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

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(54) **OPTICAL MODULE**  
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(73) Assignee: **ADOLITE INC.**, Santa Clara, CA (US)  
(\*\*) Term: **15 Years**

D654,434 S \* 2/2012 Ishigami ..... D13/123  
8,500,342 B2 \* 8/2013 Yu et al. .... 385/139  
9,028,270 B1 \* 5/2015 Vanderwoud ..... H01R 13/6335  
439/476.1  
9,063,305 B2 \* 6/2015 McColloch ..... H05K 7/20409  
D734,728 S \* 7/2015 Lagziel ..... D13/154  
D744,957 S \* 12/2015 Tal ..... D13/154  
9,380,003 B2 \* 6/2016 Tang ..... H04L 49/30  
9,383,519 B2 \* 7/2016 Yi ..... G02B 6/36

(Continued)

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D14/256, 300, 313, 496, 299, 356, 357,  
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D13/135, 154; D10/46  
CPC ..... G02B 6/42; G02B 6/4268; G02B 6/4204;  
G02B 6/4271; G02B 6/4269; G02B 6/43;  
G02B 6/3893; G02B 6/54; H05K 1/02;  
H05K 1/021; H05K 1/0274; H05K  
1/0216; H01R 13/6335  
See application file for complete search history.

**OTHER PUBLICATIONS**

Mellanox—QSFP transceiver module\_MC2210411-SR4L. [online image] 1 pg. manufactured Nov. 21, 2013. [Retrieved on Sep. 23, 2019 ] [https://webobjects2.cdw.com/is/image/CDW/4500034?wid=1142&hei=818&resMode=bin&fit=fit,1.\\*](https://webobjects2.cdw.com/is/image/CDW/4500034?wid=1142&hei=818&resMode=bin&fit=fit,1.*)

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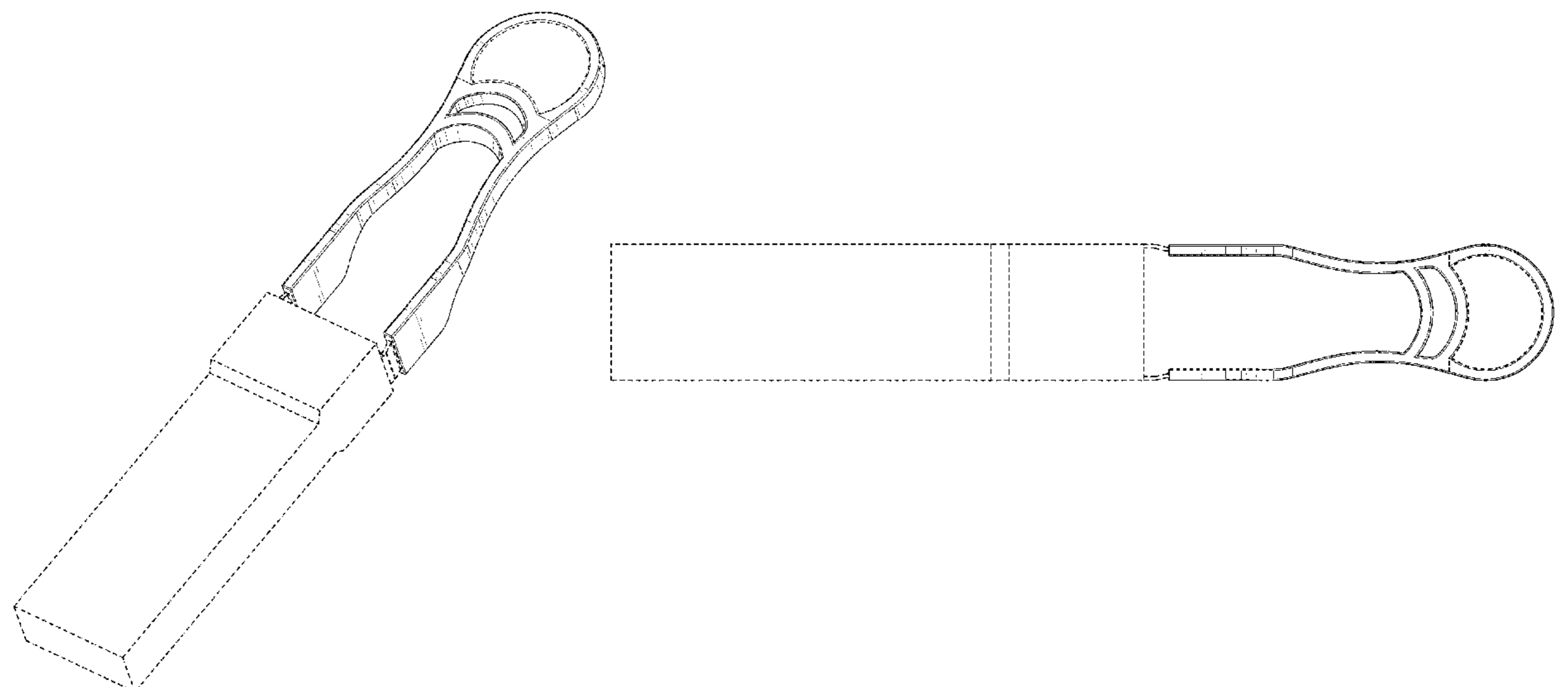
(57) **CLAIM**

The ornamental design for an optical module, as shown and described.

**DESCRIPTION**

FIG. 1 is a front perspective view of an optical module according to an embodiment of the present design.  
FIG. 2 is a rear perspective view of the optical module of FIG. 1.  
FIG. 3 is a front view the optical module of FIG. 1.  
FIG. 4 is a back view of the optical module of FIG. 1.  
FIG. 5 is a left side view of the optical module of FIG. 1.  
FIG. 6 is a right side view of the optical module of FIG. 1.  
FIG. 7 is a top view of the optical module of FIG. 1; and, FIG. 8 is a bottom view of the optical module of FIG. 1.  
The broken lines shown in the drawings depict unclaimed environmental structure and form no part of the claimed design.

**1 Claim, 7 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

9,430,004 B2 \* 8/2016 Meadowcroft ..... G06F 1/183  
 9,470,860 B2 \* 10/2016 McColloch ..... G02B 6/4268  
 9,523,826 B2 \* 12/2016 Tsai ..... G02B 6/423  
 9,645,334 B2 \* 5/2017 Ishii ..... G02B 6/4272  
 9,720,189 B1 \* 8/2017 Wang ..... G02B 6/387  
 9,739,953 B2 \* 8/2017 Moriyama ..... G02B 6/387  
 9,927,585 B1 \* 3/2018 Shih ..... G02B 6/4257  
 D815,641 S \* 4/2018 Ellis, II ..... D14/435  
 10,079,452 B1 \* 9/2018 Zhang ..... H01R 13/5812  
 10,162,132 B2 \* 12/2018 Zhang ..... G02B 6/3893  
 10,254,491 B2 \* 4/2019 Chung ..... G02B 6/4292  
 10,288,824 B2 \* 5/2019 Lin ..... G02B 6/4261  
 10,330,873 B2 \* 6/2019 Chuang ..... G02B 6/4261  
 10,411,423 B1 \* 9/2019 Park ..... H04B 1/38  
 10,444,453 B1 \* 10/2019 Khamaisee ..... H04B 10/40  
 2009/0291578 A1 \* 11/2009 Wu ..... H01R 9/032  
 439/258  
 2010/0216325 A1 \* 8/2010 Huang ..... H01R 13/6275  
 439/155  
 2011/0194828 A1 \* 8/2011 Hackett ..... G02B 6/3825  
 385/134  
 2012/0094515 A1 \* 4/2012 Wu ..... H01R 13/6272  
 439/159  
 2012/0282796 A1 \* 11/2012 Wu ..... H01R 13/633  
 439/350  
 2013/0115794 A1 \* 5/2013 Chang ..... H01R 13/6335  
 439/160  
 2013/0183846 A1 \* 7/2013 Kappla ..... G02B 6/4246  
 439/350  
 2013/0244459 A1 \* 9/2013 Lee ..... H01R 13/443  
 439/133  
 2013/0279122 A1 \* 10/2013 Tang ..... H01R 13/6335  
 361/747  
 2014/0179143 A1 \* 6/2014 Kappla ..... H01R 13/6275  
 439/310  
 2014/0348468 A1 \* 11/2014 Lagziel ..... G02B 6/4255  
 385/78  
 2014/0369651 A1 \* 12/2014 Ben David ..... G02B 6/4268  
 385/89

2015/0188635 A1 \* 7/2015 Yeh ..... H04B 10/40  
 398/135  
 2015/0263453 A1 \* 9/2015 Wang ..... H01R 13/6335  
 385/76  
 2016/0111819 A1 \* 4/2016 Frahmman ..... H01R 13/6275  
 385/76  
 2016/0216460 A1 \* 7/2016 Yang ..... G02B 6/4284  
 2016/0252690 A1 \* 9/2016 Kawamura ..... G02B 6/4246  
 398/79  
 2016/0266340 A1 \* 9/2016 Zhang ..... G02B 6/32  
 2016/0327756 A1 \* 11/2016 Raven ..... G02B 6/3893  
 2017/0139157 A1 \* 5/2017 Kanno ..... G02B 6/3821  
 2018/0040982 A1 \* 2/2018 Resendez ..... H01R 13/635  
 2018/0136416 A1 \* 5/2018 Kurashima ..... G02B 6/3879  
 2018/0172930 A1 \* 6/2018 Kanda ..... H04B 10/564  
 2018/0235087 A1 \* 8/2018 Uchida ..... H05K 1/189  
 2018/0252871 A1 \* 9/2018 Yeh ..... G02B 6/387  
 2018/0254581 A1 \* 9/2018 Yeh ..... G02B 6/00  
 2018/0267263 A1 \* 9/2018 Wang ..... G02B 6/4214  
 2018/0284359 A1 \* 10/2018 Akieda ..... G02B 6/3858  
 2018/0284363 A1 \* 10/2018 Zhang ..... G02B 6/3893  
 2018/0372956 A1 \* 12/2018 Chen ..... G02B 6/4204  
 2019/0029102 A1 \* 1/2019 Chen ..... H05K 1/021  
 2019/0044299 A1 \* 2/2019 Kazav ..... H01R 43/26  
 2019/0058275 A1 \* 2/2019 Li ..... H01R 13/405  
 2019/0058287 A1 \* 2/2019 Li ..... H01R 13/6335  
 2019/0079252 A1 \* 3/2019 Watanabe ..... G02B 6/3898  
 2019/0097735 A1 \* 3/2019 Akieda ..... H04B 10/801  
 2019/0101714 A1 \* 4/2019 Kurashima ..... G02B 6/4277  
 2019/0113698 A1 \* 4/2019 Huang ..... G02B 6/4269  
 2019/0187390 A1 \* 6/2019 Yamashita ..... G02B 6/425  
 2019/0204516 A1 \* 7/2019 Chen ..... G02B 6/4246  
 2019/0204517 A1 \* 7/2019 Chen ..... G02B 6/426  
 2019/0271818 A1 \* 9/2019 Cabessa ..... G02B 6/4269

OTHER PUBLICATIONS

Sinovo\_SOQP-PSM-2 QSFP28 optical module. [online image] 1  
 pg. [Retrieved on Sep. 23, 2019] [https://pic2.zhimg.com/80/v2-7f58db79b054f883a187296adefcd6d9\\_hd.jpg](https://pic2.zhimg.com/80/v2-7f58db79b054f883a187296adefcd6d9_hd.jpg).\*

\* cited by examiner

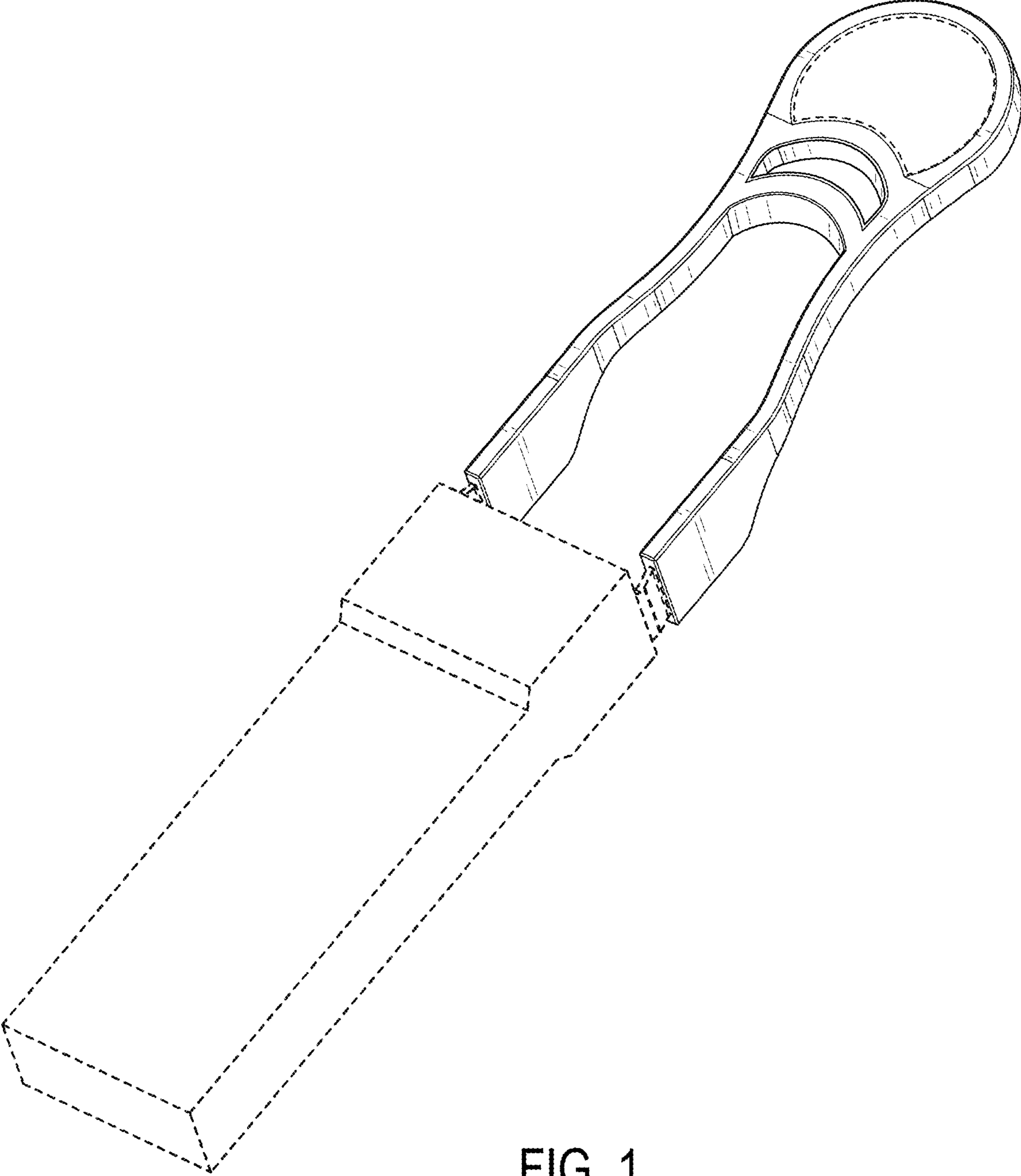


FIG. 1



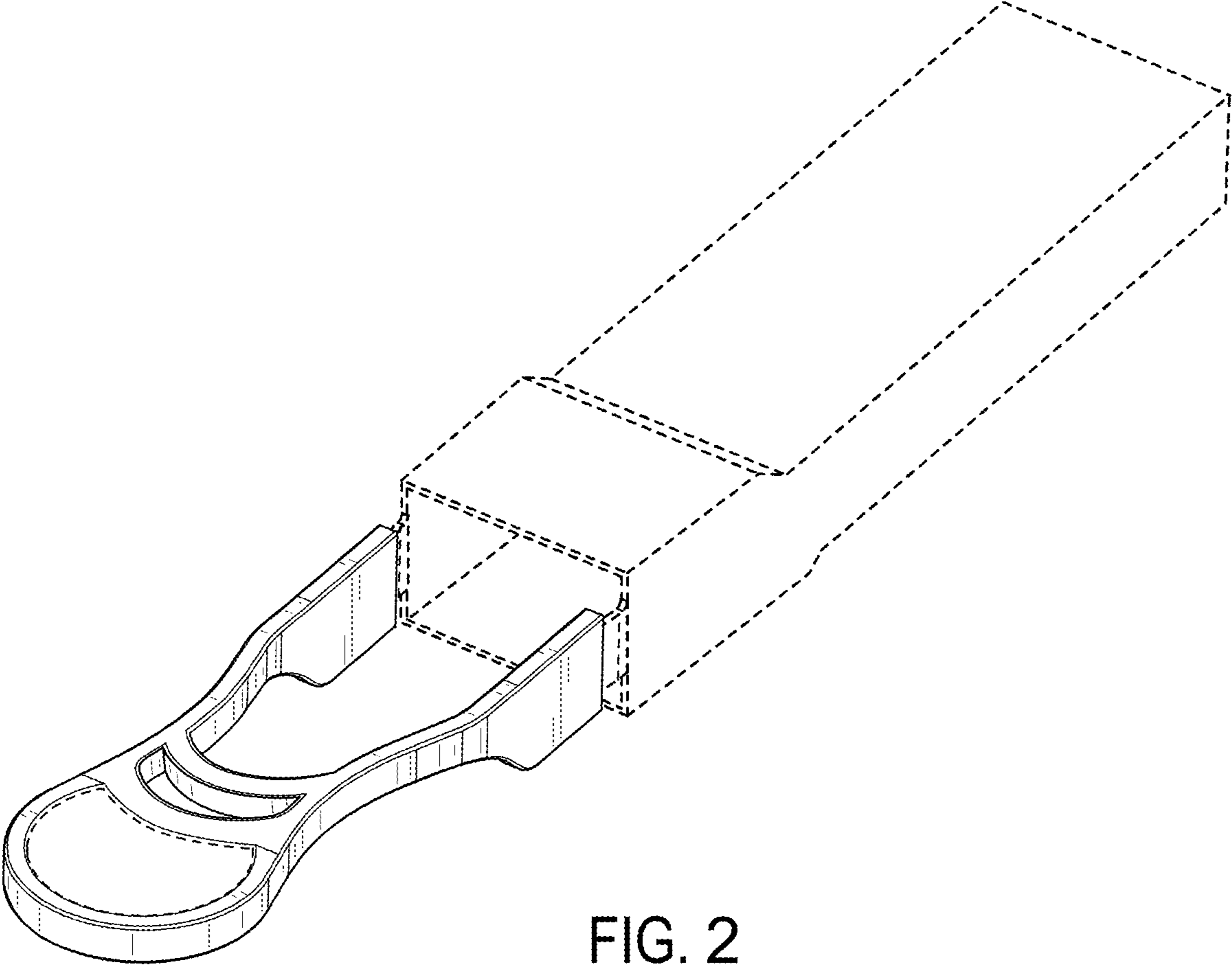


FIG. 2

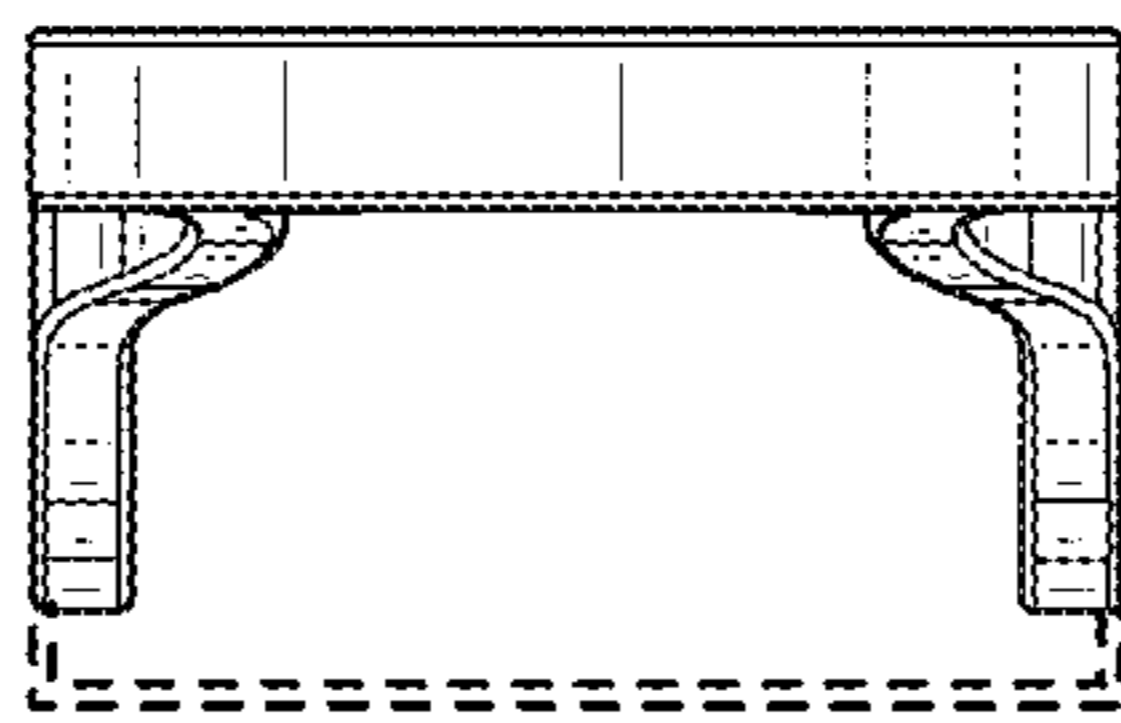


FIG. 3



FIG. 4

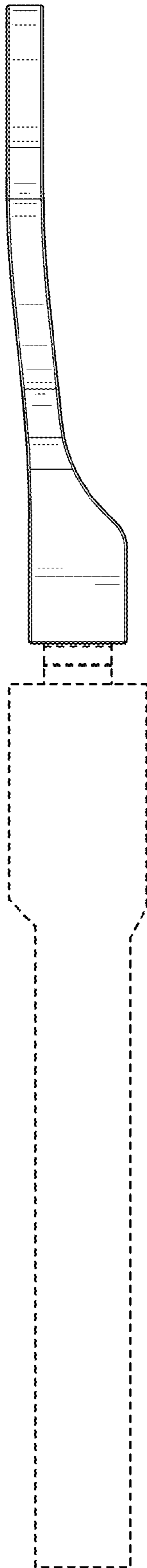


FIG. 5

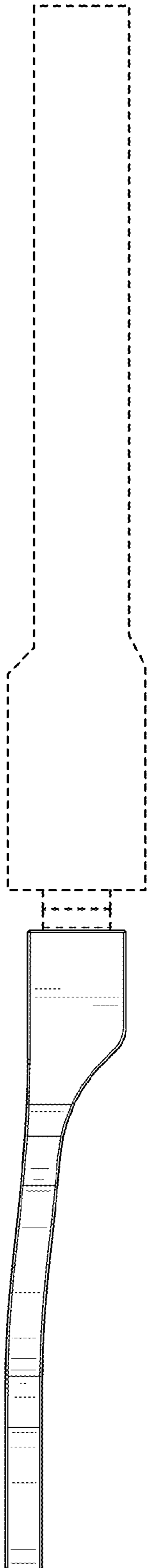


FIG. 6

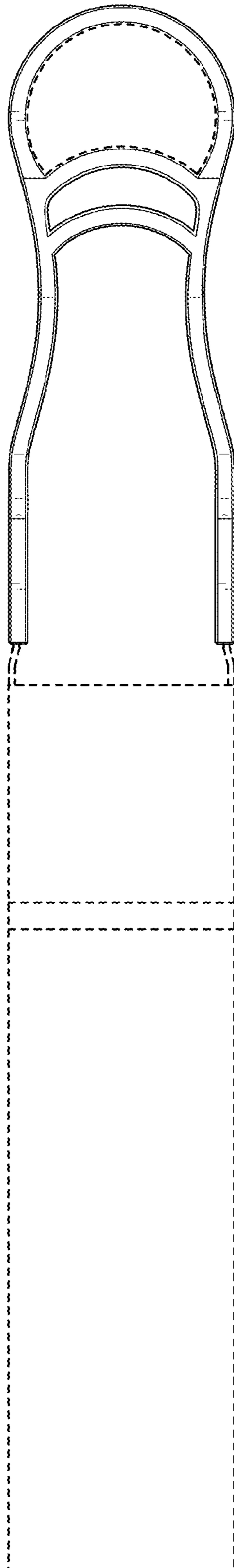


FIG. 7



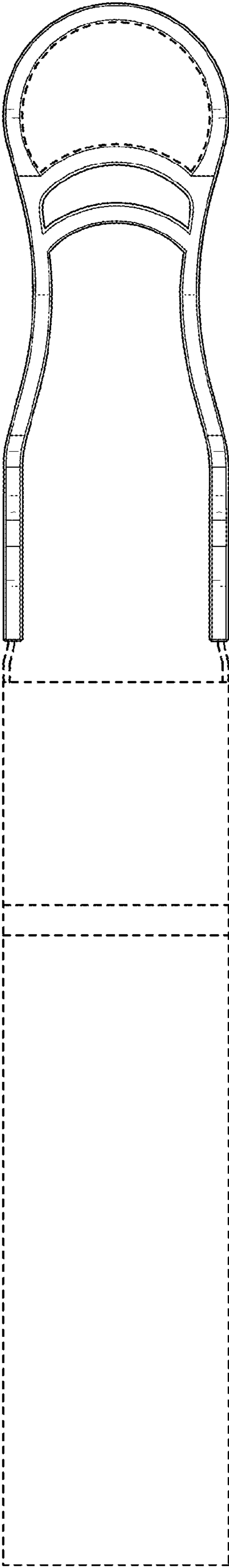


FIG. 8