



US00D647058S

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

(10) **Patent No.:** **US D647,058 S**  
(45) **Date of Patent:** **\*\* Oct. 18, 2011**

- (54) **VERTICAL ELECTRICAL CONNECTOR**
- (75) Inventor: **Hung Viet Ngo**, Harrisburg, PA (US)
- (73) Assignee: **FCI Americas Technology LLC**,  
Carson City, NV (US)
- (\*\*) Term: **14 Years**
- (21) Appl. No.: **29/389,028**
- (22) Filed: **Apr. 6, 2011**

[http://www.molex.com-molex-products-family?channel=products&chanName=family&pageTitle=Introduction&key=extreme\\_poweredge](http://www.molex.com-molex-products-family?channel=products&chanName=family&pageTitle=Introduction&key=extreme_poweredge), EXTreme PowerEdge™: EXTreme Power Edge™ connectors with signal contacts for combined high-power and signal card edge or busy bar tab applications, printed Feb. 25, 2010, 1 page.

(Continued)

*Primary Examiner* — Daniel Bui  
(74) *Attorney, Agent, or Firm* — Woodcock Washburn LLP

**Related U.S. Application Data**

- (63) Continuation of application No. 29/383,232, filed on Jan. 14, 2011, now Pat. No. Des. 640,638, and a continuation of application No. 29/364,019, filed on Jun. 17, 2010, now Pat. No. Des. 640,637, and a continuation of application No. 29/345,798, filed on Oct. 22, 2009, now Pat. No. Des. 623,138, and a continuation of application No. 29/331,013, filed on Jan. 16, 2009, now Pat. No. Des. 608,293.
- (51) **LOC (9) Cl.** ..... **13-03**
- (52) **U.S. Cl.** ..... **D13/147**
- (58) **Field of Classification Search** ..... D13/146–147,  
D13/154, 156, 184; 439/159–160, 260, 325,  
439/329, 395, 492, 495, 607.01, 607.04,  
439/607.05, 607.17, 607.25, 607.34, 607.53,  
439/630

See application file for complete search history.

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(57) **CLAIM**

The ornamental design for a vertical electrical connector, as shown and described.

**DESCRIPTION**

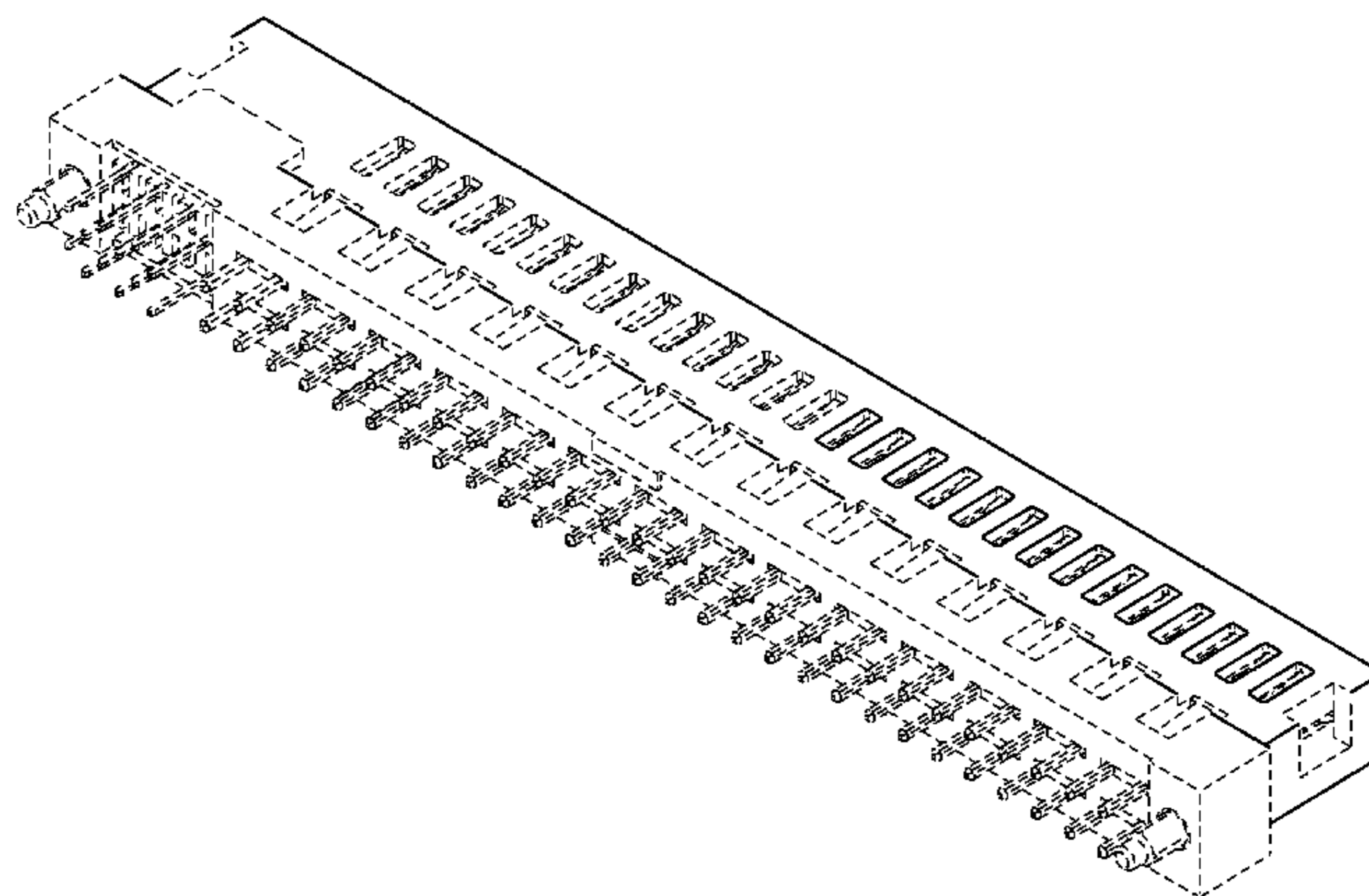
This application is related by subject matter to U.S. Design patent application Ser. Nos. 29/331,017 filed on Jan. 16, 2009, now U.S. Pat. No. D610,548; 29/330,990 filed on Jan. 16, 2009, now U.S. Pat. No. D606,496; and 29/330,997 filed on Jan. 16, 2009, now U.S. Pat. No. D606,497, and is further related by subject matter to U.S. Design patent application Ser. No. 29/345,790, filed Oct. 22, 2009, now U.S. Pat. No. D. 628,536 and U.S. Design patent application Ser. No. 29/345,808, filed Oct. 22, 2009, now U.S. Pat. No. D. 631,442.

FIG. 1 is a top, left, rear perspective view of a vertical electrical connector according to my design; FIG. 2 is a top plan view thereof; FIG. 3 is a bottom plan view thereof; FIG. 4 is a rear elevation view thereof; FIG. 5 is a front elevation view thereof; FIG. 6 is a left side elevation view thereof; and, FIG. 7 is a right side elevation view thereof.

The broken line portion of the figure drawings is included to show unclaimed subject matter, and forms no part of the claimed design.

In a preferred embodiment, the nature of this product is a vertical electrical connector in the form of an electrical connector housing configured for retaining a plurality of electrical contacts.

**1 Claim, 4 Drawing Sheets**





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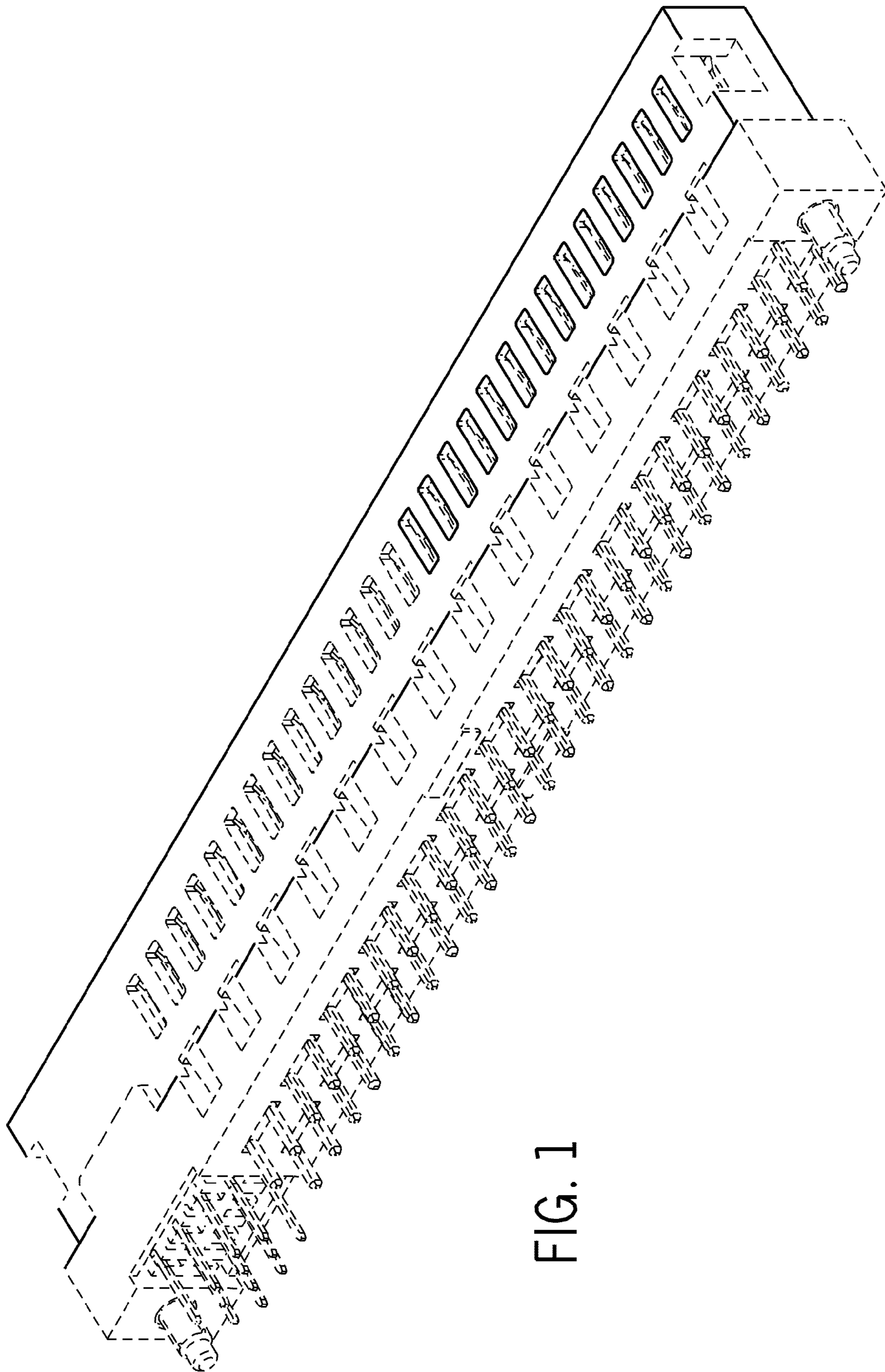


FIG. 1

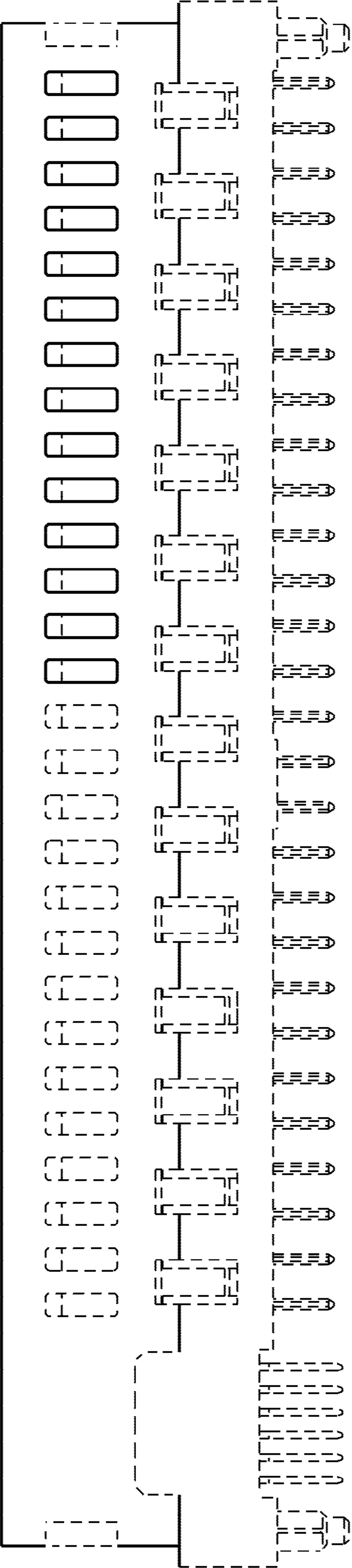


FIG. 2

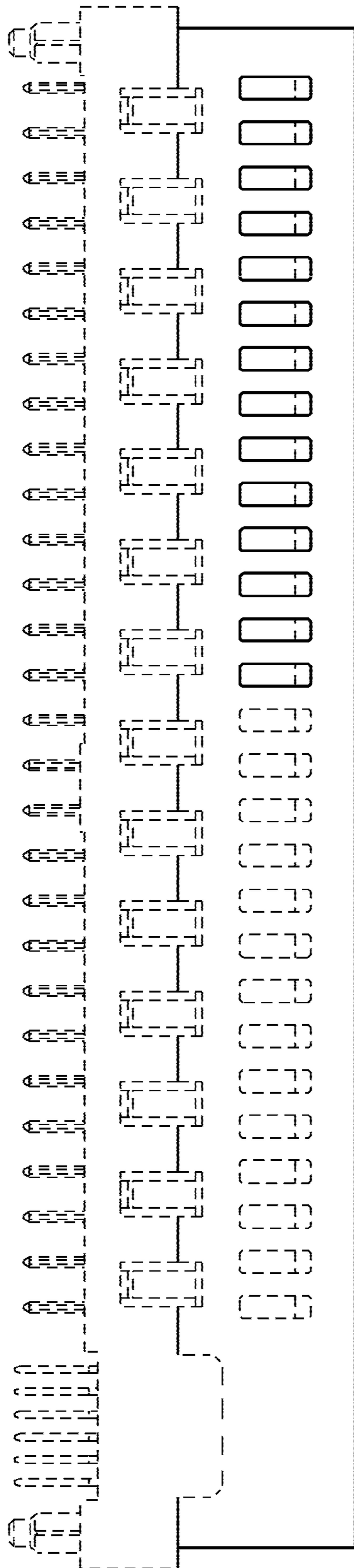


FIG. 3

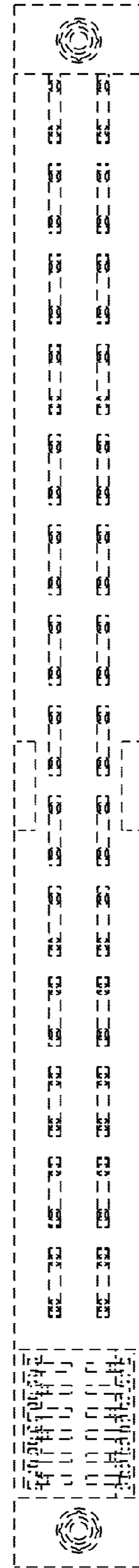


FIG. 4

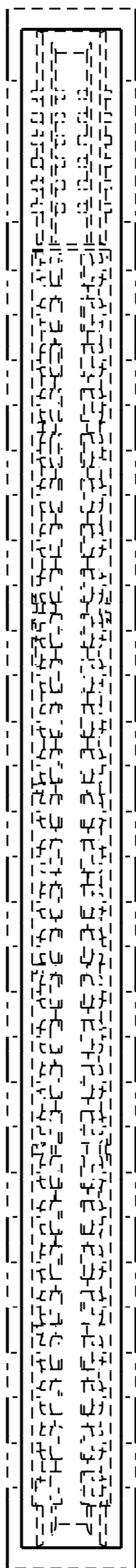


FIG. 5

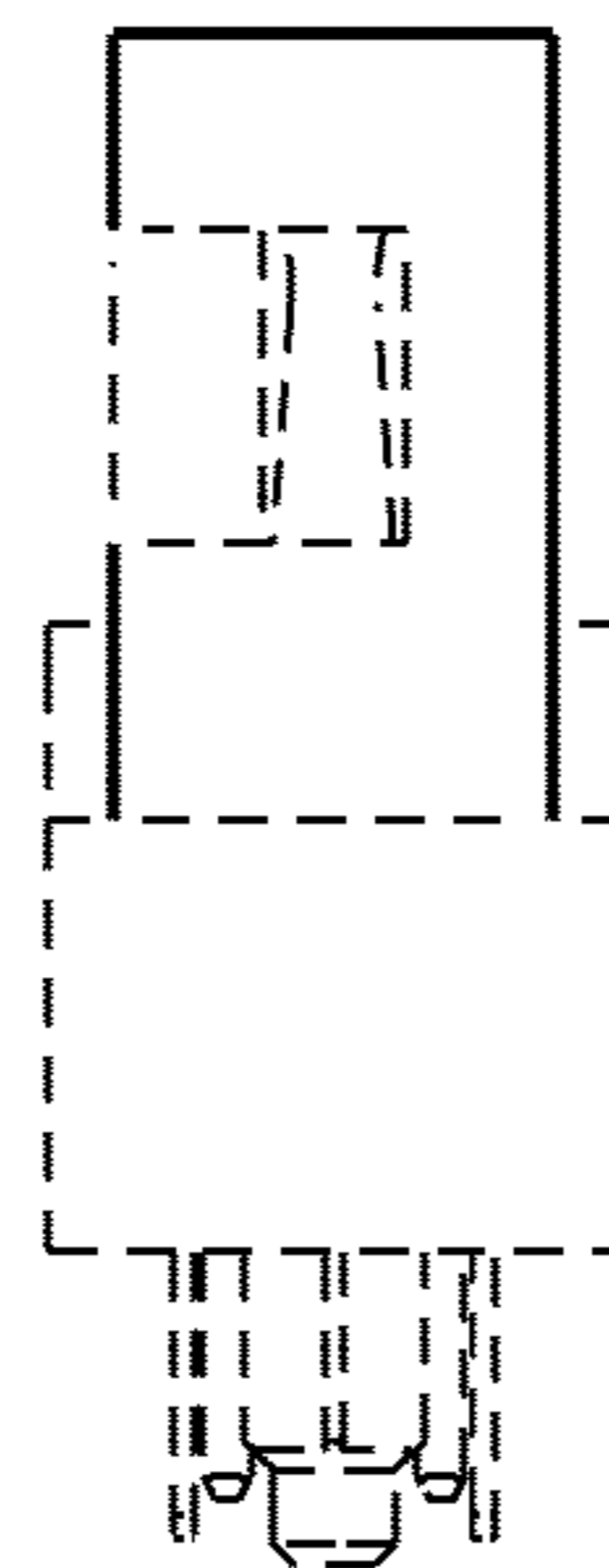


FIG. 6

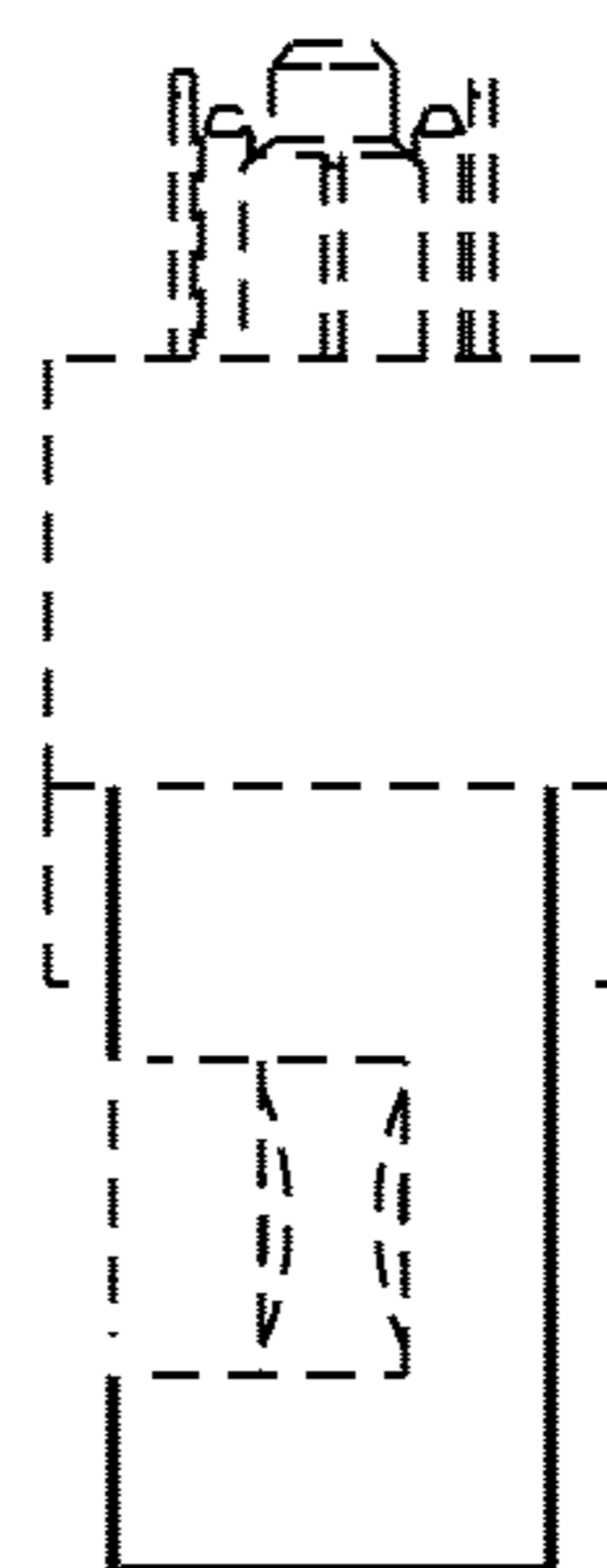


FIG. 7