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(12) **United States Design Patent** (10) **Patent No.:** **US D933,233 S**
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(54) **BLOOD PRESSURE DEVICE**
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4,964,408 A 10/1990 Hink et al.
D324,570 S 3/1992 Arioka et al.
D334,973 S 4/1993 Valentine et al.
D346,798 S 5/1994 Nagele
5,319,355 A 6/1994 Russek
5,337,744 A 8/1994 Branigan
(Continued)

FOREIGN PATENT DOCUMENTS

EP 3 366 211 8/2018
EP 3 384 827 10/2018
(Continued)

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OTHER PUBLICATIONS

International Search Report and Written Opinion received in PCT Application No. PCT/US2020/028542 dated Sep. 7, 2020 in 19 pages.
(Continued)

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(57) **CLAIM**

The ornamental design for a blood pressure device, as shown and described.

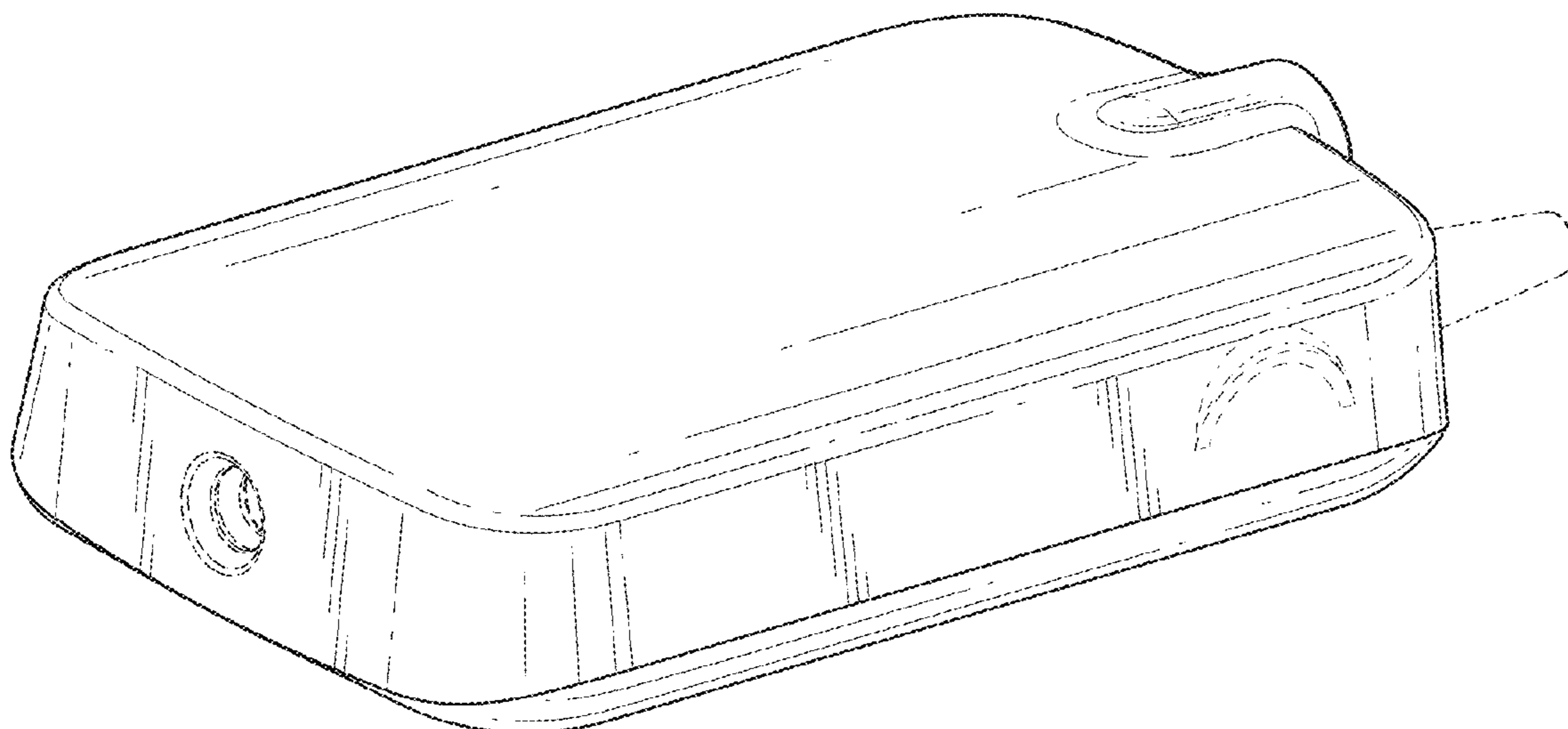
DESCRIPTION

FIG. 1 is a perspective view of a blood pressure device embodying our new design;
FIG. 2 is another perspective view thereof;
FIG. 3 is top view thereof;
FIG. 4 is bottom view thereof;
FIG. 5 is a side view thereof;
FIG. 6 is another side view thereof;
FIG. 7 is a front view thereof; and,
FIG. 8 is a back view thereof.
The broken lines illustrate portions of the blood pressure device that form no part of the claimed design.

(56) **References Cited**
U.S. PATENT DOCUMENTS

3,434,651 A 3/1969 Stec
D278,363 S 4/1985 Schenkel et al.
D295,383 S 4/1988 Anderson et al.
D297,460 S 8/1988 Inoue et al.
4,960,128 A 10/1990 Gordon et al.

1 Claim, 4 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

| | | | | | | | |
|-----------|----|---------|--------------------------|-----------|----|---------|--------------------|
| 5,341,805 | A | 8/1994 | Stavridi et al. | 6,580,086 | B1 | 6/2003 | Schulz et al. |
| D353,195 | S | 12/1994 | Savage et al. | 6,584,336 | B1 | 6/2003 | Ali et al. |
| D353,196 | S | 12/1994 | Savage et al. | 6,587,196 | B1 | 7/2003 | Stippick et al. |
| 5,377,676 | A | 1/1995 | Vari et al. | 6,587,199 | B1 | 7/2003 | Luu |
| D359,546 | S | 6/1995 | Savage et al. | 6,595,316 | B2 | 7/2003 | Cybulski et al. |
| 5,431,170 | A | 7/1995 | Mathews | 6,597,932 | B2 | 7/2003 | Tian et al. |
| 5,436,499 | A | 7/1995 | Namavar et al. | 6,606,511 | B1 | 8/2003 | Ali et al. |
| D361,840 | S | 8/1995 | Savage et al. | D480,811 | S | 10/2003 | Horhota et al. |
| D362,063 | S | 9/1995 | Savage et al. | 6,635,559 | B2 | 10/2003 | Greenwald et al. |
| D363,120 | S | 10/1995 | Savage et al. | 6,639,668 | B1 | 10/2003 | Trepagnier |
| 5,456,252 | A | 10/1995 | Vari et al. | 6,640,116 | B2 | 10/2003 | Diab |
| 5,479,934 | A | 1/1996 | Imran | 6,640,117 | B2 | 10/2003 | Makarewicz et al. |
| 5,482,036 | A | 1/1996 | Diab et al. | 6,658,276 | B2 | 12/2003 | Kiani et al. |
| 5,494,043 | A | 2/1996 | O'Sullivan et al. | 6,661,161 | B1 | 12/2003 | Lanzo et al. |
| 5,533,511 | A | 7/1996 | Kaspari et al. | D486,785 | S | 2/2004 | Shindo |
| D372,787 | S | 8/1996 | Dozier et al. | 6,697,656 | B1 | 2/2004 | Al-Ali |
| 5,561,275 | A | 10/1996 | Savage et al. | 6,697,658 | B2 | 2/2004 | Al-Ali |
| 5,590,649 | A | 1/1997 | Caro et al. | RE38,476 | E | 3/2004 | Diab et al. |
| 5,602,924 | A | 2/1997 | Durand et al. | RE38,492 | E | 4/2004 | Diab et al. |
| 5,638,816 | A | 6/1997 | Kiani-Azarbayjany et al. | 6,735,379 | B2 | 5/2004 | Salmon et al. |
| 5,638,818 | A | 6/1997 | Diab et al. | 6,738,652 | B2 | 5/2004 | Mattu et al. |
| 5,645,440 | A | 7/1997 | Tobler et al. | 6,760,607 | B2 | 7/2004 | Al-Ali |
| 5,671,914 | A | 9/1997 | Kalkhoran et al. | 6,788,965 | B2 | 9/2004 | Ruchti et al. |
| D385,283 | S | 10/1997 | Snyder et al. | 6,816,241 | B2 | 11/2004 | Grubisic |
| 5,726,440 | A | 3/1998 | Kalkhoran et al. | 6,822,564 | B2 | 11/2004 | Al-Ali |
| D393,830 | S | 4/1998 | Tobler et al. | 6,850,787 | B2 | 2/2005 | Weber et al. |
| 5,743,262 | A | 4/1998 | Lepper, Jr. et al. | 6,850,788 | B2 | 2/2005 | Al-Ali |
| 5,747,806 | A | 5/1998 | Khalil et al. | 6,876,931 | B2 | 4/2005 | Lorenz et al. |
| 5,750,994 | A | 5/1998 | Schlager | 6,920,345 | B2 | 7/2005 | Al-Ali et al. |
| 5,758,644 | A | 6/1998 | Diab et al. | 6,934,570 | B2 | 8/2005 | Kiani et al. |
| 5,760,910 | A | 6/1998 | Lepper, Jr. et al. | 6,943,348 | B1 | 9/2005 | Coffin, IV |
| D404,357 | S | 1/1999 | Foster et al. | 6,956,649 | B2 | 10/2005 | Acosta et al. |
| 5,890,929 | A | 4/1999 | Mills et al. | 6,961,598 | B2 | 11/2005 | Diab |
| 5,919,134 | A | 7/1999 | Diab | 6,970,792 | B1 | 11/2005 | Diab |
| D417,189 | S | 11/1999 | Amero, Jr. et al. | 6,985,764 | B2 | 1/2006 | Mason et al. |
| 5,987,343 | A | 11/1999 | Kinast | 6,990,364 | B2 | 1/2006 | Ruchti et al. |
| 5,997,343 | A | 12/1999 | Mills et al. | 6,998,247 | B2 | 2/2006 | Monfre et al. |
| 6,002,952 | A | 12/1999 | Diab et al. | 7,003,338 | B2 | 2/2006 | Weber et al. |
| 6,010,937 | A | 1/2000 | Karam et al. | 7,015,451 | B2 | 3/2006 | Dalke et al. |
| 6,027,452 | A | 2/2000 | Flaherty et al. | 7,027,849 | B2 | 4/2006 | Al-Ali |
| 6,040,578 | A | 3/2000 | Malin et al. | D526,719 | S | 8/2006 | Richie, Jr. et al. |
| 6,066,204 | A | 5/2000 | Haven | 7,096,052 | B2 | 8/2006 | Mason et al. |
| D428,387 | S | 7/2000 | Malloy et al. | 7,096,054 | B2 | 8/2006 | Abdul-Hafiz et al. |
| 6,115,673 | A | 9/2000 | Malin et al. | D529,616 | S | 10/2006 | Deros et al. |
| 6,124,597 | A | 9/2000 | Shehada et al. | 7,133,710 | B2 | 11/2006 | Acosta et al. |
| 6,128,521 | A | 10/2000 | Marro et al. | 7,142,901 | B2 | 11/2006 | Kiani et al. |
| 6,129,675 | A | 10/2000 | Jay | D535,877 | S | 1/2007 | Tanninen et al. |
| 6,144,868 | A | 11/2000 | Parker | 7,225,006 | B2 | 5/2007 | Al-Ali et al. |
| 6,152,754 | A | 11/2000 | Gerhardt et al. | RE39,672 | E | 6/2007 | Shehada et al. |
| 6,184,521 | B1 | 2/2001 | Coffin, IV et al. | 7,254,429 | B2 | 8/2007 | Schurman et al. |
| 6,232,609 | B1 | 5/2001 | Snyder et al. | 7,254,431 | B2 | 8/2007 | Al-Ali et al. |
| 6,241,683 | B1 | 6/2001 | Macklem et al. | 7,254,434 | B2 | 8/2007 | Schulz et al. |
| 6,255,708 | B1 | 7/2001 | Sudharsanan et al. | 7,274,955 | B2 | 9/2007 | Kiani et al. |
| 6,280,381 | B1 | 8/2001 | Malin et al. | D554,263 | S | 10/2007 | Al-Ali et al. |
| 6,285,896 | B1 | 9/2001 | Tobler et al. | 7,280,858 | B2 | 10/2007 | Al-Ali et al. |
| 6,308,089 | B1 | 10/2001 | von der Ruhr et al. | 7,289,835 | B2 | 10/2007 | Mansfield et al. |
| 6,317,627 | B1 | 11/2001 | Ennen et al. | 7,292,883 | B2 | 11/2007 | De Felice et al. |
| 6,321,100 | B1 | 11/2001 | Parker | D557,814 | S | 12/2007 | Glenn et al. |
| 6,334,065 | B1 | 12/2001 | Al-Ali et al. | 7,341,559 | B2 | 3/2008 | Schulz et al. |
| 6,360,114 | B1 | 3/2002 | Diab et al. | 7,343,186 | B2 | 3/2008 | Lamego et al. |
| 6,368,283 | B1 | 4/2002 | Xu et al. | D566,282 | S | 4/2008 | Al-Ali et al. |
| 6,411,373 | B1 | 6/2002 | Garside et al. | 7,356,365 | B2 | 4/2008 | Schurman |
| 6,415,167 | B1 | 7/2002 | Blank et al. | 7,371,981 | B2 | 5/2008 | Abdul-Hafiz |
| 6,430,437 | B1 | 8/2002 | Marro | 7,373,193 | B2 | 5/2008 | Al-Ali et al. |
| 6,430,525 | B1 | 8/2002 | Weber et al. | 7,377,794 | B2 | 5/2008 | Al-Ali et al. |
| D462,864 | S | 9/2002 | Myszka et al. | D571,478 | S | 6/2008 | Horacek |
| 6,463,311 | B1 | 10/2002 | Diab | D571,720 | S | 6/2008 | Yang |
| 6,470,199 | B1 | 10/2002 | Kopotic et al. | 7,395,158 | B2 | 7/2008 | Monfre et al. |
| 6,487,429 | B2 | 11/2002 | Hockersmith et al. | 7,415,297 | B2 | 8/2008 | Al-Ali et al. |
| 6,505,059 | B1 | 1/2003 | Kollias et al. | D576,546 | S | 9/2008 | Yang |
| 6,525,386 | B1 | 2/2003 | Mills et al. | 7,438,683 | B2 | 10/2008 | Al-Ali et al. |
| 6,526,300 | B1 | 2/2003 | Kiani et al. | 7,483,729 | B2 | 1/2009 | Al-Ali et al. |
| D471,444 | S | 3/2003 | Kim et al. | D587,657 | S | 3/2009 | Al-Ali et al. |
| 6,534,012 | B1 | 3/2003 | Hazen et al. | 7,500,950 | B2 | 3/2009 | Al-Ali et al. |
| 6,542,764 | B1 | 4/2003 | Al-Ali et al. | 7,509,494 | B2 | 3/2009 | Al-Ali |
| | | | | 7,510,849 | B2 | 3/2009 | Schurman et al. |
| | | | | 7,514,725 | B2 | 4/2009 | Wojtczuk et al. |
| | | | | 7,519,406 | B2 | 4/2009 | Blank et al. |
| | | | | D592,507 | S | 5/2009 | Wachman et al. |

(56)

References Cited

U.S. PATENT DOCUMENTS

| | | | | | |
|--------------|---------|--------------------------|--------------|---------|----------------------|
| 7,530,942 B1 | 5/2009 | Diab | 8,471,713 B2 | 6/2013 | Poeze et al. |
| D601,258 S | 9/2009 | Bell et al. | 8,473,020 B2 | 6/2013 | Kiani et al. |
| 7,593,230 B2 | 9/2009 | Abul-Haj et al. | 8,509,867 B2 | 8/2013 | Workman et al. |
| 7,596,398 B2 | 9/2009 | Al-Ali et al. | 8,515,509 B2 | 8/2013 | Bruinsma et al. |
| 7,606,608 B2 | 10/2009 | Blank et al. | 8,523,781 B2 | 9/2013 | Al-Ali |
| 7,620,674 B2 | 11/2009 | Ruchti et al. | D692,145 S | 10/2013 | Al-Ali et al. |
| D606,659 S | 12/2009 | Kiani et al. | 8,571,617 B2 | 10/2013 | Reichgott et al. |
| 7,629,039 B2 | 12/2009 | Eckerbom et al. | 8,571,618 B1 | 10/2013 | Lamego et al. |
| 7,640,140 B2 | 12/2009 | Ruchti et al. | 8,571,619 B2 | 10/2013 | Al-Ali et al. |
| 7,647,083 B2 | 1/2010 | Al-Ali et al. | 8,577,431 B2 | 11/2013 | Lamego et al. |
| D609,193 S | 2/2010 | Al-Ali et al. | 8,584,345 B2 | 11/2013 | Al-Ali et al. |
| D614,305 S | 4/2010 | Al-Ali et al. | 8,588,880 B2 | 11/2013 | Abdul-Hafiz et al. |
| 7,697,966 B2 | 4/2010 | Monfre et al. | 8,630,691 B2 | 1/2014 | Lamego et al. |
| 7,698,105 B2 | 4/2010 | Ruchti et al. | 8,639,319 B2 | 1/2014 | Hugh et al. |
| RE41,317 E | 5/2010 | Parker | 8,641,631 B2 | 2/2014 | Sierra et al. |
| RE41,333 E | 5/2010 | Blank et al. | 8,652,060 B2 | 2/2014 | Al-Ali |
| D616,993 S | 6/2010 | Muis et al. | 8,663,106 B2 | 3/2014 | Stivoric et al. |
| 7,729,733 B2 | 6/2010 | Al-Ali et al. | 8,666,468 B1 | 3/2014 | Al-Ali |
| 7,761,127 B2 | 7/2010 | Al-Ali et al. | 8,670,811 B2 | 3/2014 | O'Reilly |
| 7,764,982 B2 | 7/2010 | Dalke et al. | RE44,823 E | 4/2014 | Parker |
| D621,516 S | 8/2010 | Kiani et al. | RE44,875 E | 4/2014 | Kiani et al. |
| 7,791,155 B2 | 9/2010 | Diab | 8,688,183 B2 | 4/2014 | Bruinsma et al. |
| RE41,912 E | 11/2010 | Parker | 8,690,799 B2 | 4/2014 | Telfort et al. |
| 7,880,626 B2 | 2/2011 | Al-Ali et al. | 8,702,627 B2 | 4/2014 | Telfort et al. |
| 7,904,133 B2 | 3/2011 | Gehman et al. | 8,712,494 B1 | 4/2014 | MacNeish, III et al. |
| 7,909,772 B2 | 3/2011 | Popov et al. | 8,715,206 B2 | 5/2014 | Telfort et al. |
| D636,726 S | 4/2011 | Hiramura | 8,716,629 B2 | 5/2014 | Klewer et al. |
| 7,919,713 B2 | 4/2011 | Al-Ali et al. | 8,723,677 B1 | 5/2014 | Kiani |
| 7,937,128 B2 | 5/2011 | Al-Ali | 8,740,792 B1 | 6/2014 | Kiani et al. |
| 7,937,129 B2 | 5/2011 | Mason et al. | 8,755,535 B2 | 6/2014 | Telfort et al. |
| 7,941,199 B2 | 5/2011 | Kiani | 8,755,872 B1 | 6/2014 | Marinow |
| 7,957,780 B2 | 6/2011 | Lamego et al. | D709,439 S | 7/2014 | Ferber et al. |
| 7,962,188 B2 | 6/2011 | Kiani et al. | 8,764,671 B2 | 7/2014 | Kiani |
| 7,976,472 B2 | 7/2011 | Kiani | 8,768,423 B2 | 7/2014 | Shakespeare et al. |
| 7,990,382 B2 | 8/2011 | Kiani | 8,771,204 B2 | 7/2014 | Telfort et al. |
| 8,008,088 B2 | 8/2011 | Bellott et al. | 8,781,544 B2 | 7/2014 | Al-Ali et al. |
| RE42,753 E | 9/2011 | Kiani-Azarbayjany et al. | 8,790,268 B2 | 7/2014 | Al-Ali |
| 8,028,701 B2 | 10/2011 | Al-Ali et al. | 8,801,613 B2 | 8/2014 | Al-Ali et al. |
| 8,048,040 B2 | 11/2011 | Kiani | D712,827 S | 9/2014 | Maeda et al. |
| 8,050,728 B2 | 11/2011 | Al-Ali et al. | 8,821,397 B2 | 9/2014 | Al-Ali et al. |
| RE43,169 E | 2/2012 | Parker | 8,821,415 B2 | 9/2014 | Al-Ali et al. |
| 8,118,620 B2 | 2/2012 | Al-Ali et al. | 8,830,449 B1 | 9/2014 | Lamego et al. |
| 8,130,105 B2 | 3/2012 | Al-Ali et al. | 8,840,549 B2 | 9/2014 | Al-Ali et al. |
| 8,182,443 B1 | 5/2012 | Kiani | 8,852,094 B2 | 10/2014 | Al-Ali et al. |
| 8,190,223 B2 | 5/2012 | Al-Ali et al. | 8,852,994 B2 | 10/2014 | Wojtczuk et al. |
| 8,203,438 B2 | 6/2012 | Kiani et al. | 8,897,847 B2 | 11/2014 | Al-Ali |
| 8,203,704 B2 | 6/2012 | Merritt et al. | D719,658 S | 12/2014 | McDougall et al. |
| D663,421 S * | 7/2012 | Steiner D24/169 | 8,911,377 B2 | 12/2014 | Al-Ali |
| 8,219,172 B2 | 7/2012 | Schurman et al. | D724,222 S | 3/2015 | Chung et al. |
| 8,224,411 B2 | 7/2012 | Al-Ali et al. | 8,989,831 B2 | 3/2015 | Al-Ali et al. |
| 8,229,532 B2 | 7/2012 | Davis | 8,998,809 B2 | 4/2015 | Kiani |
| 8,233,955 B2 | 7/2012 | Al-Ali et al. | D728,468 S | 5/2015 | Ferber et al. |
| D666,305 S | 8/2012 | Benarieh et al. | 9,066,666 B2 | 6/2015 | Kiani |
| 8,255,026 B1 | 8/2012 | Al-Ali | 9,066,680 B1 | 6/2015 | Al-Ali et al. |
| 8,265,723 B1 | 9/2012 | McHale et al. | 9,095,316 B2 | 8/2015 | Welch et al. |
| 8,274,360 B2 | 9/2012 | Sampath et al. | 9,106,038 B2 | 8/2015 | Telfort et al. |
| 8,280,473 B2 | 10/2012 | Al-Ali | 9,107,625 B2 | 8/2015 | Telfort et al. |
| 8,290,574 B2 | 10/2012 | Field et al. | 9,119,568 B2 | 9/2015 | Yin et al. |
| 8,315,683 B2 | 11/2012 | Al-Ali et al. | 9,131,881 B2 | 9/2015 | Diab et al. |
| 8,315,687 B2 | 11/2012 | Cross et al. | 9,138,180 B1 | 9/2015 | Coverston et al. |
| RE43,860 E | 12/2012 | Parker | 9,153,112 B1 | 10/2015 | Kiani et al. |
| D671,888 S | 12/2012 | Dyson et al. | 9,192,329 B2 | 11/2015 | Al-Ali |
| 8,346,330 B2 | 1/2013 | Lamego | 9,192,351 B1 | 11/2015 | Telfort et al. |
| 8,353,842 B2 | 1/2013 | Al-Ali et al. | 9,195,385 B2 | 11/2015 | Al-Ali et al. |
| 8,355,766 B2 | 1/2013 | MacNeish, III et al. | D745,167 S | 12/2015 | Canas et al. |
| 8,374,665 B2 | 2/2013 | Lamego | 9,211,095 B1 | 12/2015 | Al-Ali |
| 8,388,353 B2 | 3/2013 | Kiani et al. | 9,218,454 B2 | 12/2015 | Kiani et al. |
| 8,401,602 B2 | 3/2013 | Kiani | 9,245,668 B1 | 1/2016 | Vo et al. |
| 8,414,499 B2 | 4/2013 | Al-Ali et al. | 9,267,572 B2 | 2/2016 | Barker et al. |
| 8,418,524 B2 | 4/2013 | Al-Ali | D752,229 S | 3/2016 | Chen et al. |
| 8,428,967 B2 | 4/2013 | Olsen et al. | 9,277,880 B2 | 3/2016 | Poeze et al. |
| 8,430,817 B1 | 4/2013 | Al-Ali et al. | 9,307,928 B1 | 4/2016 | Al-Ali et al. |
| 8,437,825 B2 | 5/2013 | Dalvi et al. | 9,323,894 B2 | 4/2016 | Kiani |
| 8,455,290 B2 | 6/2013 | Siskavich | D755,392 S | 5/2016 | Hwang et al. |
| 8,457,707 B2 | 6/2013 | Kiani | D755,393 S | 5/2016 | Amsler |
| | | | D755,974 S * | 5/2016 | Chen D24/165 |
| | | | 9,326,712 B1 | 5/2016 | Kiani |
| | | | D759,828 S | 6/2016 | Riedle |
| | | | 9,386,923 B2 | 7/2016 | Winter et al. |

(56)

References Cited

U.S. PATENT DOCUMENTS

| | | | | | |
|---------------|---------|--------------------------|---------------|---------|-----------------------|
| 9,392,945 B2 | 7/2016 | Al-Ali et al. | 10,188,348 B2 | 1/2019 | Al-Ali et al. |
| 9,408,542 B1 | 8/2016 | Kinast et al. | RE47,218 E | 2/2019 | Al-Ali |
| D767,485 S | 9/2016 | To et al. | RE47,244 E | 2/2019 | Kiani et al. |
| D767,487 S | 9/2016 | Huang | RE47,249 E | 2/2019 | Kiani et al. |
| 9,436,645 B2 | 9/2016 | Al-Ali et al. | 10,205,291 B2 | 2/2019 | Scruggs et al. |
| 9,445,759 B1 | 9/2016 | Lamego et al. | 10,213,153 B2 | 2/2019 | Atallah et al. |
| 9,459,089 B2 | 10/2016 | Ganton et al. | 10,226,187 B2 | 3/2019 | Al-Ali et al. |
| 9,474,474 B2 | 10/2016 | Lamego et al. | 10,231,657 B2 | 3/2019 | Al-Ali et al. |
| 9,480,435 B2 | 11/2016 | Olsen | 10,231,670 B2 | 3/2019 | Blank et al. |
| 9,510,755 B2 | 12/2016 | Fong et al. | RE47,353 E | 4/2019 | Kiani et al. |
| 9,510,779 B2 | 12/2016 | Poeze et al. | D847,372 S | 4/2019 | Crawford et al. |
| 9,517,024 B2 | 12/2016 | Kiani et al. | 10,258,267 B2 | 4/2019 | Ballam et al. |
| 9,532,722 B2 | 1/2017 | Lamego et al. | 10,279,247 B2 | 5/2019 | Kiani |
| 9,560,996 B2 | 2/2017 | Kiani | 10,292,664 B2 | 5/2019 | Al-Ali |
| 9,579,039 B2 | 2/2017 | Jansen et al. | 10,299,720 B2 | 5/2019 | Brown et al. |
| D782,683 S * | 3/2017 | Singh D24/167 | D851,261 S | 6/2019 | Ricks |
| 9,610,060 B2 | 4/2017 | Jaeschke et al. | 10,327,337 B2 | 6/2019 | Schmidt et al. |
| 9,622,692 B2 | 4/2017 | Lamego et al. | 10,327,713 B2 | 6/2019 | Barker et al. |
| D788,312 S | 5/2017 | Al-Ali et al. | 10,332,630 B2 | 6/2019 | Al-Ali |
| 9,649,054 B2 | 5/2017 | Lamego et al. | D855,203 S | 7/2019 | Katsumata et al. |
| 9,697,928 B2 | 7/2017 | Al-Ali et al. | D857,205 S | 8/2019 | Lemons et al. |
| D794,803 S | 8/2017 | Thom | 10,383,520 B2 | 8/2019 | Wojtczuk et al. |
| D795,184 S | 8/2017 | Jung et al. | 10,383,527 B2 | 8/2019 | Al-Ali |
| 9,717,458 B2 | 8/2017 | Lamego et al. | 10,388,120 B2 | 8/2019 | Muhsin et al. |
| 9,724,016 B1 | 8/2017 | Al-Ali et al. | D864,120 S | 10/2019 | Forrest et al. |
| 9,724,024 B2 | 8/2017 | Al-Ali | 10,441,181 B1 | 10/2019 | Telfort et al. |
| 9,724,025 B1 | 8/2017 | Kiani et al. | 10,441,196 B2 | 10/2019 | Eckerbom et al. |
| 9,749,232 B2 | 8/2017 | Sampath et al. | 10,448,844 B2 | 10/2019 | Al-Ali et al. |
| 9,750,442 B2 | 9/2017 | Olsen | 10,448,871 B2 | 10/2019 | Al-Ali et al. |
| 9,750,461 B1 | 9/2017 | Telfort | 10,456,038 B2 | 10/2019 | Lamego et al. |
| 9,775,545 B2 | 10/2017 | Al-Ali et al. | D868,133 S | 11/2019 | Disciullo et al. |
| 9,778,079 B1 | 10/2017 | Al-Ali et al. | 10,463,340 B2 | 11/2019 | Telfort et al. |
| 9,782,077 B2 | 10/2017 | Lamego et al. | 10,471,159 B1 | 11/2019 | Lapotko et al. |
| 9,787,568 B2 | 10/2017 | Lamego et al. | 10,478,589 B2 | 11/2019 | Cronin et al. |
| 9,808,188 B1 | 11/2017 | Perea et al. | 10,499,825 B2 | 12/2019 | Solosko et al. |
| 9,833,171 B2 | 12/2017 | Yin et al. | 10,505,311 B2 | 12/2019 | Al-Ali et al. |
| 9,839,379 B2 | 12/2017 | Al-Ali et al. | 10,524,672 B2 | 1/2020 | Baek et al. |
| 9,839,381 B1 | 12/2017 | Weber et al. | 10,524,738 B2 | 1/2020 | Olsen |
| 9,847,749 B2 | 12/2017 | Kiani et al. | 10,531,813 B2 | 1/2020 | O'Neill et al. |
| 9,848,800 B1 | 12/2017 | Lee et al. | 10,532,174 B2 | 1/2020 | Al-Ali |
| D807,501 S | 1/2018 | Reba Switala | 10,537,285 B2 | 1/2020 | Shreim et al. |
| 9,861,298 B2 | 1/2018 | Eckerbom et al. | 10,542,903 B2 | 1/2020 | Al-Ali et al. |
| 9,861,305 B1 | 1/2018 | Weber et al. | 10,555,678 B2 | 2/2020 | Dalvi et al. |
| 9,877,650 B2 | 1/2018 | Muhsin et al. | 10,568,553 B2 | 2/2020 | O'Neil et al. |
| D810,944 S * | 2/2018 | Goolkasian D24/167 | RE47,882 E | 3/2020 | Al-Ali |
| 9,891,079 B2 | 2/2018 | Dalvi | 10,575,780 B2 | 3/2020 | Van Den Ende et al. |
| 9,907,473 B2 | 3/2018 | Tran | 10,595,726 B2 | 3/2020 | Cronin et al. |
| 9,924,897 B1 | 3/2018 | Abdul-Hafiz | 10,603,429 B2 | 3/2020 | Dantsker |
| D815,743 S | 4/2018 | Liao et al. | 10,608,817 B2 | 3/2020 | Haider et al. |
| 9,936,917 B2 | 4/2018 | Poeze et al. | D880,477 S | 4/2020 | Forrest et al. |
| D818,129 S | 5/2018 | Heine et al. | 10,617,302 B2 | 4/2020 | Al-Ali et al. |
| 9,955,937 B2 | 5/2018 | Telfort | 10,617,335 B2 | 4/2020 | Al-Ali et al. |
| 9,955,939 B2 | 5/2018 | Sezan et al. | 10,624,580 B2 | 4/2020 | DeGroot et al. |
| 9,965,946 B2 | 5/2018 | Al-Ali et al. | 10,637,181 B2 | 4/2020 | Al-Ali et al. |
| 9,968,772 B2 | 5/2018 | Kockx et al. | D884,165 S | 5/2020 | deBock et al. |
| D820,865 S | 6/2018 | Muhsin et al. | D885,586 S | 5/2020 | Lopez Pimienta et al. |
| 9,986,952 B2 | 6/2018 | Dalvi et al. | 10,642,960 B2 | 5/2020 | Goguen |
| D822,215 S | 7/2018 | Al-Ali et al. | D887,548 S | 6/2020 | Abdul-Hafiz et al. |
| D822,216 S | 7/2018 | Barker et al. | D887,549 S | 6/2020 | Abdul-Hafiz et al. |
| 10,010,276 B2 | 7/2018 | Al-Ali et al. | 10,667,751 B2 | 6/2020 | Kaskoun et al. |
| 10,062,958 B2 | 8/2018 | Ganton et al. | 10,667,764 B2 | 6/2020 | Ahmed et al. |
| D831,842 S | 10/2018 | Katsumata et al. | D890,708 S | 7/2020 | Forrest et al. |
| 10,086,138 B1 | 10/2018 | Novak, Jr. | 10,721,785 B2 | 7/2020 | Al-Ali |
| 10,111,591 B2 | 10/2018 | Dyell et al. | 10,736,518 B2 | 8/2020 | Al-Ali et al. |
| D833,624 S | 11/2018 | DeJong et al. | 10,750,984 B2 | 8/2020 | Pauley et al. |
| 10,123,729 B2 | 11/2018 | Dyell et al. | D895,122 S | 9/2020 | Benedikter et al. |
| D835,282 S | 12/2018 | Barker et al. | D897,098 S | 9/2020 | Al-Ali |
| D835,283 S | 12/2018 | Barker et al. | 10,758,164 B2 | 9/2020 | Derkx et al. |
| D835,284 S | 12/2018 | Barker et al. | 10,779,098 B2 | 9/2020 | Iswanto et al. |
| D835,285 S | 12/2018 | Barker et al. | 10,799,128 B2 | 10/2020 | Paulussen et al. |
| 10,143,383 B2 | 12/2018 | Tseng et al. | 10,827,961 B1 | 11/2020 | Iyengar et al. |
| 10,149,616 B2 | 12/2018 | Al-Ali et al. | 10,828,007 B1 | 11/2020 | Telfort et al. |
| 10,154,815 B2 | 12/2018 | Al-Ali et al. | 10,832,818 B2 | 11/2020 | Muhsin et al. |
| 10,159,412 B2 | 12/2018 | Lamego et al. | 10,842,464 B2 | 11/2020 | Lambert et al. |
| 10,183,142 B2 | 1/2019 | Garcia Molina et al. | D904,640 S | 12/2020 | Ruhland et al. |
| | | | D905,253 S | 12/2020 | Hubelbank |
| | | | D905,268 S | 12/2020 | Katsumata et al. |
| | | | D905,270 S | 12/2020 | Katsumata et al. |
| | | | 10,849,554 B2 | 12/2020 | Shreim et al. |

(56)

References Cited

U.S. PATENT DOCUMENTS

| | | | | | | | |
|--------------|-----|---------|-----------------------|--------------|----|---------|---------------------------|
| 10,856,750 | B2 | 12/2020 | Indorf et al. | 2013/0296672 | A1 | 11/2013 | O'Neil et al. |
| D906,970 | S | 1/2021 | Forrest et al. | 2013/0345921 | A1 | 12/2013 | Al-Ali et al. |
| D908,894 | S * | 1/2021 | Eslava D24/186 | 2014/0166076 | A1 | 6/2014 | Kiani et al. |
| 10,918,281 | B2 | 2/2021 | Al-Ali et al. | 2014/0180160 | A1 | 6/2014 | Brown et al. |
| D914,887 | S | 3/2021 | Allen et al. | 2014/0187973 | A1 | 7/2014 | Brown et al. |
| D914,896 | S * | 3/2021 | Hoshino D24/200 | 2014/0243612 | A1 | 8/2014 | Li et al. |
| 10,932,705 | B2 | 3/2021 | Muhsin et al. | 2014/0275871 | A1 | 9/2014 | Lamego et al. |
| 10,932,729 | B2 | 3/2021 | Kiani et al. | 2014/0275872 | A1 | 9/2014 | Merritt et al. |
| D917,704 | S * | 4/2021 | Al-Ali D24/186 | 2014/0316217 | A1 | 10/2014 | Purdon et al. |
| 10,991,135 | B2 | 4/2021 | Al-Ali et al. | 2014/0316218 | A1 | 10/2014 | Purdon et al. |
| D919,094 | S * | 5/2021 | Al-Ali D24/165 | 2014/0323897 | A1 | 10/2014 | Brown et al. |
| D919,100 | S * | 5/2021 | Al-Ali D24/186 | 2014/0323898 | A1 | 10/2014 | Purdon et al. |
| D919,101 | S * | 5/2021 | Jung D24/186 | 2015/0005600 | A1 | 1/2015 | Blank et al. |
| D921,202 | S * | 6/2021 | Al-Ali D24/165 | 2015/0011907 | A1 | 1/2015 | Purdon et al. |
| 2001/0034477 | A1 | 10/2001 | Mansfield et al. | 2015/0025400 | A1 | 1/2015 | Nishioka et al. |
| 2001/0039483 | A1 | 11/2001 | Brand et al. | 2015/0073241 | A1 | 3/2015 | Lamego |
| 2002/0010401 | A1 | 1/2002 | Bushmakina et al. | 2015/0080754 | A1 | 3/2015 | Purdon et al. |
| 2002/0058864 | A1 | 5/2002 | Mansfield et al. | 2015/0099950 | A1 | 4/2015 | Al-Ali et al. |
| 2002/0133080 | A1 | 9/2002 | Apruzzese et al. | 2015/0106121 | A1 | 4/2015 | Muhsin et al. |
| 2003/0013975 | A1 | 1/2003 | Kiani | 2015/0269825 | A1 | 9/2015 | Tran |
| 2003/0018243 | A1 | 1/2003 | Gerhardt et al. | 2015/0313499 | A1 | 11/2015 | Sohn |
| 2003/0144582 | A1 | 7/2003 | Cohen et al. | 2016/0007861 | A1 | 1/2016 | Tseng et al. |
| 2003/0156288 | A1 | 8/2003 | Barnum et al. | 2016/0196388 | A1 | 7/2016 | Lamego |
| 2003/0212312 | A1 | 11/2003 | Coffin, IV et al. | 2016/0367173 | A1 | 12/2016 | Dalvi et al. |
| 2004/0106163 | A1 | 6/2004 | Workman, Jr. et al. | 2017/0024748 | A1 | 1/2017 | Haider |
| 2005/0055276 | A1 | 3/2005 | Kiani et al. | 2017/0042488 | A1 | 2/2017 | Muhsin |
| 2005/0107714 | A1 | 5/2005 | Matsumura et al. | 2017/0055896 | A1 | 3/2017 | Al-Ali |
| 2005/0234317 | A1 | 10/2005 | Kiani | 2017/0173632 | A1 | 6/2017 | Al-Ali |
| 2006/0059364 | A1 | 3/2006 | Fontijn | 2017/0251974 | A1 | 9/2017 | Shreim et al. |
| 2006/0073719 | A1 | 4/2006 | Kiani | 2017/0296124 | A1 | 10/2017 | Creemers et al. |
| 2006/0084880 | A1 | 4/2006 | Such et al. | 2017/0311891 | A1 | 11/2017 | Kiani et al. |
| 2006/0189871 | A1 | 8/2006 | Al-Ali et al. | 2017/0360329 | A1 | 12/2017 | Derkx et al. |
| 2007/0073116 | A1 | 3/2007 | Kiani et al. | 2018/0049656 | A1 | 2/2018 | Paulussen et al. |
| 2007/0167850 | A1 | 7/2007 | Russell et al. | 2018/0103874 | A1 | 4/2018 | Lee et al. |
| 2007/0180140 | A1 | 8/2007 | Welch et al. | 2018/0125444 | A1 | 5/2018 | Kahlman et al. |
| 2007/0244377 | A1 | 10/2007 | Cozad et al. | 2018/0146867 | A1 | 5/2018 | Torihama et al. |
| 2008/0064965 | A1 | 3/2008 | Jay et al. | 2018/0184926 | A1 | 7/2018 | Doi et al. |
| 2008/0094228 | A1 | 4/2008 | Welch et al. | 2018/0235567 | A1 | 8/2018 | Bezemer et al. |
| 2008/0221418 | A1 | 9/2008 | Al-Ali et al. | 2018/0242926 | A1 | 8/2018 | Muhsin et al. |
| 2008/0288026 | A1 | 11/2008 | Cross et al. | 2018/0247353 | A1 | 8/2018 | Al-Ali et al. |
| 2009/0036759 | A1 | 2/2009 | Ault et al. | 2018/0247712 | A1 | 8/2018 | Muhsin et al. |
| 2009/0093687 | A1 | 4/2009 | Telfort et al. | 2018/0256087 | A1 | 9/2018 | Al-Ali et al. |
| 2009/0095926 | A1 | 4/2009 | MacNeish, III | 2018/0289340 | A1 | 10/2018 | Trindade Rodrigues et al. |
| 2009/0204100 | A1 | 8/2009 | Van Pieteron et al. | 2018/0296161 | A1 | 10/2018 | Shreim et al. |
| 2009/0247984 | A1 | 10/2009 | Lamego et al. | 2018/0300919 | A1 | 10/2018 | Muhsin et al. |
| 2009/0275813 | A1 | 11/2009 | Davis | 2018/0310822 | A1 | 11/2018 | Indorf et al. |
| 2010/0004518 | A1 | 1/2010 | Vo et al. | 2018/0310823 | A1 | 11/2018 | Al-Ali et al. |
| 2010/0030040 | A1 | 2/2010 | Poeze et al. | 2018/0317779 | A1 | 11/2018 | Gregg et al. |
| 2010/0076315 | A1 | 3/2010 | Erkamp et al. | 2018/0317826 | A1 | 11/2018 | Muhsin et al. |
| 2010/0099964 | A1 | 4/2010 | O'Reilly et al. | 2018/0333053 | A1 | 11/2018 | Verkruisje et al. |
| 2010/0106076 | A1 | 4/2010 | Nisato et al. | 2018/0360373 | A1 | 12/2018 | Aarts et al. |
| 2010/0234718 | A1 | 9/2010 | Sampath et al. | 2018/0364109 | A1 | 12/2018 | Bongers et al. |
| 2010/0249542 | A1 | 9/2010 | Thijs et al. | 2019/0015023 | A1 | 1/2019 | Monfre |
| 2010/0270257 | A1 | 10/2010 | Wachman et al. | 2019/0117070 | A1 | 4/2019 | Muhsin et al. |
| 2011/0028806 | A1 | 2/2011 | Merritt et al. | 2019/0133488 | A1 | 5/2019 | Meftah et al. |
| 2011/0028809 | A1 | 2/2011 | Goodman | 2019/0142280 | A1 | 5/2019 | Bongers et al. |
| 2011/0040197 | A1 | 2/2011 | Welch et al. | 2019/0200941 | A1 | 7/2019 | Chandran et al. |
| 2011/0082711 | A1 | 4/2011 | Poeze et al. | 2019/0239787 | A1 | 8/2019 | Pauley et al. |
| 2011/0087081 | A1 | 4/2011 | Kiani et al. | 2019/0261923 | A1 | 8/2019 | Talgorn et al. |
| 2011/0118561 | A1 | 5/2011 | Tari et al. | 2019/0282180 | A1 | 9/2019 | Babaeizadeh |
| 2011/0125040 | A1 | 5/2011 | Crawford et al. | 2019/0298195 | A1 | 10/2019 | De Groot et al. |
| 2011/0137297 | A1 | 6/2011 | Kiani et al. | 2019/0320906 | A1 | 10/2019 | Olsen |
| 2011/0172498 | A1 | 7/2011 | Olsen et al. | 2019/0374139 | A1 | 12/2019 | Kiani et al. |
| 2011/0230733 | A1 | 9/2011 | Al-Ali | 2019/0374173 | A1 | 12/2019 | Kiani et al. |
| 2011/0237924 | A1 | 9/2011 | McGusty et al. | 2019/0374713 | A1 | 12/2019 | Kiani et al. |
| 2012/0123231 | A1 | 5/2012 | O'Reilly | 2020/0021930 | A1 | 1/2020 | Iswanto et al. |
| 2012/0130204 | A1 | 5/2012 | Basta et al. | 2020/0035366 | A1 | 1/2020 | Gummireddy et al. |
| 2012/0165629 | A1 | 6/2012 | Merritt et al. | 2020/0060869 | A1 | 2/2020 | Telfort et al. |
| 2012/0209084 | A1 | 8/2012 | Olsen et al. | 2020/0069281 | A1 | 3/2020 | Chan et al. |
| 2012/0226117 | A1 | 9/2012 | Lamego et al. | 2020/0085310 | A1 | 3/2020 | Zahner et al. |
| 2012/0283524 | A1 | 11/2012 | Kiani et al. | 2020/0086133 | A1 | 3/2020 | Wang et al. |
| 2013/0023775 | A1 | 1/2013 | Lamego et al. | 2020/0111552 | A1 | 4/2020 | Ahmed |
| 2013/0041591 | A1 | 2/2013 | Lamego | 2020/0113435 | A1 | 4/2020 | Muhsin |
| 2013/0060147 | A1 | 3/2013 | Welch et al. | 2020/0113488 | A1 | 4/2020 | Al-Ali et al. |
| 2013/0096405 | A1 | 4/2013 | Garfio | 2020/0113496 | A1 | 4/2020 | Scruggs et al. |
| | | | | 2020/0113497 | A1 | 4/2020 | Triman et al. |
| | | | | 2020/0113520 | A1 | 4/2020 | Abdul-Hafiz et al. |
| | | | | 2020/0138288 | A1 | 5/2020 | Al-Ali et al. |
| | | | | 2020/0138368 | A1 | 5/2020 | Kiani et al. |

(56)

References Cited

U.S. PATENT DOCUMENTS

| | | | |
|--------------|----|---------|----------------------|
| 2020/0163597 | A1 | 5/2020 | Dalvi et al. |
| 2020/0163647 | A1 | 5/2020 | Hakkens et al. |
| 2020/0178932 | A1 | 6/2020 | Te Velde et al. |
| 2020/0196877 | A1 | 6/2020 | Vo et al. |
| 2020/0253474 | A1 | 8/2020 | Muhsin et al. |
| 2020/0253544 | A1 | 8/2020 | Belur Nagaraj et al. |
| 2020/0275841 | A1 | 9/2020 | Telfort et al. |
| 2020/0288983 | A1 | 9/2020 | Telfort et al. |
| 2020/0289087 | A1 | 9/2020 | Beckers et al. |
| 2020/0305792 | A1 | 10/2020 | Visweswara et al. |
| 2020/0321793 | A1 | 10/2020 | Al-Ali et al. |
| 2020/0329983 | A1 | 10/2020 | Al-Ali et al. |
| 2020/0329984 | A1 | 10/2020 | Al-Ali et al. |
| 2020/0329993 | A1 | 10/2020 | Al-Ali et al. |
| 2020/0330037 | A1 | 10/2020 | Al-Ali et al. |
| 2020/0345252 | A1 | 11/2020 | Huijbregts et al. |
| 2021/0022628 | A1 | 1/2021 | Telfort et al. |
| 2021/0104173 | A1 | 4/2021 | Pauley et al. |

FOREIGN PATENT DOCUMENTS

| | | |
|----|-----------|---------|
| EP | 3 430 980 | 1/2019 |
| EP | 3 488 776 | 5/2019 |
| EP | 3 560 551 | 10/2019 |
| EP | 3 566 644 | 11/2019 |
| EP | 3 578 096 | 12/2019 |
| EP | 3 594 963 | 1/2020 |
| EP | 3 598 950 | 1/2020 |
| EP | 3 622 880 | 3/2020 |
| EP | 3 626 159 | 3/2020 |
| EP | 3 653 121 | 5/2020 |
| EP | 3 711 668 | 9/2020 |
| EP | 3 725 232 | 10/2020 |

| | | |
|----|----------------|---------|
| EP | 3 062 701 | 1/2021 |
| JP | D2009-13568 | 6/2010 |
| JP | D1671743 | 10/2020 |
| JP | D1671824 | 11/2020 |
| WO | WO 2010/020945 | 2/2010 |
| WO | WO 2013/076656 | 5/2013 |
| WO | WO 2013/124750 | 8/2013 |
| WO | WO 2015/049108 | 4/2015 |
| WO | WO 2017/093150 | 6/2017 |
| WO | WO 2017/140525 | 8/2017 |
| WO | WO 2019/005801 | 1/2019 |
| WO | WO 2020/002133 | 1/2020 |
| WO | WO 2020/002290 | 1/2020 |
| WO | WO 2020/002461 | 1/2020 |
| WO | WO 2020/078842 | 4/2020 |
| WO | WO 2020/078962 | 4/2020 |
| WO | WO 2020/120527 | 6/2020 |
| WO | WO 2020/144075 | 7/2020 |
| WO | WO 2020/214826 | 10/2020 |
| WO | WO 2020/216694 | 10/2020 |

OTHER PUBLICATIONS

Cake Board 7.5" Round—Golden. Online, published date unknown. Retrieved on Apr. 5, 2021 from <https://banglanceed.com/product/cake-board-7-5-round-golden/>, 1 page.

Innovative Solutions in Resuscitation Therapy, “HeartStart Pads for Emergency and General Use”, Online, published date 2013. Retrieved on Apr. 6, 2021 from <https://www.wessex-medical.com/wp-content/uploads/2019/03/Philips-Defib-Pads.pdf>.

Plastic Yogurt Container with Peel off Lid. Online, published date unknown. Retrieved on Apr. 6, 2021 from <https://www.istockphoto.com/vector/plastic-yogurt-container-with-peel-off-lid-realistic-vector-mockup-yoghurt-gm-1179621404-330158057>, 1 page.

* cited by examiner

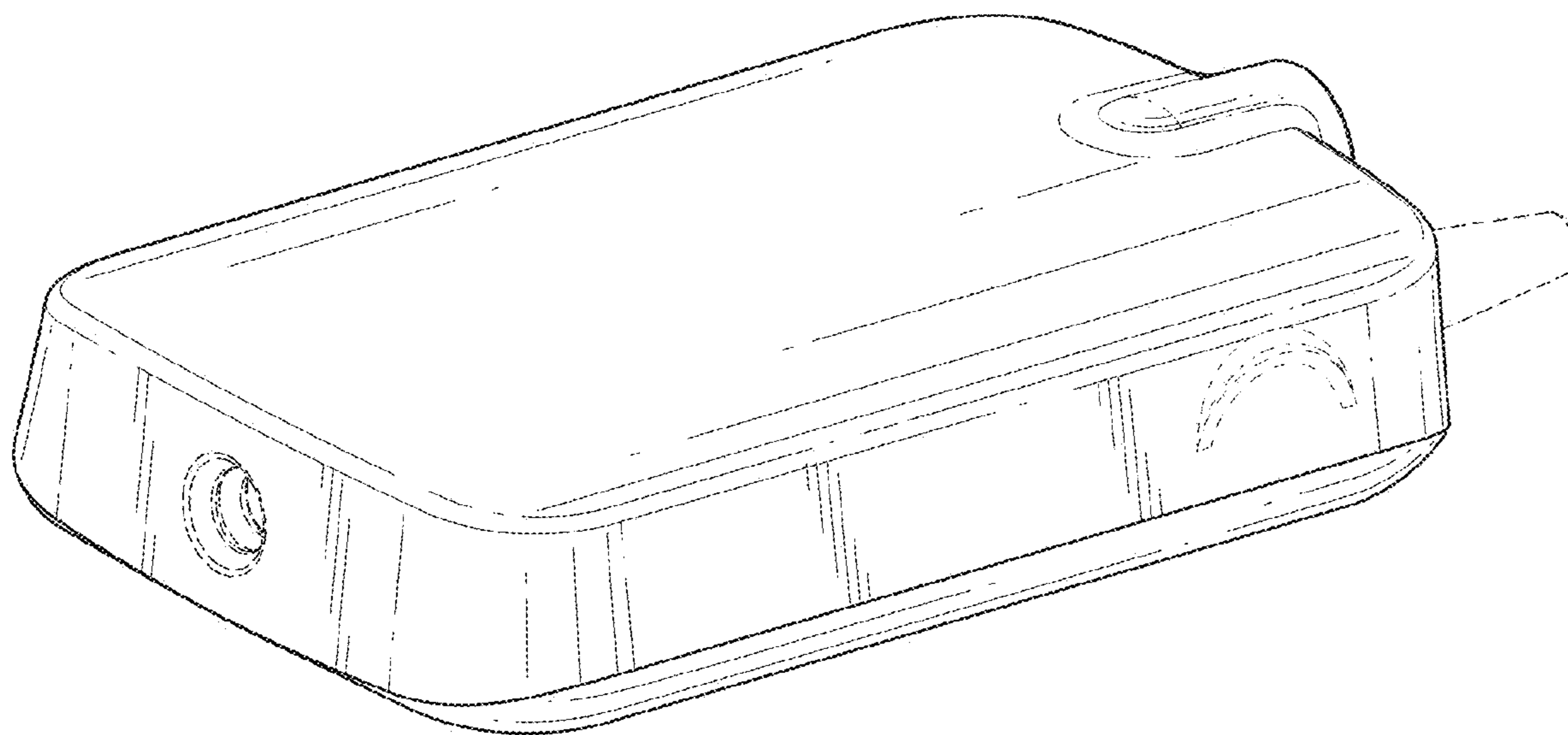


FIG. 1

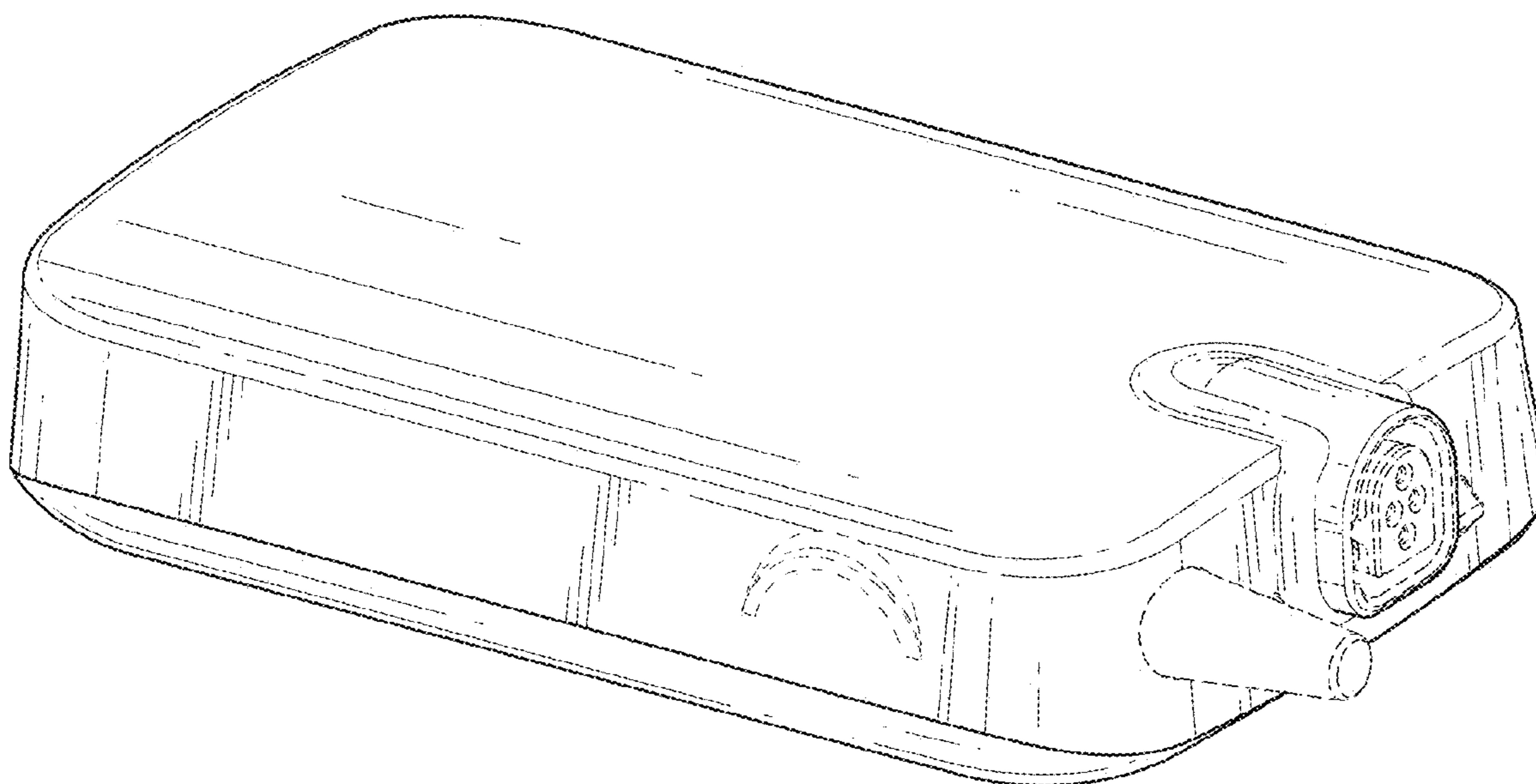


FIG. 2

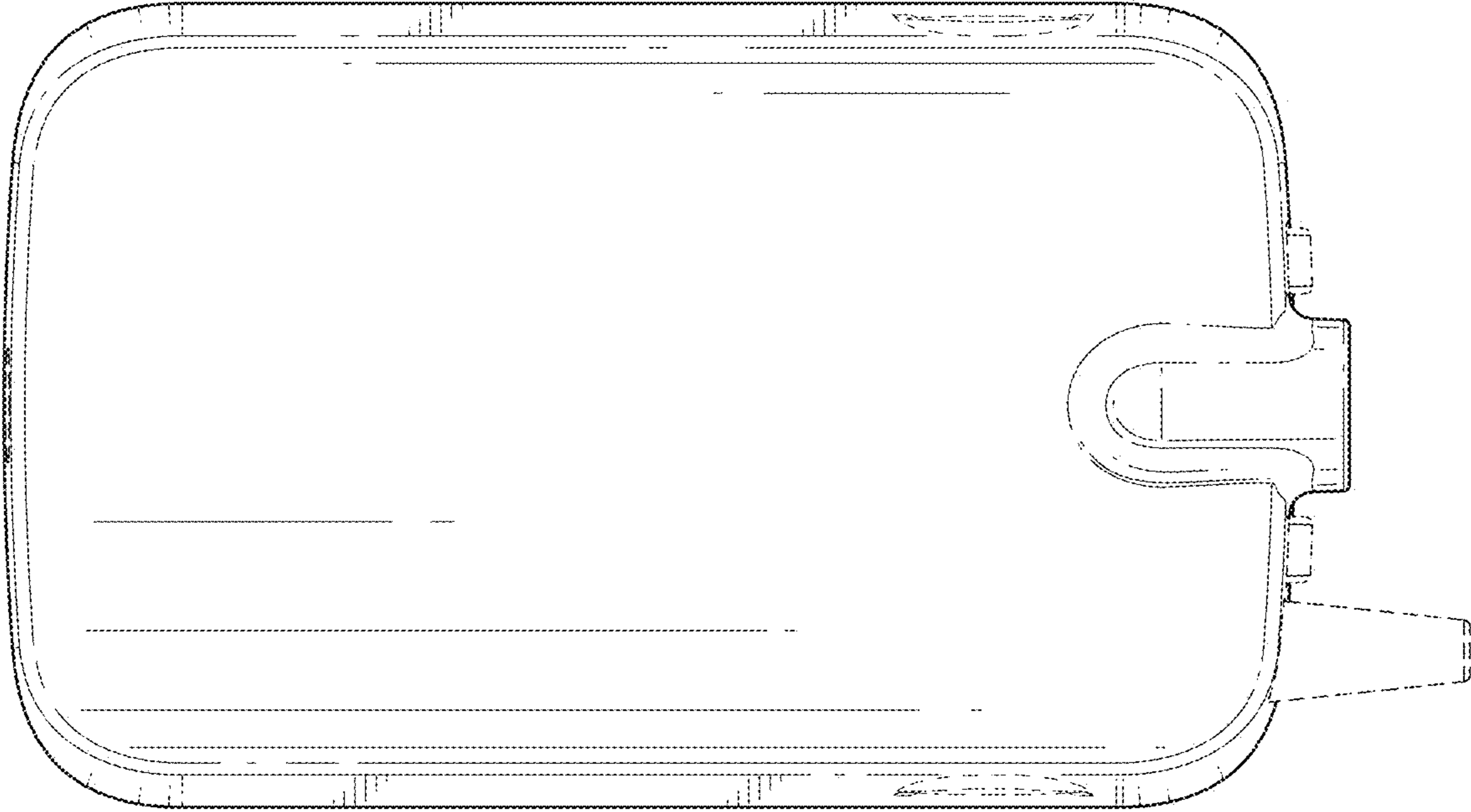


FIG. 3

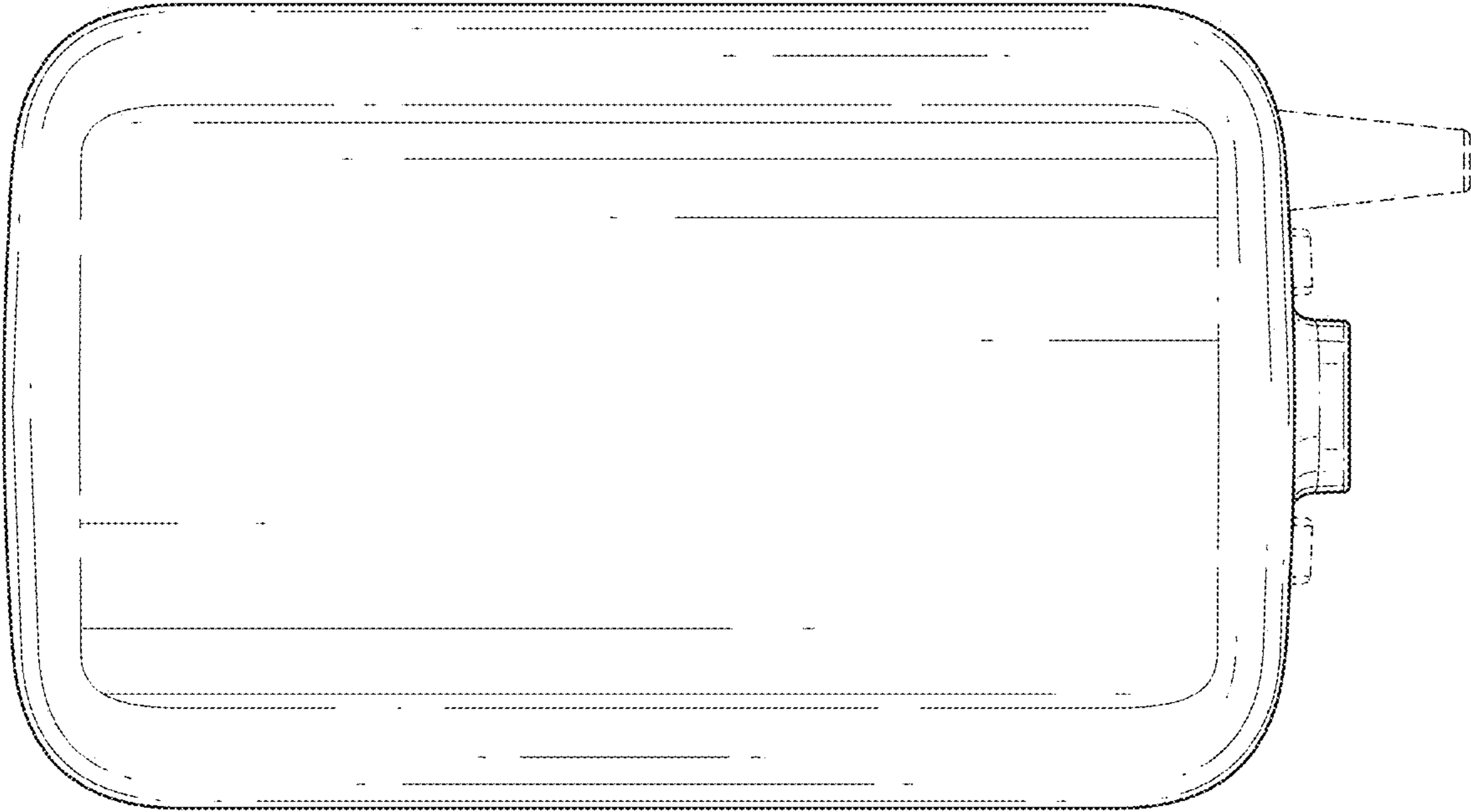


FIG. 4

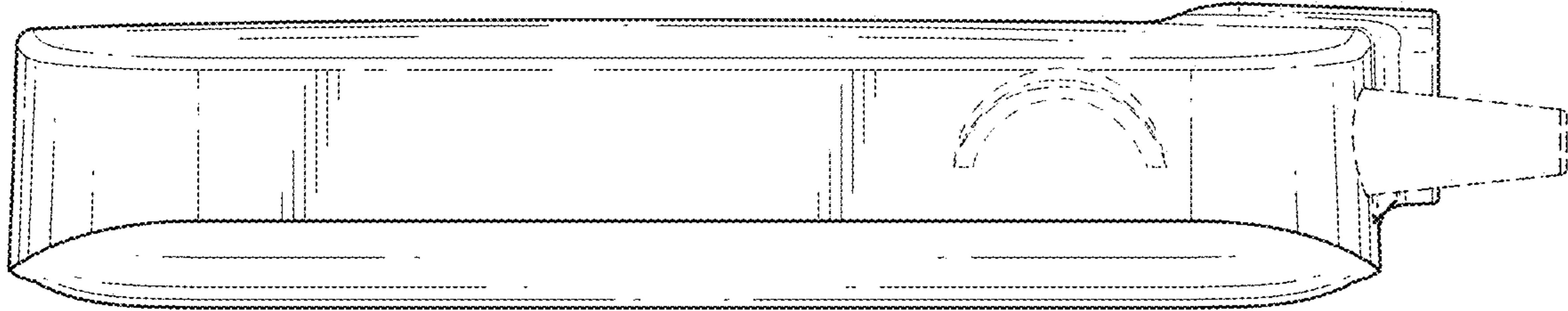


FIG. 5

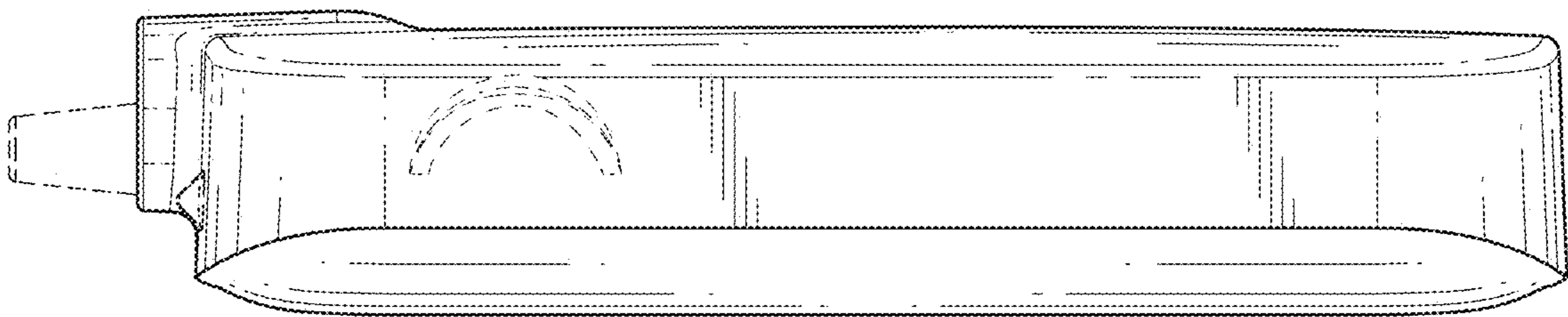


FIG. 6

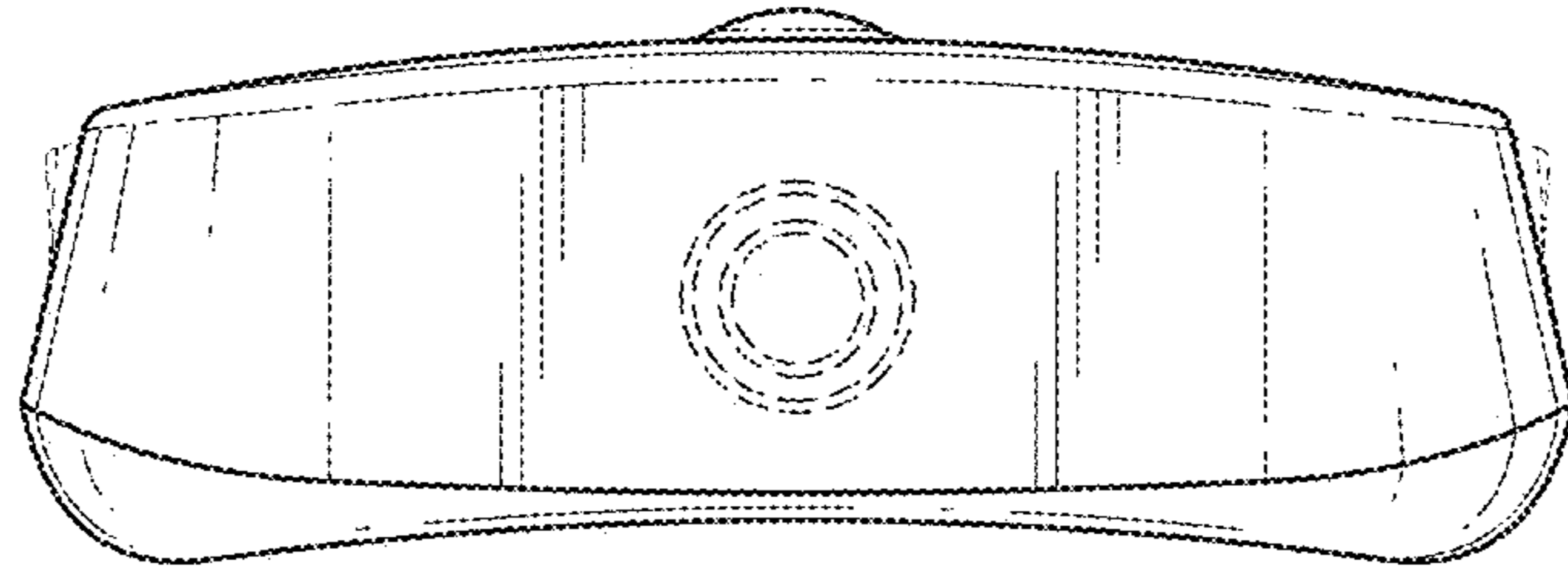


FIG. 7

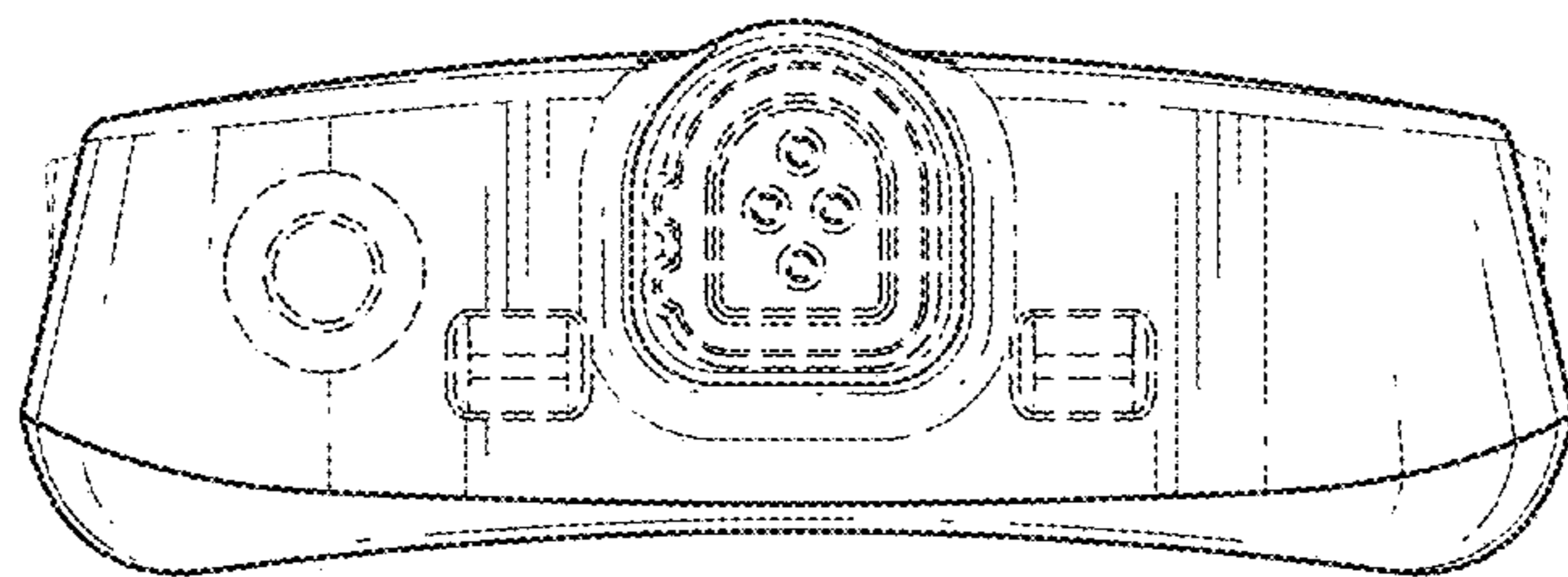


FIG. 8