



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

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(54) **FLOW CELL CARTRIDGE**

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

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(51) **LOC (13) Cl.** ..... **24-99**

(52) **U.S. Cl.**

USPC ..... **D24/232; D24/224**

(58) **Field of Classification Search**

USPC ..... D24/107, 108, 119, 121, 162, 169, 186,  
D24/201, 216-232; D10/75, 80, 81

CPC ..... G01N 2035/00306; G01N 2035/00326;  
G01N 2035/00336; G01N 2035/00029;  
G01N 2035/0401; G01N 2035/0403;  
G01N 2035/0405; G01N 2035/00019;  
G01N 35/021; G01N 35/026; G01N  
35/028; G01N

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(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D333,630 S 3/1993 Marks  
D351,913 S 10/1994 Hieb et al.

(Continued)

**FOREIGN PATENT DOCUMENTS**

CN 304787602 8/2018  
JP D1585148 9/2017

(Continued)

**OTHER PUBLICATIONS**

G4212-60032—3.7mm HDR max light cartridge cell. Online, published date unknown. Retrieved on Apr. 12, 2021 from URL: [https://www.chromtech.com/g4212-60032-37mm-hdr-max-light-cartridge-cell.\\*](https://www.chromtech.com/g4212-60032-37mm-hdr-max-light-cartridge-cell.*)

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(57) **CLAIM**

We claim the ornamental design for a flow cell cartridge, as shown and described.

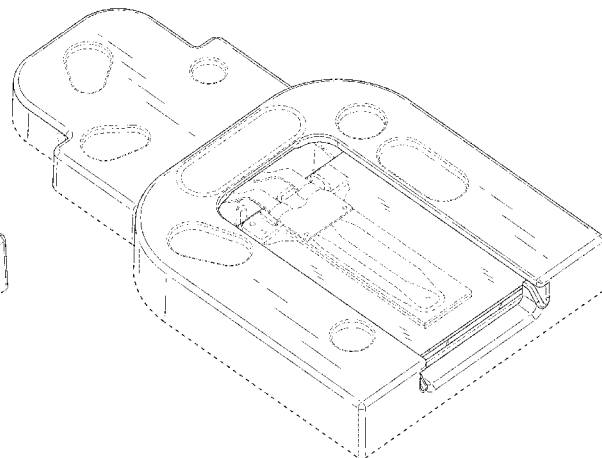
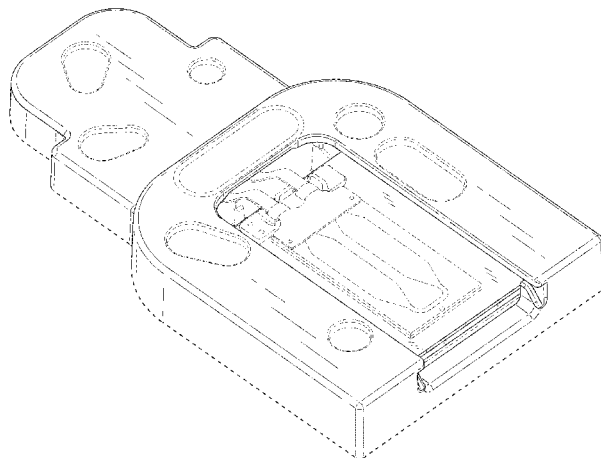
**DESCRIPTION**

FIG. 1 is a top, rear perspective view of a flow cell cartridge comprising our new design;  
 FIG. 2 is a top plan view of the design in FIG. 1;  
 FIG. 3 is a bottom plan of the design of FIG. 1;  
 FIG. 4 is a left side elevational view of the design of FIG. 1;  
 FIG. 5 is a right side elevational view of the design of FIG. 1;  
 FIG. 6 is a front elevational view of the design of FIG. 1;  
 FIG. 7 is an enlarged rear elevational view of the design of FIG. 1;  
 FIG. 8 is a top, rear perspective view of an alternate design of the view shown in FIG. 1;  
 FIG. 9 is a top plan view of the design in FIG. 8; and  
 FIG. 10 is an enlarged rear elevational view of the design of FIG. 8.

The bottom plan, left and right side elevational, and front views of the alternate embodiment shown in FIG. 8 are identical to FIGS. 3-6.

The evenly broken lines shown in the drawings illustrate portions of the flow cell cartridge that form no part of the claimed design.

**1 Claim, 9 Drawing Sheets**



(58) **Field of Classification Search**  
 CPC .... 35/04; G01N 1/22; G01N 27/44791; B01L  
 2300/0809; B01L 2300/0816; B01L  
 2300/0822; B01L 2300/0832; B01L  
 2300/0806

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D438,632 S \* 3/2001 Miller ..... D24/216  
 D438,633 S \* 3/2001 Miller ..... D24/216  
 D473,318 S \* 4/2003 Barbera-Guillem ..... D24/216  
 D491,273 S \* 6/2004 Biegler ..... D24/216  
 D559,995 S \* 1/2008 Handique ..... D24/232  
 D566,291 S \* 4/2008 Parunak ..... D24/224  
 D639,975 S 6/2011 Doyle et al.  
 D685,494 S \* 7/2013 Oonuma ..... D24/216  
 D686,311 S \* 7/2013 Mori ..... D24/108  
 D697,198 S \* 1/2014 Amirouche ..... D24/108  
 D729,403 S 5/2015 Hage et al.  
 D745,698 S 12/2015 Hage et al.  
 D750,272 S 2/2016 Hage et al.  
 D752,770 S 3/2016 Kuhn et al.  
 D768,870 S 10/2016 Kuhn et al.  
 D784,551 S \* 4/2017 Todd ..... D24/224  
 D785,811 S 5/2017 Watts et al.  
 D794,817 S 8/2017 Yi et al.  
 D794,818 S 8/2017 Yi et al.  
 D794,819 S 8/2017 Yi et al.  
 D799,056 S \* 10/2017 Bourgeois ..... D24/224  
 D800,336 S 10/2017 Chang et al.  
 D800,912 S 10/2017 Uzri et al.  
 D806,890 S \* 1/2018 Williams ..... D24/216  
 D812,242 S \* 3/2018 Chang ..... D24/224  
 D812,767 S \* 3/2018 Osmus ..... D24/225  
 D819,829 S 6/2018 Osmus et al.  
 D825,078 S 8/2018 Osmus et al.  
 D840,050 S 2/2019 Schulz et al.  
 D843,009 S 3/2019 Watts et al.  
 D851,275 S 6/2019 Spuhler et al.  
 10,343,160 B2 7/2019 Lemoine et al.  
 D856,527 S \* 8/2019 Kaplan ..... D24/225  
 D861,914 S 10/2019 Blake et al.  
 D864,411 S 10/2019 Dangelo et al.  
 D864,412 S 10/2019 Dangelo et al.  
 D865,213 S 10/2019 Dangelo et al.

D865,214 S 10/2019 Dangelo et al.  
 D865,215 S 10/2019 Dangelo et al.  
 D875,271 S 2/2020 Ringold et al.  
 D877,356 S 3/2020 Clive-Smith et al.  
 D886,901 S \* 6/2020 Hussey ..... D18/56  
 2010/0143963 A1 \* 6/2010 Pollack ..... B01L 3/502792  
 435/29  
 2015/0118739 A1 \* 4/2015 Kobayashi ..... B01L 3/5027  
 435/287.2  
 2016/0175840 A1 \* 6/2016 Ingber ..... B01L 3/502715  
 422/502  
 2016/0375438 A1 \* 12/2016 Marcy ..... B01L 3/50273  
 506/39  
 2017/0016060 A1 1/2017 Sabounchi et al.  
 2017/0209865 A1 7/2017 Carrano et al.  
 2018/0117587 A1 5/2018 Lemoine et al.  
 2018/0185849 A1 \* 7/2018 Kaplan ..... B01L 9/527  
 2020/0110108 A1 4/2020 Cox-Muranami et al.  
 2020/0171502 A1 6/2020 Kumar et al.  
 2020/0217740 A1 \* 7/2020 Holst ..... G01M 3/047

FOREIGN PATENT DOCUMENTS

RU 109136 S 6/2018  
 TW D191690 7/2018

OTHER PUBLICATIONS

Osmus et al., "Reagent Cartridge", U.S. Appl. No. 29/714,653, filed Nov. 25, 2019.  
 Osmus et al., "Reagent Cartridge", U.S. Appl. No. 29/714,705, filed Nov. 25, 2019.  
 Taylor et al., "Flow Cell Cartridge", U.S. Appl. No. 29/714,671, filed Nov. 25, 2019.  
 Taylor et al., "Flow Cell", U.S. Appl. No. 29/714,672, filed Nov. 25, 2019.  
 Osmus et al., "Sequencing Cartridge Assembly", U.S. Appl. No. 29/714,661, filed Nov. 25, 2019.  
 Taylor et al., "Cartridge Cover", U.S. Appl. No. 29/714,669, filed Nov. 25, 2019.  
 Osmus et al., "Reagent Cartridge", U.S. Appl. No. 29/714,656, filed Nov. 25, 2019.  
 Osmus et al., "Reagent Cartridge", U.S. Appl. No. 29/714,706, filed Nov. 25, 2019.  
 Taylor et al., "Flow Cell Cartridge", U.S. Appl. No. 29/714,665, filed Nov. 25, 2019.

\* cited by examiner

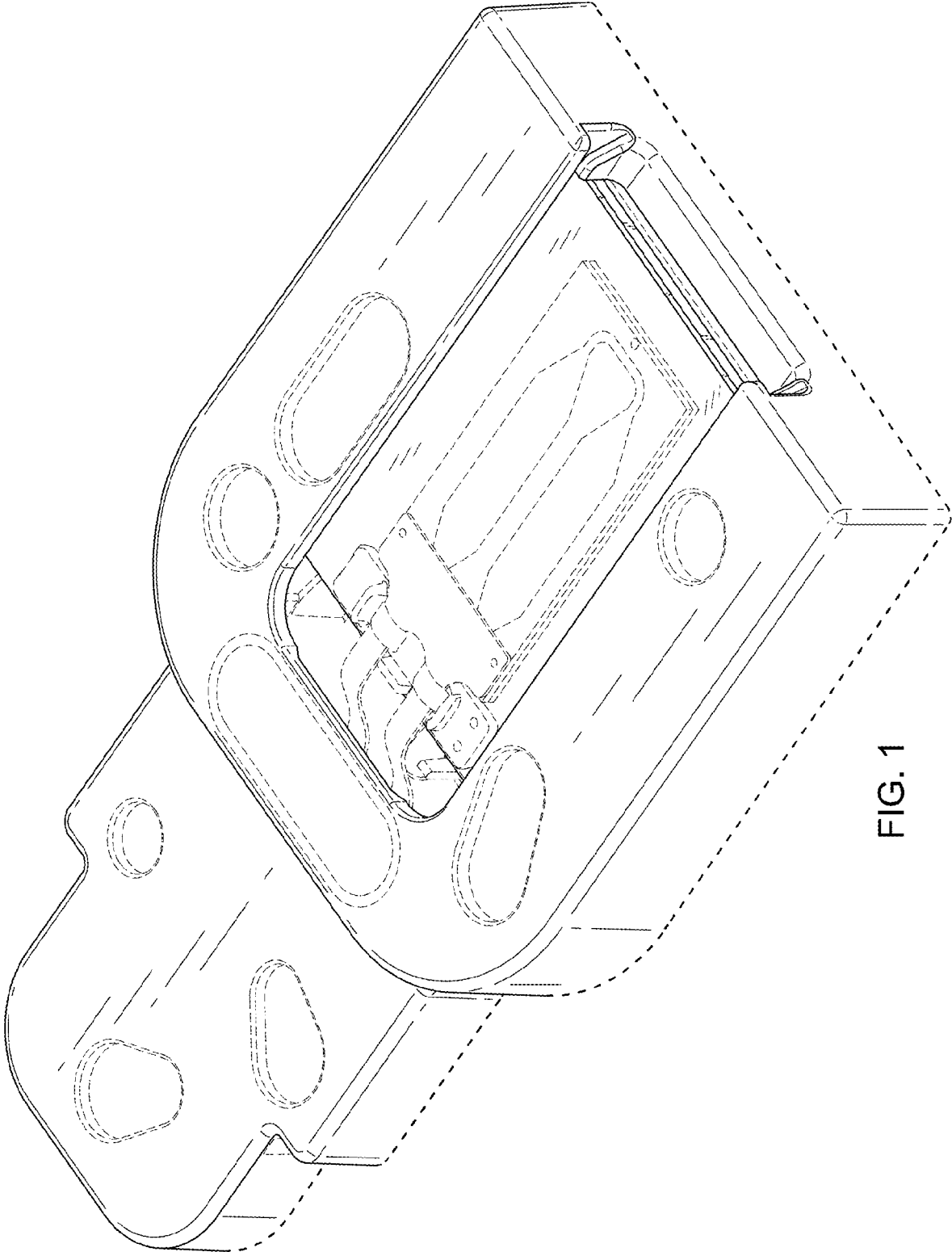


FIG. 1

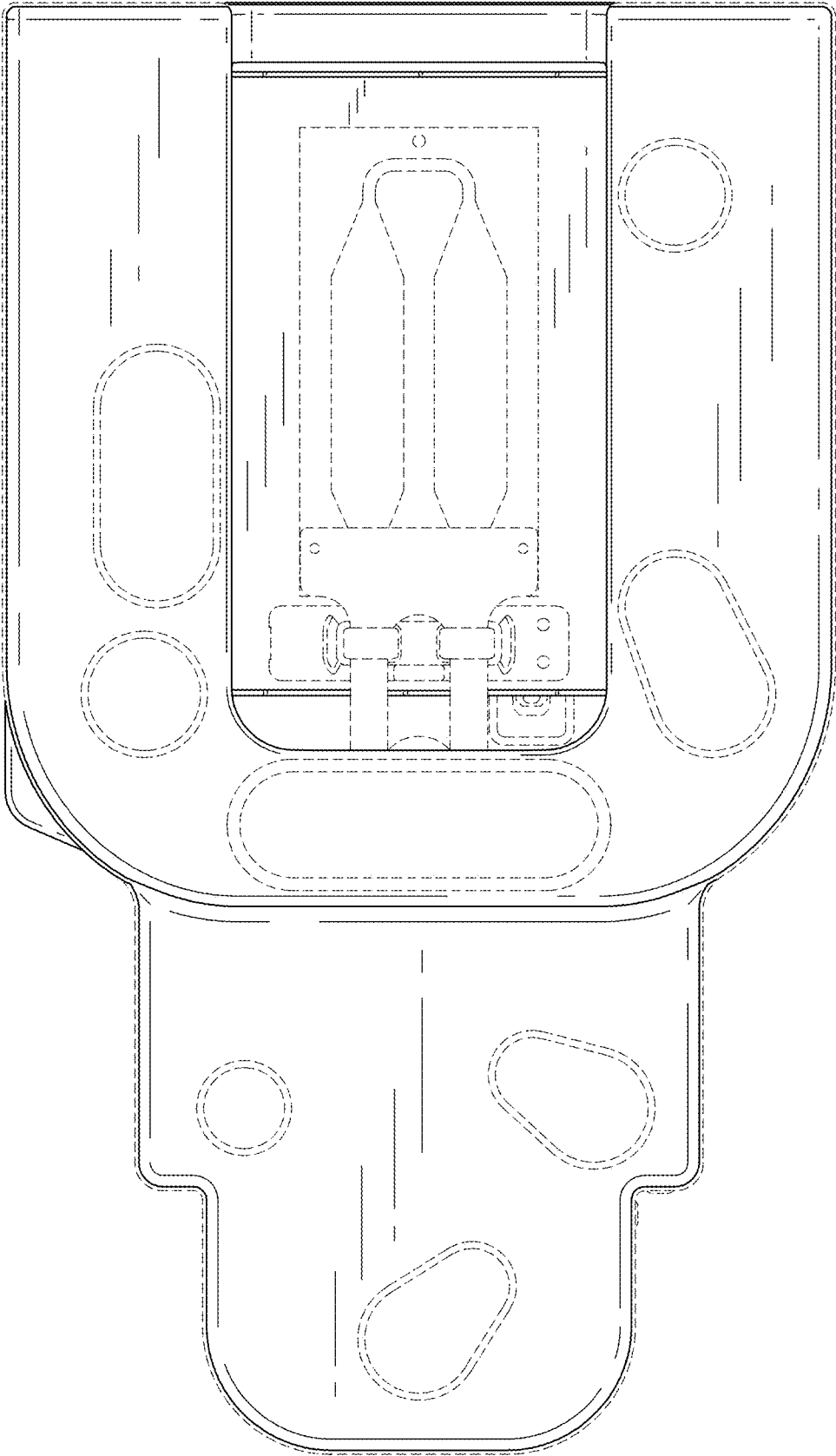


FIG. 2

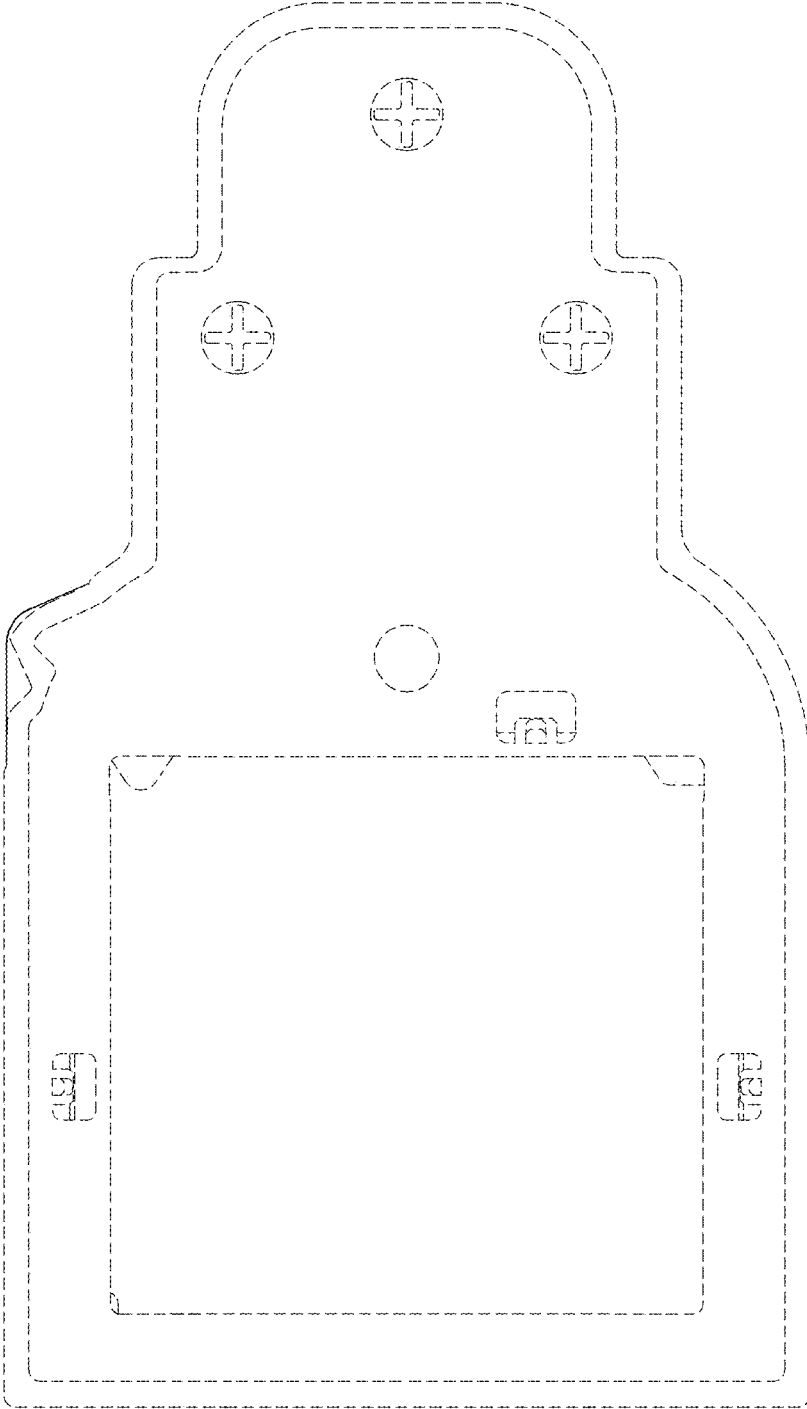


FIG. 3

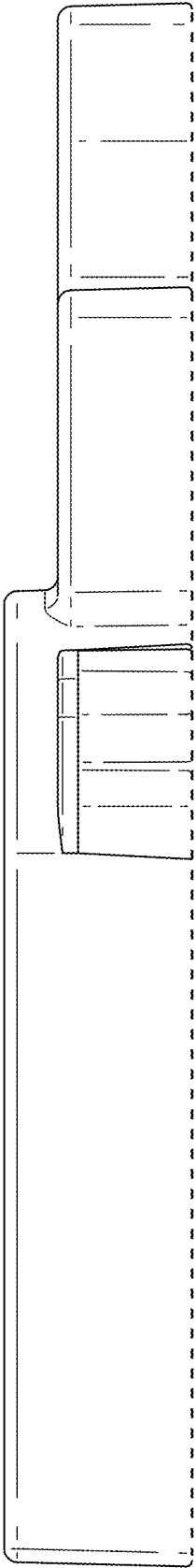


FIG. 4

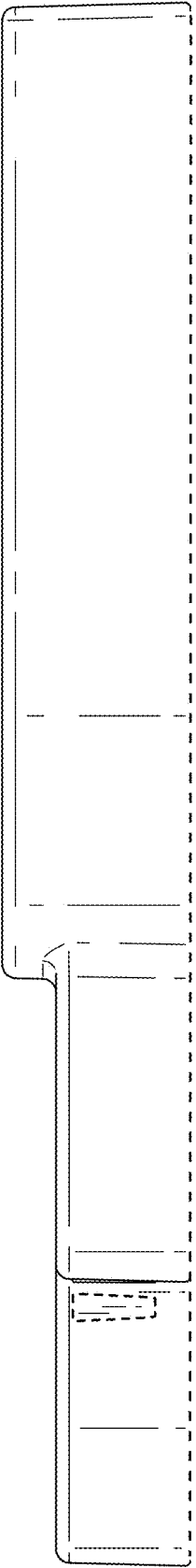


FIG. 5

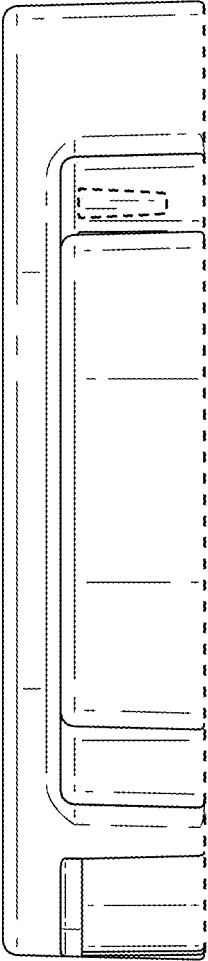


FIG. 6

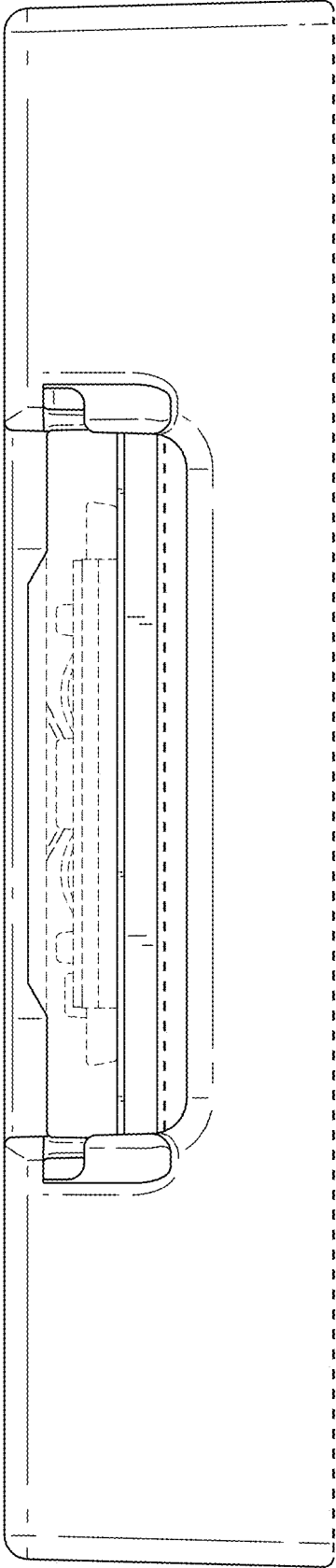


FIG. 7



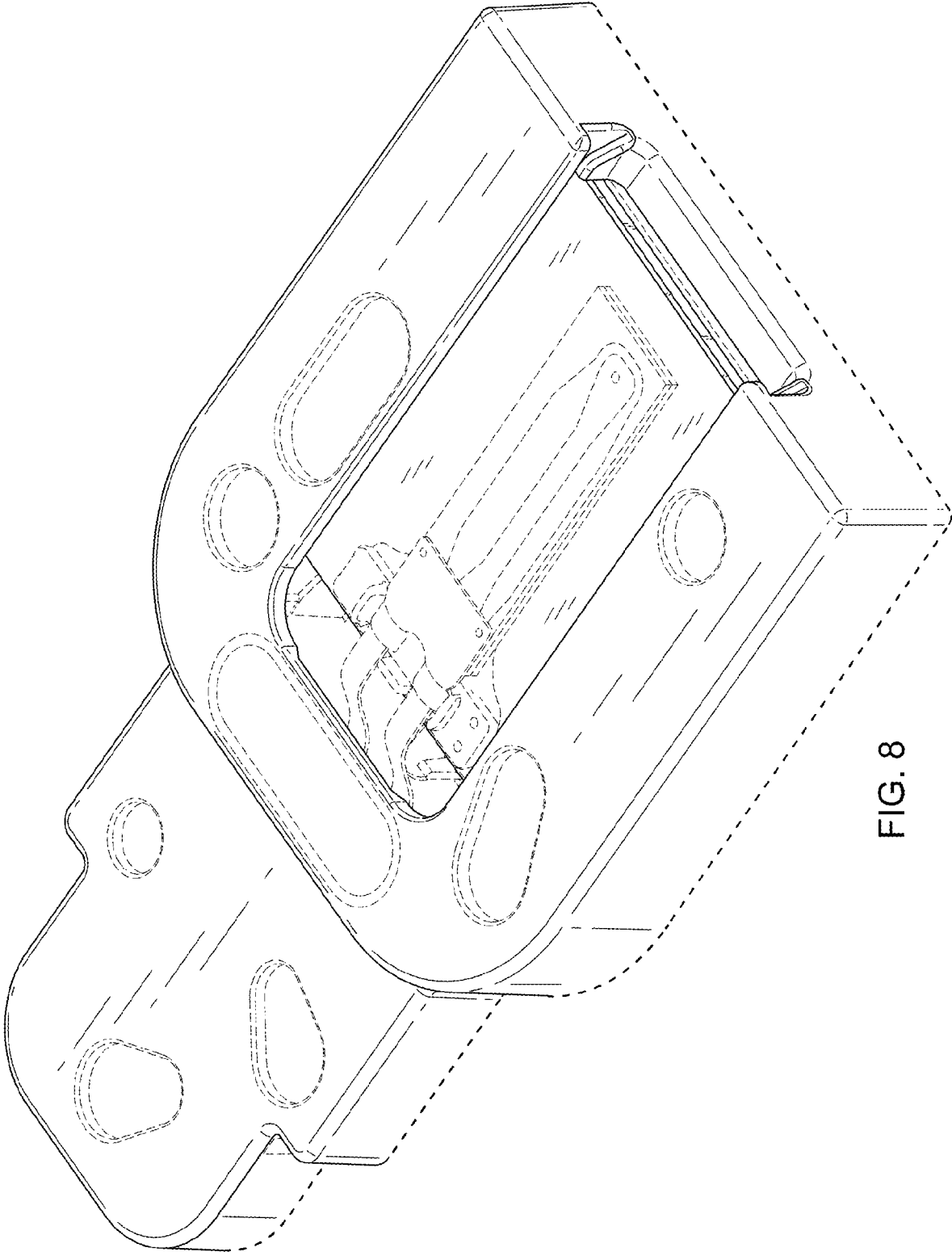


FIG. 8

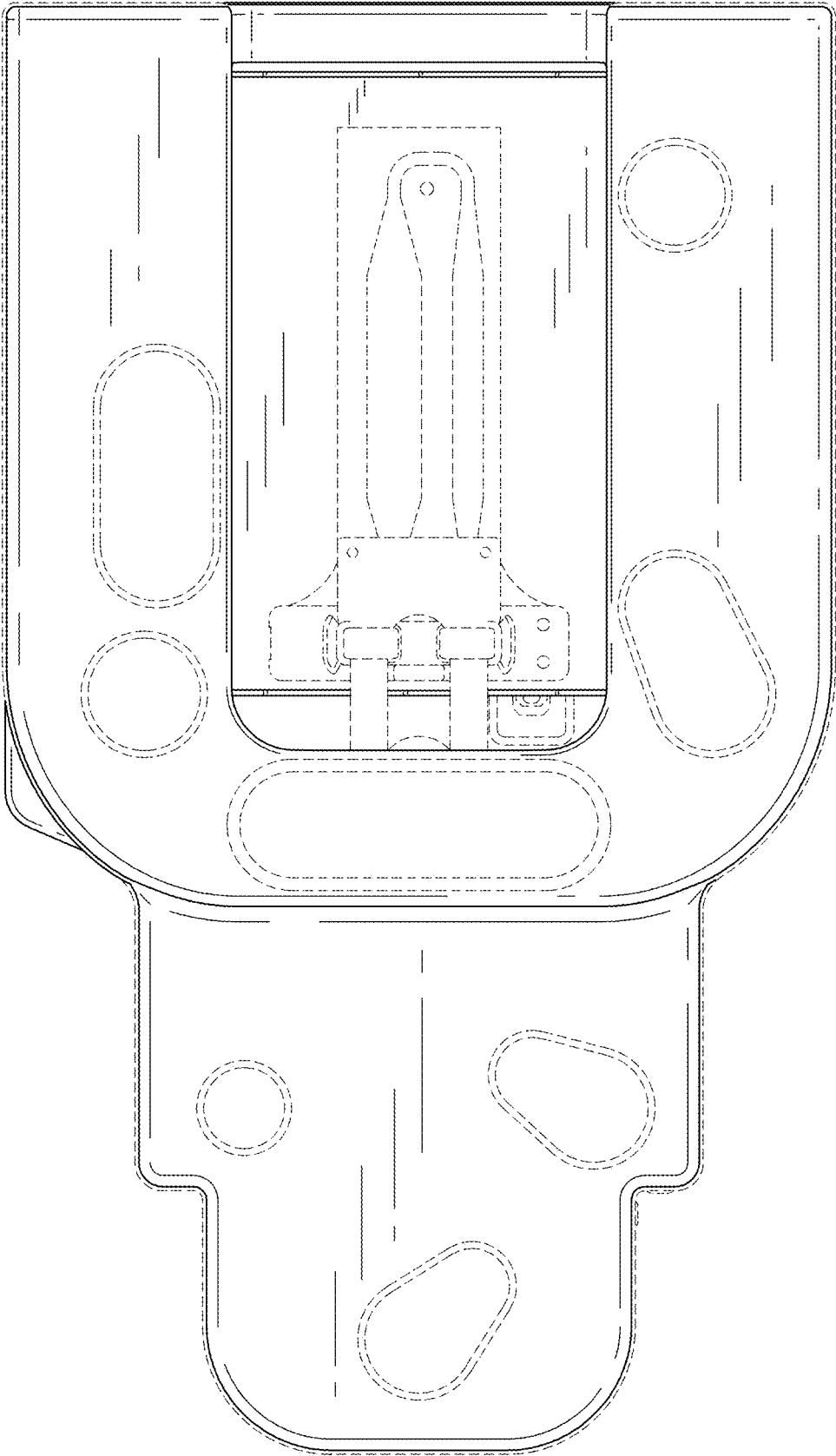


FIG. 9

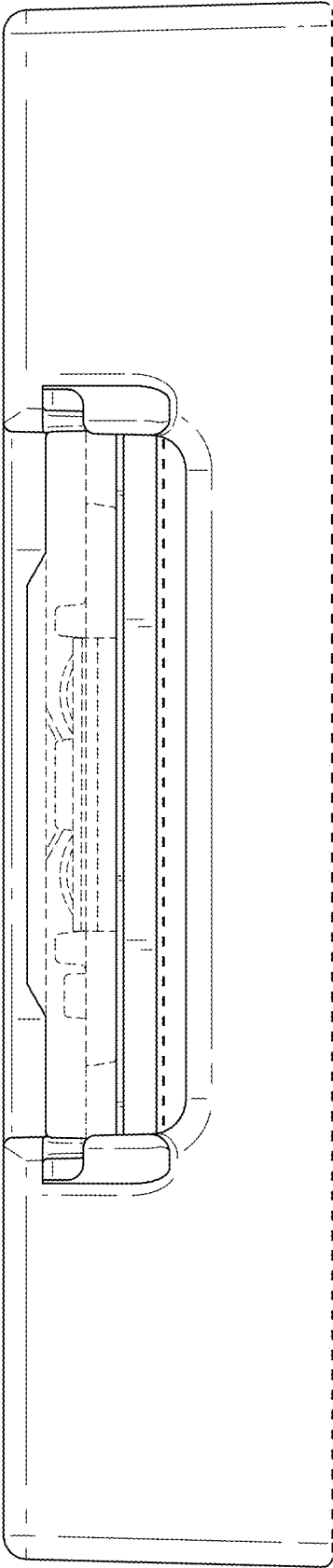


FIG. 10