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(12) **United States Design Patent** (10) **Patent No.:** **US D878,557 S**  
**Farris et al.** (45) **Date of Patent:** **\*\* Mar. 17, 2020**

(54) **INJECTOR DEVICE**

FOREIGN PATENT DOCUMENTS

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JP D1441740 S 5/2013  
JP 2013-192637 A 9/2013

(Continued)

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OTHER PUBLICATIONS

Reynolds, "Integrated Solutions for the Delivery of High-Volume  
Biologics", West Pharmaceutical Services, www.ondrugdelivery.  
com, Copyright 2014, 4 pages.

(Continued)

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

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(21) Appl. No.: **29/619,381**

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**Related U.S. Application Data**

(57) **CLAIM**

(63) Continuation-in-part of application No. 29/582,288,  
filed on Oct. 26, 2016, now Pat. No. Des. 806,234.

The design of an injector device, as shown and described.

(51) **LOC (12) Cl.** ..... **24-02**

(52) **U.S. Cl.**  
USPC ..... **D24/113**

**DESCRIPTION**

(58) **Field of Classification Search**  
USPC ..... D24/112–114, 133, 186, 104, 130, 127,  
D24/176, 108, 110, 220; 606/181, 185;  
604/232, 187, 158, 164.08, 192, 263, 163,  
604/181, 184, 198, 227, 168.01, 275,  
604/890.1; D9/414, 424, 417, 426  
CPC ..... A61M 2005/14252; A61M 2005/1581;  
A61M 5/14248; A61M 2005/14513;  
A61M 2005/206

FIG. 1 is a top, front, right perspective view of an injector  
device of our design;  
FIG. 2 is a front elevation view thereof;  
FIG. 3 is a rear elevation view thereof;  
FIG. 4 is a left side elevation view thereof;  
FIG. 5 is a right side elevation view thereof;  
FIG. 6 is a top plan view thereof;  
FIG. 7 is a bottom plan view thereof; and,  
FIG. 8 is an exploded perspective view thereof.

See application file for complete search history.

The dashed line portion of the drawings is included to show  
unclaimed subject matter only for the purpose of illustrating  
environment and forms no part of the claimed design.

The broken lines show portions of the design that form no  
part of the claimed design.

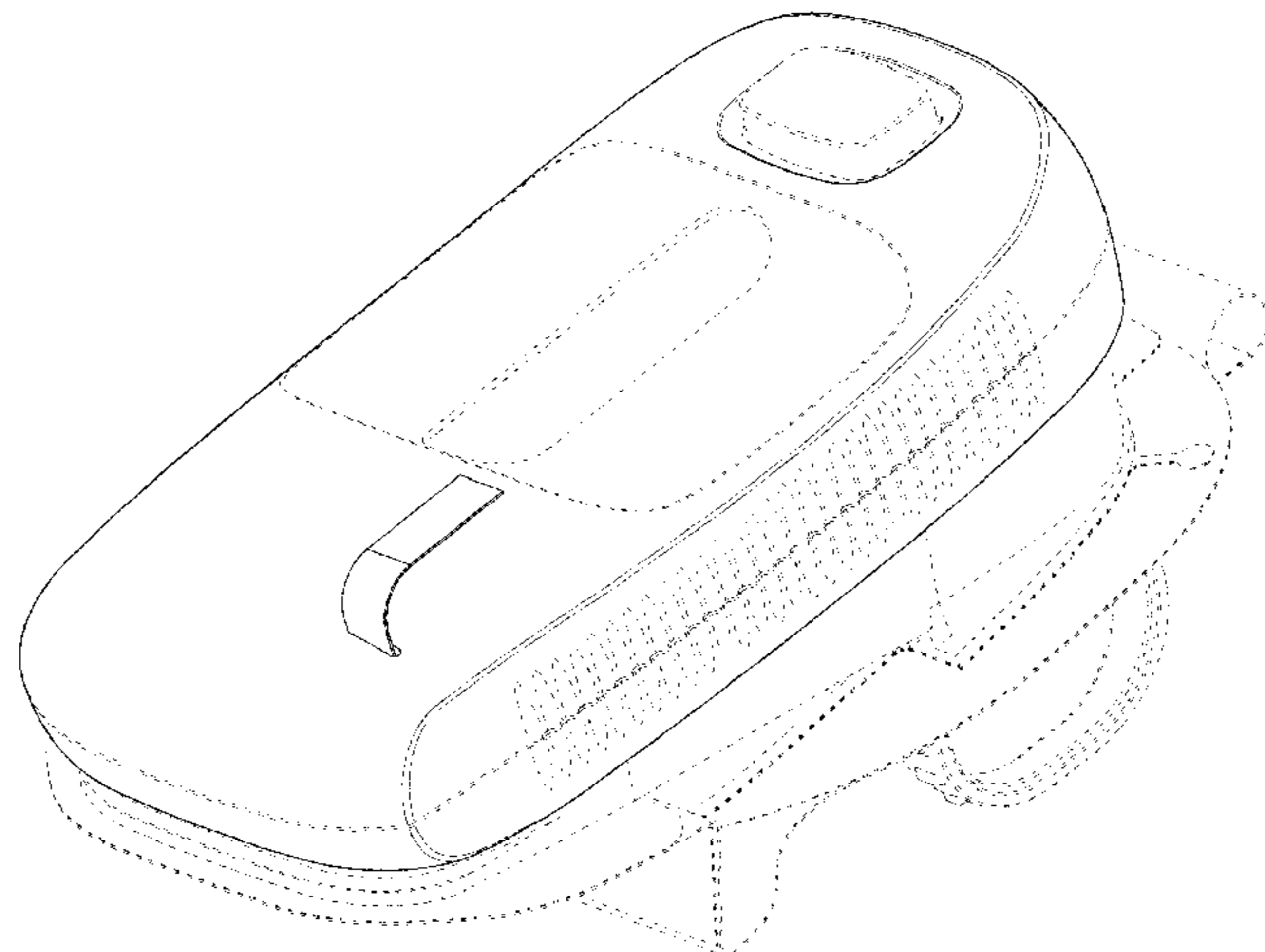
(56) **References Cited**

U.S. PATENT DOCUMENTS

D369,864 S 5/1996 Petersen  
D370,011 S 5/1996 Lindeman  
D389,139 S 1/1998 Oross et al.  
D421,902 S 3/2000 Hill

(Continued)

**1 Claim, 8 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

D424,626 S \* 5/2000 Goto ..... D21/329  
 6,186,982 B1 2/2001 Gross et al.  
 D441,185 S \* 5/2001 Shimizu ..... D13/168  
 D443,508 S 6/2001 Braaten et al.  
 D445,496 S 7/2001 Anderson  
 6,500,150 B1 12/2002 Gross et al.  
 D471,274 S 3/2003 Diaz et al.  
 6,530,900 B1 3/2003 Daily et al.  
 D474,543 S 5/2003 Lee et al.  
 6,613,015 B2 9/2003 Sandstrom et al.  
 D483,281 S \* 12/2003 Cobigo ..... D10/104.1  
 D490,069 S \* 5/2004 Lee ..... D14/188  
 D495,303 S \* 8/2004 Coullahan ..... D13/168  
 6,800,071 B1 10/2004 McConnell et al.  
 6,843,782 B2 1/2005 Gross et al.  
 6,889,690 B2 \* 5/2005 Crowder ..... A61M 15/0045  
 128/203.15  
 D514,097 S \* 1/2006 De Leon ..... D14/191  
 D544,092 S 6/2007 Lewis  
 D552,184 S \* 10/2007 Hussaini ..... D14/496  
 D602,586 S \* 10/2009 Foley ..... D24/113  
 D619,338 S 7/2010 Teichert et al.  
 D622,685 S 8/2010 Garra et al.  
 7,780,636 B2 8/2010 Radmer et al.  
 7,931,621 B2 \* 4/2011 Cross ..... A61M 5/1413  
 604/158  
 7,967,795 B1 6/2011 Cabiri  
 D640,920 S 7/2011 Giraud et al.  
 D646,159 S 10/2011 Bellamah et al.  
 8,152,779 B2 4/2012 Cabiri  
 8,157,769 B2 4/2012 Cabiri  
 8,210,172 B2 7/2012 Crowder et al.  
 D667,382 S \* 9/2012 Cosentino ..... D13/168  
 8,303,549 B2 11/2012 Mejlhede et al.  
 8,313,467 B2 11/2012 Chong et al.  
 8,348,898 B2 1/2013 Cabiri  
 8,393,357 B2 3/2013 Chong et al.  
 D683,848 S 6/2013 Ogura et al.  
 D684,686 S 6/2013 Cronenberg  
 D685,083 S 6/2013 Schneider et al.  
 D685,084 S 6/2013 Guarraia et al.  
 8,465,455 B2 6/2013 Cabiri  
 D687,140 S 7/2013 Guarraia et al.  
 D687,141 S 7/2013 Schneider et al.  
 D687,536 S 8/2013 Guarraia et al.  
 D688,784 S 8/2013 Schneider et al.  
 8,613,719 B2 \* 12/2013 Karratt ..... A61M 5/14248  
 604/131  
 D702,834 S 4/2014 Norton et al.  
 D714,266 S 9/2014 Okamura et al.  
 8,882,711 B2 11/2014 Saulenas et al.  
 D722,870 S 2/2015 Fohner et al.  
 8,986,250 B2 3/2015 Beebe et al.  
 9,011,164 B2 4/2015 Filman et al.  
 9,173,997 B2 11/2015 Gross et al.  
 D745,661 S 12/2015 Collins et al.  
 D753,810 S 4/2016 Chang  
 D755,950 S 5/2016 Meliniotis et al.  
 D760,374 S 6/2016 Nagar et al.  
 9,373,269 B2 6/2016 Bergman et al.  
 D764,047 S 8/2016 Bjelovuk et al.  
 9,421,323 B2 8/2016 Cabin et al.  
 D769,438 S 10/2016 Crosby et al.  
 D770,037 S 10/2016 Schleicher et al.  
 9,463,280 B2 10/2016 Cabiri  
 9,492,614 B2 11/2016 Kamen et al.  
 D776,262 S 1/2017 Tyce et al.  
 D776,265 S 1/2017 Tyce et al.  
 D777,331 S 1/2017 Jayalath et al.  
 9,656,019 B2 5/2017 Cabin et al.  
 D792,359 S \* 7/2017 Nakagawa ..... D13/168

D794,806 S \* 8/2017 Kranz ..... D24/186  
 D801,538 S \* 10/2017 Rondoni ..... D24/186  
 D806,232 S \* 12/2017 Hwang ..... D24/112  
 D810,948 S \* 2/2018 Wielunski ..... D24/186  
 D812,739 S \* 3/2018 Wolford ..... D24/111  
 D825,356 S \* 8/2018 Yu ..... D10/70  
 D836,568 S \* 12/2018 Miller ..... D13/168  
 D847,976 S \* 5/2019 Protasiewicz ..... D24/113  
 2005/0064917 A1 \* 3/2005 Peng ..... H04M 1/021  
 455/575.1  
 2007/0021733 A1 1/2007 Hansen et al.  
 2008/0215015 A1 9/2008 Cindrigh et al.  
 2009/0093792 A1 4/2009 Gross et al.  
 2009/0240240 A1 \* 9/2009 Hines ..... A61M 5/14248  
 604/890.1  
 2012/0035546 A1 2/2012 Cabiri  
 2013/0110049 A1 5/2013 Cronenberg et al.  
 2013/0245596 A1 9/2013 Cabiri et al.  
 2013/0253472 A1 9/2013 Cabiri  
 2013/0296799 A1 11/2013 Degtiar et al.  
 2013/0304021 A1 11/2013 Cabiri et al.  
 2013/0310753 A1 11/2013 Cabiri  
 2014/0128815 A1 5/2014 Cabiri et al.  
 2014/0207067 A1 7/2014 Kamen et al.  
 2014/0330240 A1 11/2014 Cabiri et al.  
 2014/0346378 A1 11/2014 Kua et al.  
 2014/0350459 A1 11/2014 Lanier, Jr. et al.  
 2015/0011965 A1 1/2015 Cabiri  
 2015/0157786 A1 6/2015 Sonderegger et al.  
 2015/0165121 A1 6/2015 Murakami et al.  
 2015/0250943 A1 9/2015 Momose  
 2015/0306307 A1 10/2015 Cole et al.  
 2015/0359965 A1 12/2015 OConnor et al.  
 2016/0058941 A1 3/2016 Wu et al.  
 2016/0082184 A1 3/2016 Flanagan et al.  
 2016/0121043 A1 5/2016 Weibel  
 2016/0256352 A1 9/2016 Bar-El et al.  
 2016/0256353 A1 9/2016 Bar-El et al.  
 2016/0284239 A1 9/2016 Bergman et al.  
 2016/0296699 A1 10/2016 Cabiri  
 2016/0296716 A1 10/2016 Cabiri et al.  
 2016/0317738 A1 \* 11/2016 Cross ..... A61M 5/1454  
 2017/0021137 A1 \* 1/2017 Cole ..... A61M 25/0606  
 2017/0028132 A1 2/2017 Cronenberg et al.  
 2017/0340827 A1 \* 11/2017 Nazzaro ..... A61M 5/28

FOREIGN PATENT DOCUMENTS

KR 30-0689248 S 4/2013  
 WO WO2011090956 A2 7/2011  
 WO WO2012032411 A2 3/2012  
 WO WO2014081411 A1 5/2014  
 WO WO2016196934 A1 12/2016

OTHER PUBLICATIONS

Amgen Inc., "The Neulasta Onpro Kit", <http://www.neulastahcp.com/neulasta-onpro/>, Copyright 2016, 16 pages.  
 BD Worldwide, "Self-Injection Systems", <http://www.bd.com/pharmaceuticals/products/self-injection/patch-injectors.asp>, Copyright 2017, 2 pages.  
 OndrugDelivery, "Wearable Injectors", Sep. 19, 2016 Issue No. 70, 48 pages.  
 Sensile Medical AG, "SensePatch", [https://www.sensile-medical.com/assets/data-sheet\\_5002\\_senspatch.pdf](https://www.sensile-medical.com/assets/data-sheet_5002_senspatch.pdf), 2017, 2 pages.  
 Unilife Corporation, "Wearable Injectors", <http://www.unilife.com/product-platforms/WearableInjectors>, Copyright 2016, 3 pages.  
 West Pharmaceutical Services, Inc. "SmartDose Platform" <http://www.westpharma.com/products/self-injection-platforms/smartdoes>, Copyright 2017, 3 pages.

\* cited by examiner

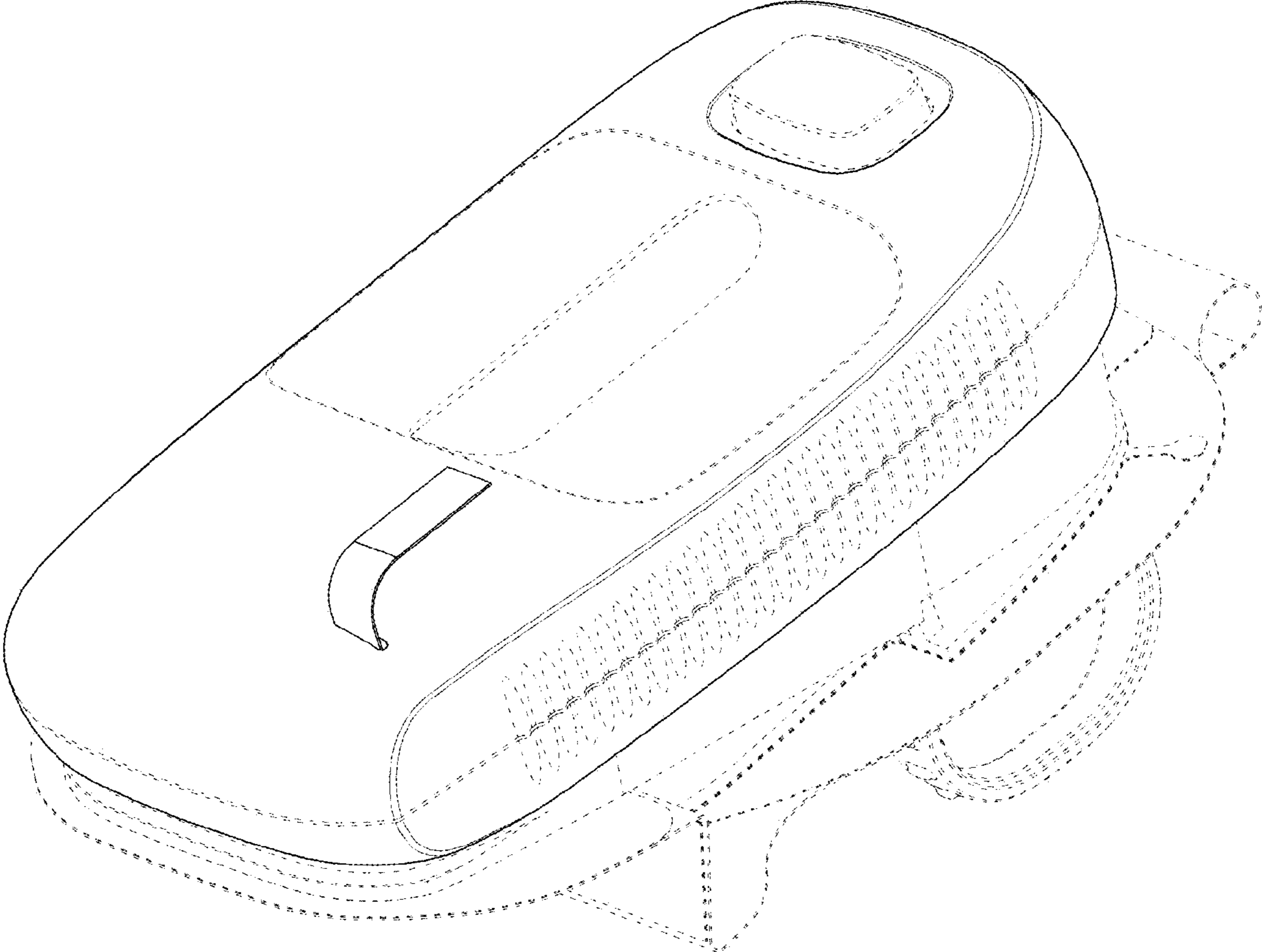


FIG. 1

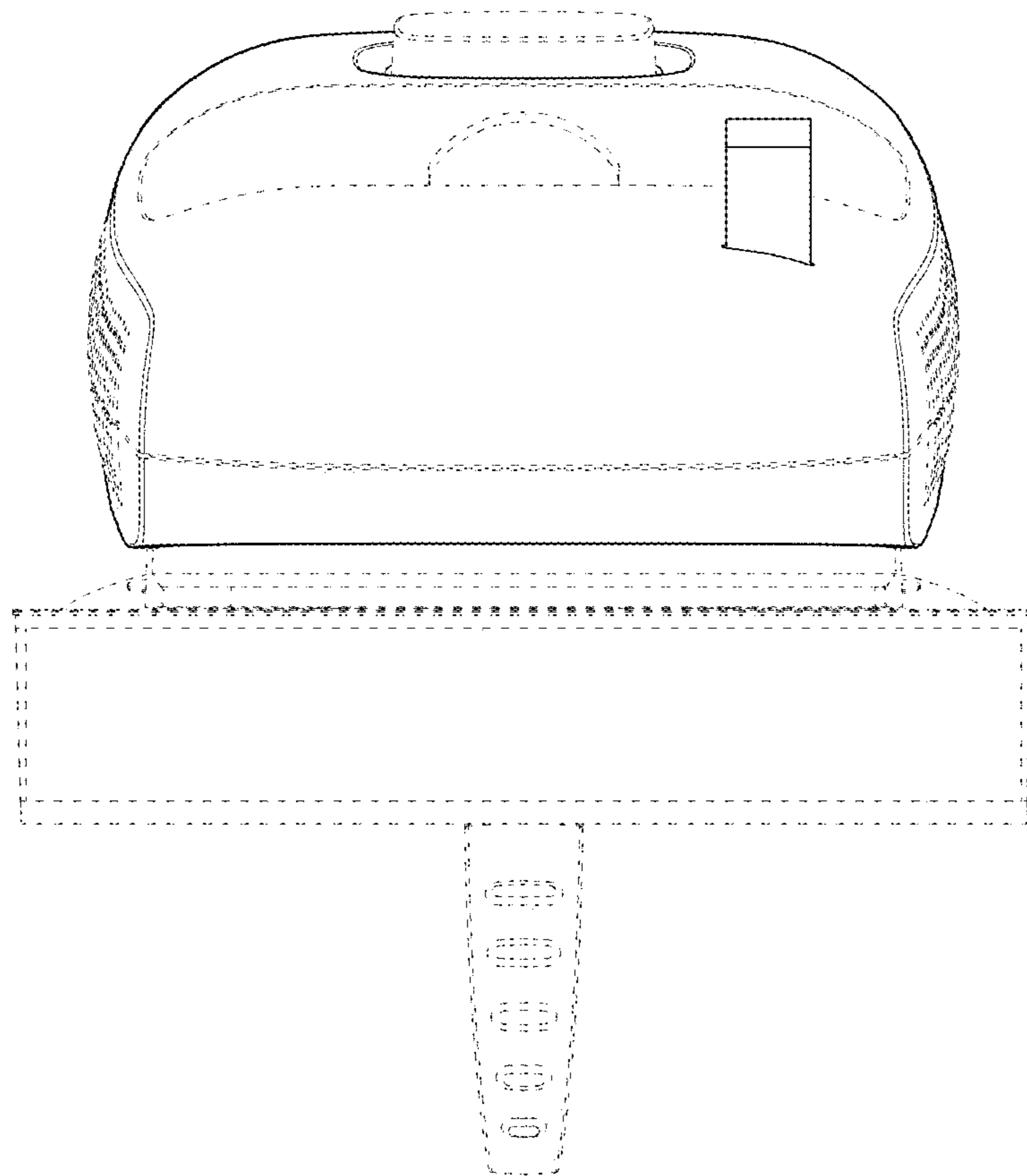


FIG. 2

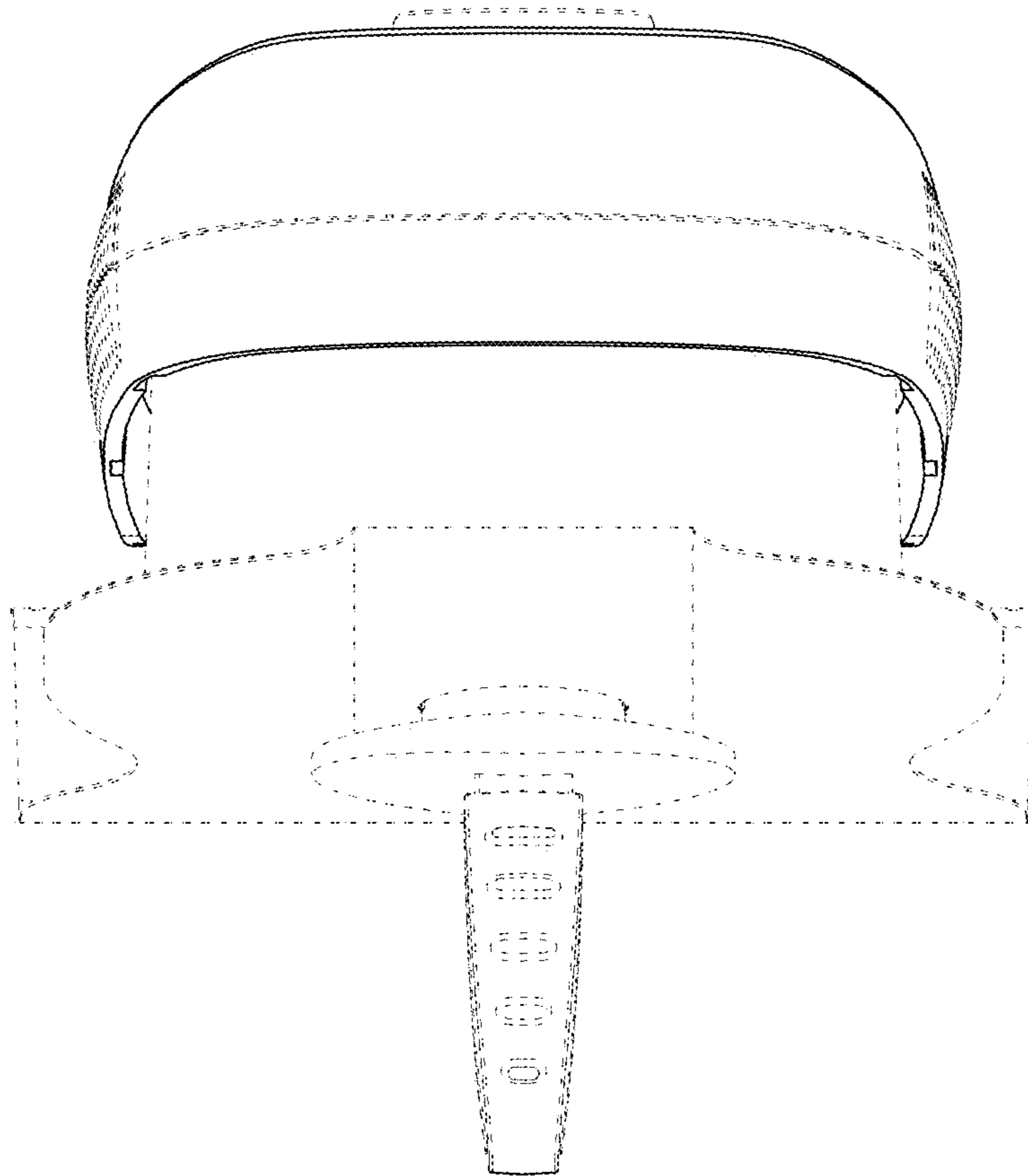


FIG. 3

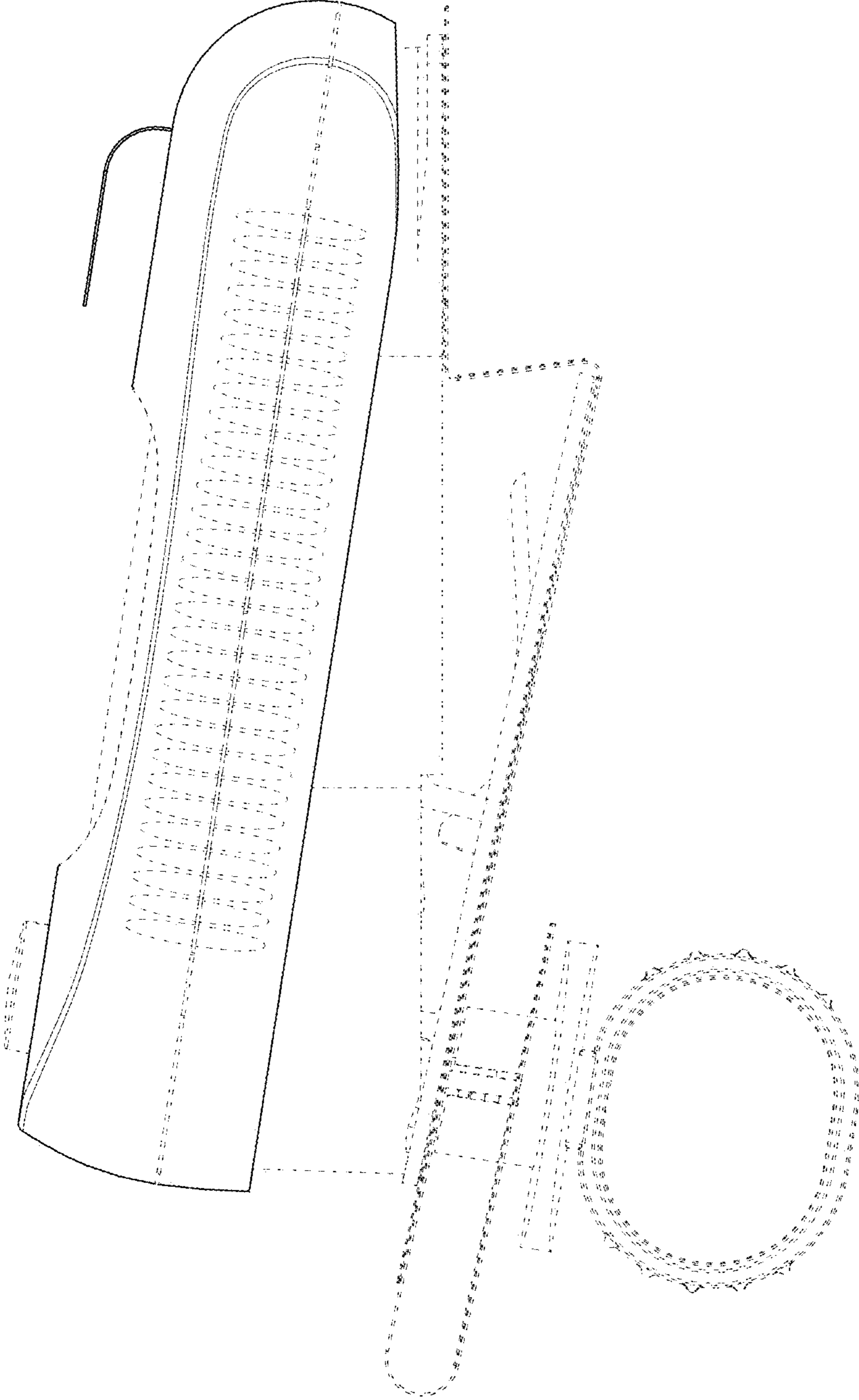


FIG. 4

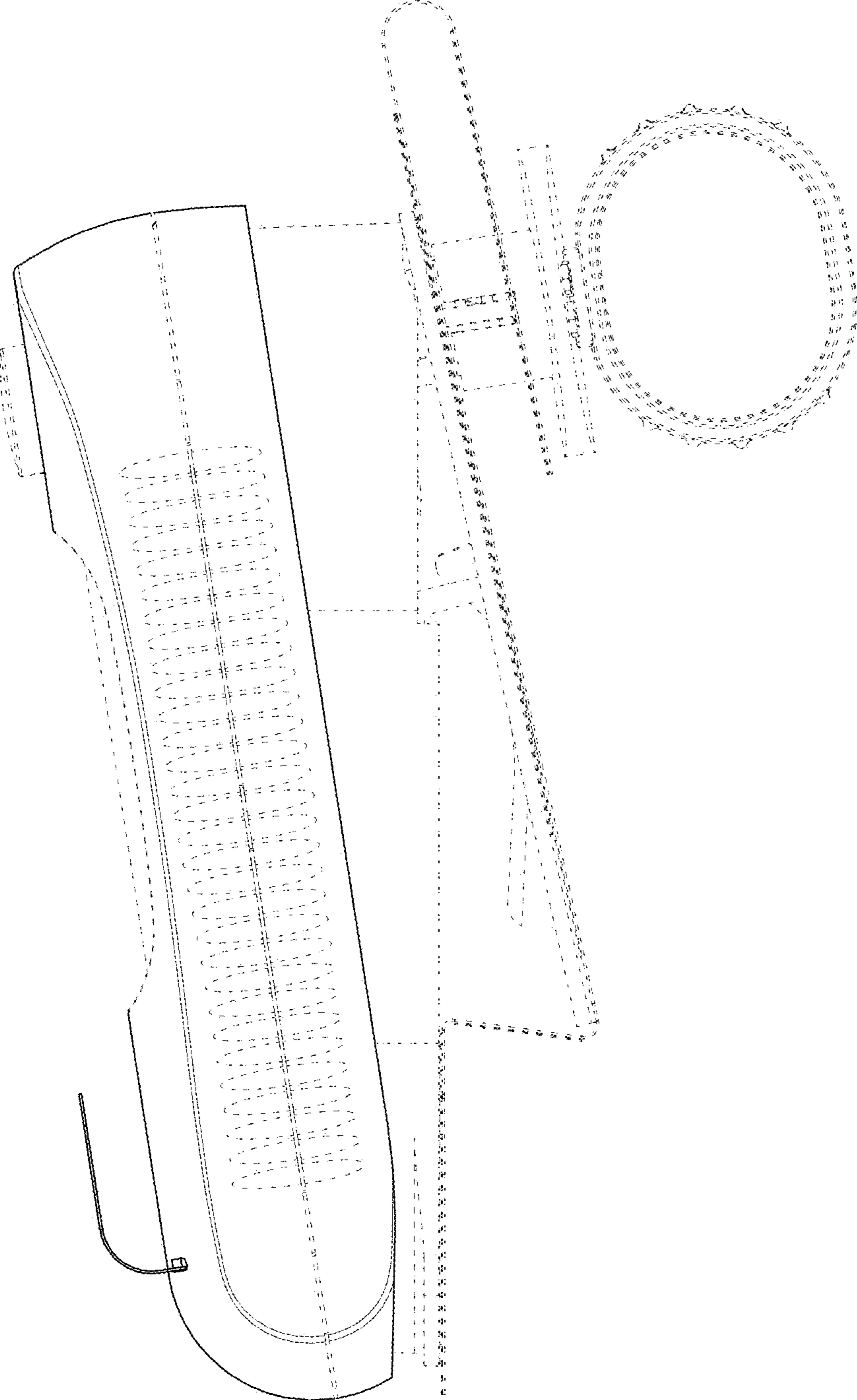


FIG. 5



FIG. 6



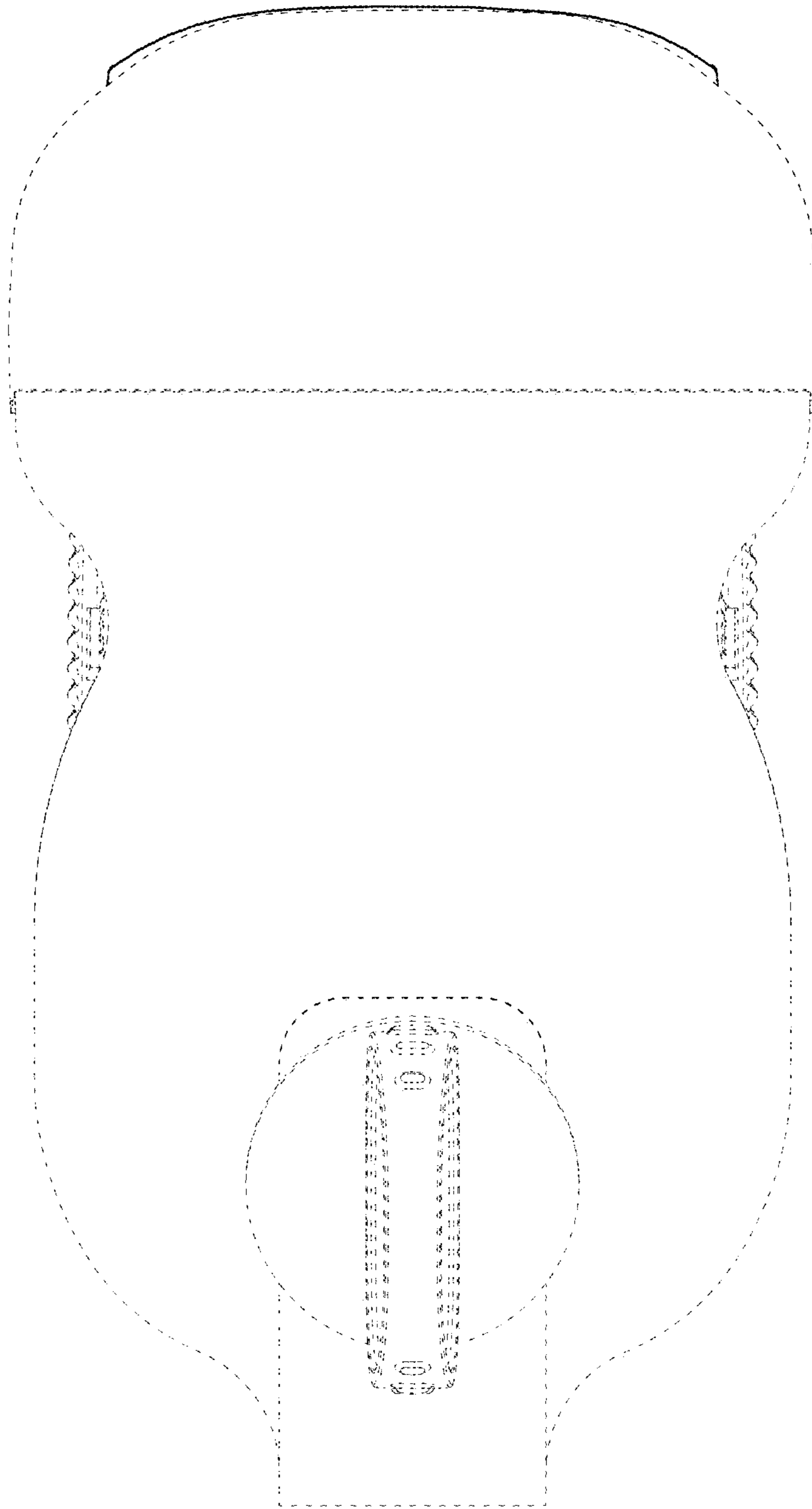


FIG. 7

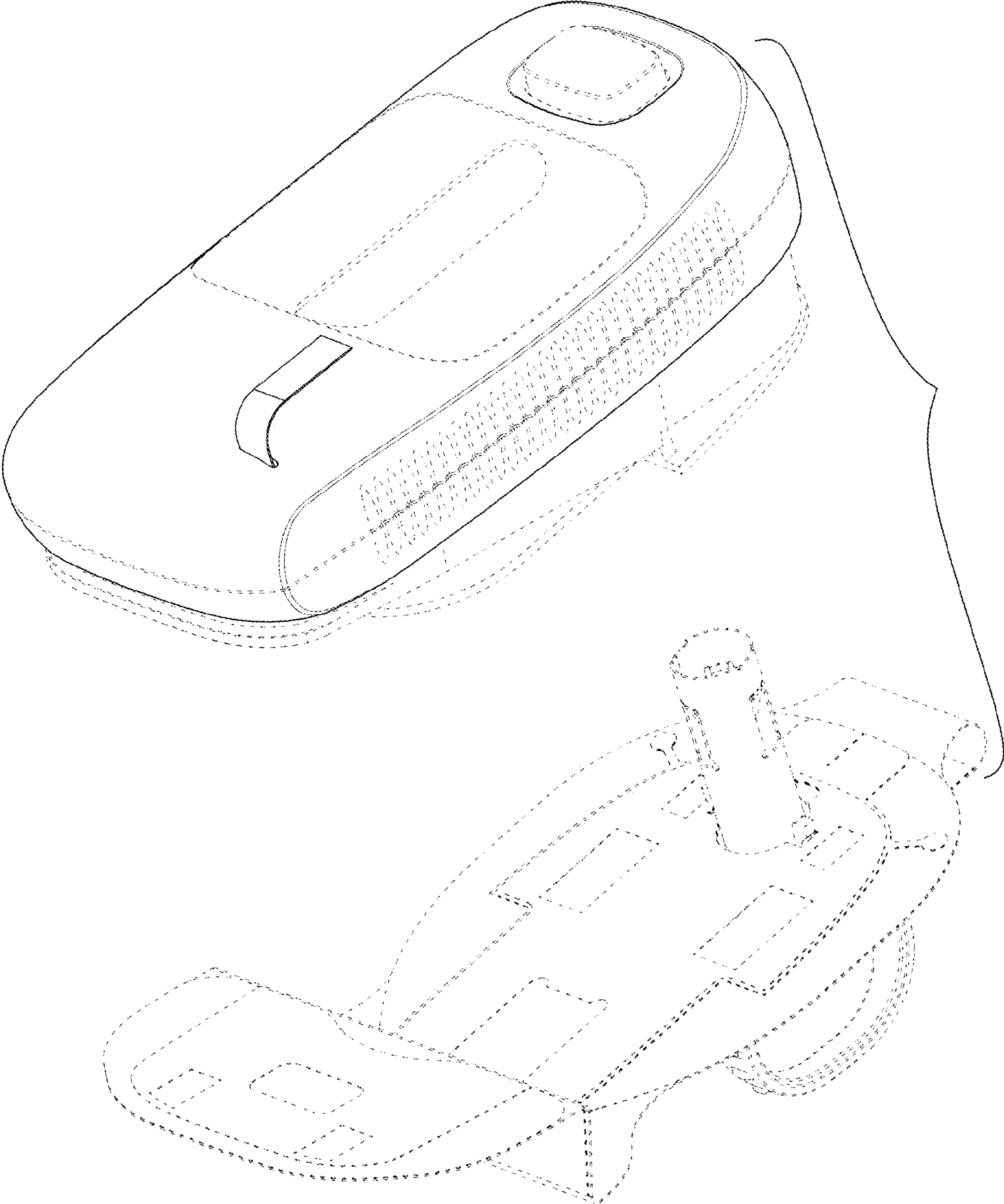


FIG. 8