



US00D731416S

(12) **United States Design Patent**  
**Pisharodi**

(10) **Patent No.:** **US D731,416 S**  
(45) **Date of Patent:** **\*\* Jun. 9, 2015**

(54) **CHARGE INTERRUPTING DEVICE**

(71) Applicant: **Perumala Corporation**, Brownsville,  
TX (US)

(72) Inventor: **Madhavan Pisharodi**, Brownsville, TX  
(US)

(73) Assignee: **Perumala Corporation**, Brownsville,  
TX (US)

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

(21) Appl. No.: **29/439,109**

(22) Filed: **Dec. 6, 2012**

5,283,511 A	2/1994	Keener	
5,497,067 A	3/1996	Shaw	
5,554,920 A	9/1996	Kokuga	
5,592,070 A	1/1997	Mino	
5,627,882 A	5/1997	Chien	
5,637,979 A	6/1997	Tamai	
5,936,385 A	8/1999	Patillon	
6,043,631 A	3/2000	Tsenter	
6,326,767 B1	12/2001	Small	
6,614,206 B1 *	9/2003	Wong et al.	320/136
6,617,827 B2	9/2003	Knish	
6,909,259 B2	6/2005	Chung	
6,956,353 B1	10/2005	Klitzner	
6,975,095 B2	12/2005	Ooi	
7,111,179 B1	9/2006	Girson	
D602,430 S *	10/2009	Green et al.	D13/110
D611,415 S *	3/2010	Andre et al.	D13/138.1
D623,136 S *	9/2010	Andre et al.	D13/138.1
D627,728 S *	11/2010	Smith et al.	D13/138.1

**Related U.S. Application Data**

(63) Continuation of application No. 13/590,896, filed on  
Aug. 21, 2012, now Pat. No. 8,598,850, which is a  
continuation-in-part of application No. 13/199,429,  
filed on Aug. 30, 2011, now abandoned.

(51) **LOC (10) Cl.** ..... **13-02**

(52) **U.S. Cl.**  
USPC ..... **D13/108**

(58) **Field of Classification Search**  
USPC ..... D13/107-110, 118-119, 184, 199;  
D14/251, 253, 432, 434; 320/107-115,  
320/130-136, 148-155  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

3,855,516 A	12/1974	Fairchild
4,289,836 A	9/1981	Lemelson
4,302,714 A	11/1981	Yefsky
4,668,902 A	5/1987	Zeller, Jr.
4,829,226 A	5/1989	Nakamura
5,075,614 A	12/1991	Whiting
5,179,335 A	1/1993	Nor

(Continued)

**OTHER PUBLICATIONS**

Notice of Allowance dated Oct. 28, 2013 for co-pending related U.S.  
Appl. No. 13/590,896.

(Continued)

*Primary Examiner* — Rosemary K Tarcza  
(74) *Attorney, Agent, or Firm* — D'Ambrosio & Menon,  
PLLC; Usha Menon

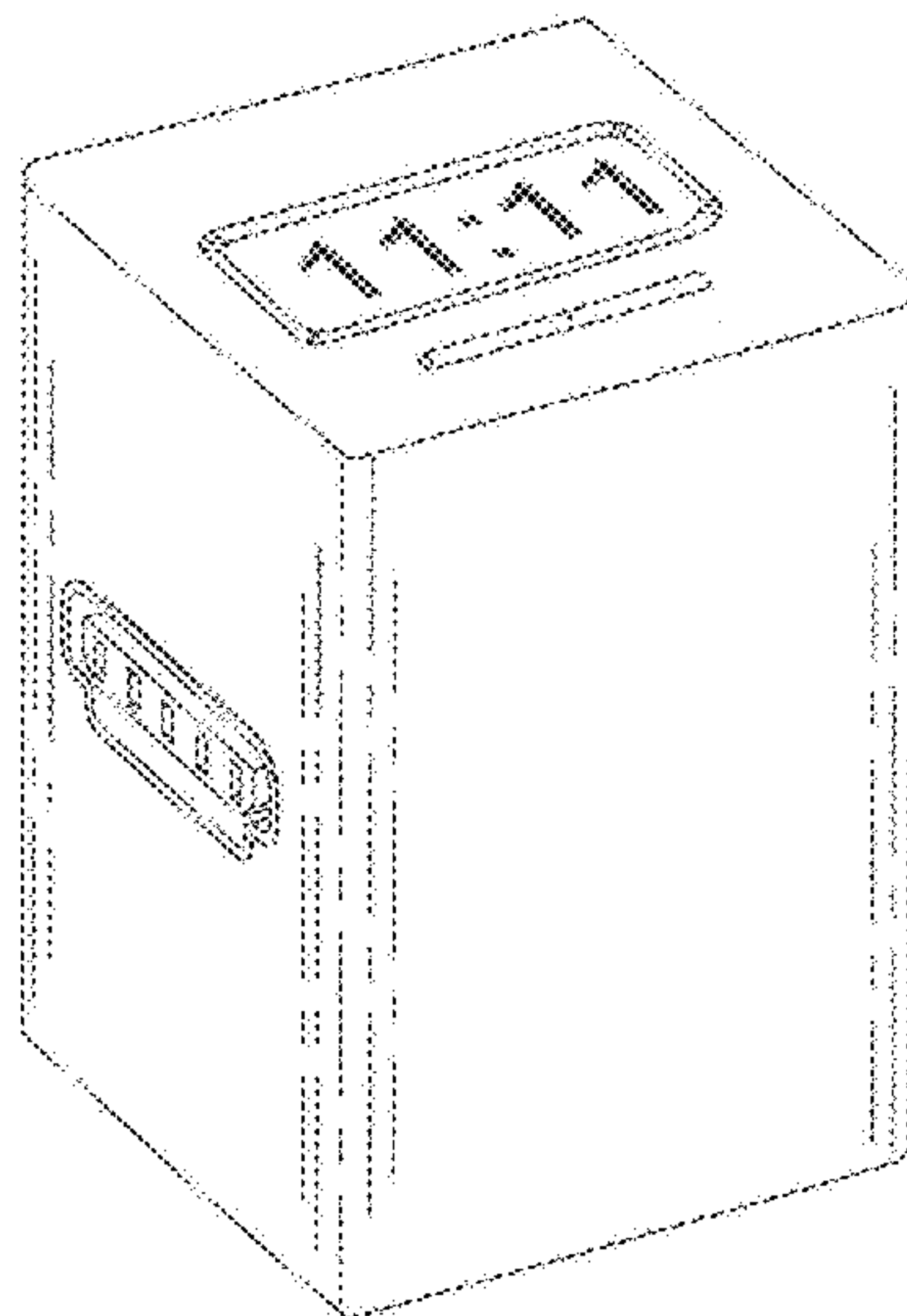
(57) **CLAIM**

The ornamental design for a charge interrupting device, as  
shown and described.

**DESCRIPTION**

FIG. 1 is a corner perspective view of a charge interrupting  
device showing our new design;  
FIG. 2 is a rear elevational view of a charge interrupting  
device; and,  
FIG. 3 is a top plan view of a charge interrupting device.

**1 Claim, 3 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

D627,729 S \* 11/2010 Smith et al. .... D13/138.1  
 RE42,385 E \* 5/2011 Wong et al. .... 320/136  
 D642,524 S \* 8/2011 Fitch et al. .... D13/110  
 D648,270 S \* 11/2011 Jiang ..... D13/103  
 D651,169 S \* 12/2011 Zhuan ..... D13/108  
 D653,209 S \* 1/2012 Lee ..... D13/110  
 D653,614 S \* 2/2012 Au ..... D13/108  
 D653,615 S \* 2/2012 Au ..... D13/108  
 D655,243 S \* 3/2012 Au ..... D13/108  
 8,188,713 B2 \* 5/2012 Lee ..... 320/111  
 D663,267 S \* 7/2012 Kim et al. .... D13/110  
 D673,909 S \* 1/2013 Zaslavsky et al. .... D13/110  
 D680,070 S \* 4/2013 Zaslavsky ..... D13/110  
 D680,492 S \* 4/2013 Smith et al. .... D13/110  
 D683,314 S \* 5/2013 Andre et al. .... D13/138.1  
 D685,736 S \* 7/2013 Inskeep ..... D13/110  
 D692,379 S \* 10/2013 Bae et al. .... D13/110  
 D692,825 S \* 11/2013 Izen et al. .... D13/108  
 D693,299 S \* 11/2013 Zaslavsky et al. .... D13/110  
 D693,764 S \* 11/2013 Hok Man ..... D13/108  
 8,598,850 B2 \* 12/2013 Pisharodi ..... 320/148  
 2004/0066171 A1 4/2004 Mori  
 2005/0085180 A1 4/2005 Ballay et al.  
 2005/0266301 A1 12/2005 Smith et al.  
 2006/0209637 A1 9/2006 May et al.  
 2006/0267549 A1 11/2006 Kung  
 2007/0070822 A1 3/2007 Booty, Jr.

2007/0300180 A1 12/2007 Hama et al.  
 2008/0185990 A1 8/2008 Hsu  
 2008/0290839 A1 11/2008 Hayashi  
 2008/0296975 A1 12/2008 Shakespeare et al.  
 2009/0045774 A1 \* 2/2009 Rayl et al. .... 320/114  
 2009/0158188 A1 6/2009 Bray et al.  
 2009/0179615 A1 7/2009 Amron  
 2009/0230925 A1 \* 9/2009 Nathan ..... 320/155  
 2010/0148729 A1 6/2010 Johnson et al.  
 2010/0188043 A1 7/2010 Kelty  
 2010/0213892 A1 \* 8/2010 DeSanctis ..... 320/107  
 2010/0289456 A1 11/2010 Veselic et al.  
 2011/0227535 A1 9/2011 Caskey et al.  
 2011/0279080 A1 11/2011 Fischer et al.  
 2013/0049700 A1 \* 2/2013 Pisharodi ..... 320/148

OTHER PUBLICATIONS

Office Action dated Jul. 15, 2013 for co-pending related U.S. Appl. No. 13/590,896.  
 “Enviropug—Mobile Phone Energy Saving Adapter,” Nov. 15, 2010; <http://www.envirogadget.com/office-eco-gadgets/enviropug-mobile-phone-energy-saving-adapter/>.  
 “Eco Charger with Apple Compatible Adapter for Cell Phone by Volt Star,” Sep. 27, 2010; <http://www.envirogadget.com/energy-saving/eco-charger-with-apple-compatible-adapter-for-cell-phone-by-volt-star/>.  
 Search report and Written Opinion dated Nov. 15, 2012 for co-pending PCT patent app. No. PCT/US2012/052797.

\* cited by examiner

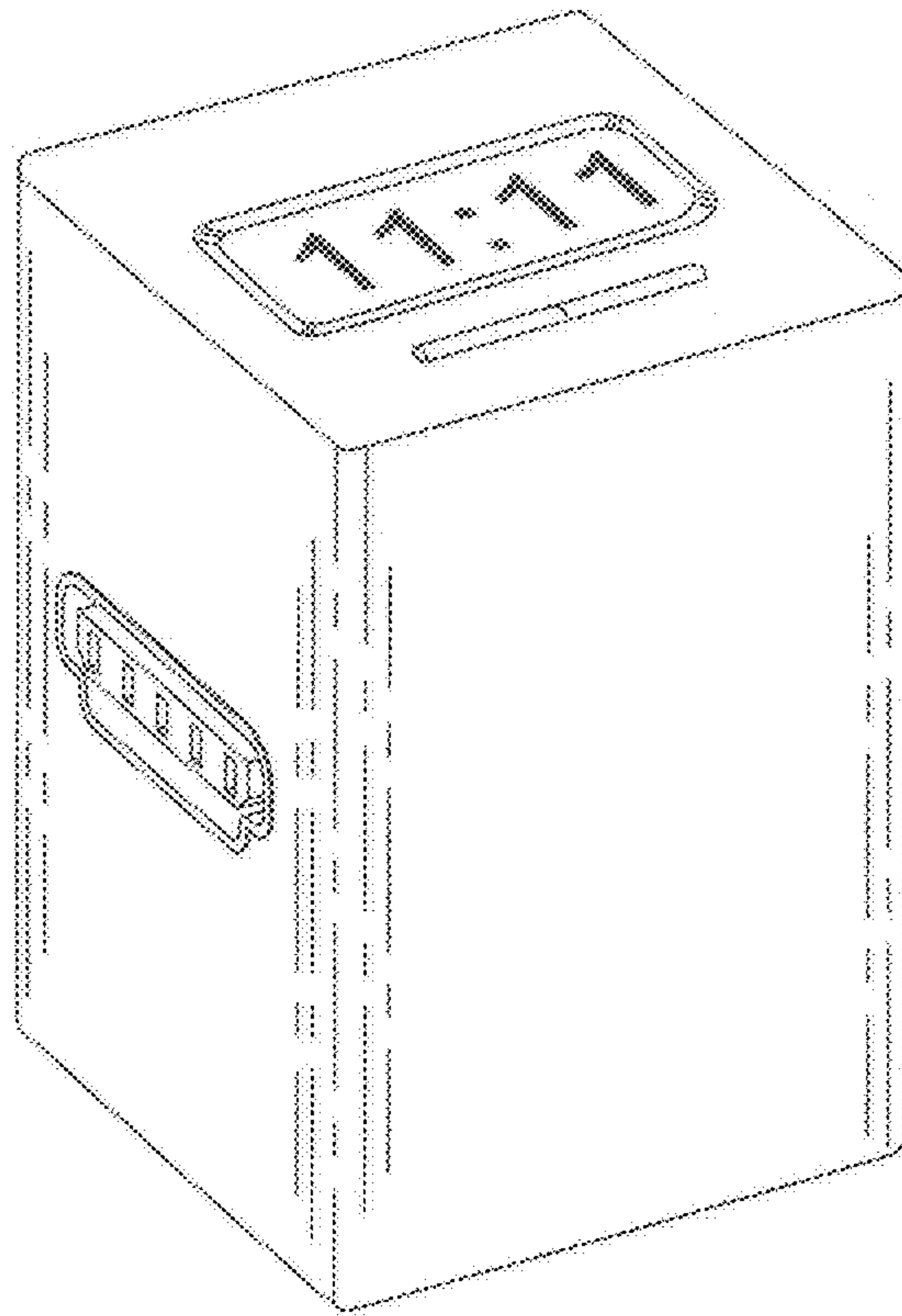


FIGURE 1

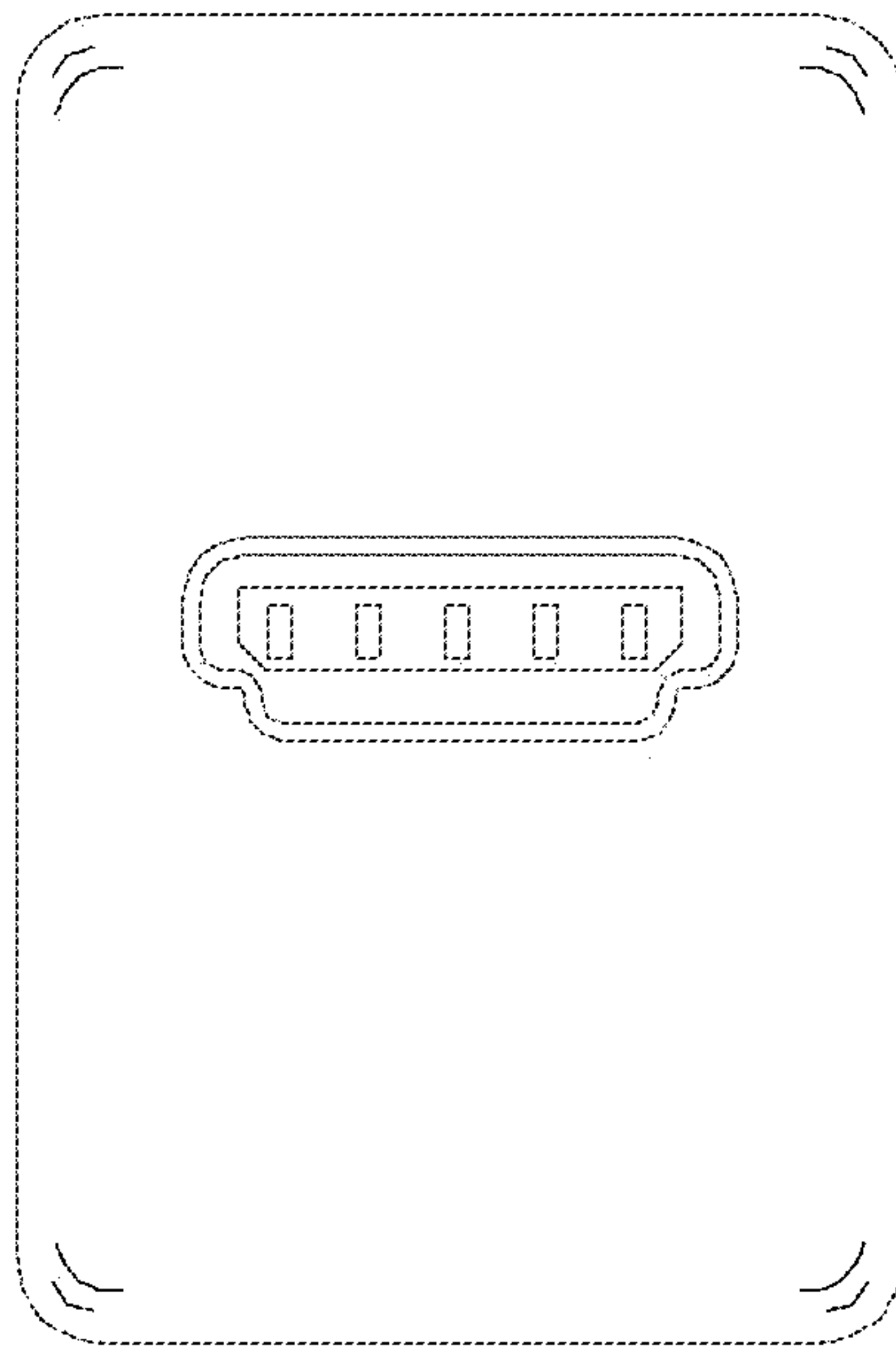


FIGURE 2

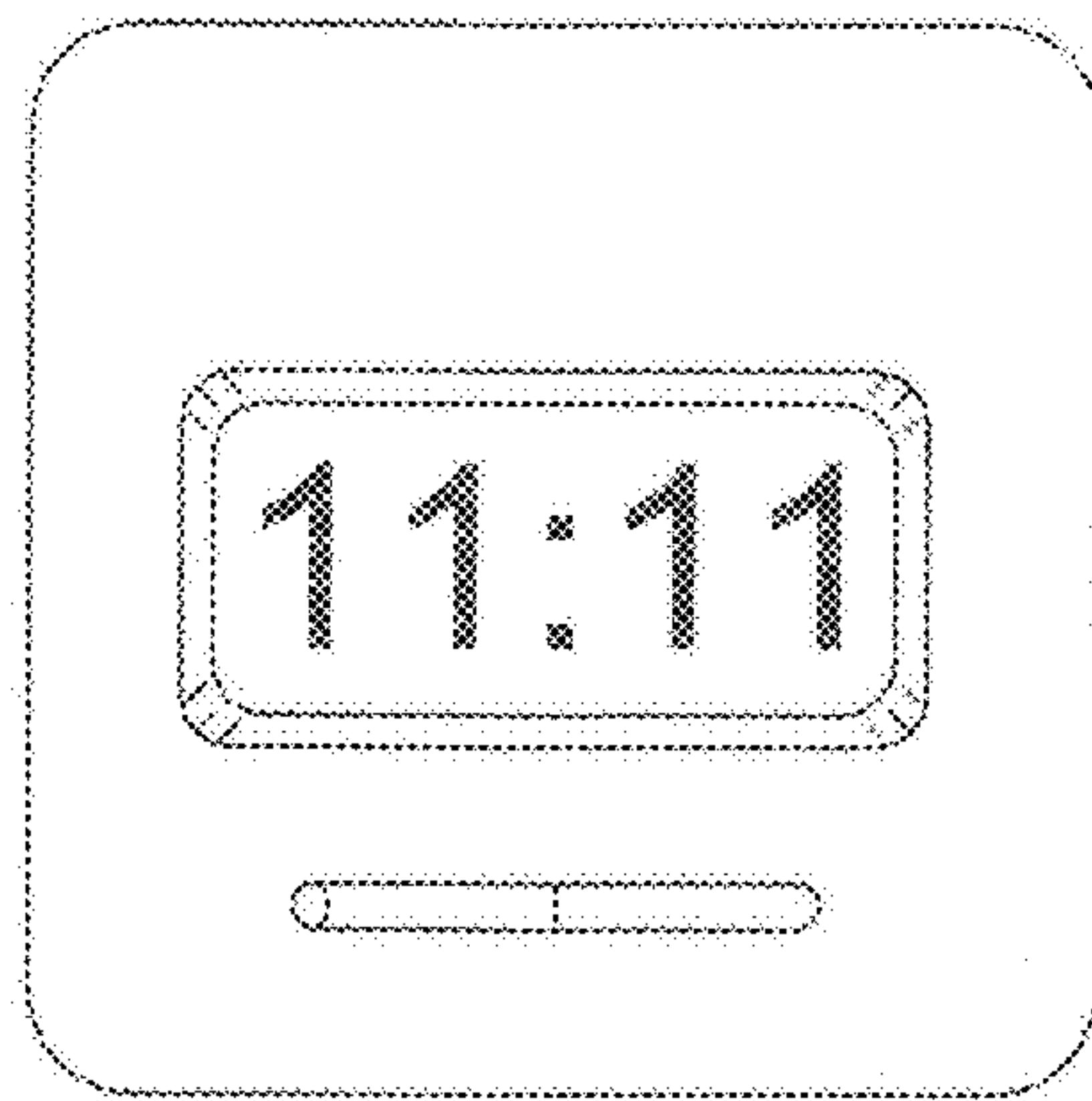


FIGURE 3