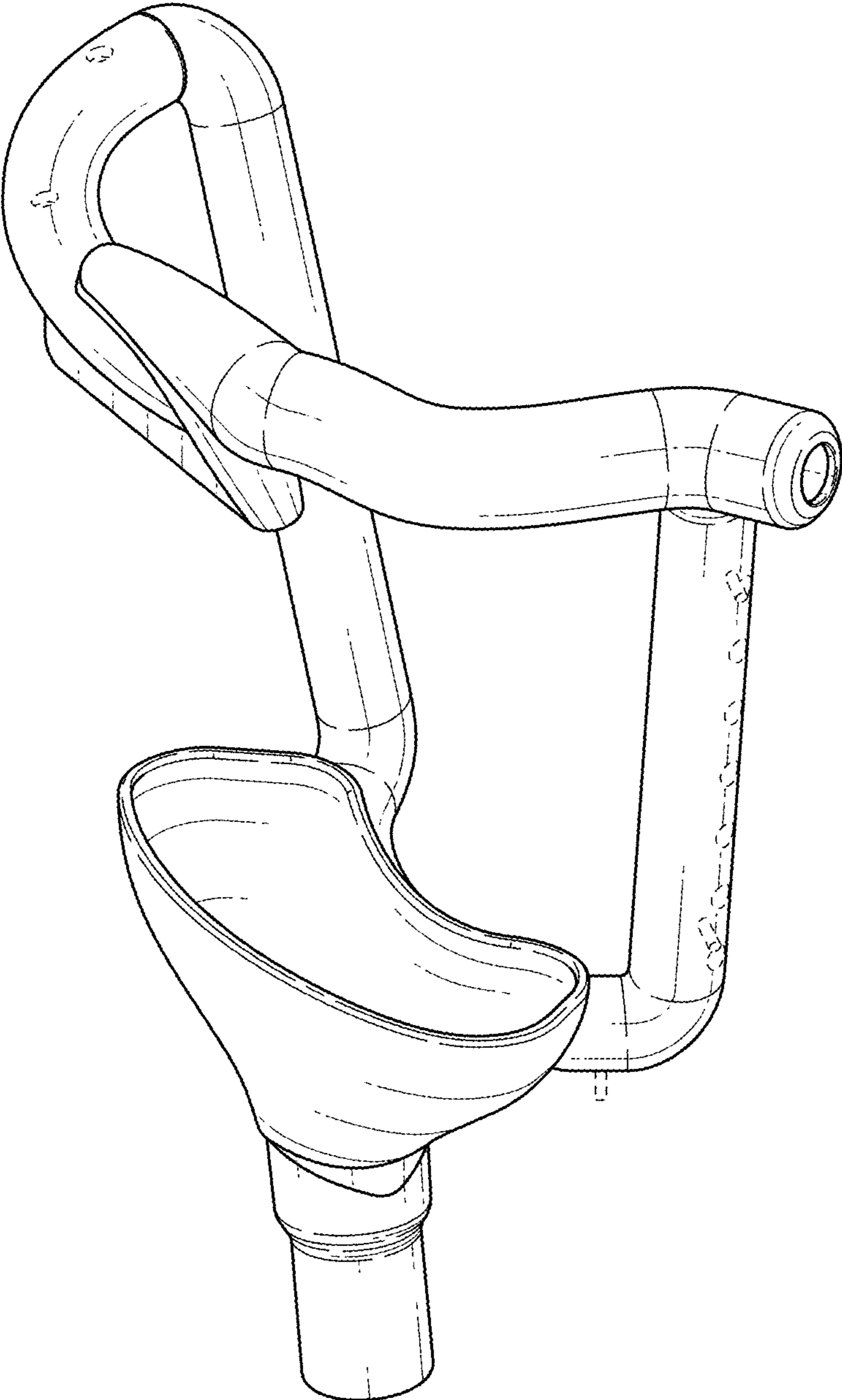


FIG. 2

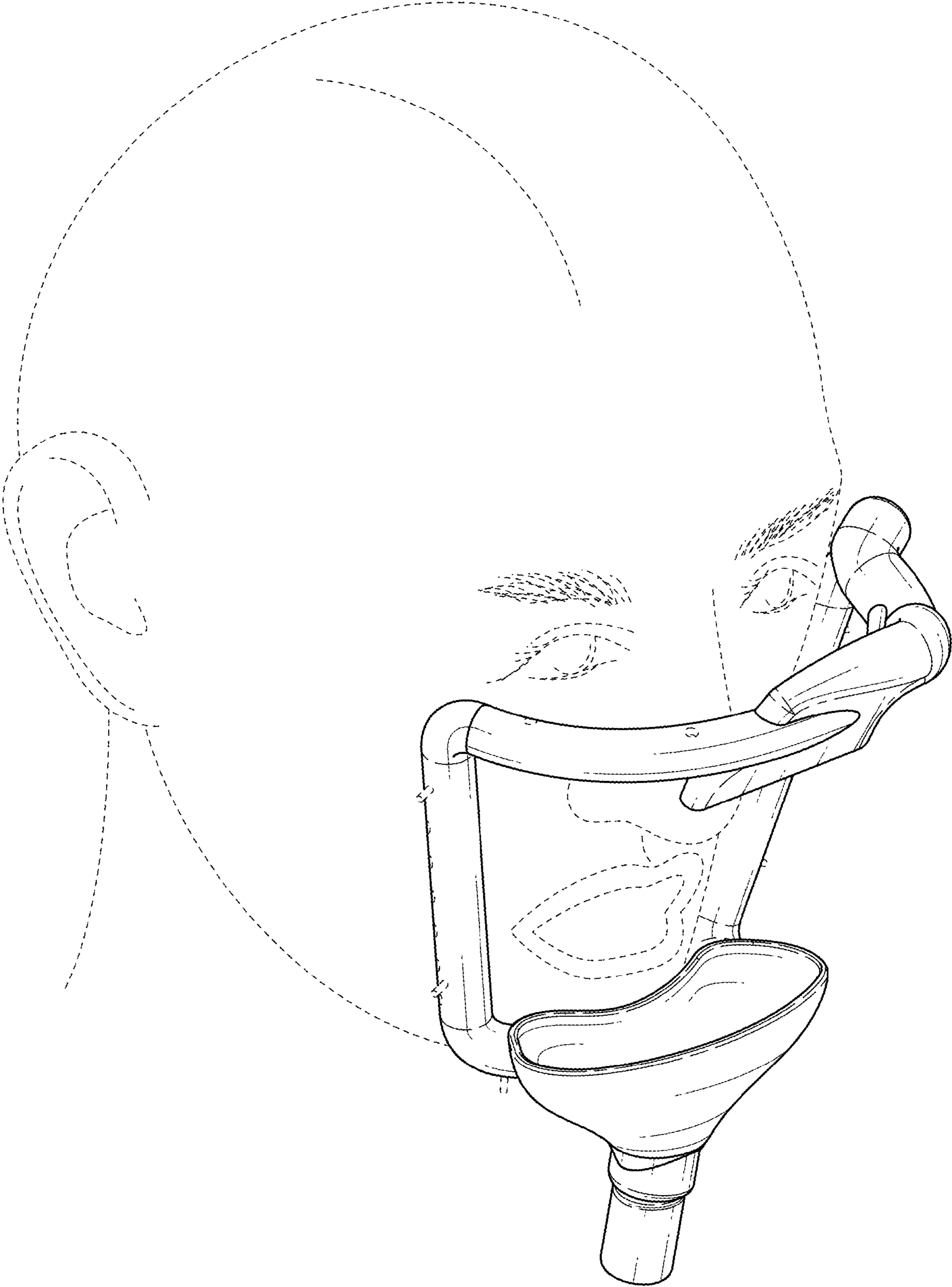


FIG. 3

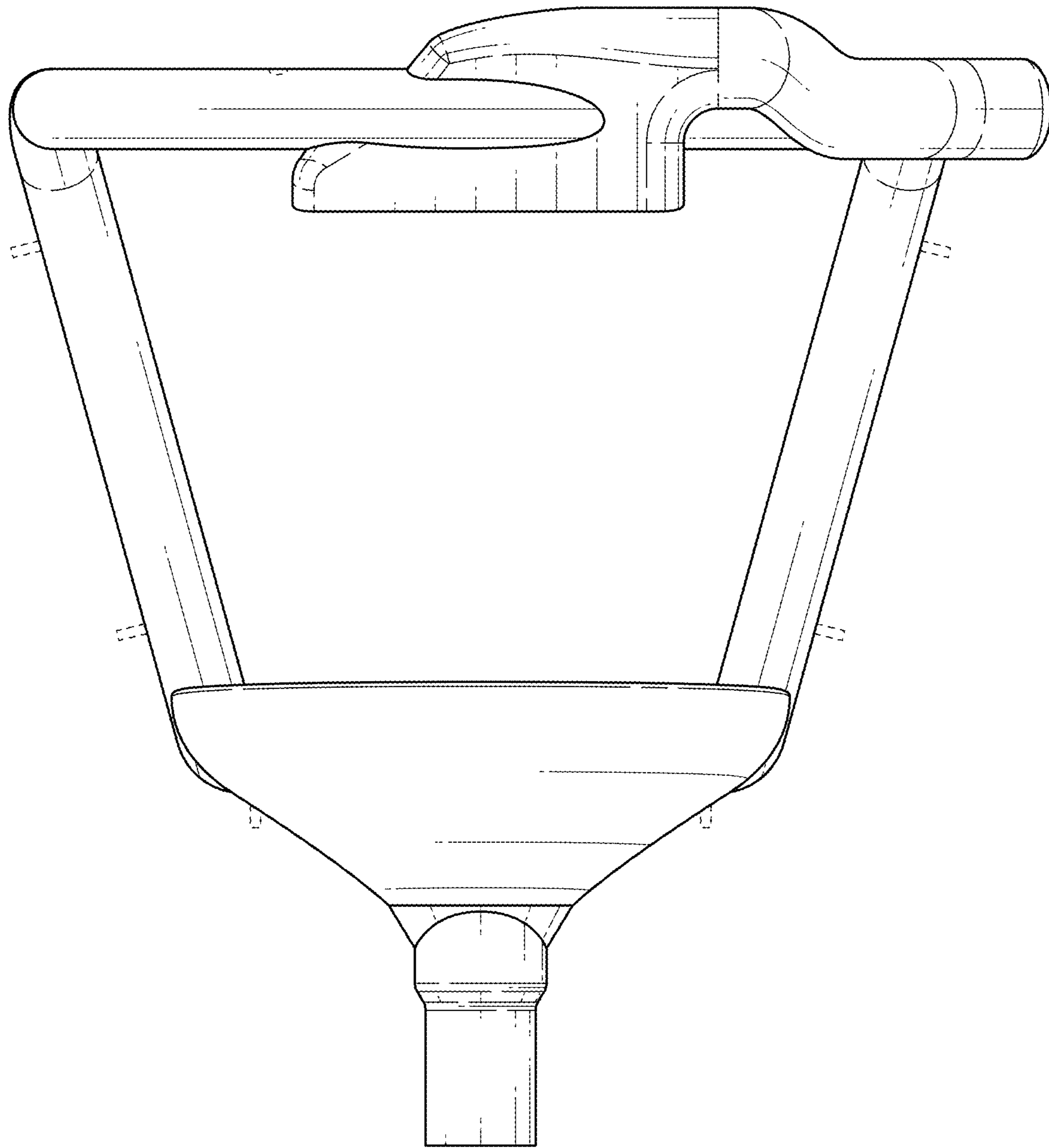


FIG. 4

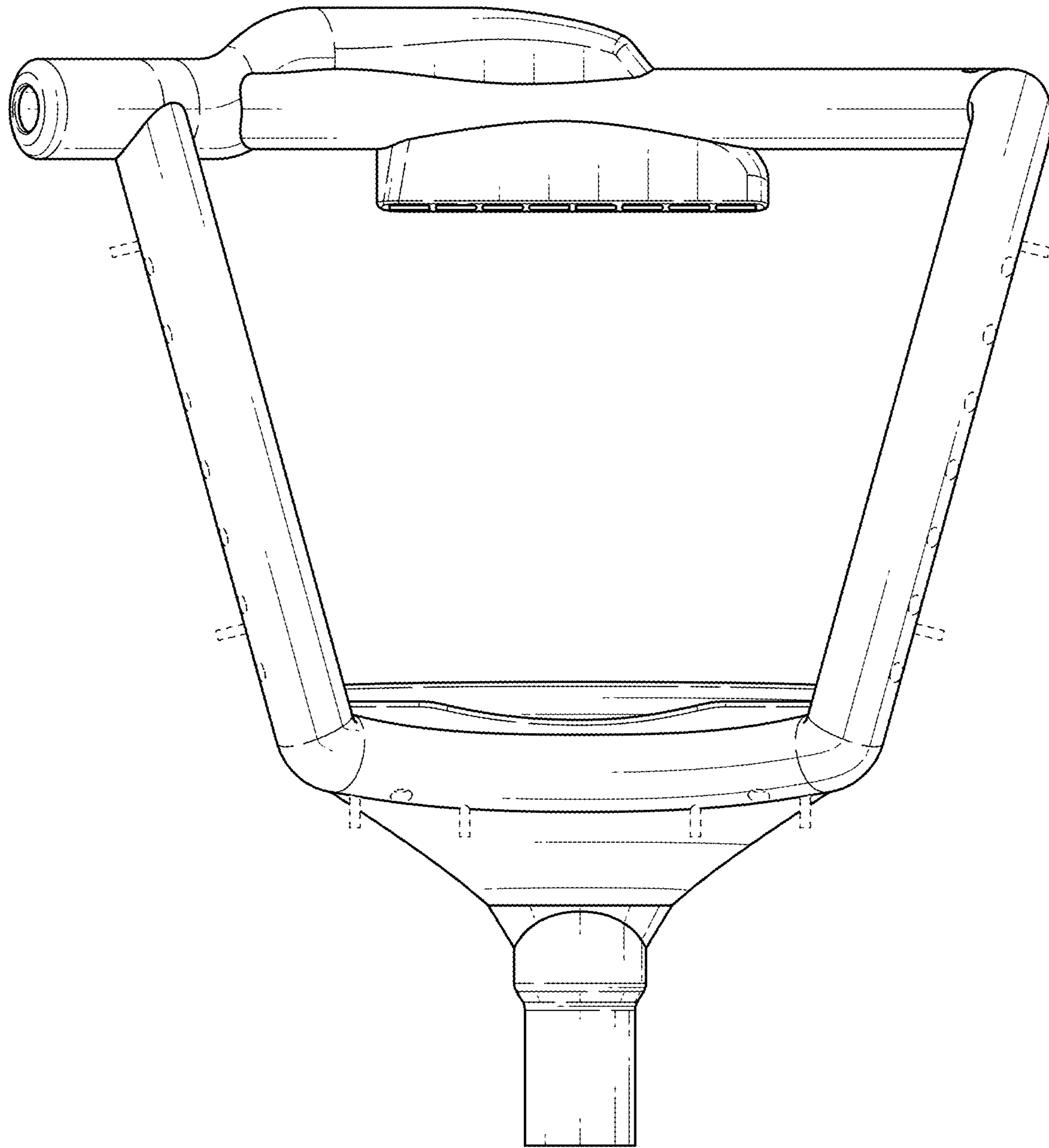


FIG. 5

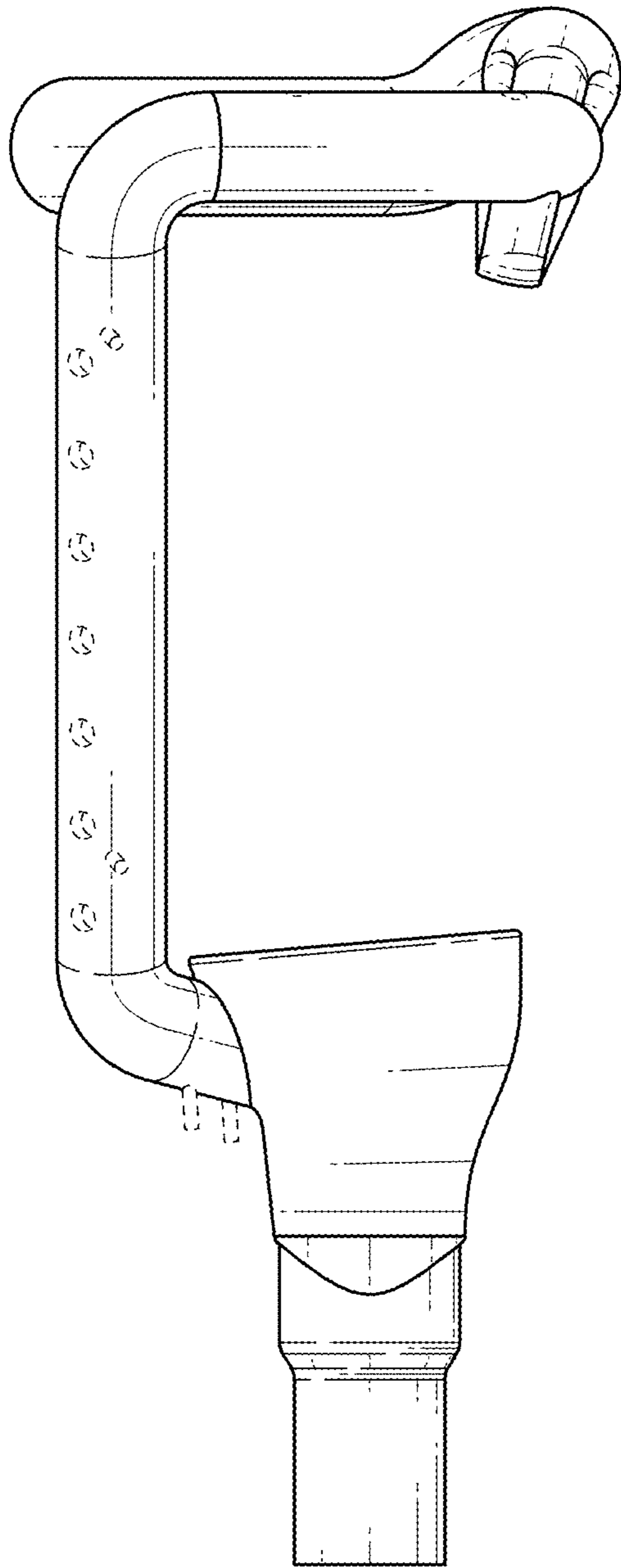


FIG. 6

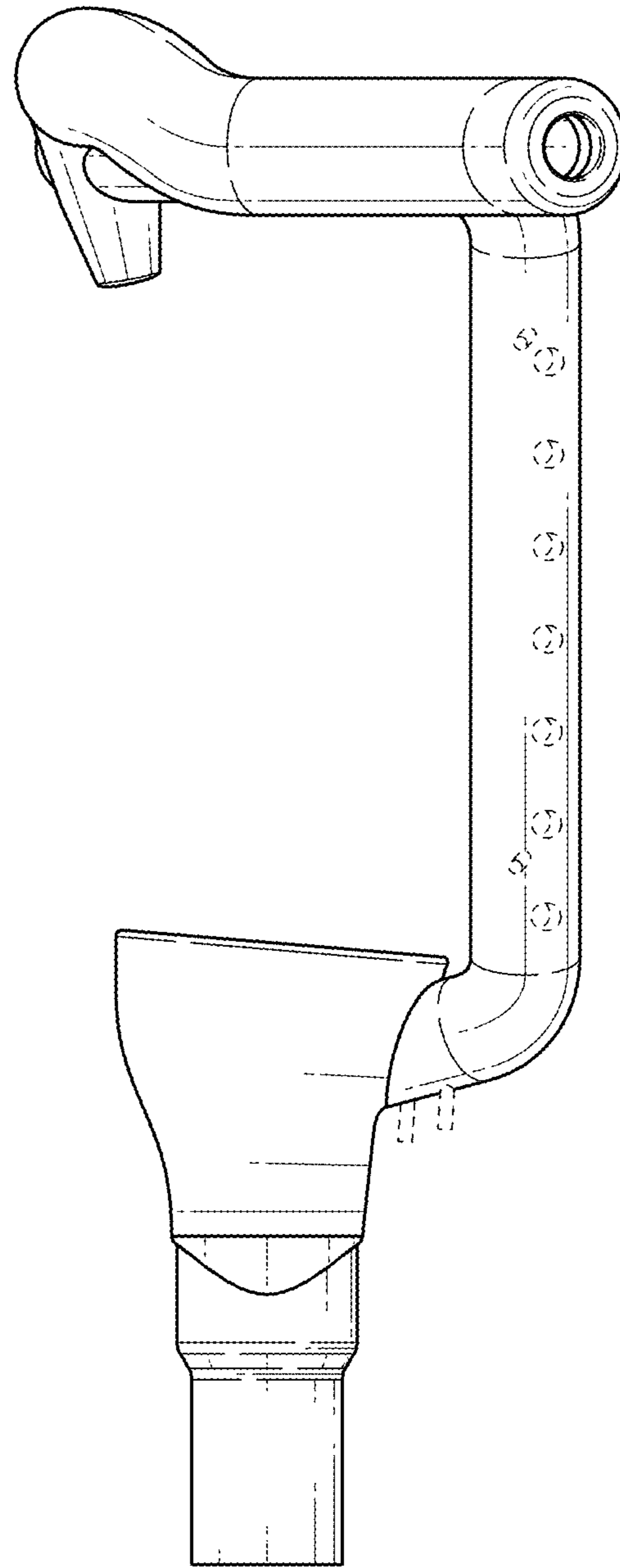


FIG. 7

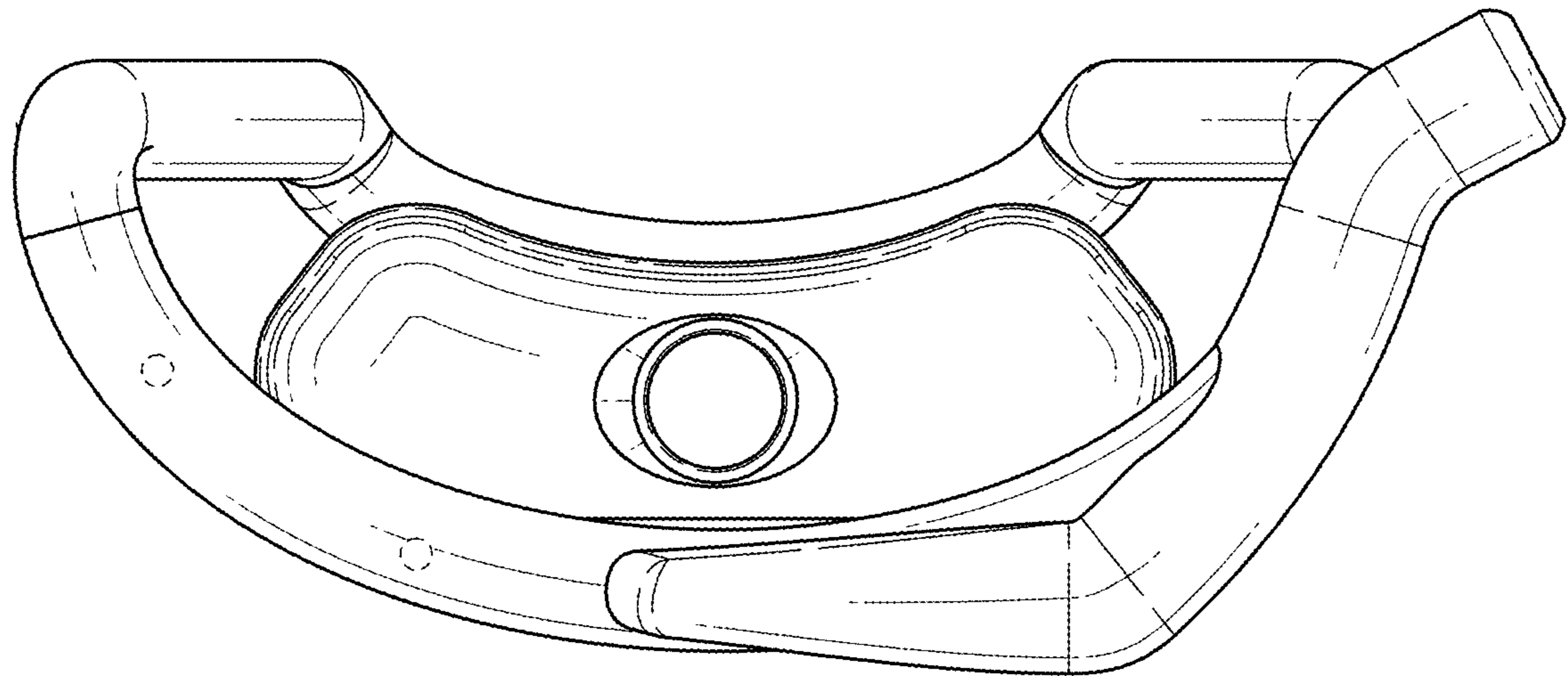


FIG. 8

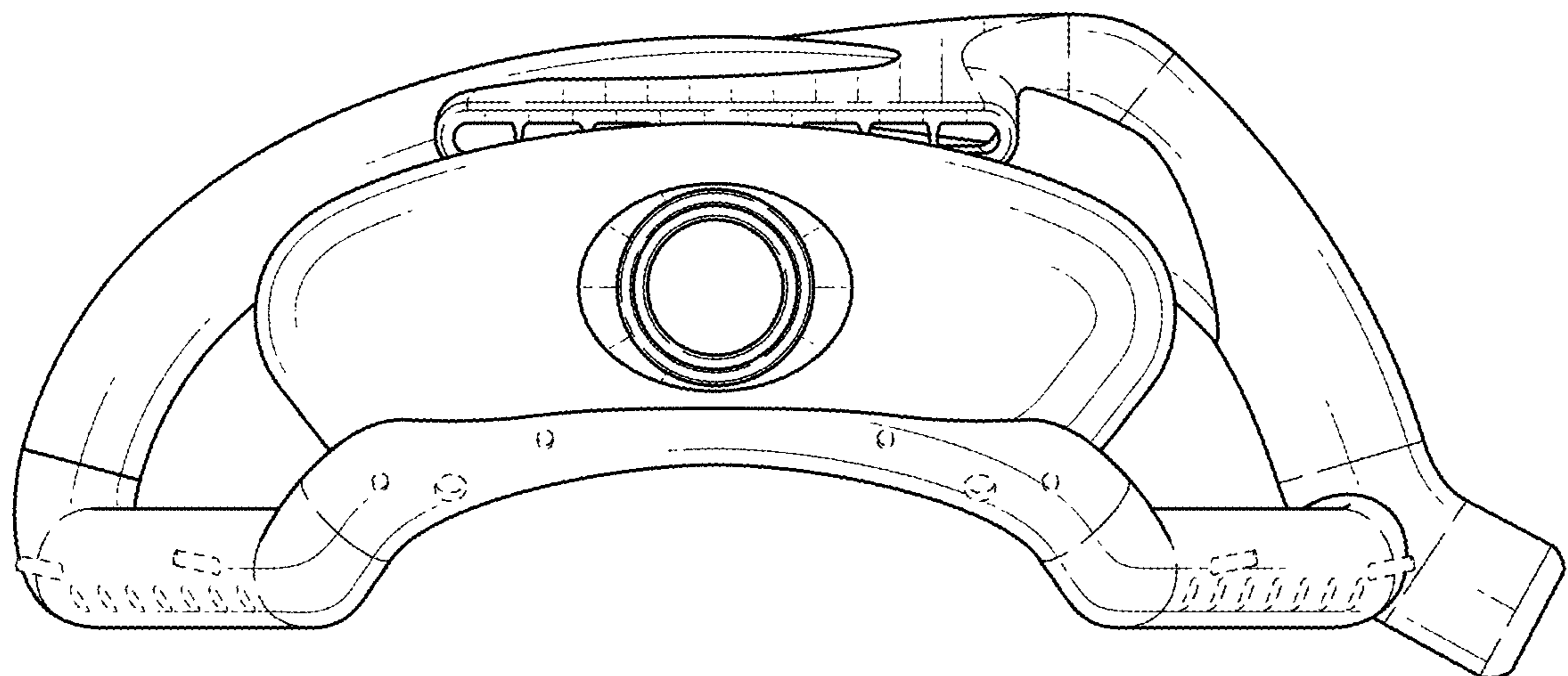


FIG. 9