



US00D806646S

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

(10) **Patent No.:** **US D806,646 S**  
(45) **Date of Patent:** **\*\* Jan. 2, 2018**

(54) **BATTERY MODULE COOLING FINS AND FOOTINGS**

(71) Applicant: **Johnson Controls Technology Company, Holland, WI (US)**

(72) Inventor: **Richard M. DeKeuster, Racine, WI (US)**

(73) Assignee: **Johnson Controls Technology Company, Milwaukee, WI (US)**

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

(21) Appl. No.: **29/518,933**

(22) Filed: **Feb. 27, 2015**

(51) **LOC (11) Cl.** ..... **13-02**

(52) **U.S. Cl.**  
USPC ..... **D13/103; D13/119**

(58) **Field of Classification Search**  
USPC ..... D13/103, 104, 110, 119, 179, 184, 199  
CPC ..... H01L 23/3672; H01L 23/467; H01L 2924/00; H01L 2924/0002; H01L 33/64; H01R 13/641; F28F 2215/00; F28F 2215/08  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D303,370 S \* 9/1989 Kondo ..... D13/110  
5,309,983 A \* 5/1994 Bailey ..... H01L 23/40  
165/122  
D378,081 S \* 2/1997 Antonczak ..... D13/184  
D383,434 S \* 9/1997 Hooke ..... D13/103  
5,959,837 A \* 9/1999 Yu ..... G06F 1/20  
165/104.33

6,269,863 B1 \* 8/2001 Wyler ..... G06F 1/20  
165/185  
D481,017 S \* 10/2003 Hsia ..... D13/179  
6,668,910 B2 12/2003 Gawve  
D643,811 S \* 8/2011 Qualls ..... D13/106  
D672,728 S \* 12/2012 Lin ..... D13/179  
8,841,016 B2 9/2014 Anderson et al.  
D724,535 S \* 3/2015 Wang ..... D13/110  
2005/0108877 A1 \* 5/2005 Peterson ..... B23P 11/00  
29/890.03  
2013/0128461 A1 5/2013 Nagasawa  
2013/0157100 A1 6/2013 Heise et al.

**FOREIGN PATENT DOCUMENTS**

JP 2008270297 A 11/2008

\* cited by examiner

*Primary Examiner* — Derrick Holland

(74) *Attorney, Agent, or Firm* — Fletcher Yoder, P.C.

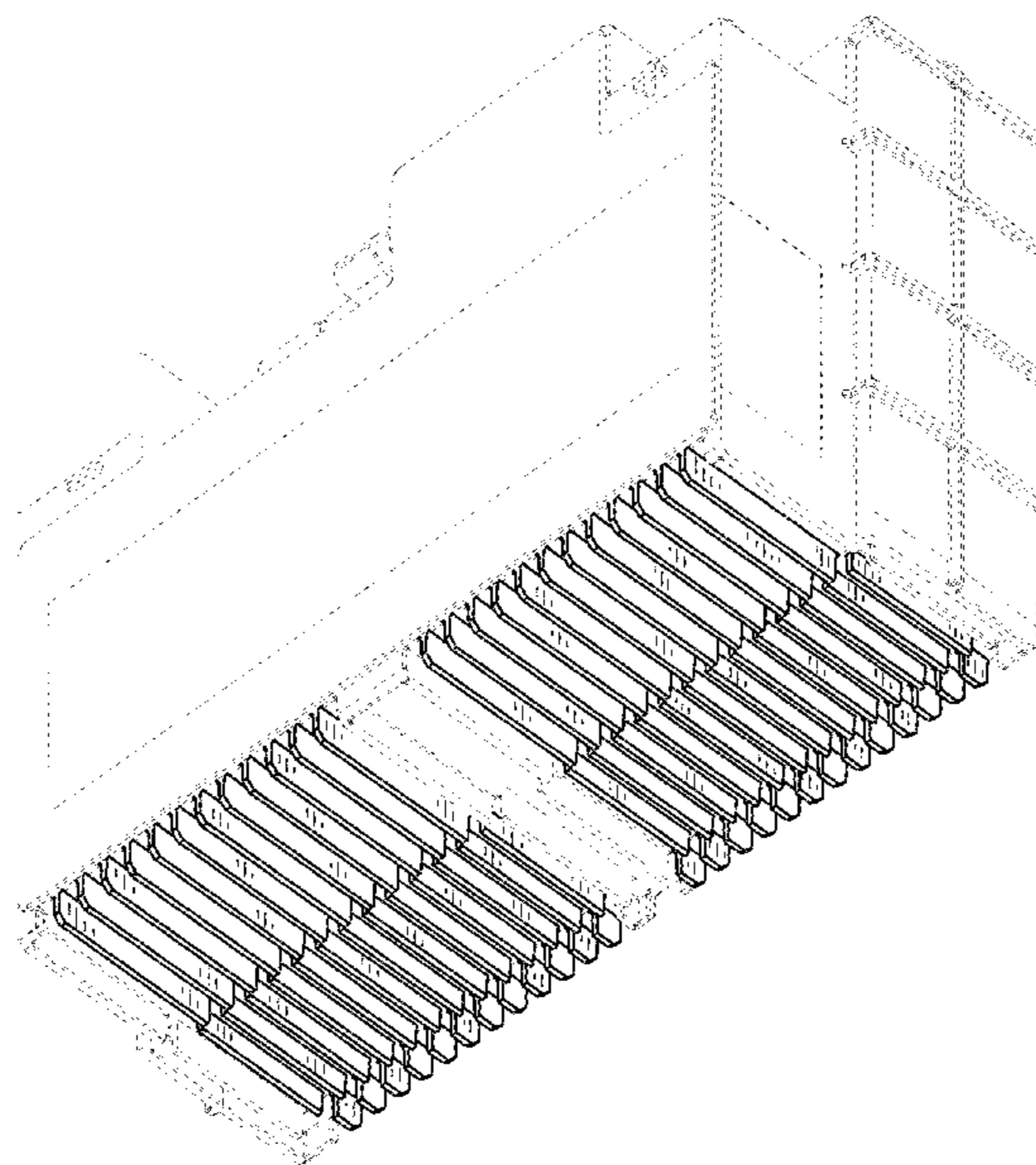
(57) **CLAIM**

The ornamental design for a battery module cooling fins and footings, as shown and described.

**DESCRIPTION**

FIG. 1 is a first perspective view of a battery module cooling fins and footings showing my new design; FIG. 2 is a second perspective view thereof; FIG. 3 is a front elevation view thereof; FIG. 4 is a rear elevation view thereof; FIG. 5 is a bottom plan view thereof; FIG. 6 is a top plan view thereof; FIG. 7 is a right side elevation view thereof; and, FIG. 8 is a left side elevation view thereof. The broken lines shown represent unclaimed subject matter and form no part of the claimed design.

**1 Claim, 7 Drawing Sheets**



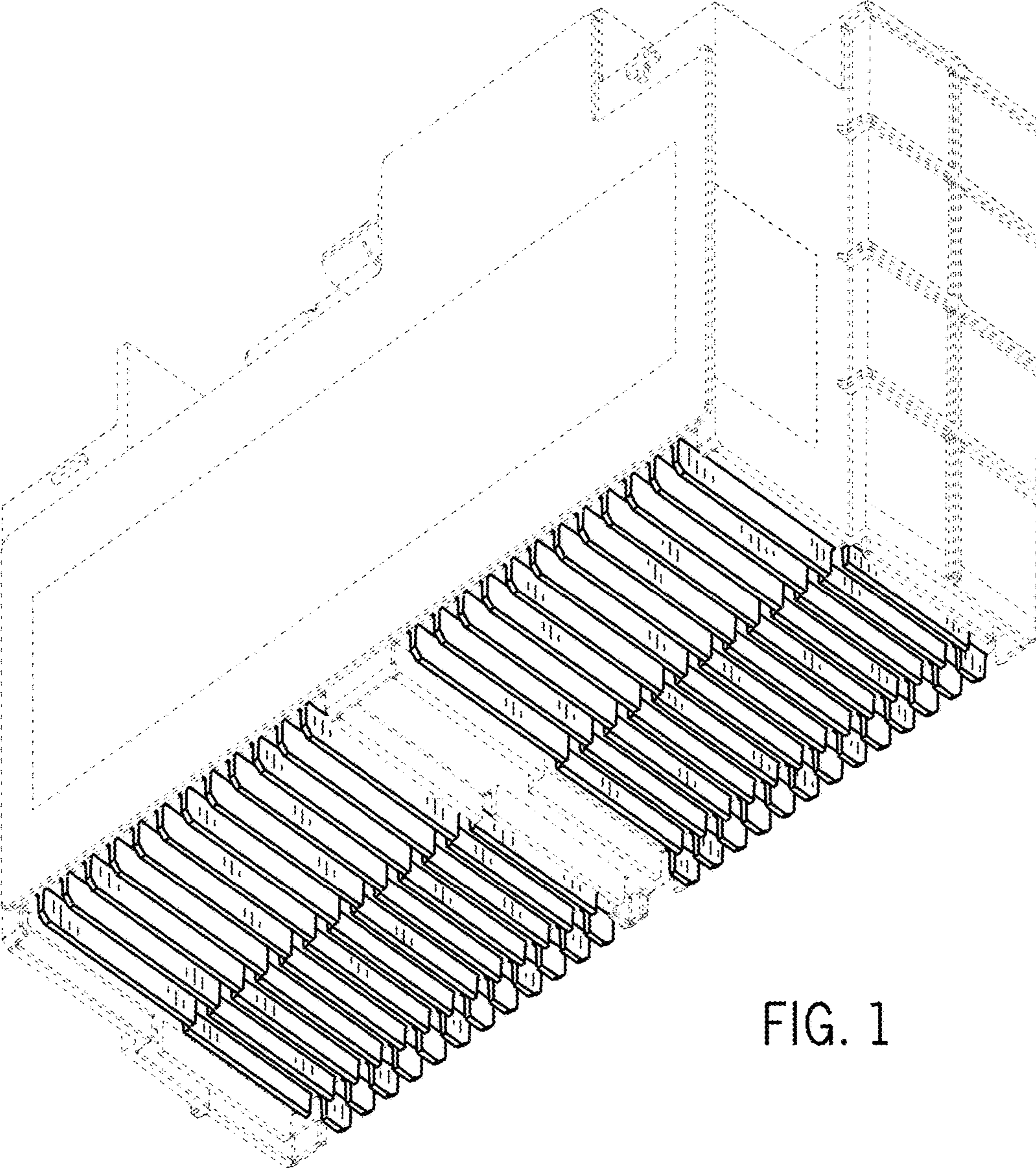


FIG. 1

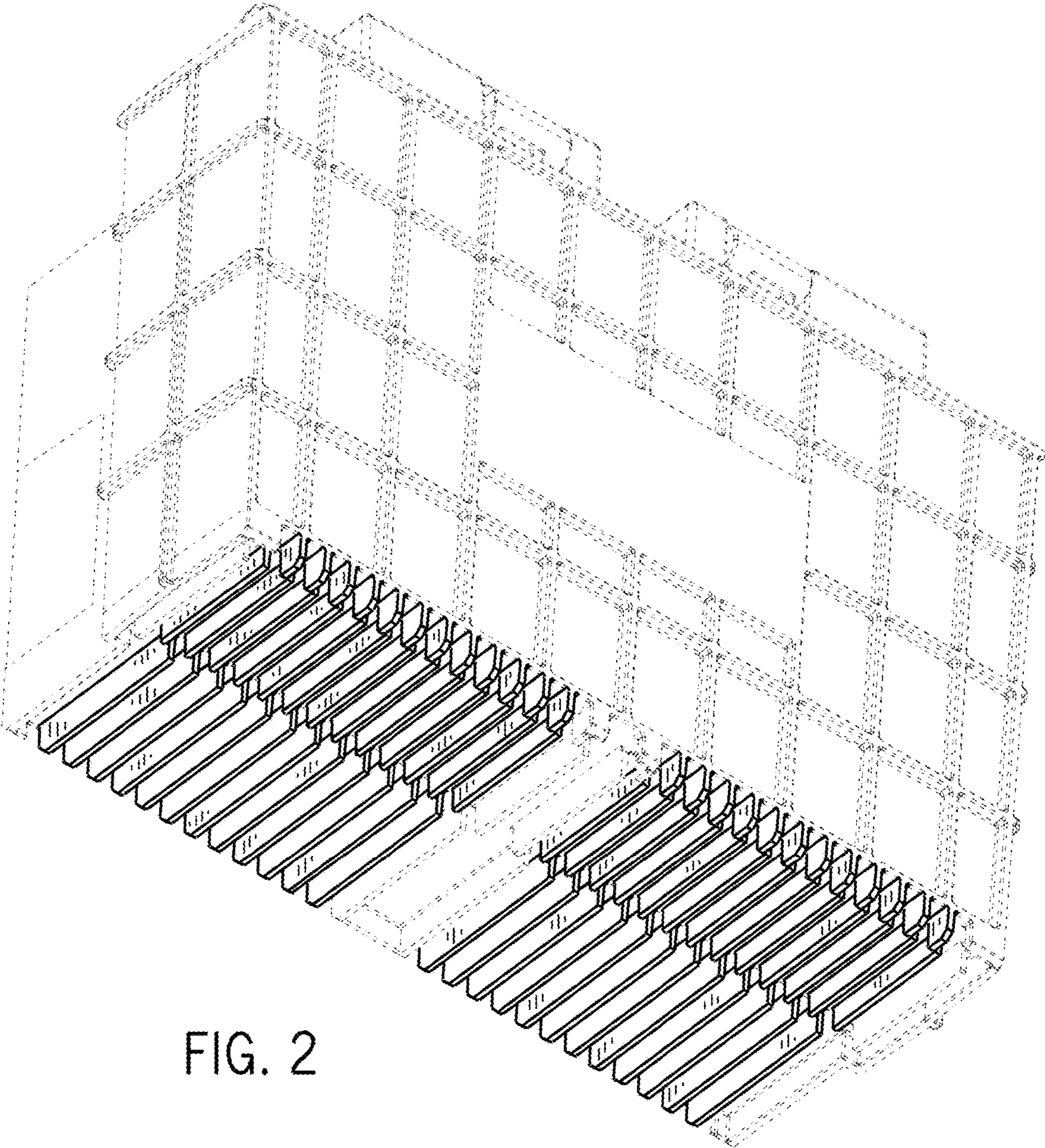


FIG. 2

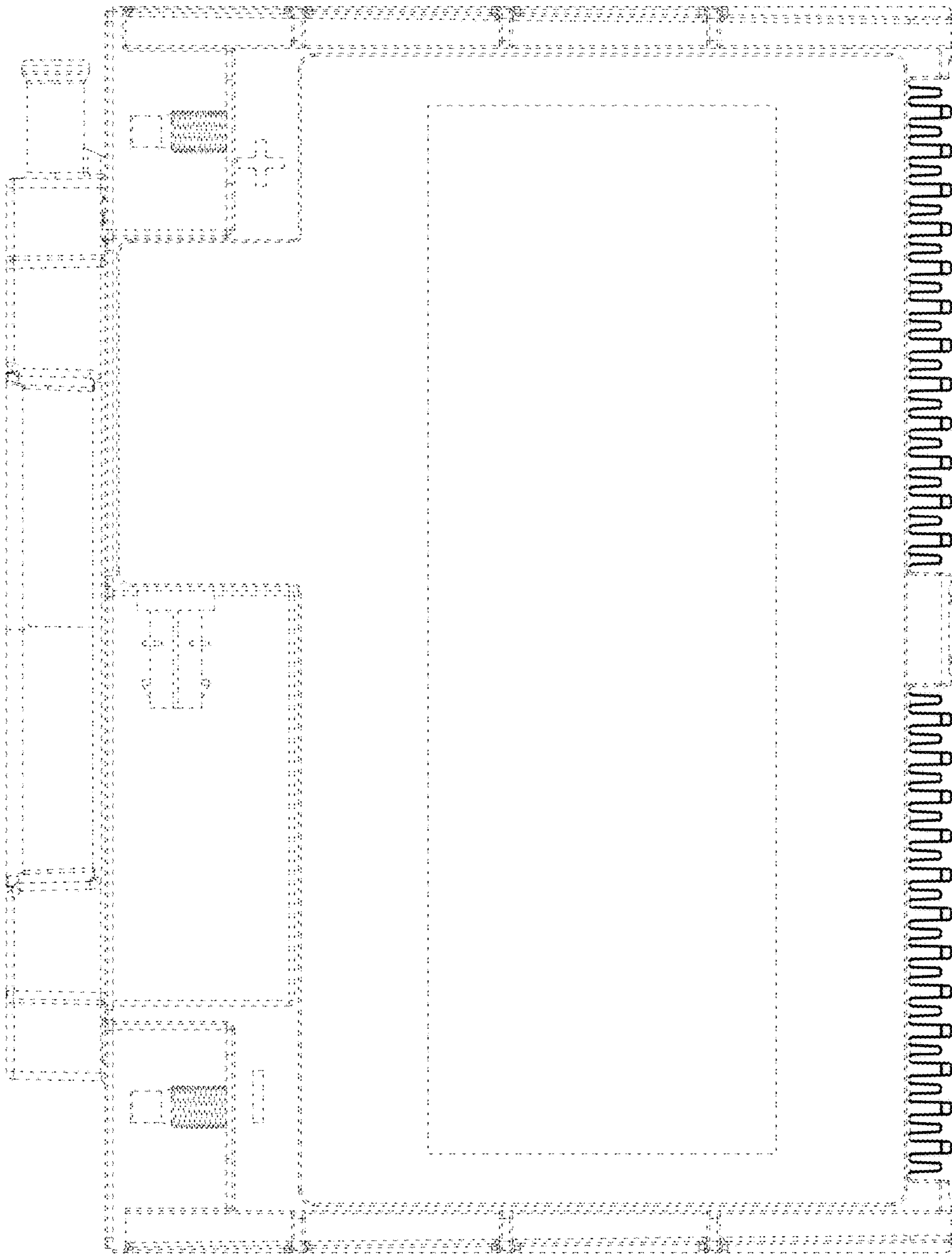


FIG. 3

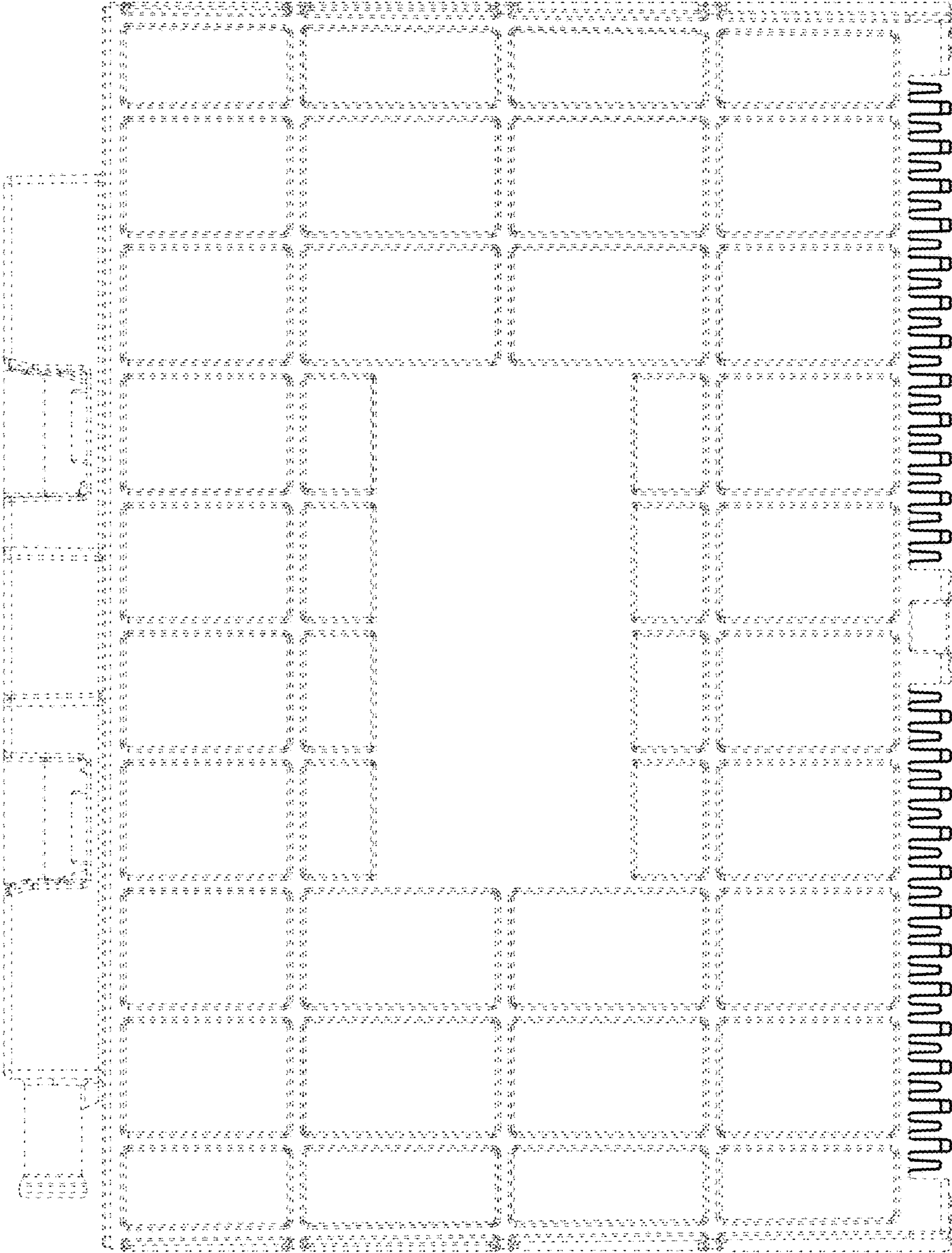


FIG. 4

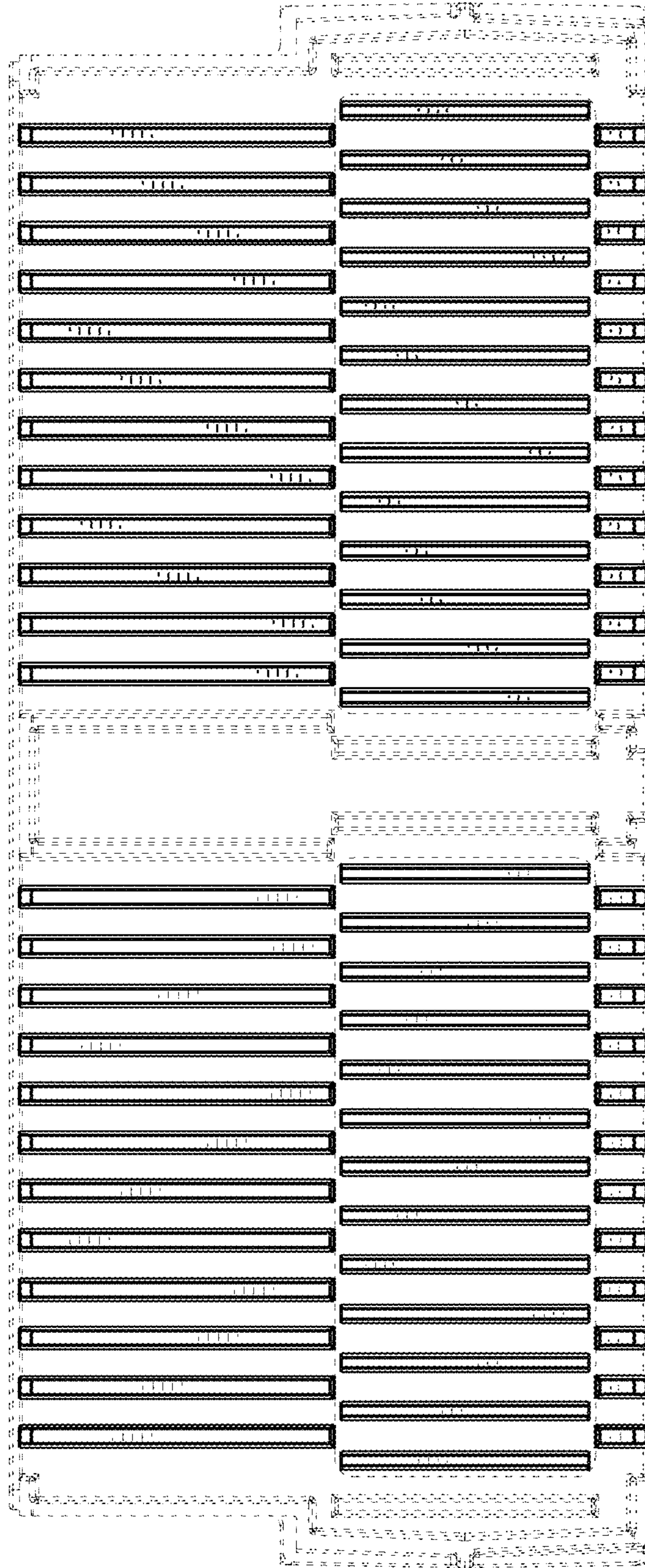


FIG. 5

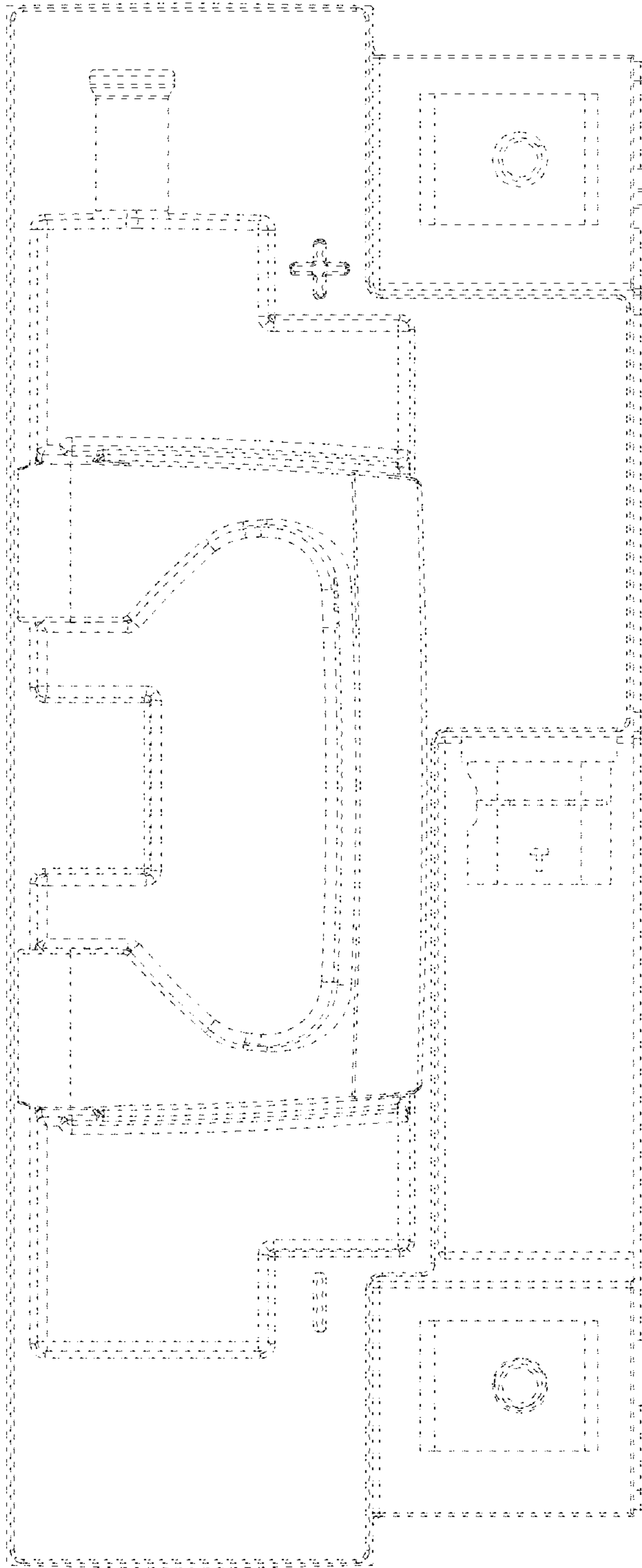


FIG. 6

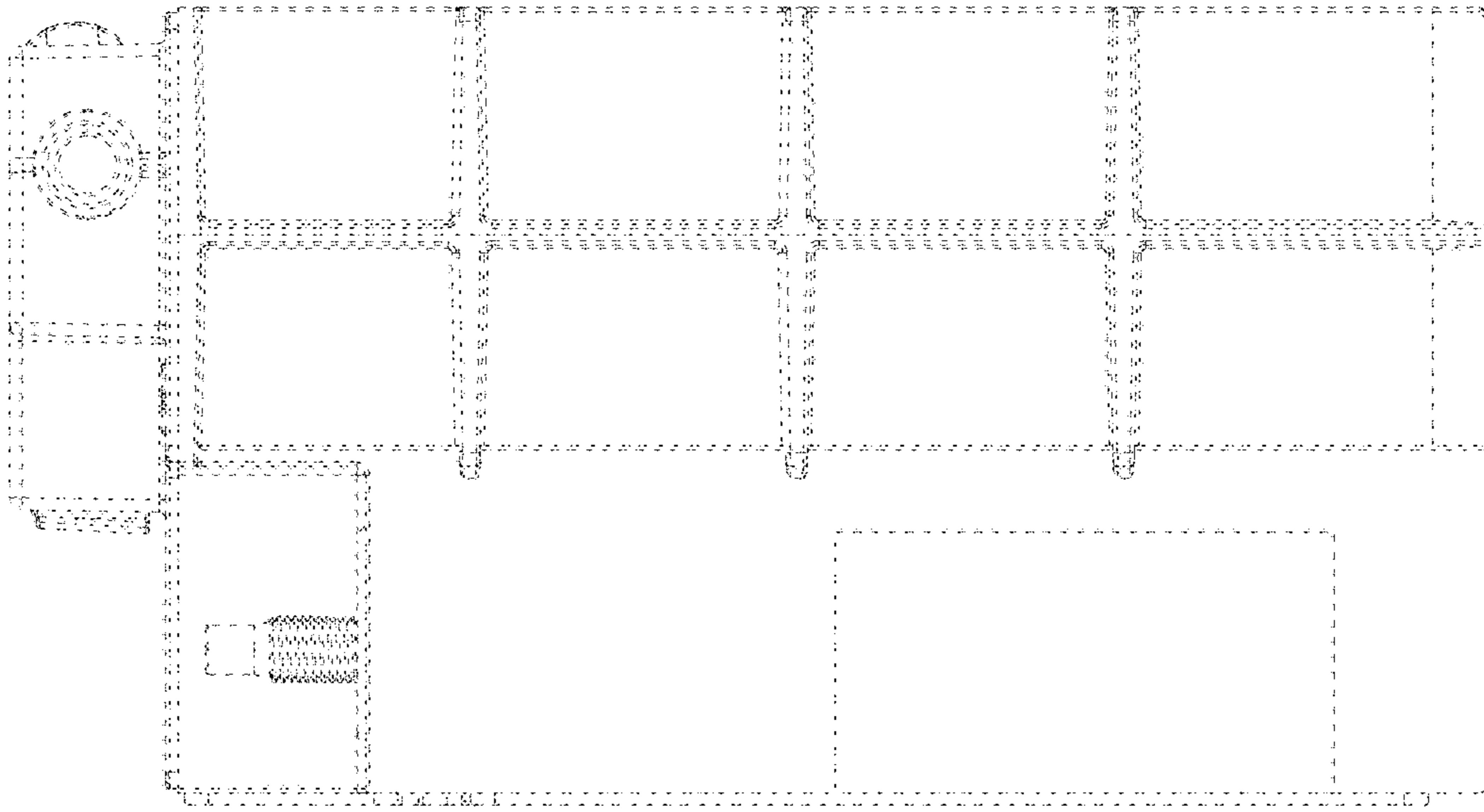


FIG. 8

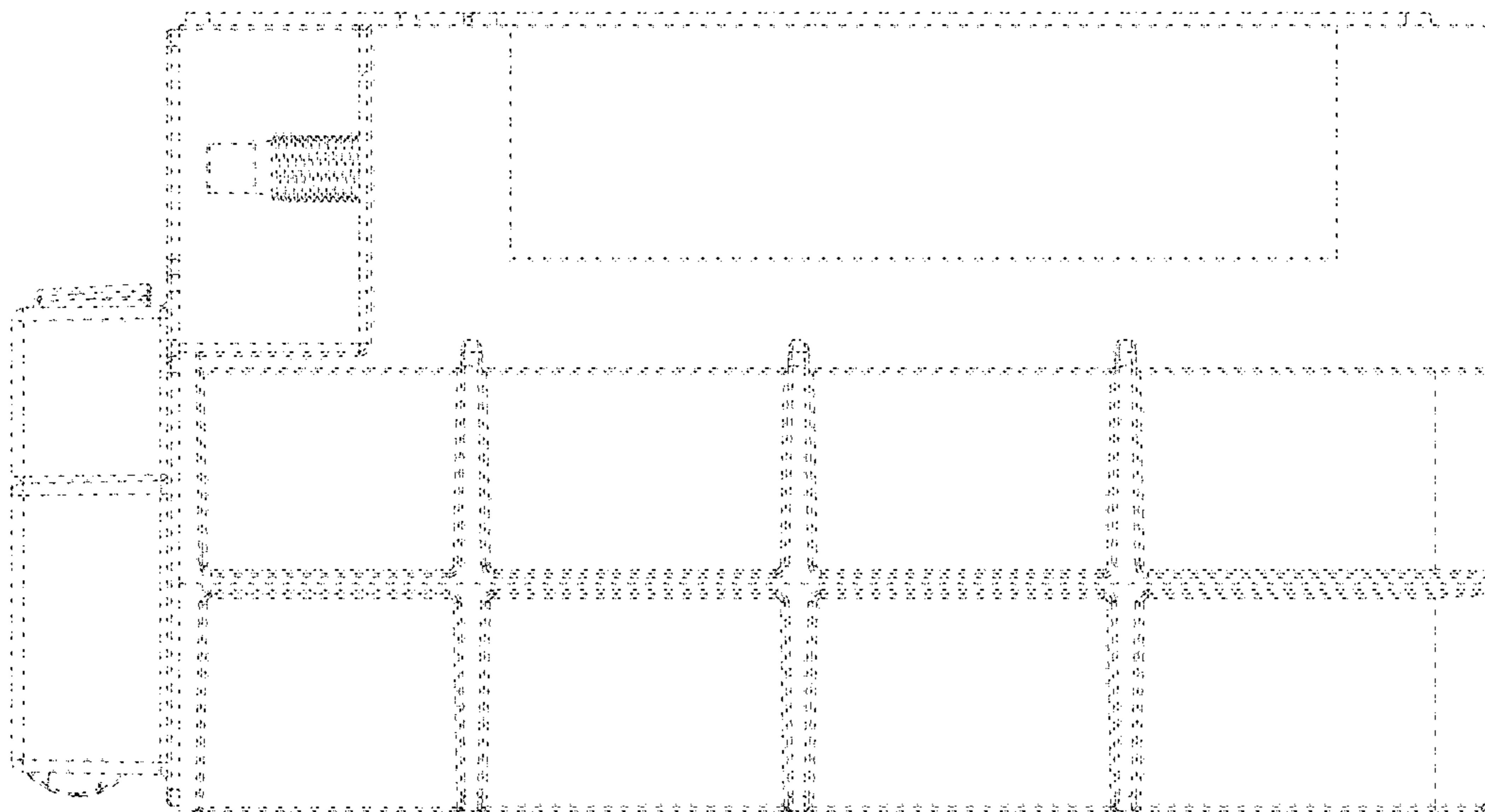


FIG. 7