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

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(54) **FINGER VEIN AUTHENTICATION DEVICE**

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(73) Assignee: **Hitachi, Ltd.**, Tokyo (JP)

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(51) **LOC (11) Cl.** ..... **14-02**

(52) **U.S. Cl.**  
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(58) **Field of Classification Search**  
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D14/134, 155, 167, 168, 230, 231, 233,  
D14/235, 237, 240–242, 299; D10/65,  
D10/75, 78; D13/103, 149, 162, 184,  
D13/199; D18/4.4–4.6, 12.1, 56;  
361/679.31–679.45, 752; 711/100, 115;  
382/115, 124; 356/71; 235/380, 461,  
235/382, 472.01, 472.02; D3/201, 273  
CPC ..... G06K 9/00006; G06K 7/0013; G06K  
9/00026; G06F 21/00; G06Q 30/00  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D516,068 S \* 2/2006 Walter ..... D14/383  
D586,345 S \* 2/2009 Kim ..... D14/383

D616,439 S \* 5/2010 Mugica ..... D14/383  
D648,844 S \* 11/2011 Nelson ..... D14/308  
D668,251 S \* 10/2012 Morrell ..... D14/383  
D703,205 S \* 4/2014 Tamura ..... D14/383  
D727,321 S \* 4/2015 LaBorde ..... D14/383  
D728,675 S \* 5/2015 Daniel ..... D14/383  
D761,260 S \* 7/2016 Luo ..... D14/383  
D776,113 S \* 1/2017 Bierach ..... D14/383  
D792,858 S \* 7/2017 Tehranchi ..... D13/164  
D812,616 S \* 3/2018 Potash ..... D14/383  
D817,959 S \* 5/2018 Varotto ..... D14/384

\* cited by examiner

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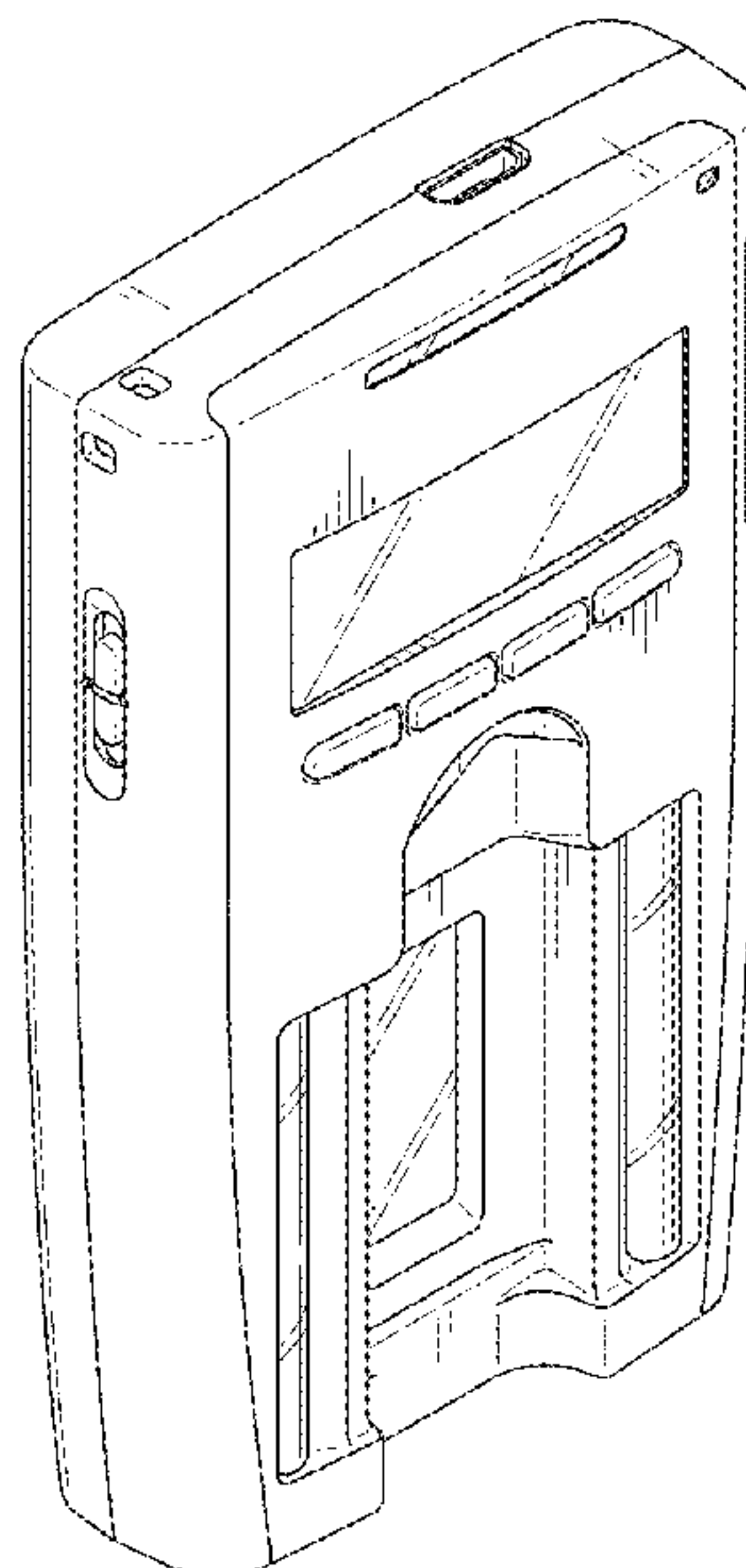
(57) **CLAIM**

The ornamental design for a finger vein authentication device, as shown and described.

**DESCRIPTION**

FIG. 1 is a front and top perspective view of a finger vein authentication device according to the design;  
FIG. 2 is a front elevational view thereof;  
FIG. 3 is a left side elevational view thereof;  
FIG. 4 is a right side elevational view thereof;  
FIG. 5 is a top plan view thereof;  
FIG. 6 is a bottom plan view thereof;  
FIG. 7 is a rear elevational view thereof;  
FIG. 8 is a cross-sectional view taken along line 8-8 of FIG. 2; and,  
FIG. 9 is a cross-sectional view taken along line 9-9 of FIG. 2.

**1 Claim, 3 Drawing Sheets**



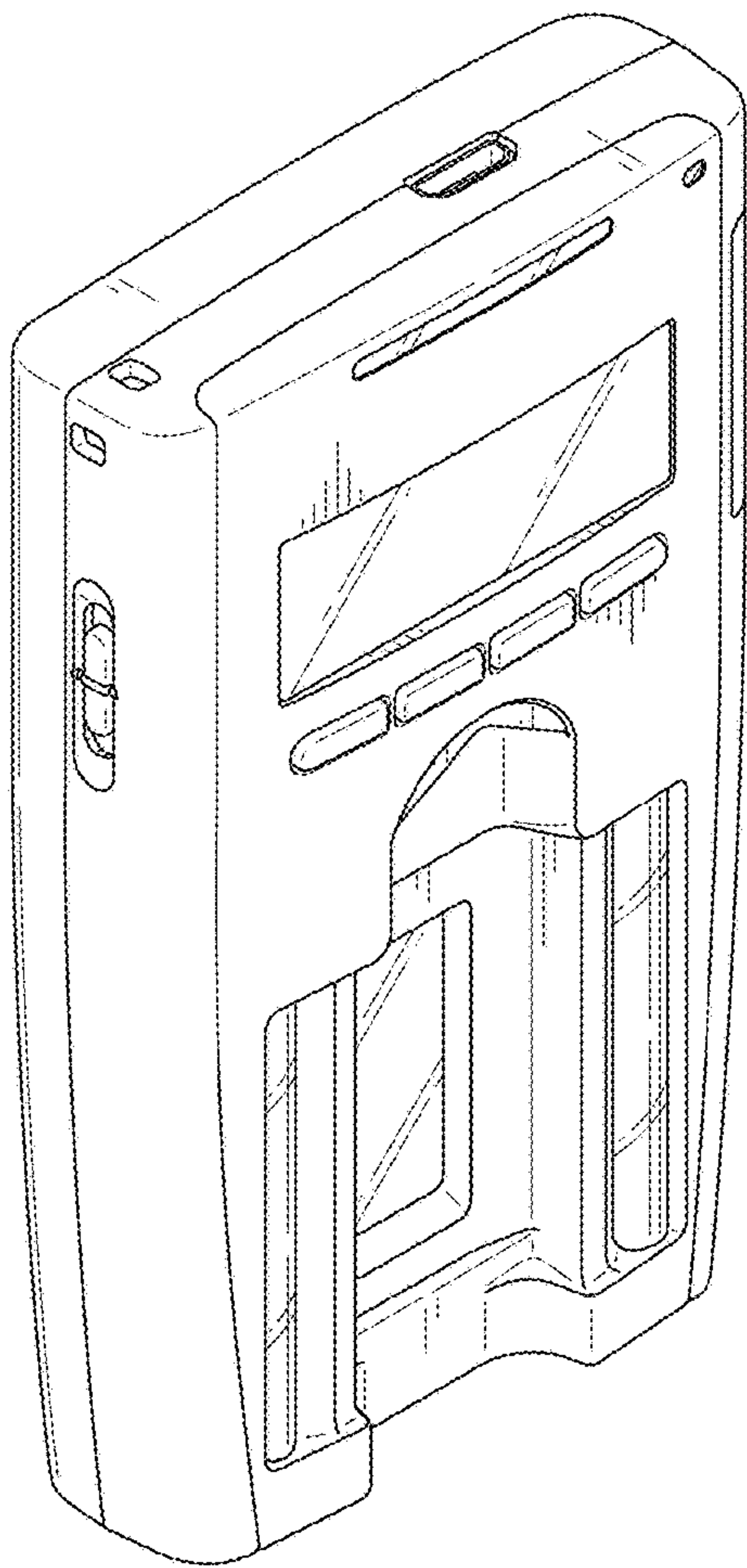


FIG. 1

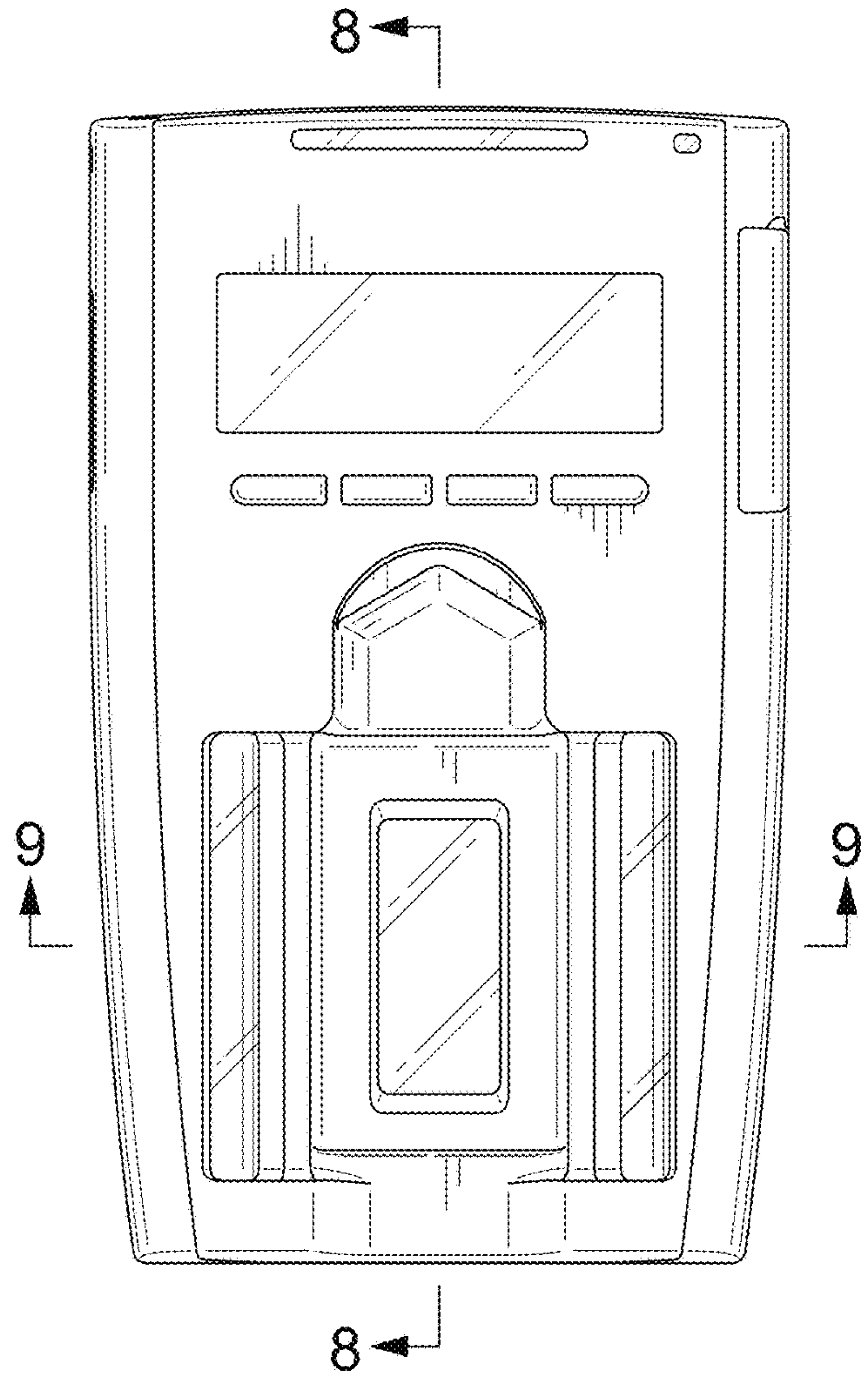
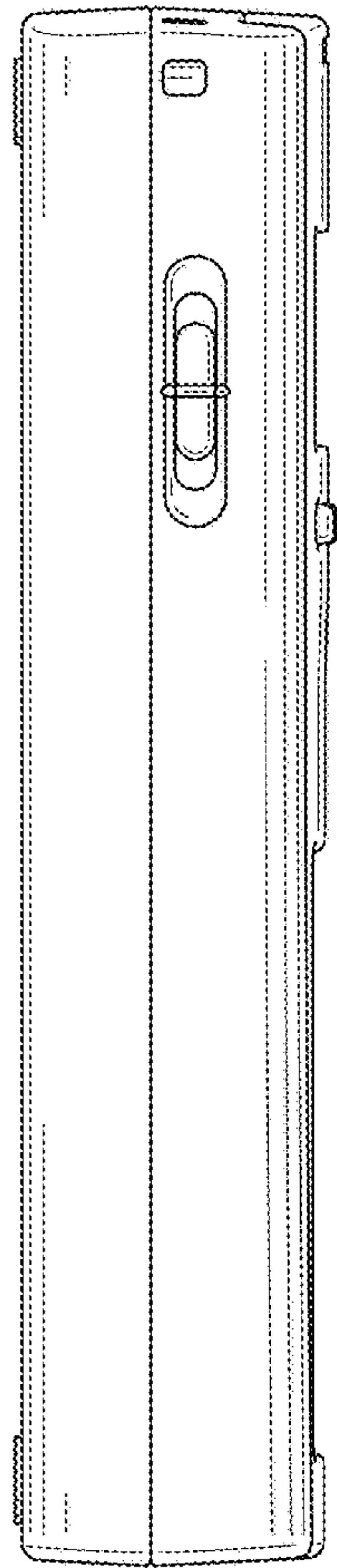
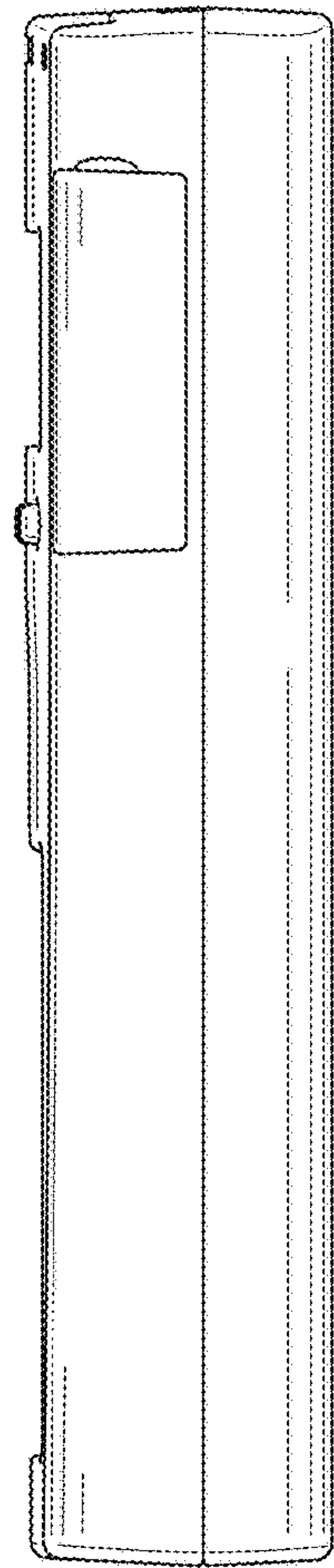


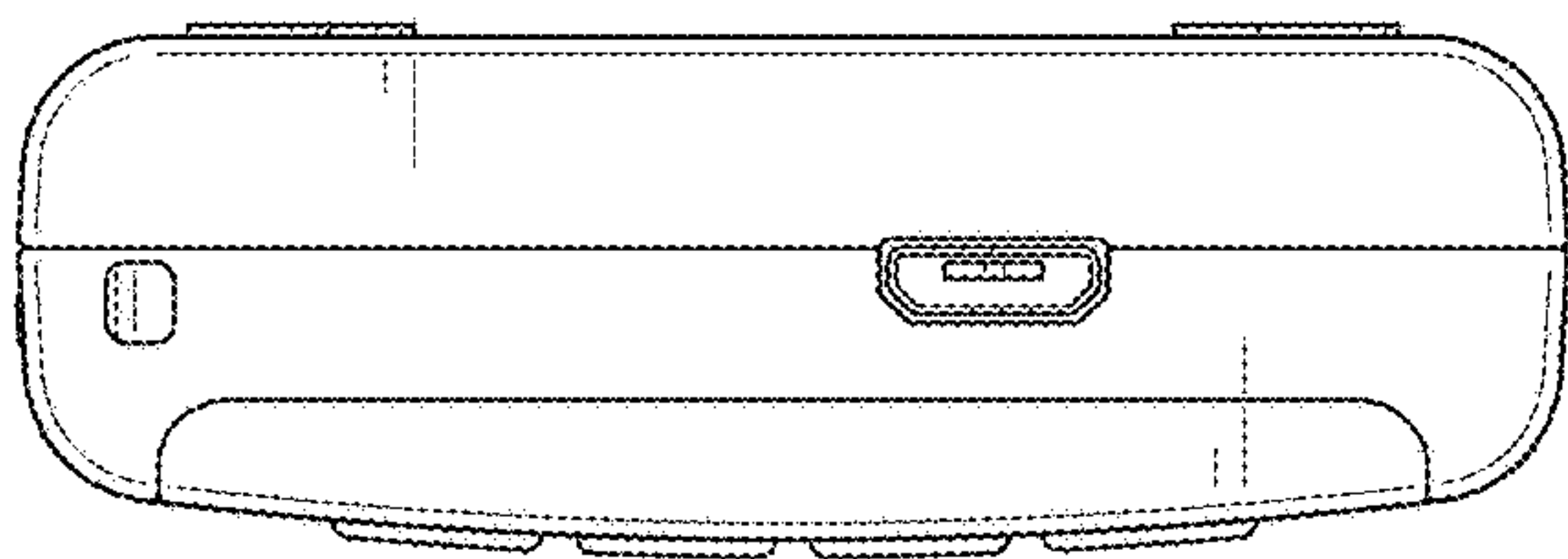
FIG. 2



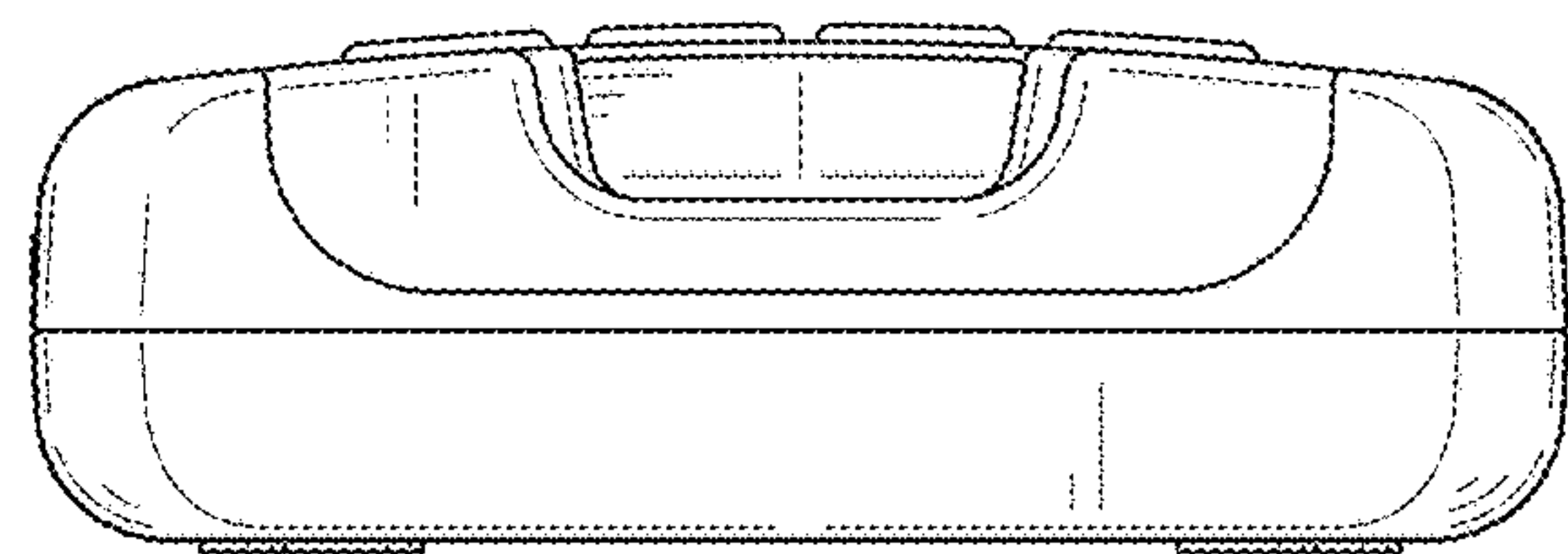
*FIG. 3*



*FIG. 4*



*FIG. 5*



*FIG. 6*



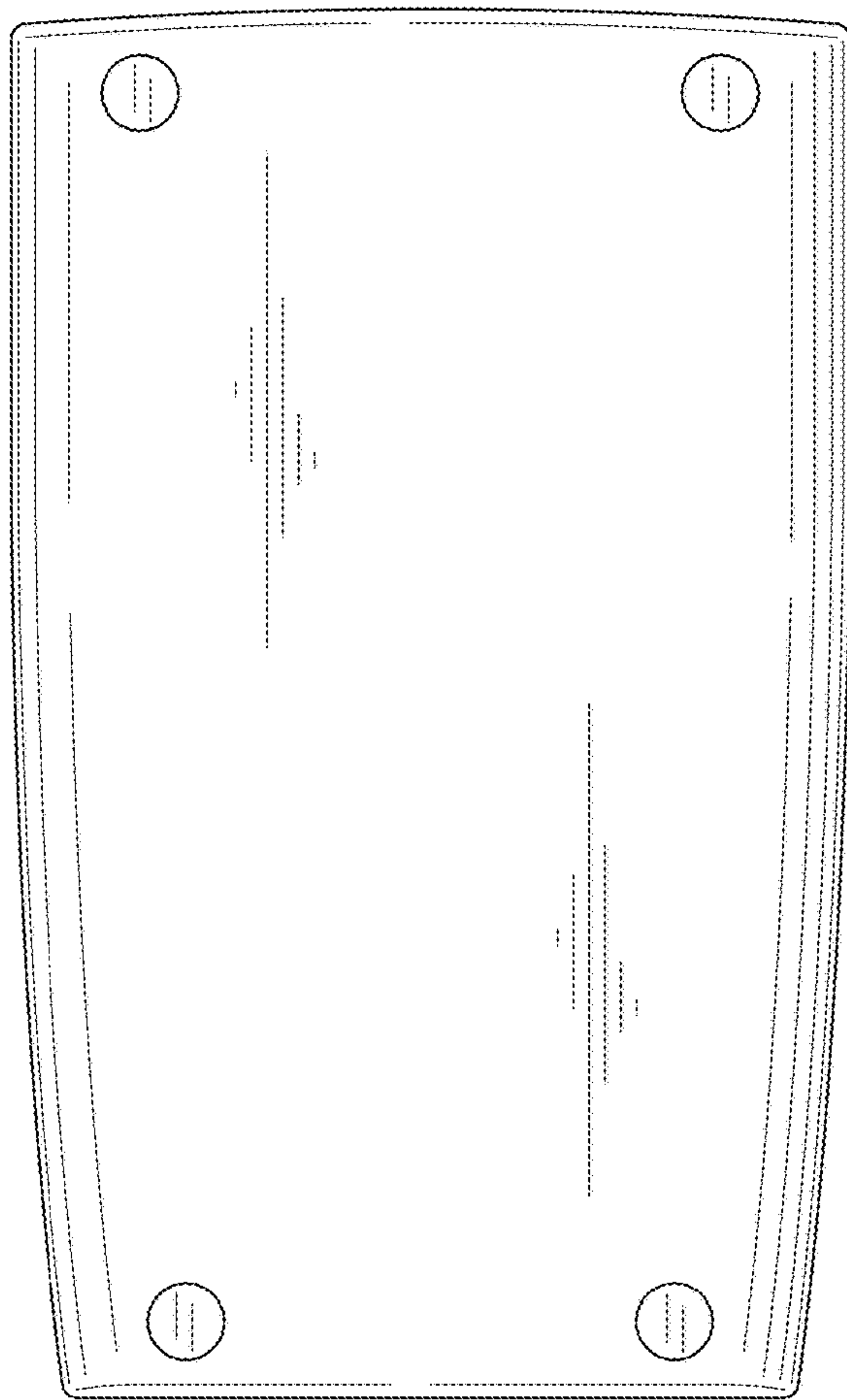


FIG. 7

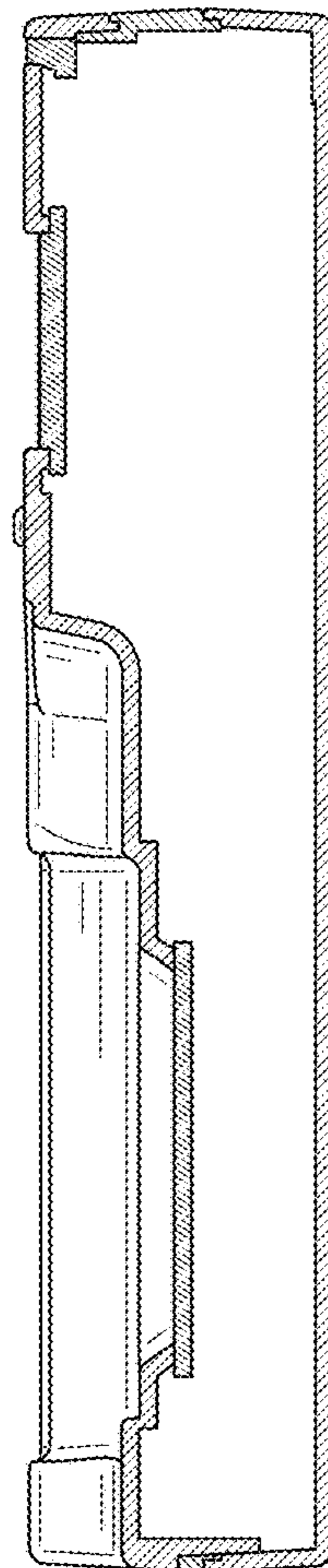


FIG. 8

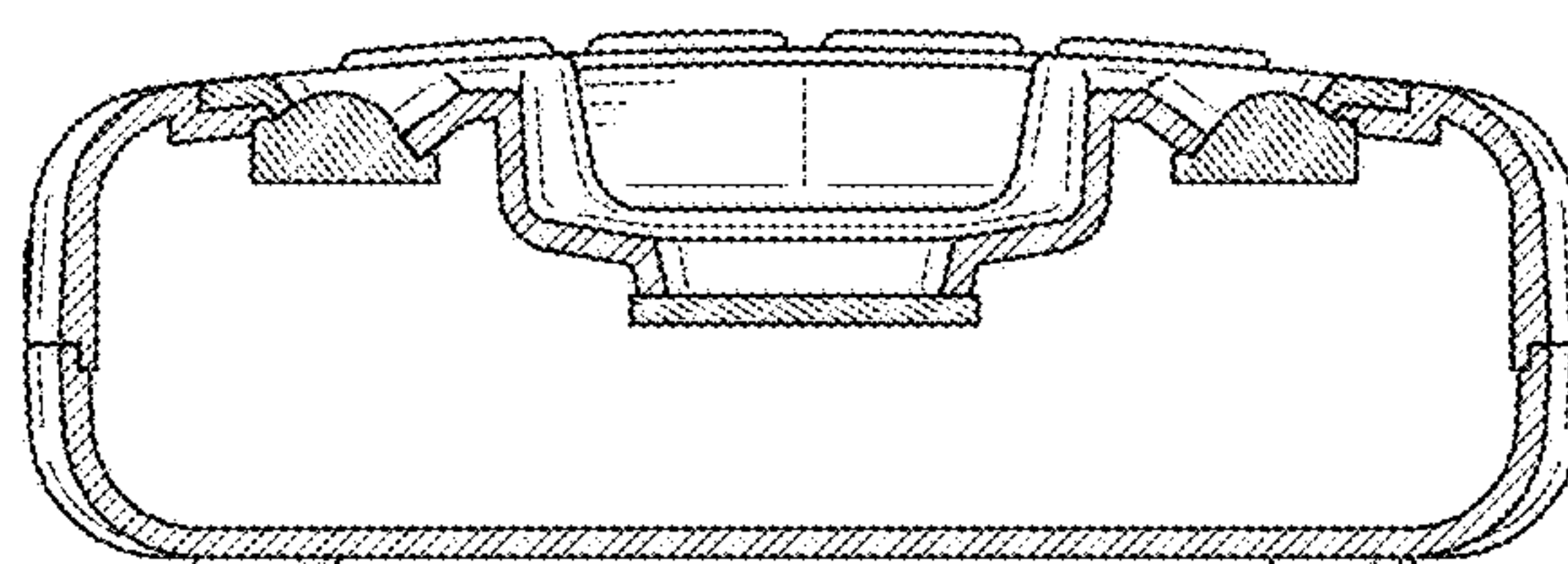


FIG. 9