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

(10) **Patent No.:** **US D711,527 S**

(45) **Date of Patent:** **\*\* Aug. 19, 2014**

(54) **MICROINFUSER**

5,389,078 A 2/1995 Zalesky et al.  
D359,120 S 6/1995 Sallee  
5,437,636 A 8/1995 Snoke et al.  
5,582,593 A 12/1996 Hultman

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(Continued)

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FOREIGN PATENT DOCUMENTS

WO 2011146166 A1 11/2011

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(\*\*) Term: **14 Years**

(57) **CLAIM**

The ornamental design for a microinfuser, as shown and described.

(21) Appl. No.: **29/467,814**

(22) Filed: **Sep. 24, 2013**

**DESCRIPTION**

**Related U.S. Application Data**

(63) Continuation of application No. 29/405,929, filed on Nov. 8, 2011, now Pat. No. Des. 693,455.

(51) **LOC (10) Cl.** ..... **24-01**

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

CPC ..... **A61M 15/00** (2013.01)

USPC ..... **D24/108**; D24/111

(58) **Field of Classification Search**

USPC ..... D24/108–133, 169, 186; 604/1, 46,  
604/95.01, 132, 147, 154, 155

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,487,603 A 12/1984 Harris  
4,517,971 A 5/1985 Sorbonne  
4,548,607 A 10/1985 Harris  
D283,045 S 3/1986 Lynn  
4,886,514 A 12/1989 Maget  
4,902,278 A 2/1990 Maget et al.  
4,938,354 A 7/1990 Hernandez  
5,267,963 A 12/1993 Bachynsky  
5,336,180 A 8/1994 Kriesel et al.

FIG. 1 is a perspective view of a microinfuser in accordance with an embodiment of the present invention.

FIG. 2 is a bottom view of the microinfuser of FIG. 1 in accordance with an embodiment of the present invention.

FIG. 3 is a rear view of the microinfuser of FIG. 1 in accordance with an embodiment of the present invention.

FIG. 4 is a top view of the microinfuser of FIG. 1 in accordance with an embodiment of the present invention.

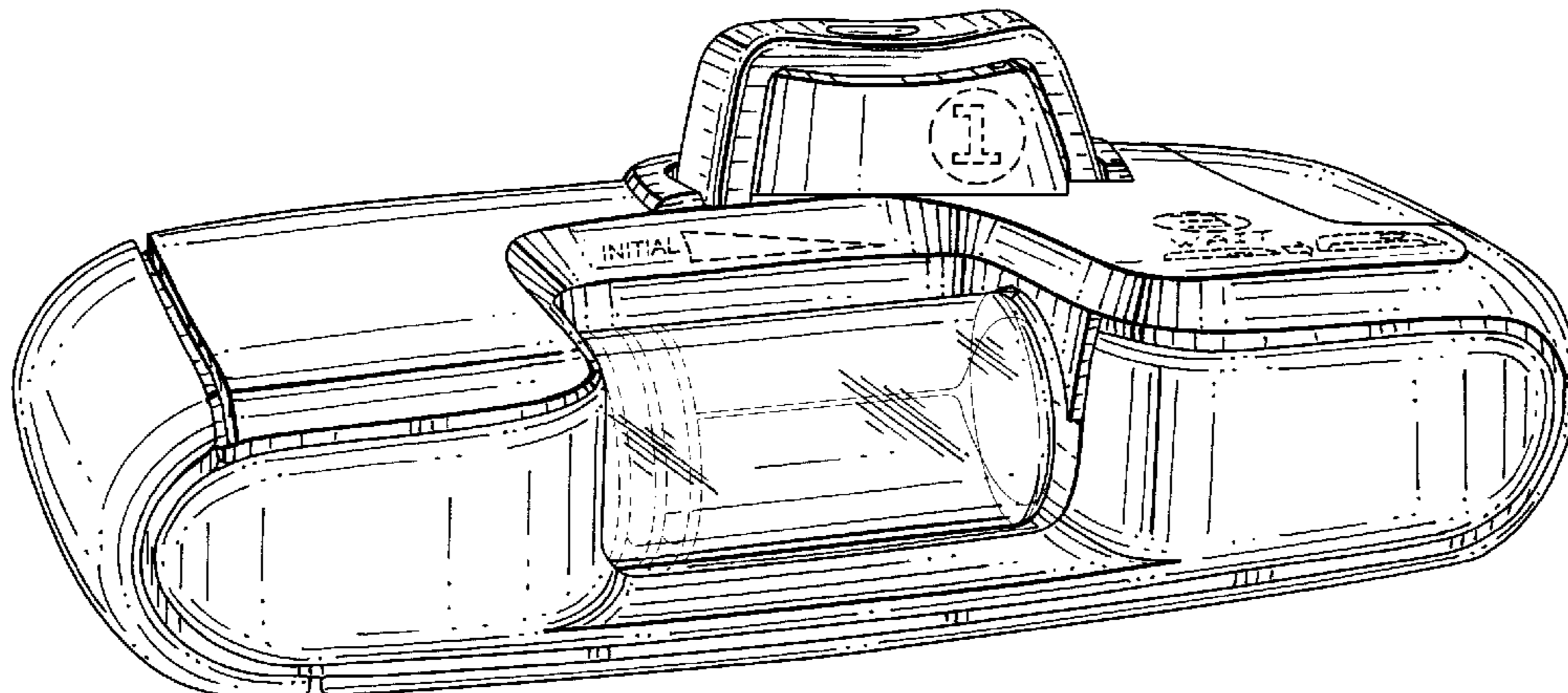
FIG. 5 is a front view of the microinfuser of FIG. 1 in accordance with an embodiment of the present invention.

FIG. 6 is a right side view of the microinfuser of FIG. 1 in accordance with an embodiment of the present invention; and,

FIG. 7 is a left side view of the microinfuser of FIG. 1 in accordance with an embodiment of the present invention.

The broken line representing the numeric values 1, 2 and 3 and their accompanying circular elements, the word “initial” and the accompanying triangular element, the word “wait” and the accompanying icons presented therebelow, as well as the openings on the bottom surface of the microinfuser represent disclaimed subject matter and form no part of the claimed design.

**1 Claim, 7 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

D393,271 S 4/1998 Conner et al.  
 5,741,230 A 4/1998 Miller  
 5,814,020 A 9/1998 Gross  
 5,840,071 A 11/1998 Kriesel et al.  
 5,848,990 A 12/1998 Cirelli et al.  
 5,848,991 A 12/1998 Gross et al.  
 5,858,001 A 1/1999 Tsals et al.  
 D405,524 S 2/1999 Falk et al.  
 5,957,895 A 9/1999 Sage et al.  
 D454,194 S 3/2002 Bar-Or  
 D455,207 S 4/2002 Gross et al.  
 6,451,040 B1 9/2002 Purcell  
 6,500,150 B1 12/2002 Gross et al.  
 6,527,744 B1 3/2003 Kriesel et al.  
 6,629,949 B1 10/2003 Douglas  
 6,641,566 B2 11/2003 Douglas et al.  
 6,659,982 B2 12/2003 Douglas et al.  
 6,699,218 B2 3/2004 Flaherty et al.  
 6,808,506 B2 10/2004 Lastovich et al.  
 D535,397 S 1/2007 Chen  
 7,416,540 B2 8/2008 Edwards et al.  
 D602,155 S 10/2009 Foley et al.  
 D602,586 S 10/2009 Foley et al.

7,628,770 B2 12/2009 Ethelfeld  
 7,637,891 B2 12/2009 Wall  
 7,658,724 B2 2/2010 Rubin et al.  
 D612,042 S 3/2010 Noren  
 7,678,079 B2 3/2010 Shermer et al.  
 7,753,879 B2 7/2010 Merno  
 7,931,621 B2 4/2011 Cross et al.  
 7,955,297 B2 6/2011 Radmer et al.  
 7,967,795 B1 6/2011 Cabiri  
 D641,076 S 7/2011 Grunstad et al.  
 7,981,085 B2 7/2011 Ethelfeld  
 8,128,596 B2 3/2012 Carter  
 8,128,597 B2 3/2012 Cross et al.  
 8,152,779 B2 4/2012 Cabiri  
 8,157,769 B2 4/2012 Cabiri  
 8,286,644 B2 10/2012 Bennett  
 8,303,615 B2 11/2012 Purcell  
 8,348,898 B2 1/2013 Cabiri  
 D676,955 S 2/2013 Orome  
 D681,195 S \* 4/2013 Skulley et al. .... D24/113  
 2007/0005017 A1 \* 1/2007 Alchas et al. .... 604/117  
 2007/0287969 A1 12/2007 Rezai et al.  
 2008/0215015 A1 9/2008 Cindrich et al.  
 2009/0221971 A1 9/2009 Mejlhede et al.  
 2010/0222743 A1 \* 9/2010 Frederickson et al. .... 604/136  
 2010/0292648 A1 11/2010 Lastovich et al.

\* cited by examiner

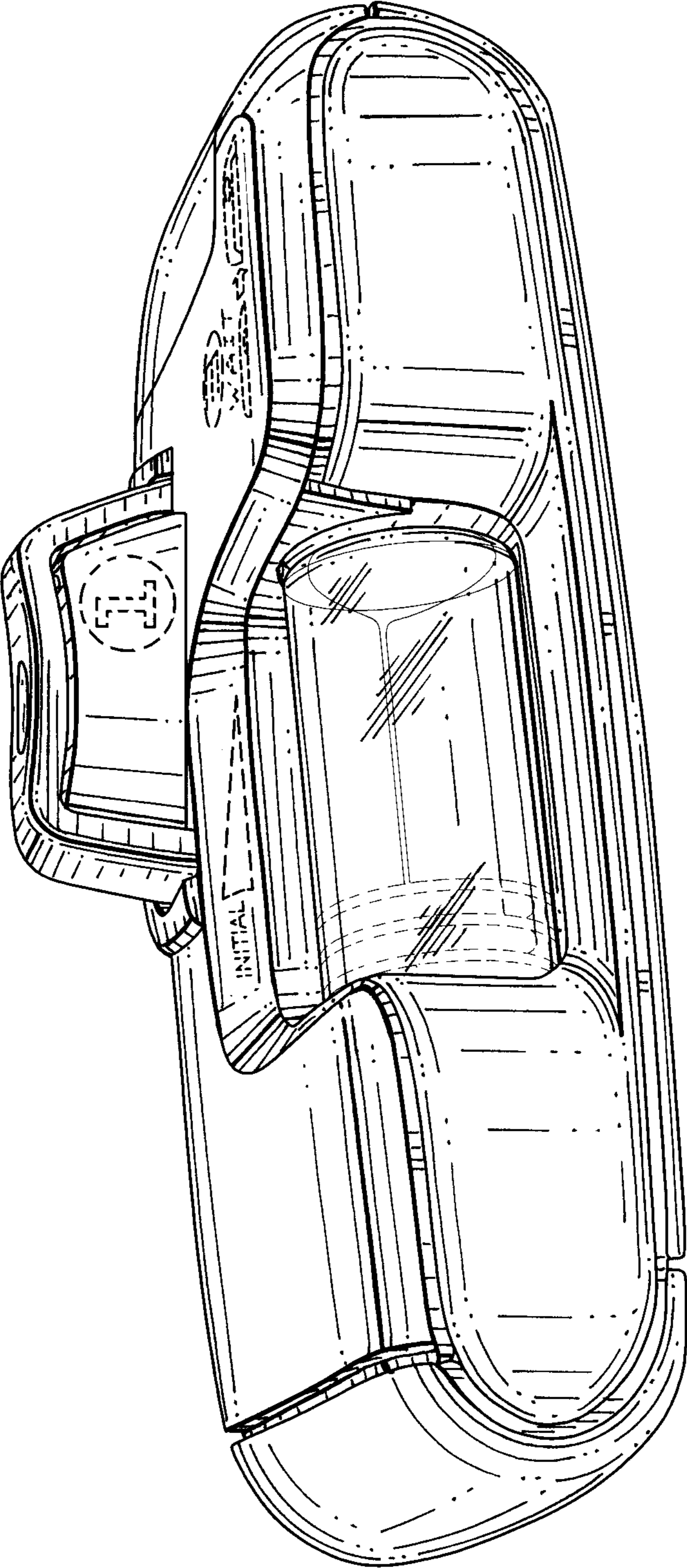


FIG. 1

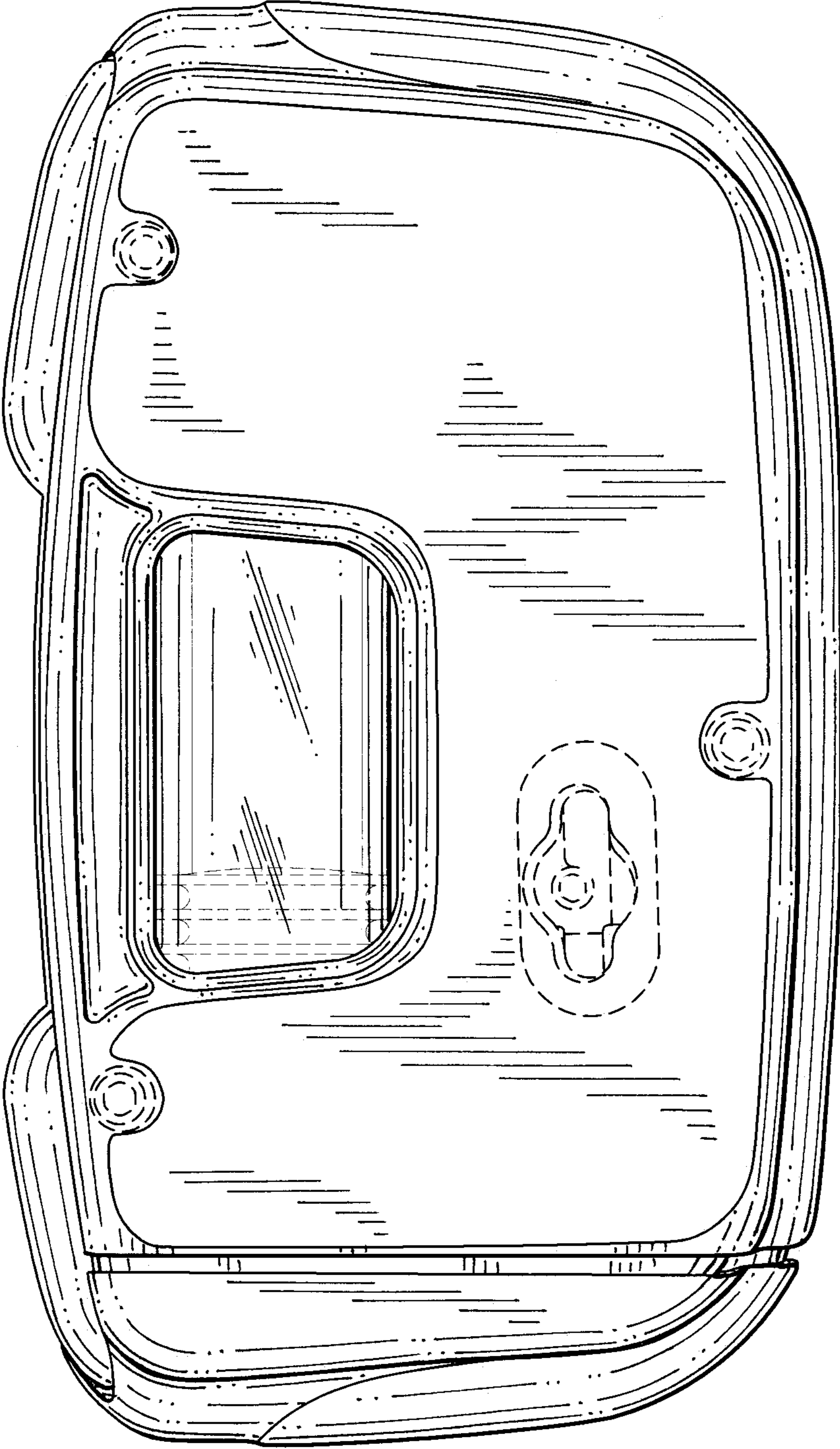


FIG.2

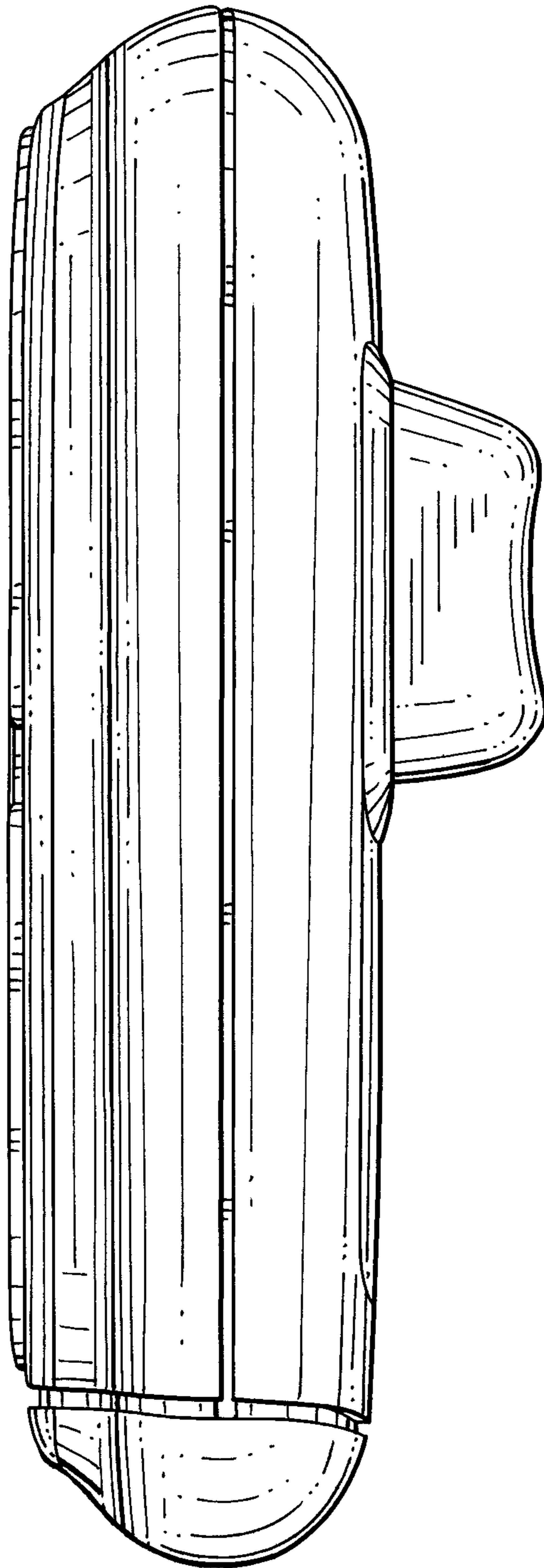


FIG. 3

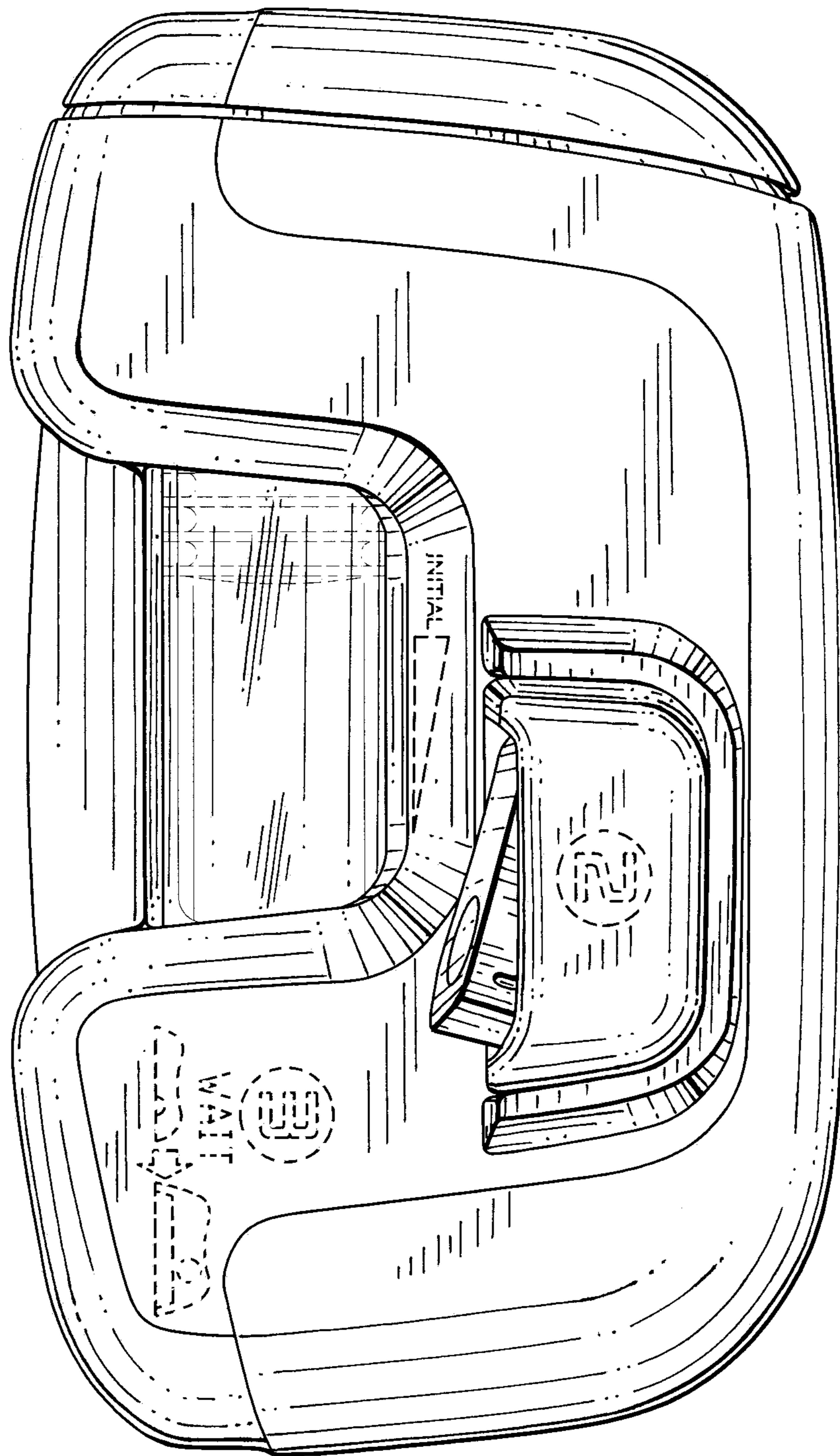


FIG.4

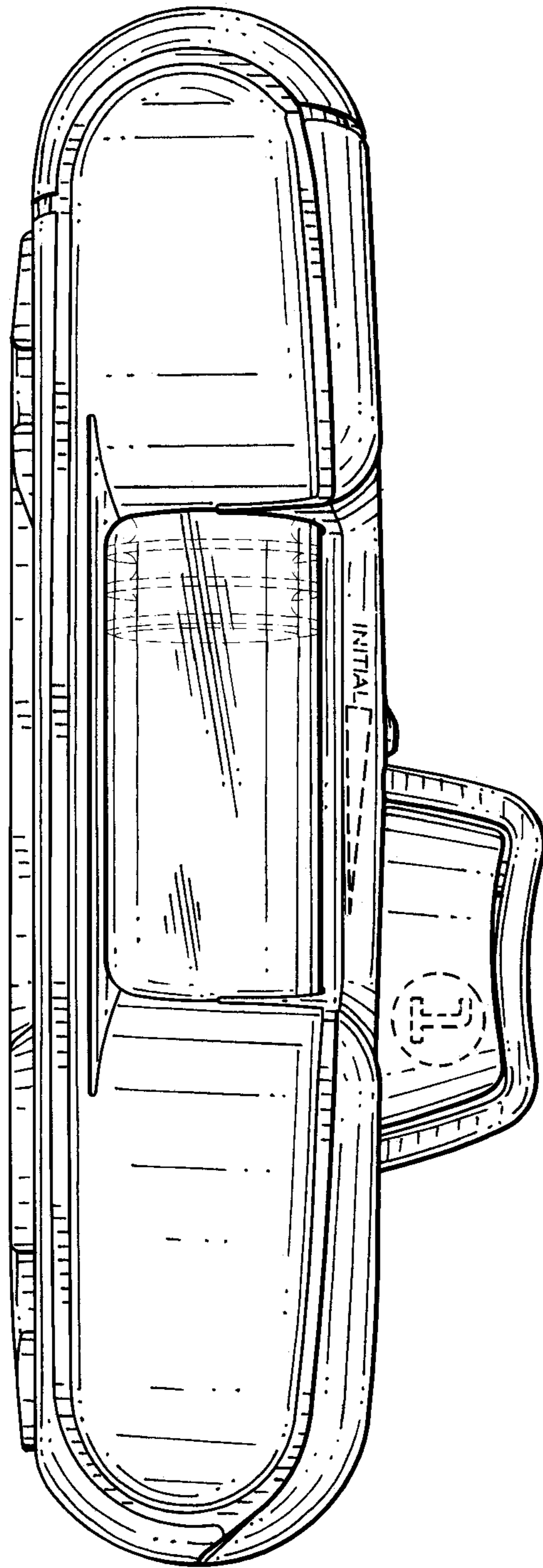


FIG.5

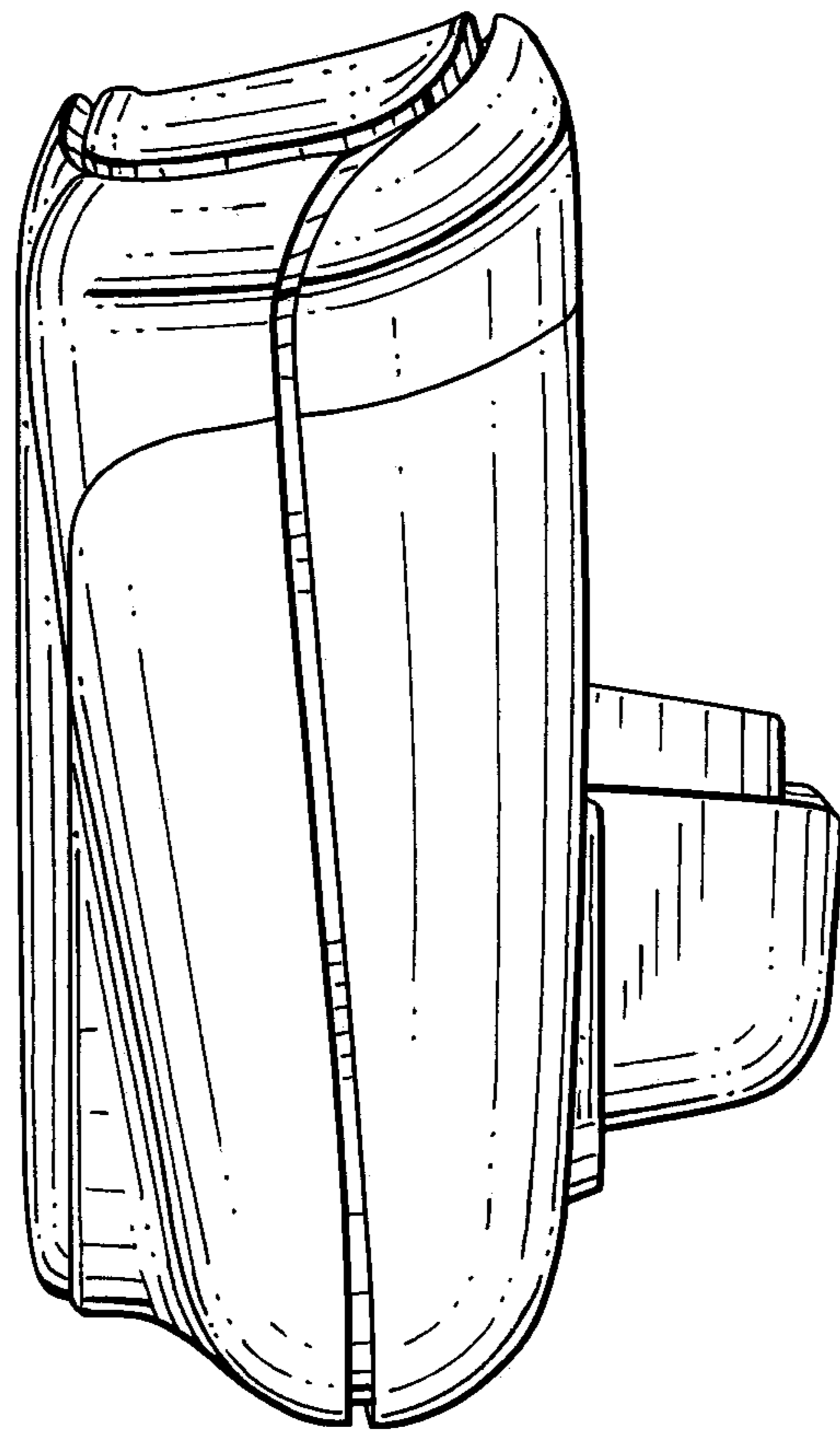


FIG.6



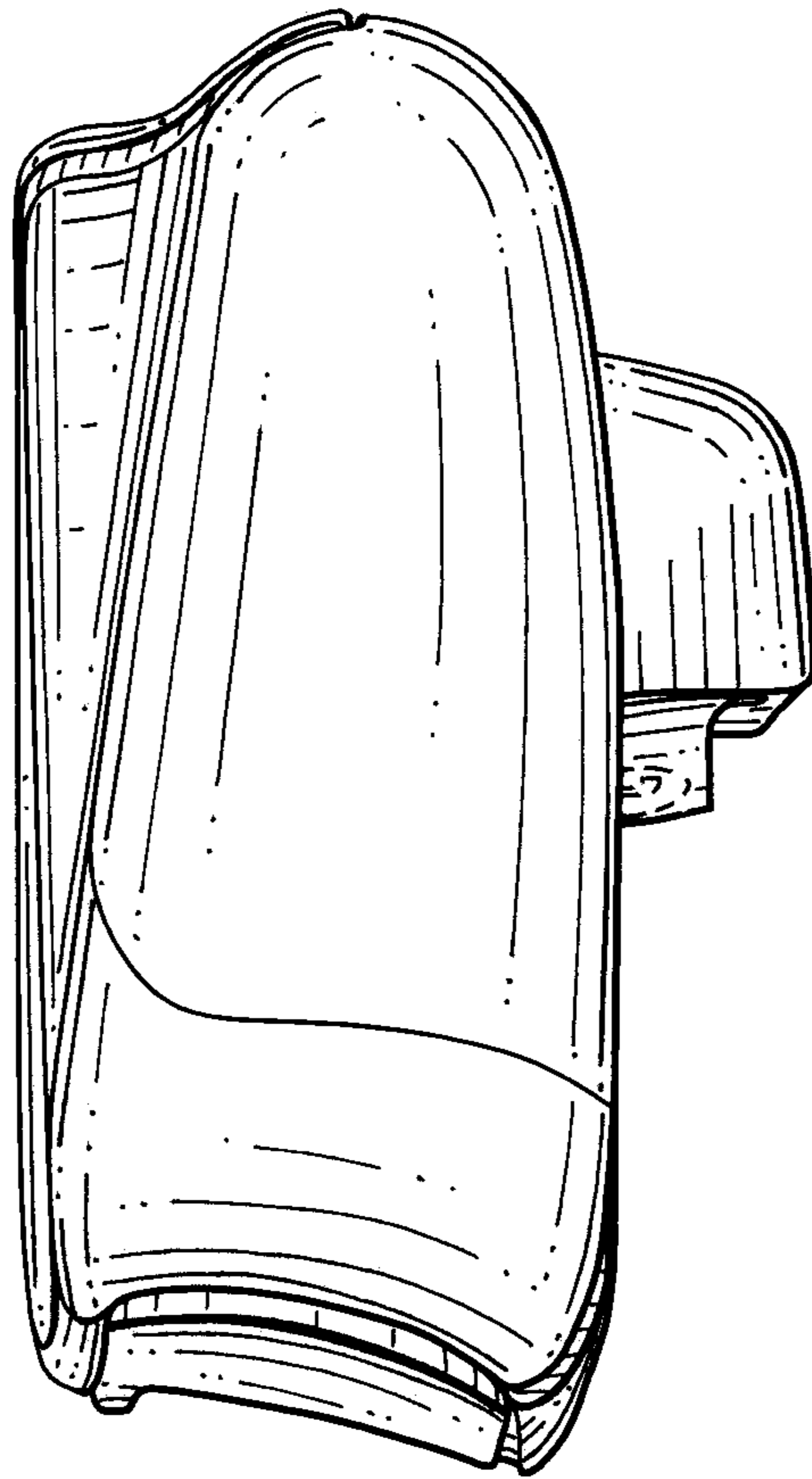


FIG. 7