



US00D988835S

(12) **United States Design Patent** (10) **Patent No.:** **US D988,835 S**
Bullwinkel et al. (45) **Date of Patent:** **** Jun. 13, 2023**

(54) **RATCHET LOCKING DEVICE**
(71) Applicant: **Delta Lock Company, LLC**, Bohemia, NY (US)
(72) Inventors: **William H. Bullwinkel**, Farmingdale, NY (US); **Robert Ludwig**, Newton, NJ (US); **David R. Wachsman**, Palm Beach Gardens, NY (US)

3,340,709 A 9/1967 Callahan
3,345,838 A 10/1967 Russell et al.
3,423,968 A 1/1969 Foote
3,503,233 A 3/1970 Russell et al.
(Continued)

FOREIGN PATENT DOCUMENTS

DE 3233976 C1 8/1983
WO 3300353 A1 2/1983

(73) Assignee: **innovation lock, llc**, Palm Beach Gardens, FL (US)

OTHER PUBLICATIONS

Olympus Ratchet Lock, posted Dec. 13, 2008 [online], [retrieved Feb. 27, 2023]. Retrieved from internet, <https://www.amazon.com/Olympus-Sliding-Ratchet-Keyed-Different/dp/B005WL056Q> (Year: 2008).*

(Continued)

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

(21) Appl. No.: **29/782,823**

(22) Filed: **May 10, 2021**

(51) **LOC (14) Cl.** **08-07**

(52) **U.S. Cl.**
USPC **D8/338**

(58) **Field of Classification Search**
USPC D8/330-348, 350
CPC E05B 55/005; E05B 9/04; F16C 11/10;
F16C 11/02; E02F 3/60
See application file for complete search history.

Primary Examiner — David G Muller
Assistant Examiner — Christina Gabrielle Cosden
(74) *Attorney, Agent, or Firm* — Gerald E. Hespos; Michael J. Porco

(57) **CLAIM**

The ornamental design for a ratchet locking device, as shown and described.

DESCRIPTION

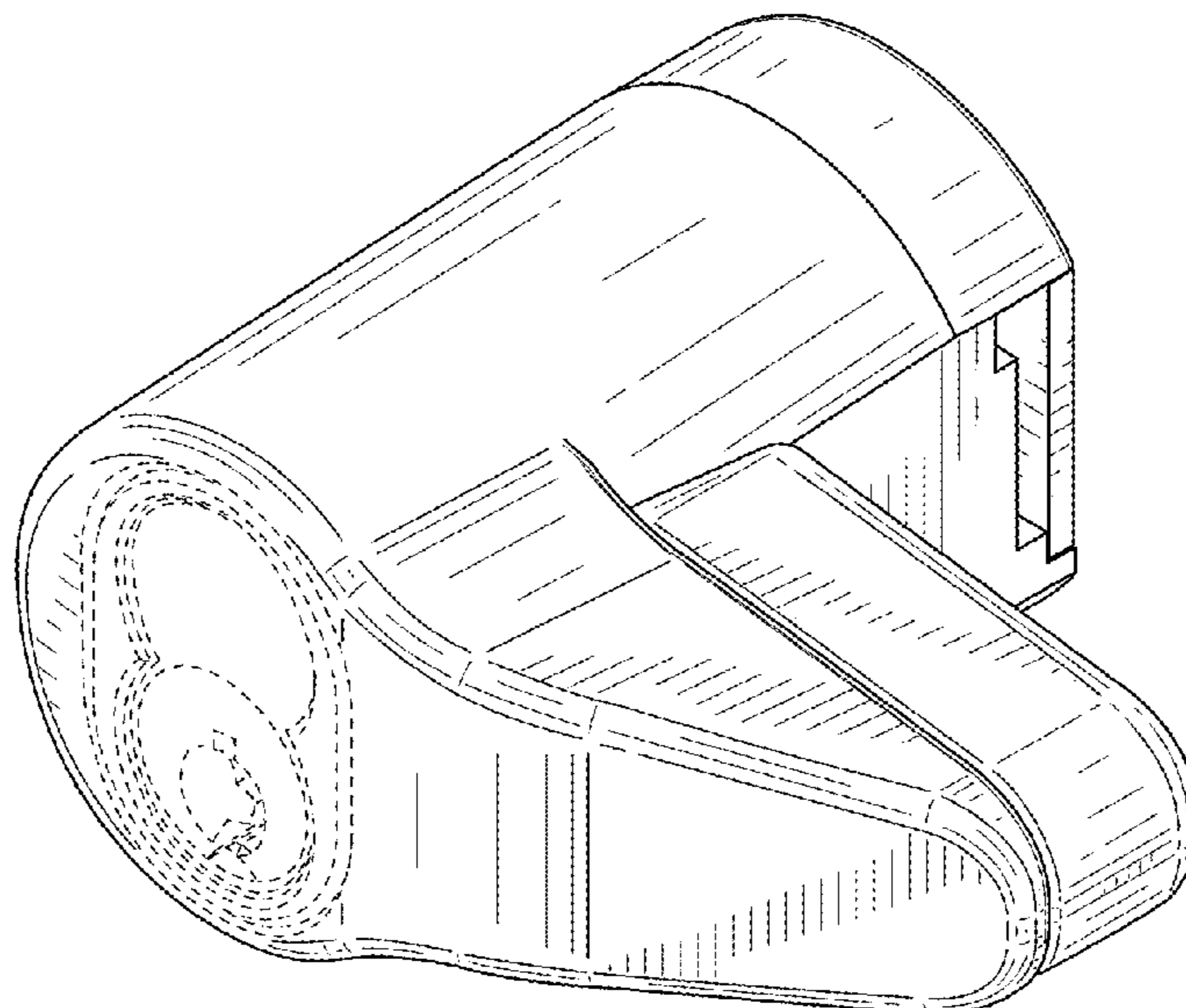
FIG. 1 is a front, top, right perspective view of a ratchet locking device according to our new design;
FIG. 2 is a rear, top, left perspective view of a ratchet locking device shown in FIG. 1;
FIG. 3 is a front elevational view thereof;
FIG. 4 is a rear elevational view thereof;
FIG. 5 is a top view thereof;
FIG. 6 is a bottom view thereof;
FIG. 7 is a right side elevational view thereof; and,
FIG. 8 is a left side elevational view thereof.
The broken lines shown in the Figures are for illustrative purposes only and form no part of the claimed design.

1 Claim, 4 Drawing Sheets

(56) **References Cited**

U.S. PATENT DOCUMENTS

100,738 A 3/1870 Dwight
884,260 A 4/1908 Boyd
1,342,728 A 6/1920 Welch
1,539,301 A 5/1925 Cooper
1,864,883 A 6/1932 Edward
1,938,112 A 12/1933 Schlage
1,965,336 A 7/1934 Fitz
2,032,821 A 3/1936 Carral
2,140,066 A 12/1938 White
2,275,362 A 3/1942 Golden et al.
2,720,102 A 10/1955 Spain
2,938,373 A 5/1960 Gray et al.
3,262,292 A 7/1966 Glass



(56)

References Cited

U.S. PATENT DOCUMENTS

3,563,593 A 2/1971 Leier et al.
 3,589,152 A 6/1971 Glass et al.
 3,696,647 A 10/1972 Balicki
 3,726,115 A 4/1973 Wellekens
 3,863,475 A 2/1975 Foss
 3,933,015 A 1/1976 Balicki
 4,009,599 A 3/1977 Patriquin
 4,067,599 A 1/1978 Ohno
 4,356,580 A 11/1982 Kurtz
 4,418,554 A 12/1983 Wolfgang
 4,476,699 A 10/1984 Dahlborg
 4,565,080 A 1/1986 Kincaid et al.
 4,617,810 A 10/1986 Fish et al.
 4,630,457 A 12/1986 Kincaid et al.
 4,672,827 A 6/1987 Craig
 4,708,006 A 11/1987 Hodgson
 4,756,638 A 7/1988 Neyret
 4,768,360 A 9/1988 Foshee
 4,793,163 A 12/1988 MacFarlane et al.
 4,809,525 A 3/1989 Cox
 4,899,563 A 2/1990 Martin
 4,920,774 A 5/1990 Martin
 5,010,753 A 4/1991 Boris
 5,038,589 A 8/1991 Martin
 5,101,649 A 4/1992 Duval
 5,121,619 A 6/1992 Martin
 5,127,244 A 7/1992 Myers
 5,251,467 A 10/1993 Anderson
 5,255,544 A 10/1993 Wu
 5,315,850 A 5/1994 Edeus et al.
 5,345,794 A 9/1994 Jenks
 5,492,206 A 2/1996 Shieh
 5,499,518 A 3/1996 Shieh
 5,548,981 A 8/1996 Kirk
 5,590,555 A 1/1997 Kester et al.
 5,615,566 A 4/1997 Brandt
 5,657,652 A 8/1997 Martin
 5,678,438 A 10/1997 Kolkman et al.
 5,722,275 A 3/1998 Price et al.
 5,737,950 A 4/1998 Yun-Bin
 5,813,260 A 9/1998 Widen
 5,819,889 A 10/1998 Shieh
 5,873,272 A 2/1999 Thompson
 5,913,907 A 6/1999 Lee
 5,970,760 A 10/1999 Shen
 6,035,673 A 3/2000 Harrison
 6,079,241 A 6/2000 Burleigh et al.
 6,092,402 A 7/2000 Porcelli et al.
 6,161,404 A 12/2000 Westwinkel
 6,393,882 B1 5/2002 Higgins
 6,523,379 B2 2/2003 Teskey
 6,606,890 B1 8/2003 Widen
 6,708,539 B1 3/2004 Widen
 6,920,770 B2 7/2005 Lurie et al.
 D525,110 S * 7/2006 Beard D8/383
 RE39,364 E * 10/2006 Brandt E05B 27/0032
 7,178,372 B1 * 2/2007 Shen E05B 55/005
 7,308,809 B2 12/2007 Lu
 7,340,928 B2 3/2008 Hoffman
 RE41,188 E 4/2010 Lurie et al.
 7,695,031 B2 4/2010 Jackson, Jr. et al.
 7,716,958 B2 5/2010 Martin
 7,836,735 B2 11/2010 Liu
 7,849,720 B2 12/2010 Reese

7,874,189 B2 1/2011 Martin
 7,895,867 B2 3/2011 Hsieh
 7,918,111 B2 4/2011 Uliano
 8,028,555 B2 10/2011 Lurie
 D651,889 S * 1/2012 Mahaffey D8/343
 D667,286 S 9/2012 Wu
 D670,993 S 11/2012 Lin
 8,444,100 B2 5/2013 Takahashi et al.
 8,646,297 B2 2/2014 Foti
 8,776,557 B2 7/2014 Wang
 8,842,422 B2 9/2014 Hung et al.
 8,905,693 B2 12/2014 Coffland et al.
 8,919,156 B1 12/2014 Liu
 8,978,426 B2 3/2015 Wang
 9,167,918 B2 10/2015 Leyden
 9,234,369 B2 1/2016 Gupta et al.
 9,267,310 B2 2/2016 Linnäsen et al.
 9,435,144 B2 9/2016 Bullwinkel
 9,524,626 B2 12/2016 Brühwiler et al.
 9,593,509 B2 3/2017 Murray
 D789,770 S 6/2017 Reeb et al.
 9,816,289 B2 11/2017 Bullwinkel
 10,087,653 B2 10/2018 Bullwinkel
 10,156,088 B2 12/2018 Bullwinkel et al.
 10,184,270 B2 1/2019 Bullwinkel
 D840,212 S 2/2019 Huang et al.
 10,208,510 B1 2/2019 Dyck
 10,435,914 B2 10/2019 Ma
 10,662,672 B2 5/2020 Bullwinkel
 10,724,276 B2 7/2020 Ma et al.
 2001/0045114 A1 11/2001 Sokurenko
 2003/0019258 A1 * 1/2003 Irgens E05B 73/0005
 70/231
 2005/0011237 A1 1/2005 Lurie et al.
 2005/0011239 A1 1/2005 Lurie et al.
 2005/0241348 A1 11/2005 Devecki
 2005/0271494 A1 12/2005 Hidalgo et al.
 2005/0279894 A1 12/2005 Sedon et al.
 2006/0086162 A1 4/2006 Huang
 2006/0157431 A1 7/2006 Nagelski et al.
 2007/0175246 A1 8/2007 Hsai
 2007/0227209 A1 10/2007 Massard et al.
 2009/0071209 A1 3/2009 Lurie
 2010/0031717 A1 2/2010 Lurie et al.
 2010/0212371 A1 8/2010 Foti
 2011/0127795 A1 6/2011 Still et al.
 2011/0132047 A1 6/2011 Terhaar et al.
 2011/0316325 A1 12/2011 Martin, III et al.
 2013/0105419 A1 5/2013 Kologe
 2014/0013813 A1 1/2014 Le
 2014/0037399 A1 2/2014 Hyatt
 2014/0298869 A1 10/2014 Wang
 2015/0176307 A1 6/2015 Bullwinkel
 2016/0281393 A1 9/2016 Bullwinkel et al.
 2017/0298651 A1 * 10/2017 Ma E05B 63/0056
 2017/0350163 A1 * 12/2017 Ma E05B 35/08
 2018/0038132 A1 * 2/2018 Bullwinkel E05B 27/005
 2019/0145126 A1 * 5/2019 Wolfish E05B 9/084
 70/357
 2021/0246935 A1 * 8/2021 Grewell E02F 3/58
 2022/0356734 A1 * 11/2022 Bullwinkel E05C 19/188

OTHER PUBLICATIONS

U.S. Appl. No. 29/673,492, dated Dec. 14, 2018, William H. Bullwinkel.
 U.S. Appl. No. 29/782,823, dated May 10, 2021, William H. Bullwinkel.

* cited by examiner

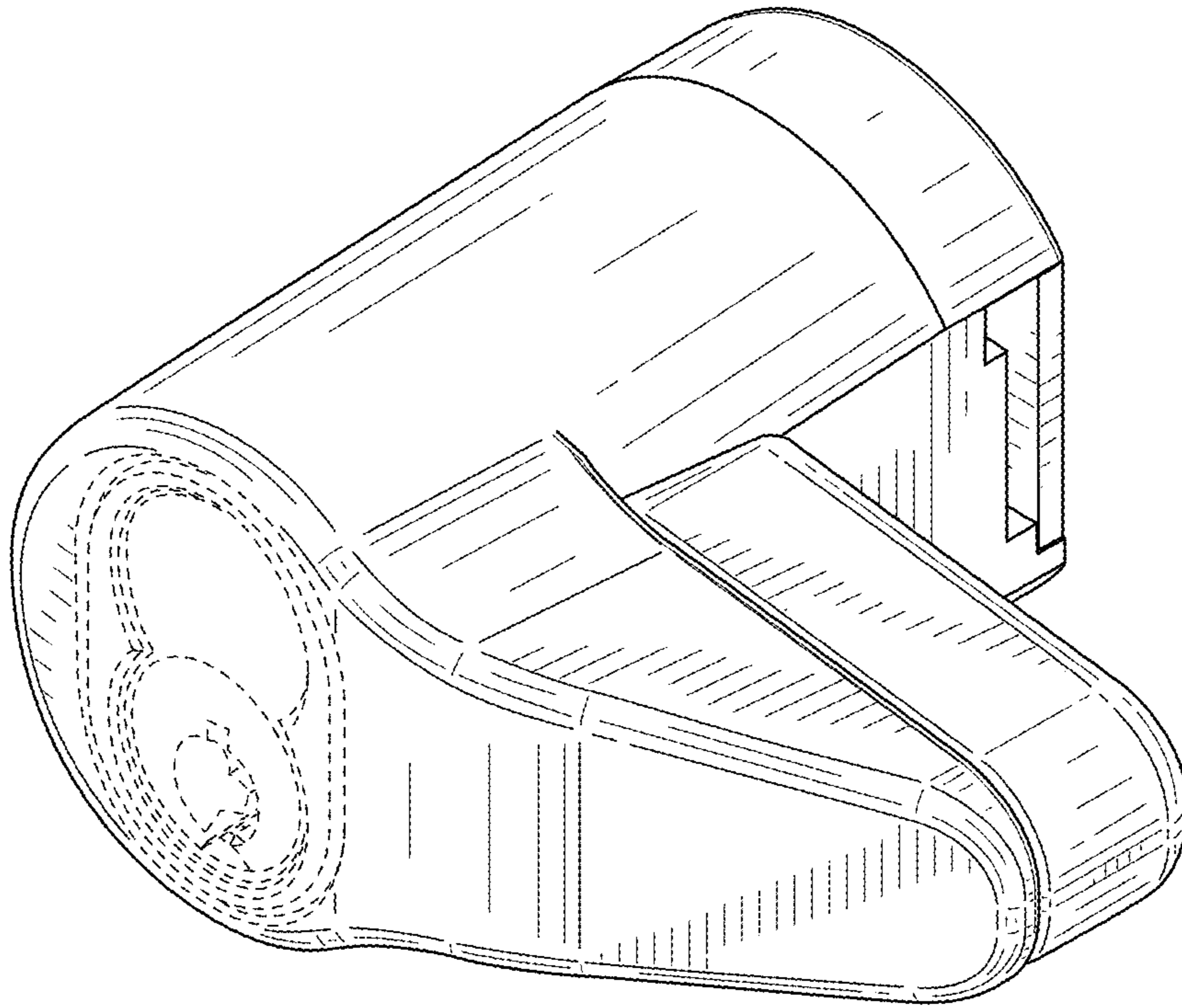


FIG. 1

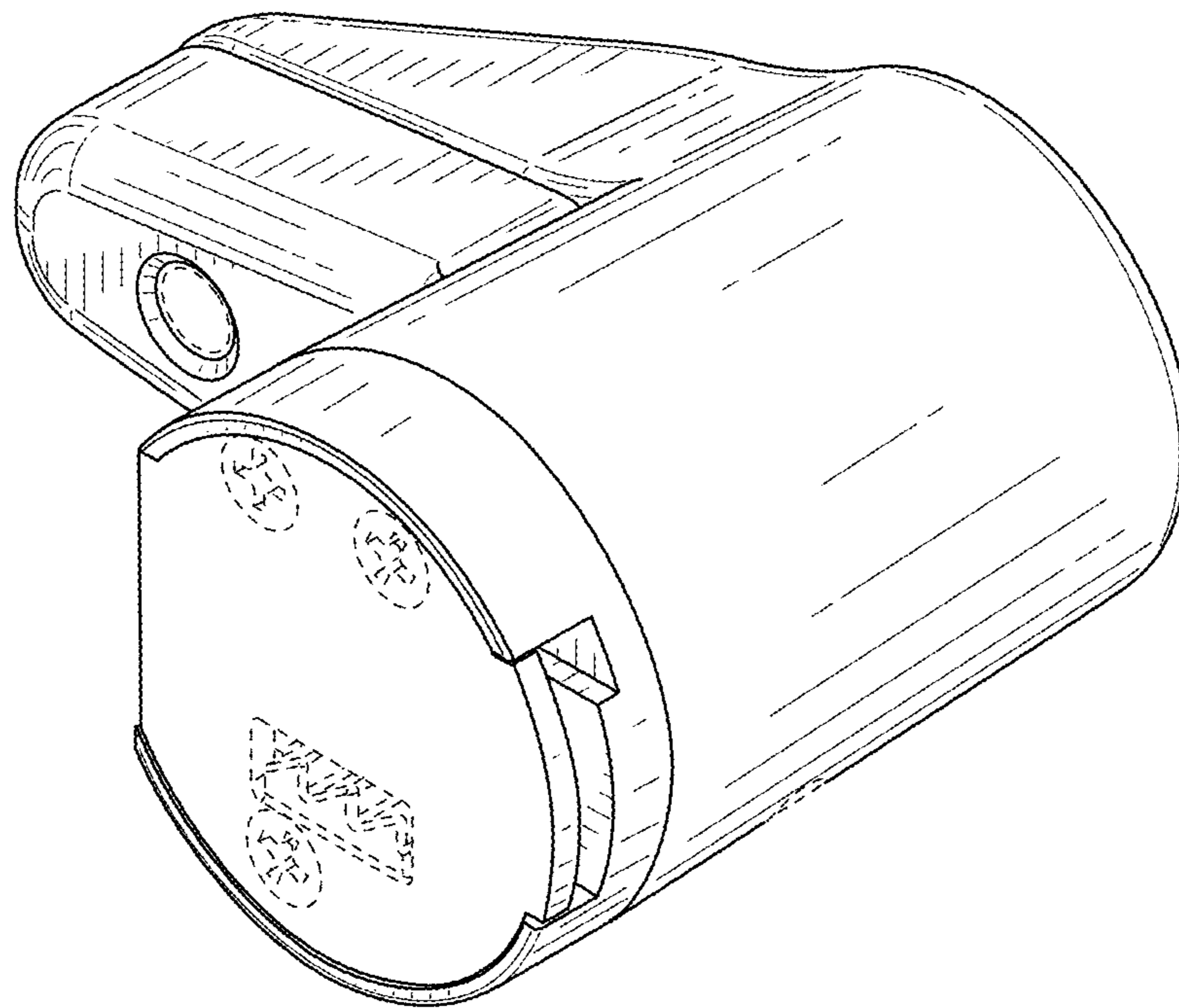


FIG. 2

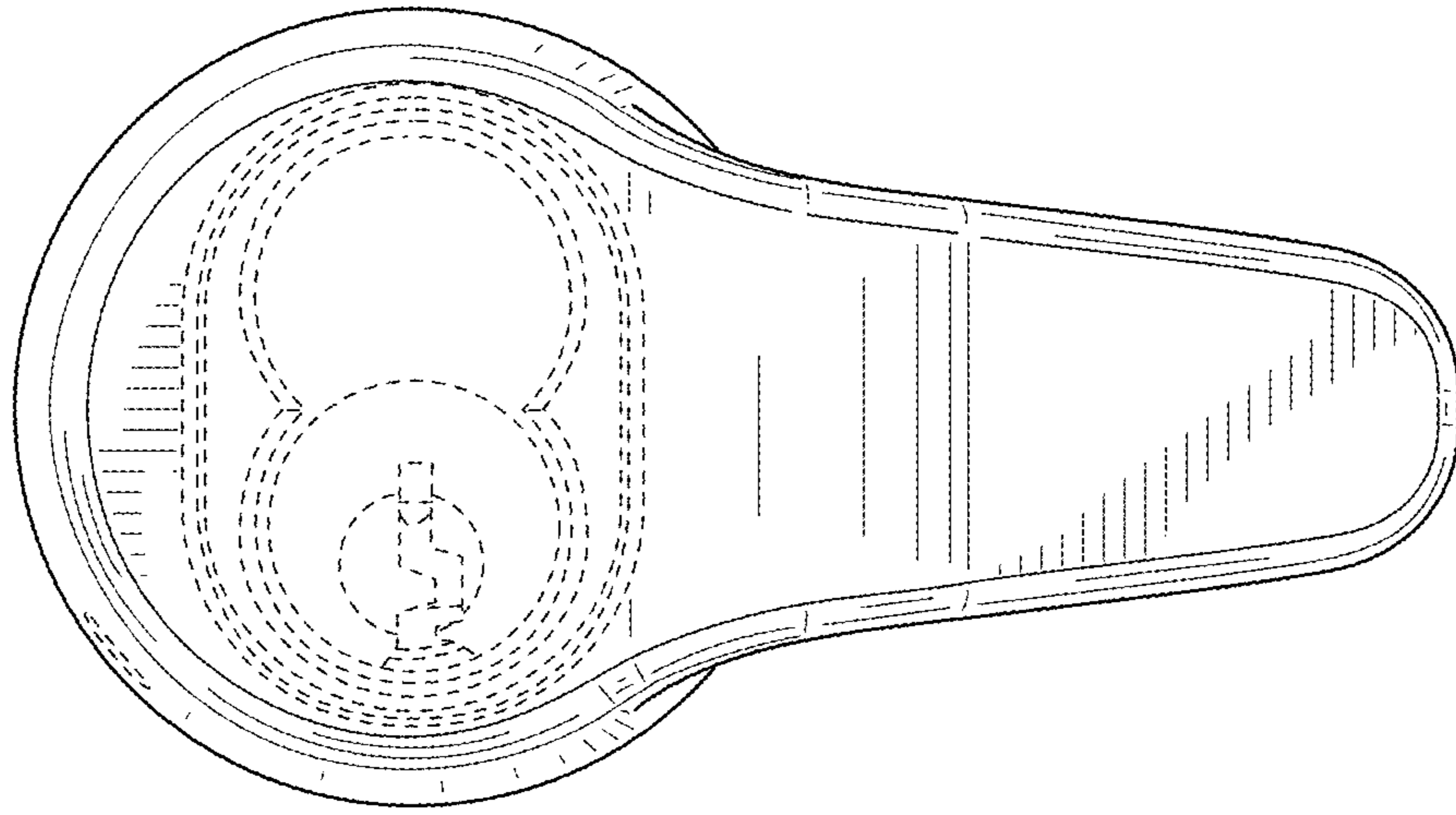


FIG. 3

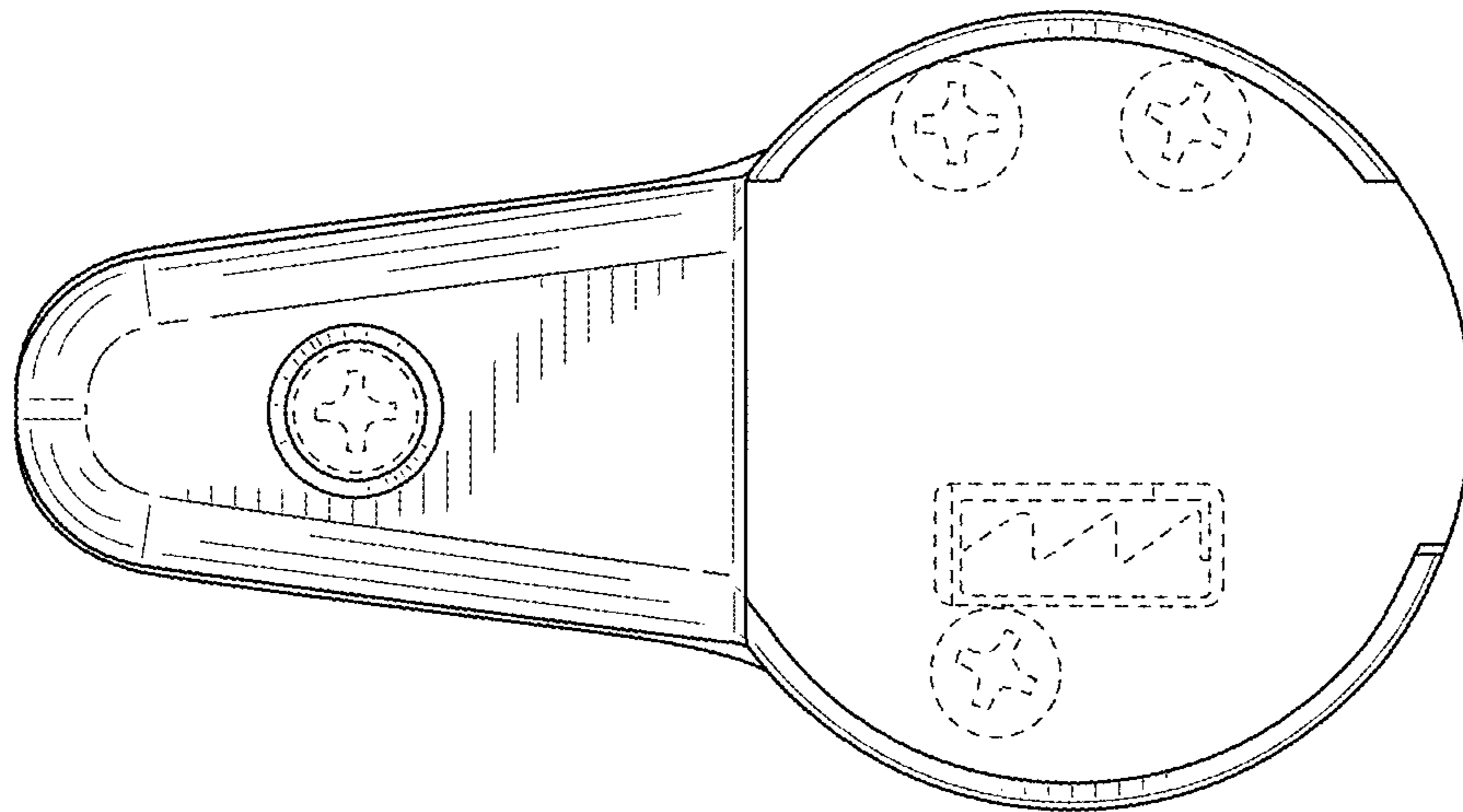


FIG. 4

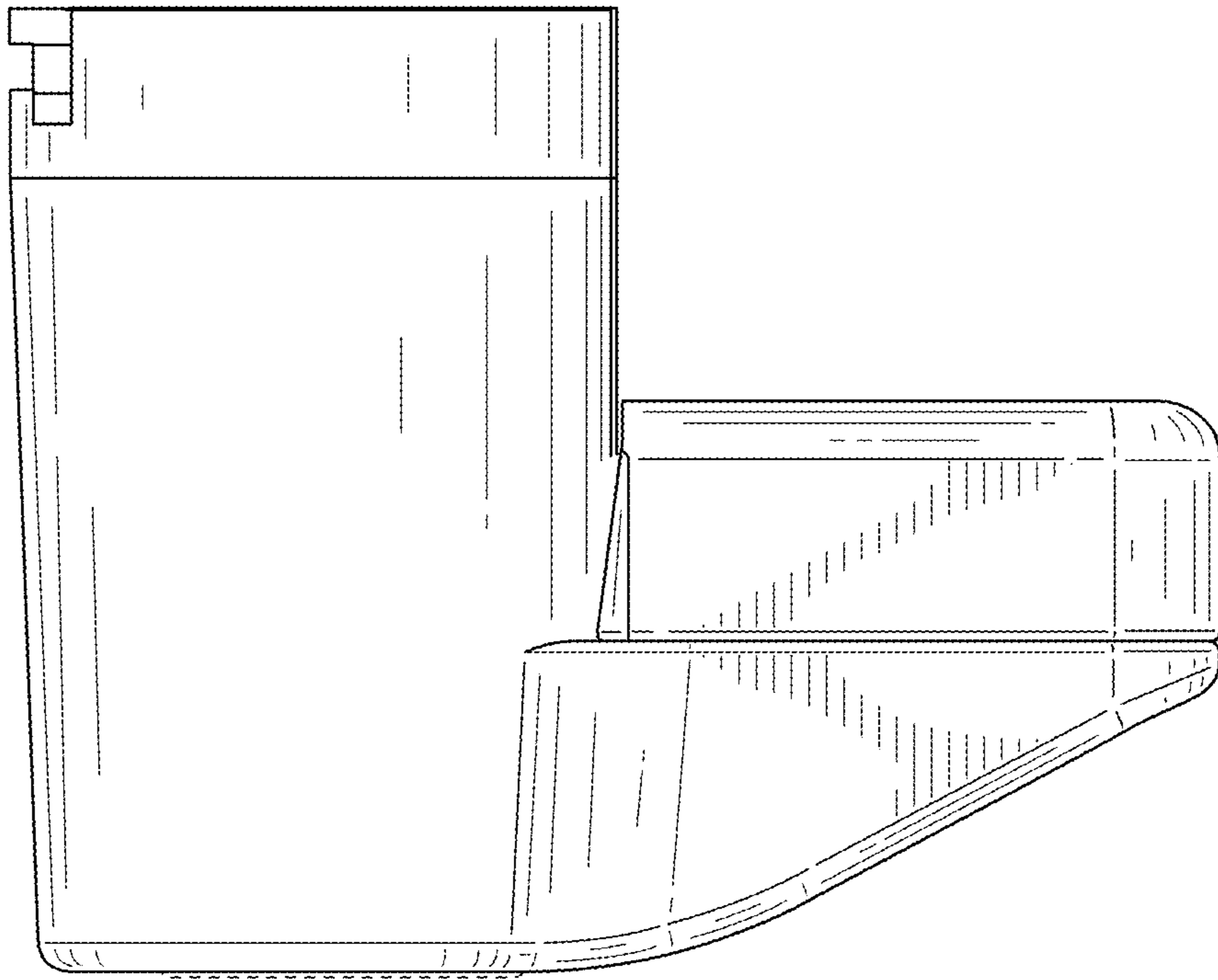


FIG. 5

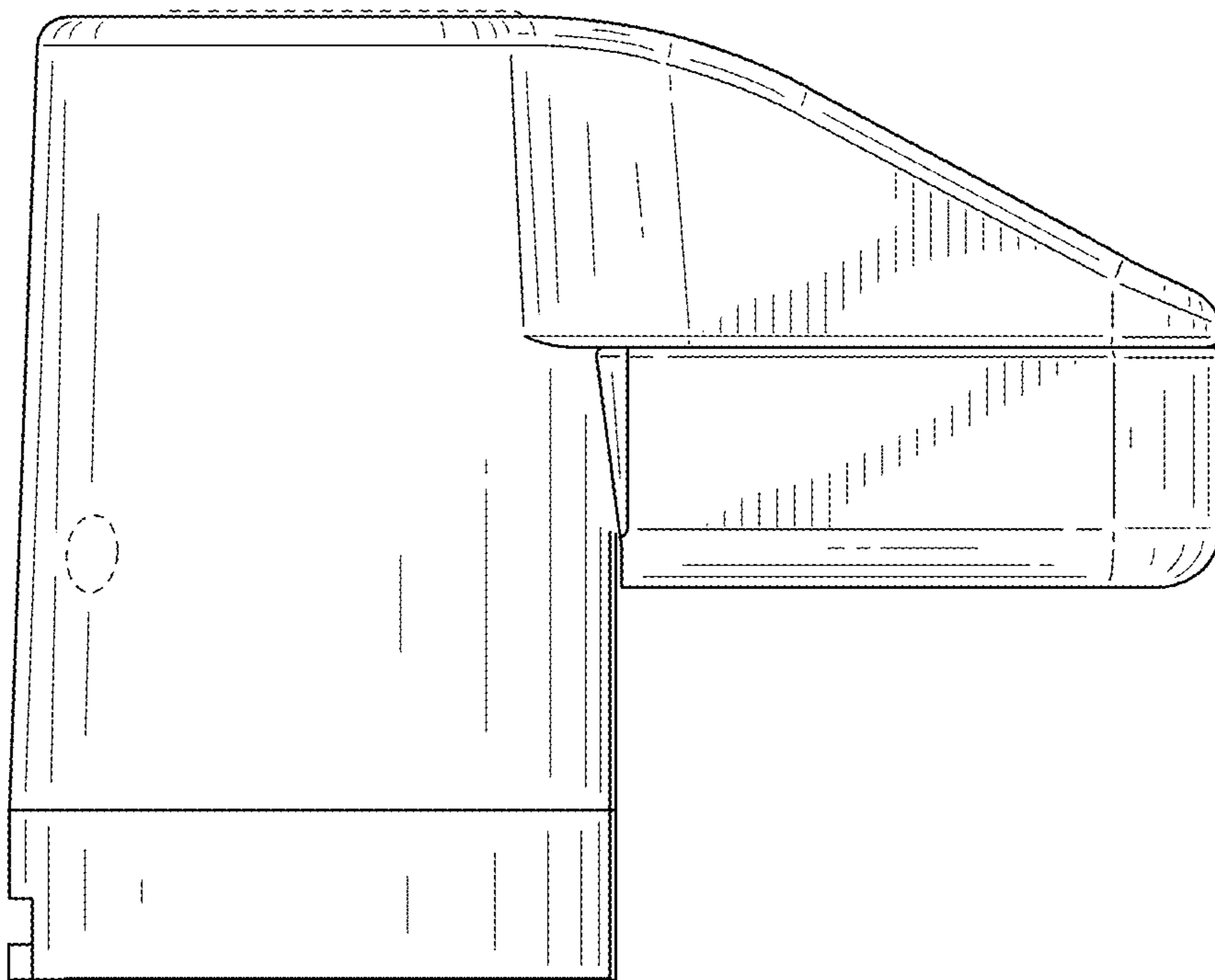


FIG. 6

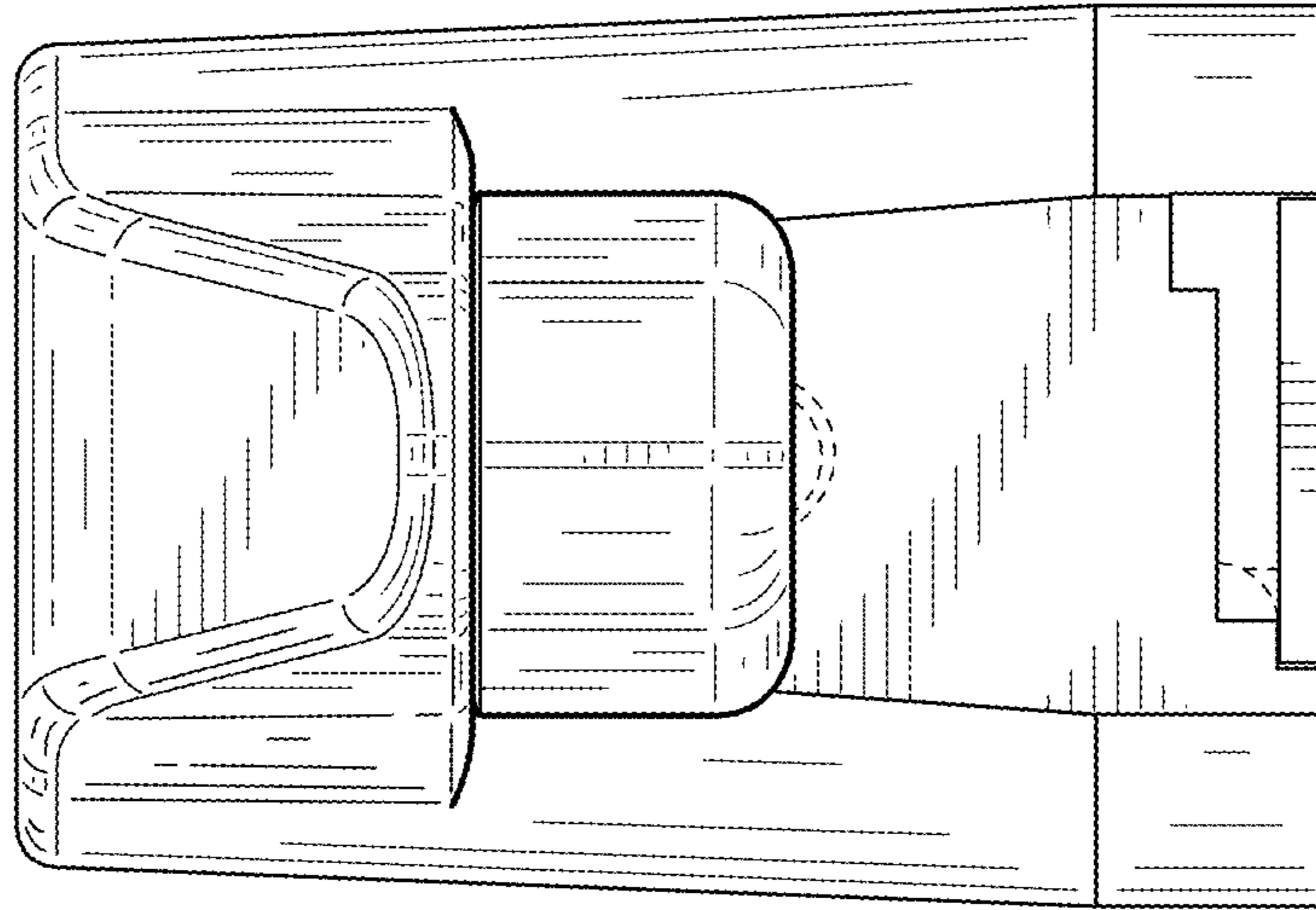


FIG. 7

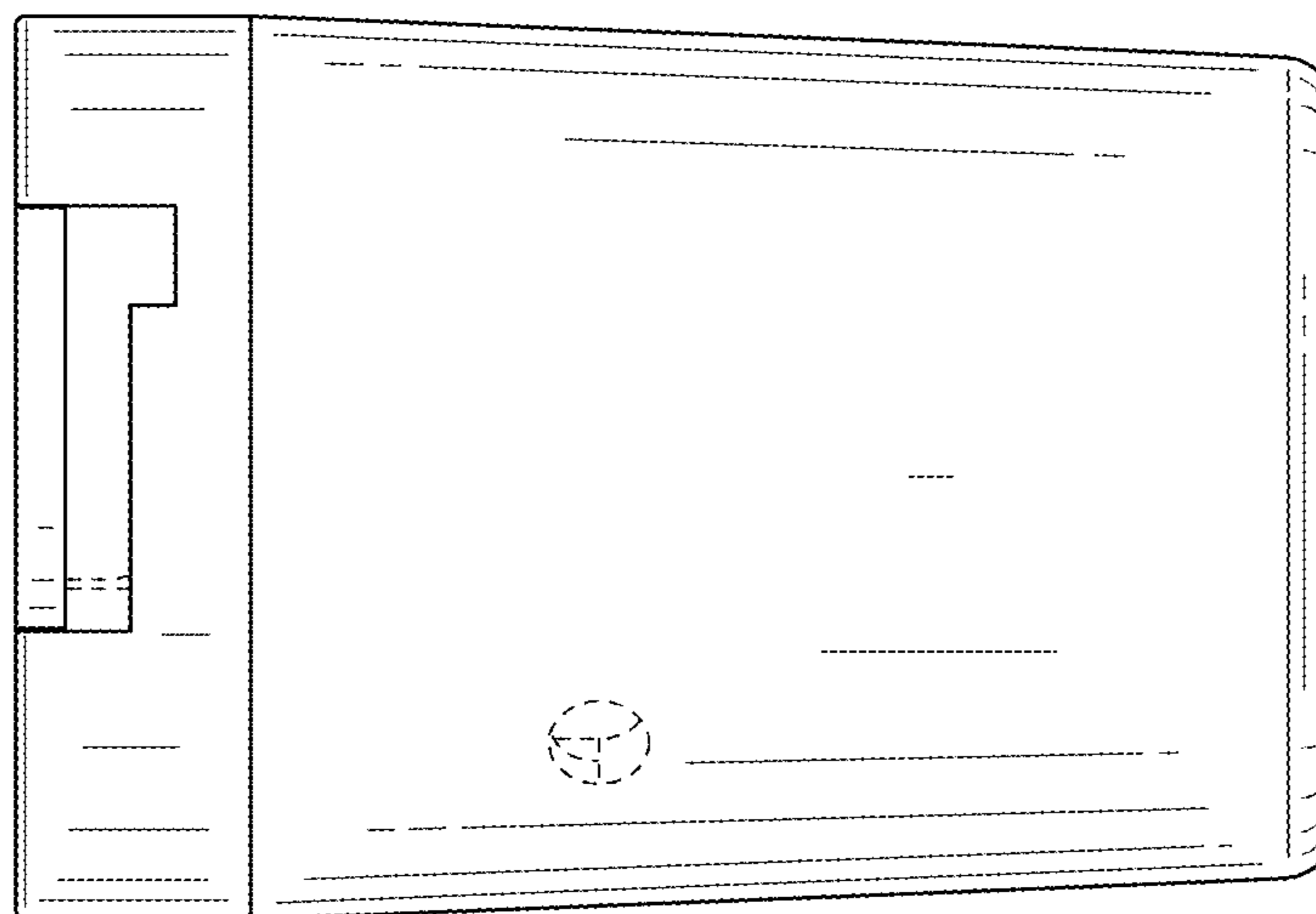


FIG. 8