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(12) **United States Design Patent** (10) **Patent No.:** **US D774,640 S**
Tyce et al. (45) **Date of Patent:** **** Dec. 20, 2016**

(54) **MEDICAL INJECTOR**
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5,267,963 A 12/1993 Bachynsky
5,336,180 A 8/1994 Kriesel et al.
5,389,078 A 2/1995 Zalesky et al.
D359,120 S 6/1995 Sallee et al.
5,437,636 A 8/1995 Snoke et al.
5,582,593 A 12/1996 Hultman
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.

(Continued)

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

FOREIGN PATENT DOCUMENTS

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(52) **U.S. Cl.**
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604/184, 227
CPC A61M 5/178; A61M 3/00; A61M 5/20;
A61M 5/31; A61M 5/3146; A61M
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See application file for complete search history.

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(57) **CLAIM**

The ornamental design for a medical injector, as shown and described.

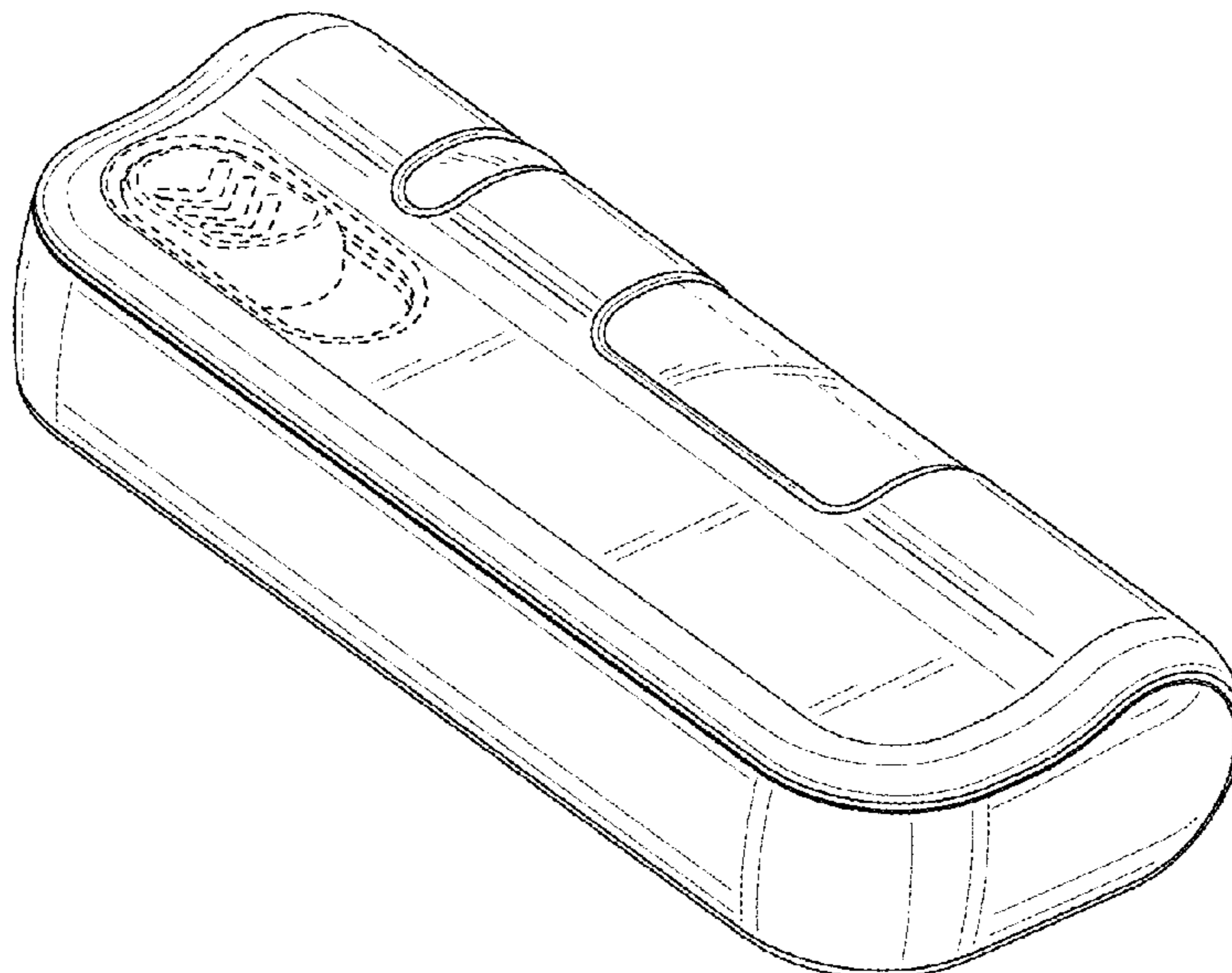
DESCRIPTION

FIG. 1 is a rear perspective view of a medical injector, in accordance with an embodiment of the present design; FIG. 2 is a front perspective view thereof; FIG. 3 is a top plan view thereof; FIG. 4 is a bottom plan view thereof; FIG. 5 is a right side elevation view thereof; FIG. 6 is a left side elevation view thereof; FIG. 7 is rear elevation view thereof; and, FIG. 8 is a front elevation view thereof. Portions of the medical injector shown in dashed lines in FIGS. 1-8 depict unclaimed portions of the medical injector that are included for environmental purposes only.

(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

1 Claim, 4 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D454,194 S	3/2002	Bar-Or	8,128,597 B2	3/2012	Cross et al.	
D455,207 S	4/2002	Gross et al.	8,152,779 B2	4/2012	Cabiri	
6,451,040 B1	9/2002	Purcell	8,157,769 B2	4/2012	Cabiri	
6,500,150 B1	12/2002	Gross et al.	8,286,644 B2	10/2012	Bennett	
6,527,744 B1	3/2003	Kriesel et al.	8,303,615 B2	11/2012	Purcell	
6,629,949 B1	10/2003	Douglas	D674,479 S *	1/2013	Merchant	D24/108
6,641,566 B2	11/2003	Douglas et al.	8,348,898 B2	1/2013	Cabiri	
6,659,982 B2	12/2003	Douglas et al.	D676,955 S	2/2013	Orome	
6,699,218 B2	3/2004	Flaherty et al.	D681,195 S	4/2013	Skulley et al.	
6,808,506 B2	10/2004	Lastovich et al.	D684,686 S *	6/2013	Cronenberg	D24/108
D535,397 S	1/2007	Chen	D685,083 S *	6/2013	Schneider	D24/108
7,416,540 B2	8/2008	Edwards et al.	D687,141 S *	7/2013	Schneider	D24/108
D602,155 S	10/2009	Foley et al.	D687,536 S *	8/2013	Guarraia	D24/108
D602,586 S	10/2009	Foley et al.	D692,552 S	10/2013	Lovell et al.	
7,628,770 B2	12/2009	Ethelfeld	D693,455 S	11/2013	Alchas et al.	
7,637,891 B2	12/2009	Wall	D695,392 S *	12/2013	Tani	D24/113
7,658,724 B2	2/2010	Rubin et al.	D714,948 S *	10/2014	Vaccarella	D24/186
D612,042 S	3/2010	Noren	D720,070 S *	12/2014	Khalaj	D24/133
7,678,079 B2	3/2010	Shermer et al.	D732,411 S *	6/2015	Waler	D10/81
7,753,879 B2	7/2010	Merno	D741,995 S *	10/2015	Prasser	D24/113
7,931,621 B2	4/2011	Cross et al.	D745,661 S *	12/2015	Collins	D24/108
7,955,297 B2	6/2011	Radmer et al.	D752,763 S *	3/2016	Rondoni	D24/186
7,967,795 B1	6/2011	Cabiri	D755,372 S *	5/2016	Masumoto	D24/130
D641,076 S	7/2011	Grunstad et al.	2007/0005017 A1	1/2007	Alchas et al.	
7,981,085 B2	7/2011	Ethelfeld	2007/0287969 A1	12/2007	Rezai et al.	
8,128,596 B2	3/2012	Carter	2008/0215015 A1	9/2008	Cindrich et al.	
			2009/0221971 A1	9/2009	Mejlhede et al.	
			2010/0222743 A1	9/2010	Frederickson et al.	
			2010/0292648 A1	11/2010	Lastovich et al.	

* cited by examiner

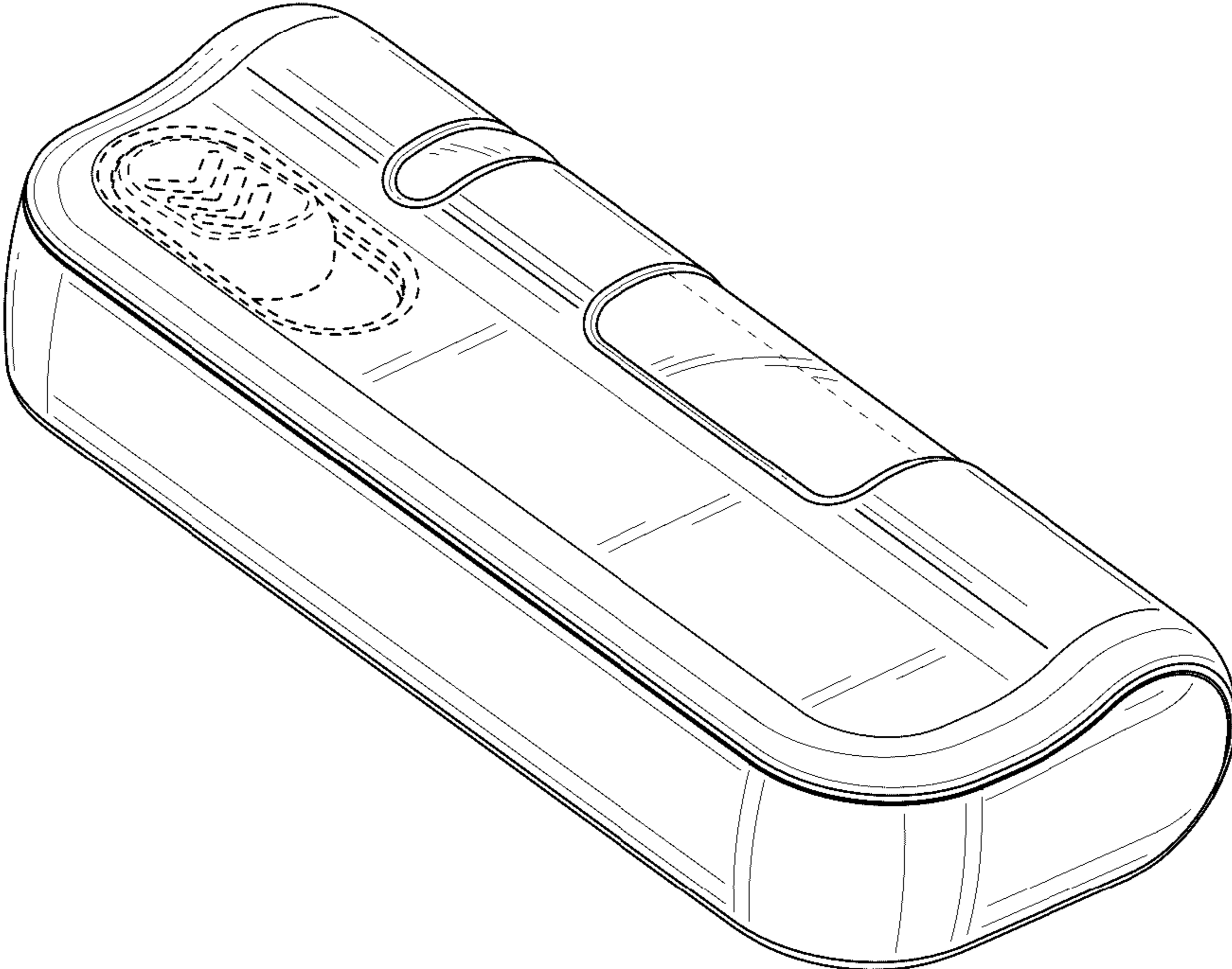


FIG. 1

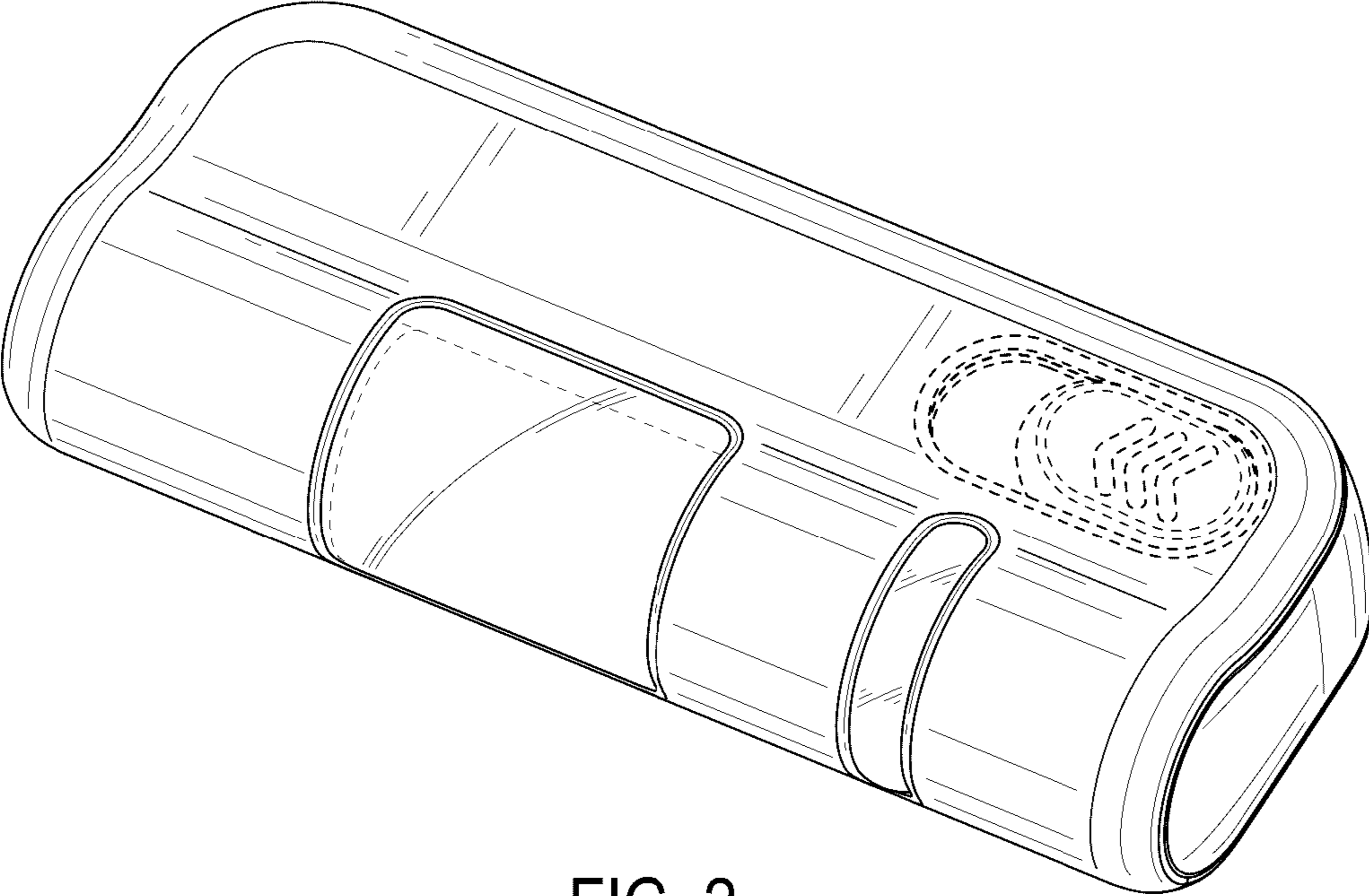


FIG. 2

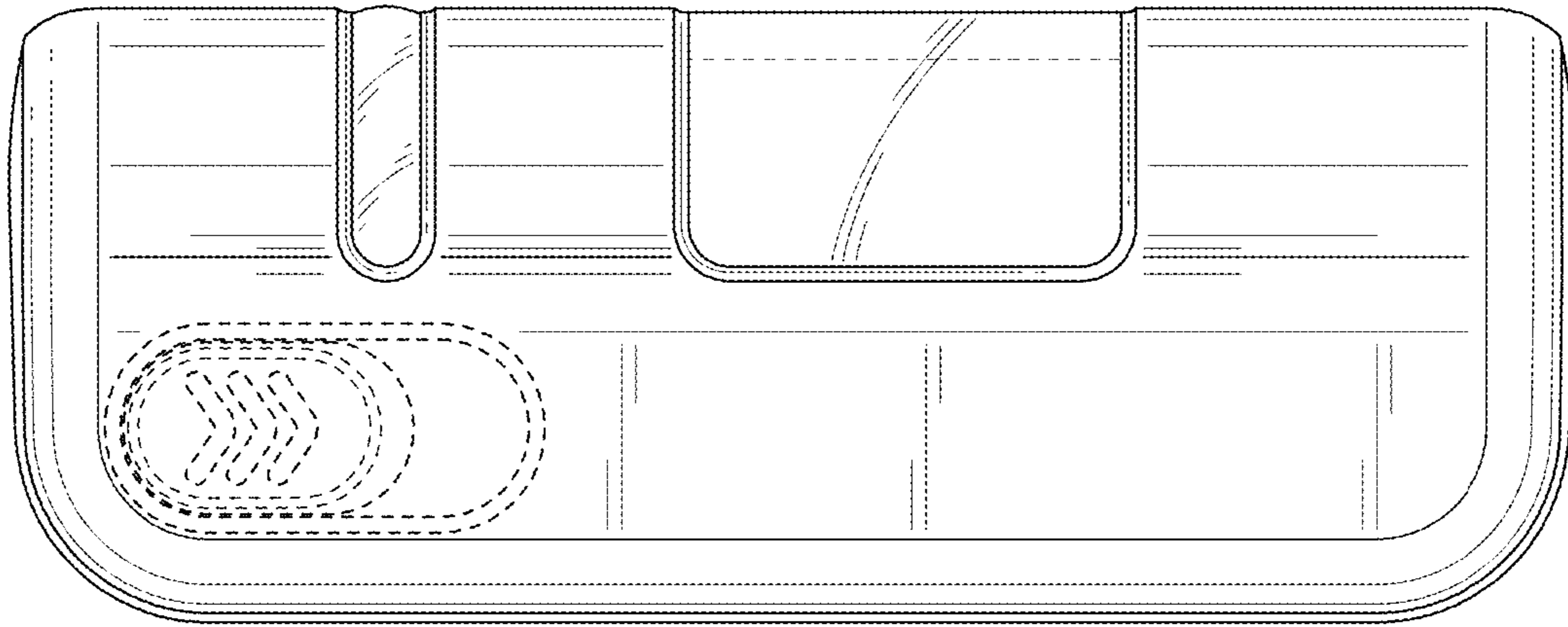


FIG. 3

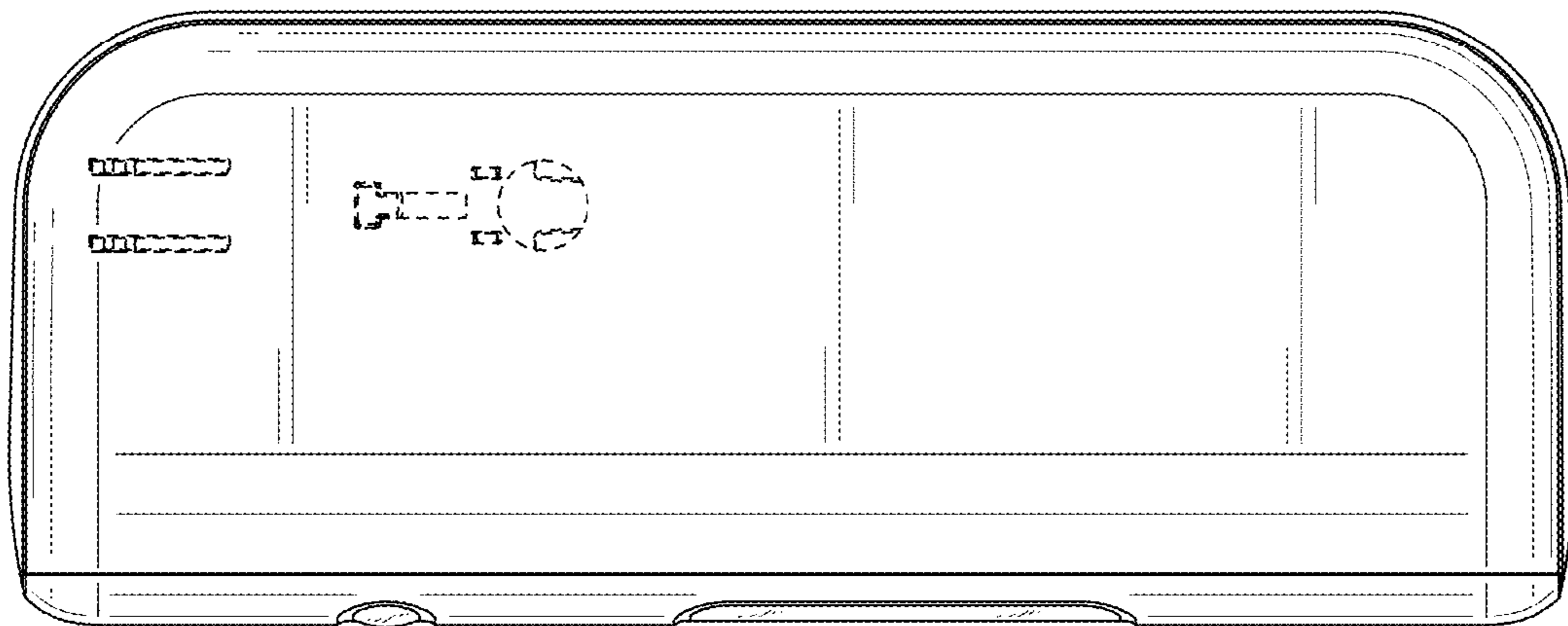


FIG. 4

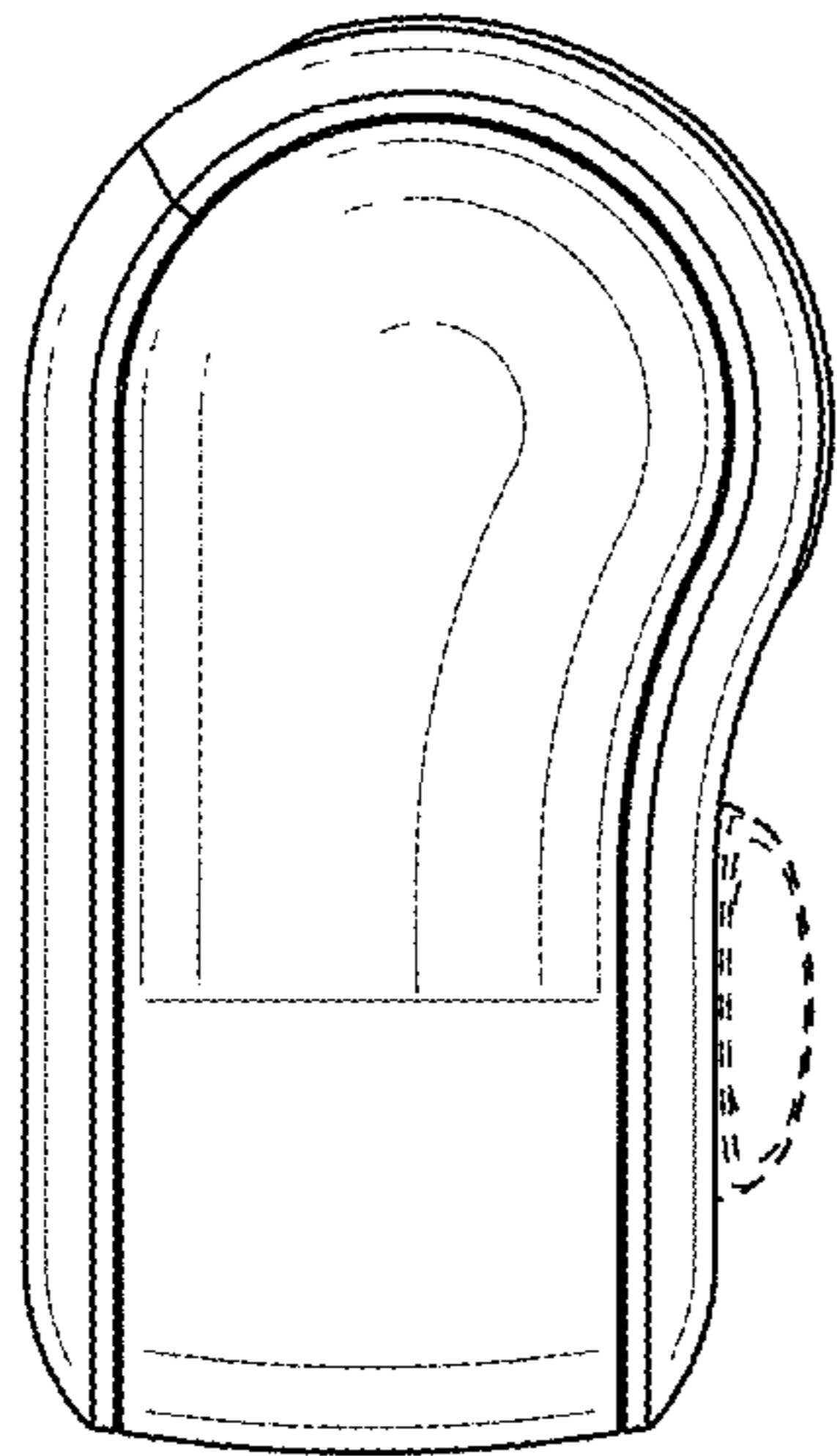


FIG. 5

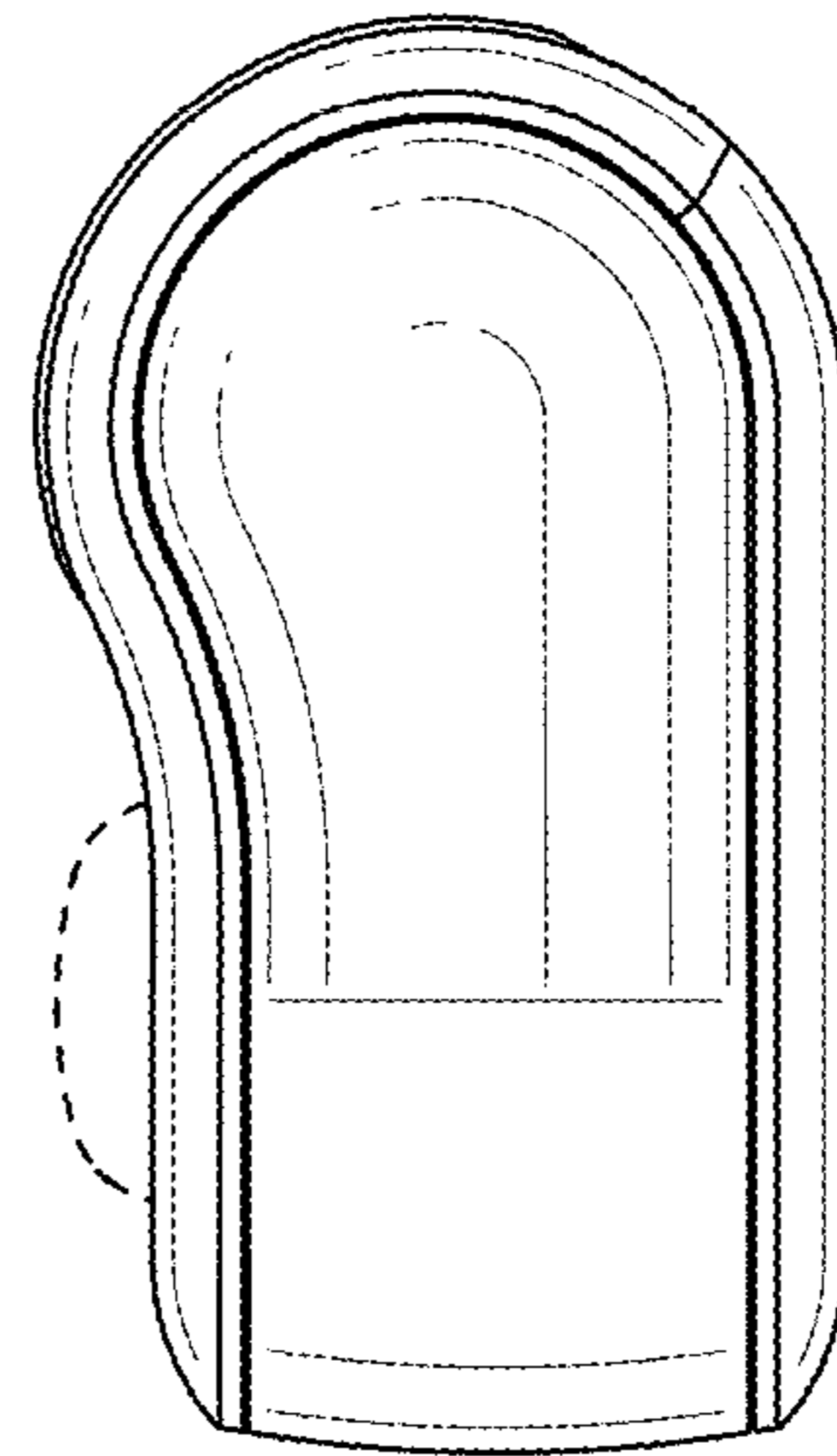


FIG. 6



FIG. 7

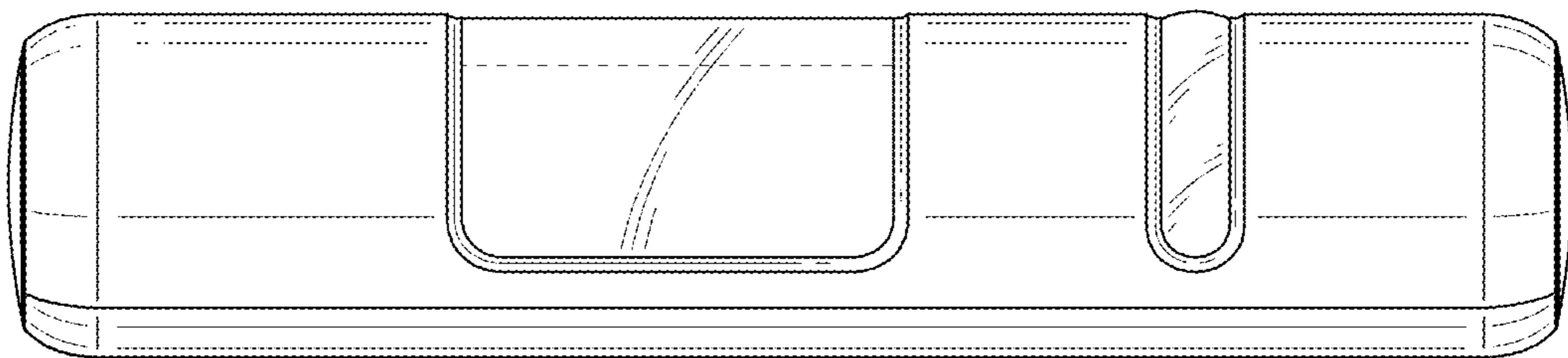


FIG. 8