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(12) **United States Design Patent** (10) **Patent No.:** **US D874,408 S**  
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(54) **ELECTRONIC OVERLOAD RELAY**

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(\*) Notice: This patent is subject to a terminal disclaimer.

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

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(30) **Foreign Application Priority Data**

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(51) **LOC (12) Cl.** ..... **13-03**

(52) **U.S. Cl.**  
USPC ..... **D13/159**

(58) **Field of Classification Search**

USPC ..... D13/107, 112, 118, 123, 158-162, 173,  
D13/174, 184, 199

CPC ..... G05B 23/0205; H01H 1/00; H01H 9/00;  
H01H 9/02; H01H 9/24; H01H 9/26;  
H01H 11/00; H01H 33/02; H01H 36/00;  
H01H 47/00; H01H 50/14; H01H 61/00;  
H01H 71/00; H01H 71/02; H01H 71/10;  
H01H 71/12; H01H 71/16; H01H 73/30;  
H01H 83/00; H02H 3/02; H02H 3/093;  
H02H 7/08; H05K 7/02

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

- 5,606,299 A \* 2/1997 Innes ..... H01H 50/021  
335/132
- D406,105 S \* 2/1999 Gonser ..... D13/159
- 7,012,493 B1 \* 3/2006 Marks ..... H01H 71/126  
335/167
- D521,597 S \* 5/2006 Nimberger ..... D23/233

- D608,296 S \* 1/2010 Shin ..... D13/159
- D640,989 S \* 7/2011 Detemple ..... D13/159
- D641,326 S \* 7/2011 Detemple ..... D13/159
- D689,984 S \* 9/2013 Miyazoe ..... D23/233

(Continued)

**FOREIGN PATENT DOCUMENTS**

KR 100370106 \* 2/2003 ..... H01H 50/14

**OTHER PUBLICATIONS**

Flowcontrolnetwork.com: What a pump's motor protection really is trying to say, dated Jun. 13, 2017, [online], [site visited Nov. 8, 2018]. Available from Internet, <URL: https://www.flowcontrolnetwork.com/what-a-pumps-motor-protection-relay-is-trying-to-say/> (Year: 2017).\*

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(57) **CLAIM**

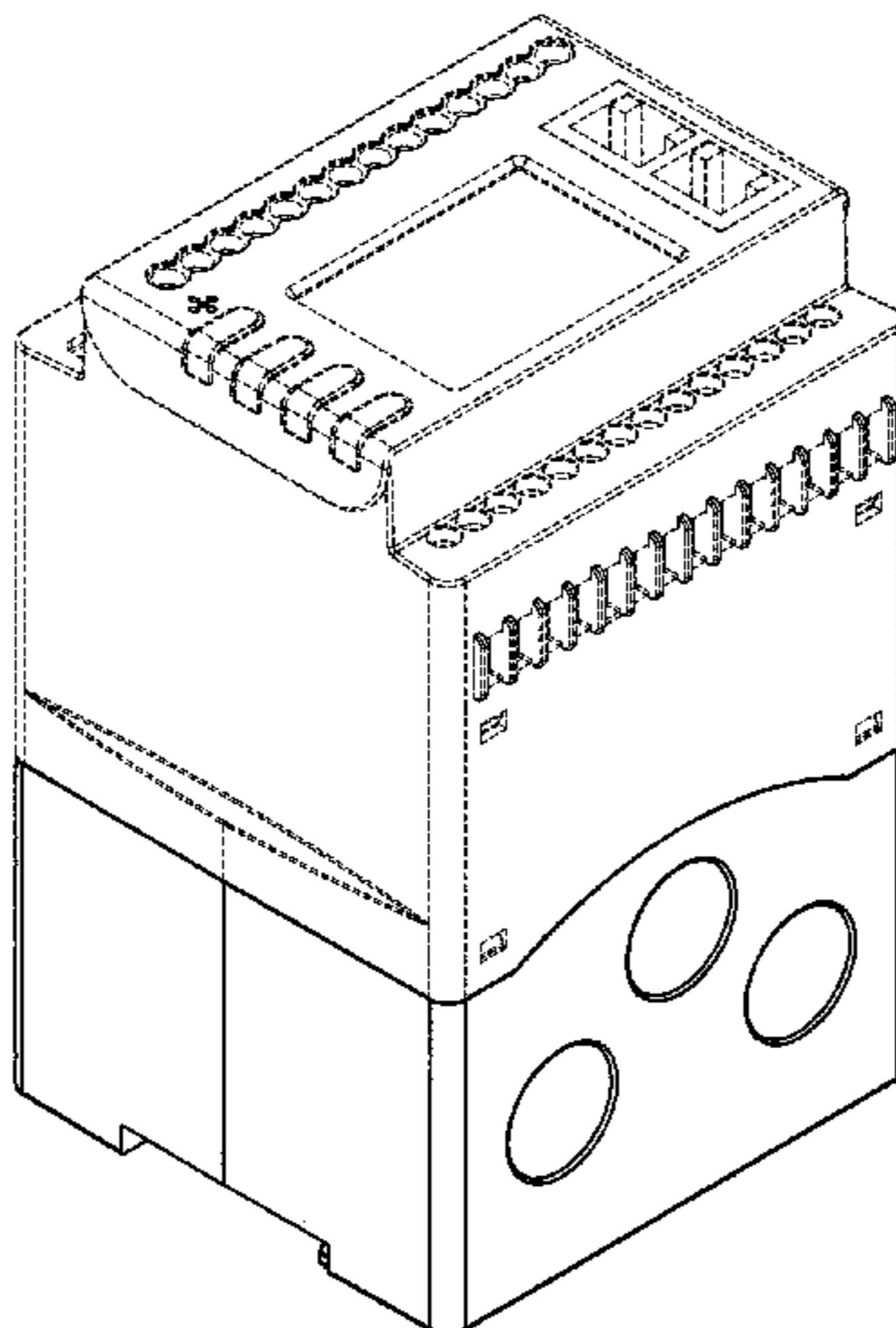
The ornamental design for electronic overload relay, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of the electronic overload relay in accordance with the present invention; FIG. 2 is a front elevational view thereof; FIG. 3 is a rear elevational view thereof; FIG. 4 is a left side elevational view thereof; FIG. 5 is a right side elevational view thereof; FIG. 6 is a top plan view thereof; and, FIG. 7 is a bottom plan view thereof.

The broken line portion of the figure drawings is included to show portions of the electronic overload relay that form no part of the claimed design.

**1 Claim, 7 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

D690,392 S \* 9/2013 Miyazoe ..... D23/233  
D719,105 S \* 12/2014 Shin ..... D13/159  
D750,023 S \* 2/2016 Sasano ..... D13/146

OTHER PUBLICATIONS

mPro-200 Eletronic Motor Protection Relay, dated Feb. 29, 2016, [online], [site visited Nov. 8, 2018]. Available from Internet, <URL: <https://cselectric.co.in/wp-content/uploads/2016/05/mPro-200-Catalogue.pdf>> (Year: 2016).\*

\* cited by examiner

Fig. 1

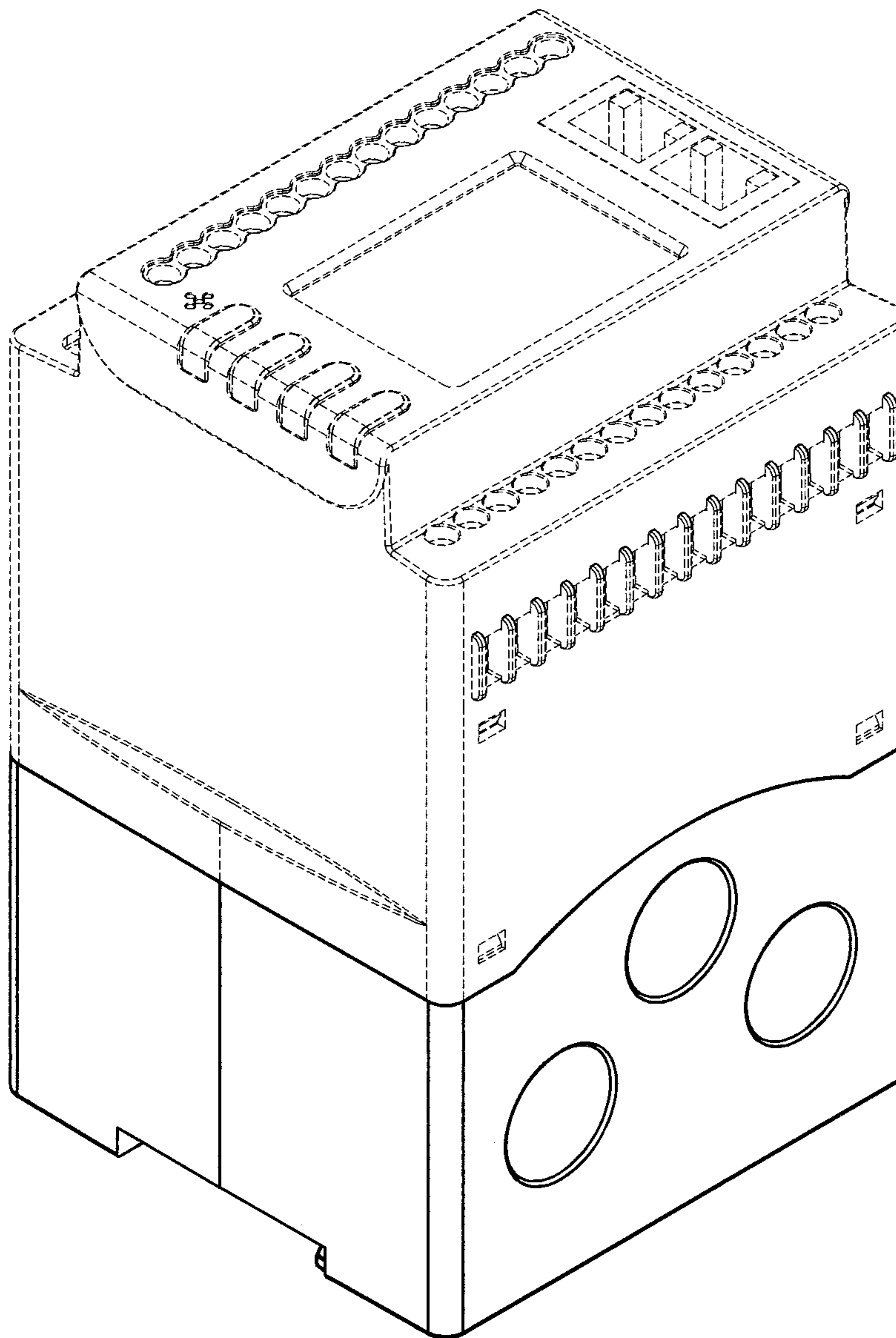


Fig. 2

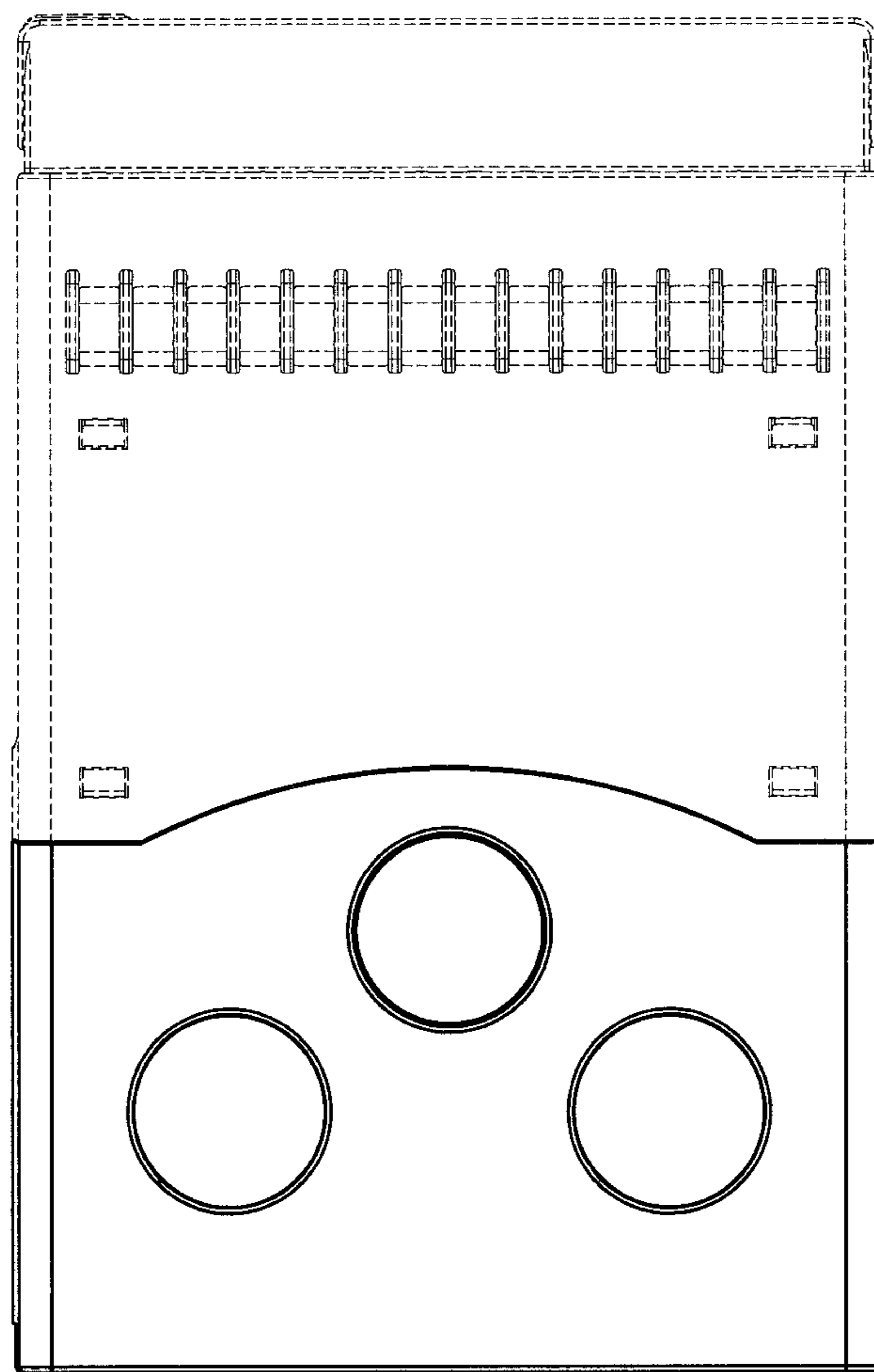


Fig. 3

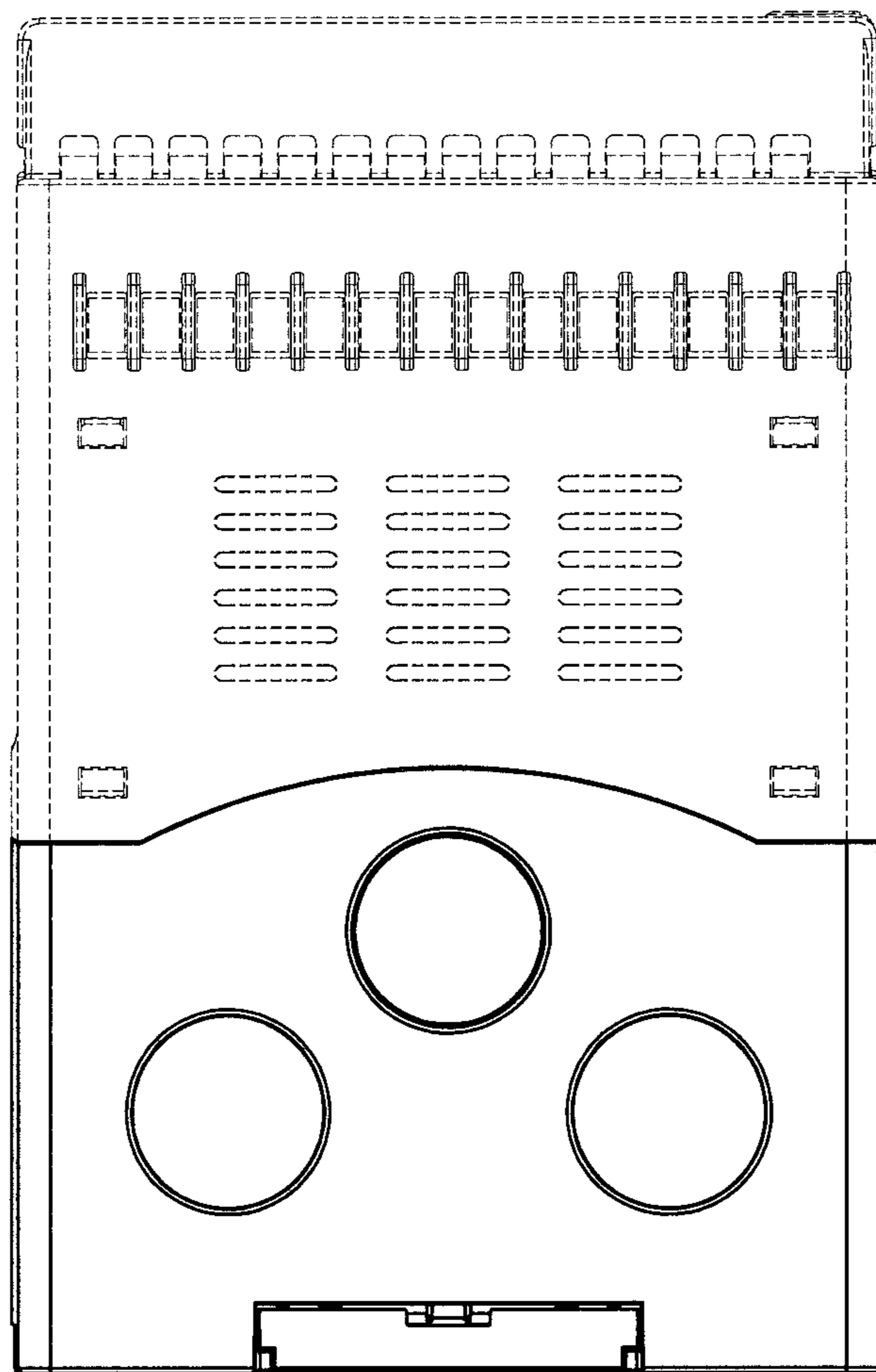


Fig. 4

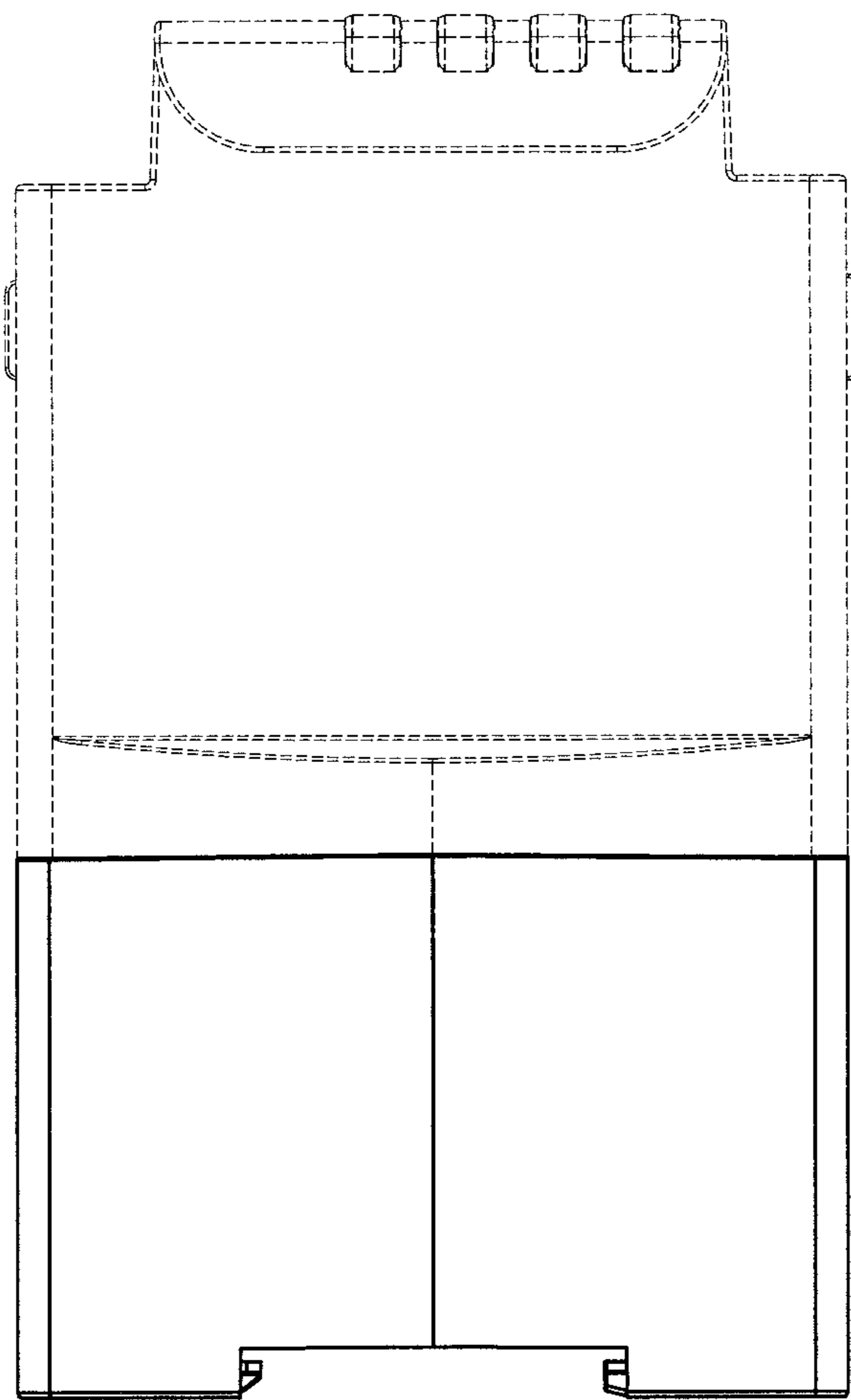


Fig. 5

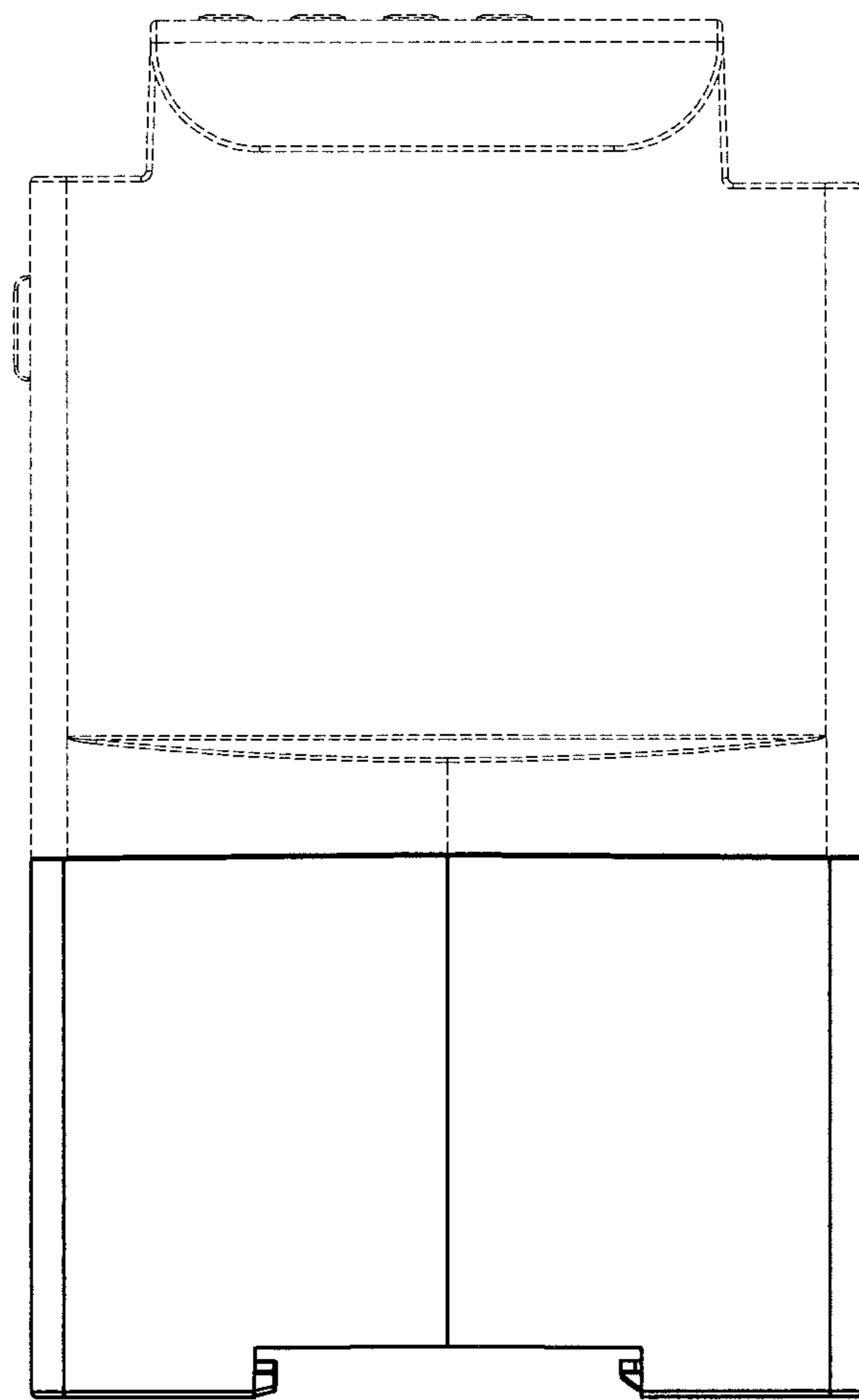


Fig. 6

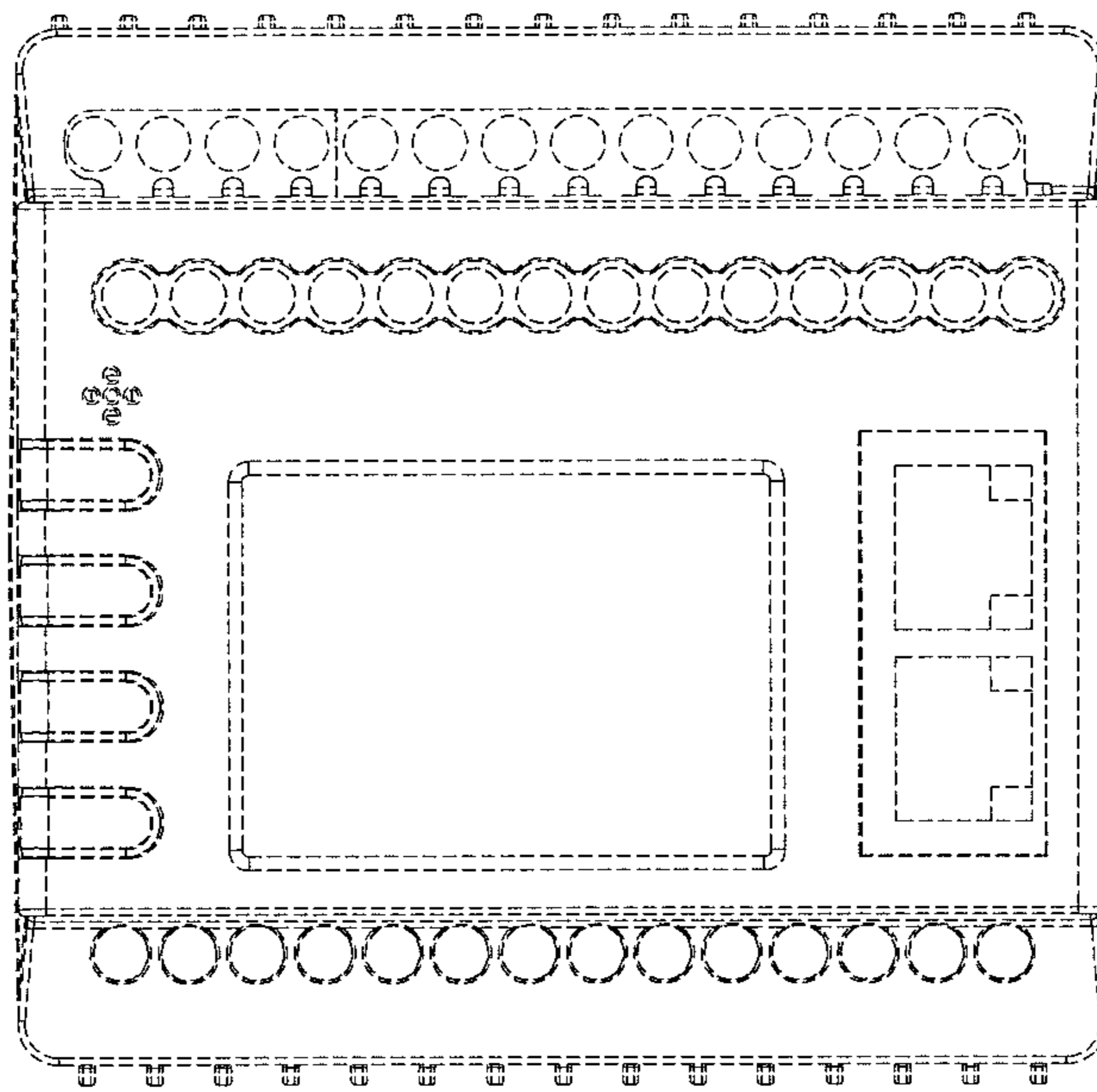




Fig. 7

