



US00D923578S

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

(10) **Patent No.:** **US D923,578 S**
(45) **Date of Patent:** **** Jun. 29, 2021**

(54) **CONNECTOR**

(71) Applicant: **Molex, LLC**, Lisle, IL (US)

(72) Inventors: **Ishwarappa Ganamukhi**, Bangalore (IN); **Pierre Perez**, Aurora, IL (US)

(73) Assignee: **Molex, LLC**, Lisle, IL (US)

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

(21) Appl. No.: **29/713,303**

(22) Filed: **Nov. 15, 2019**

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

(52) **U.S. Cl.**
USPC **D13/147; D13/133**

(58) **Field of Classification Search**
USPC D13/118, 120, 173, 103, 107, 108, 110,
D13/112, 123, 133, 137.1, 145-147,
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

D320,383 S 10/1991 Oka
5,628,648 A * 5/1997 Higgins, Jr. H01R 13/6272
439/489

(Continued)

FOREIGN PATENT DOCUMENTS

TW D188002 S 1/2018
TW D196567 S 3/2019

OTHER PUBLICATIONS

Non Final Office Action received for U.S. Appl. No. 29/713,307,
dated Dec. 8, 2020, 8 Pages.

(Continued)

Primary Examiner — Brett Miller

Assistant Examiner — Landon Thomas Cassell

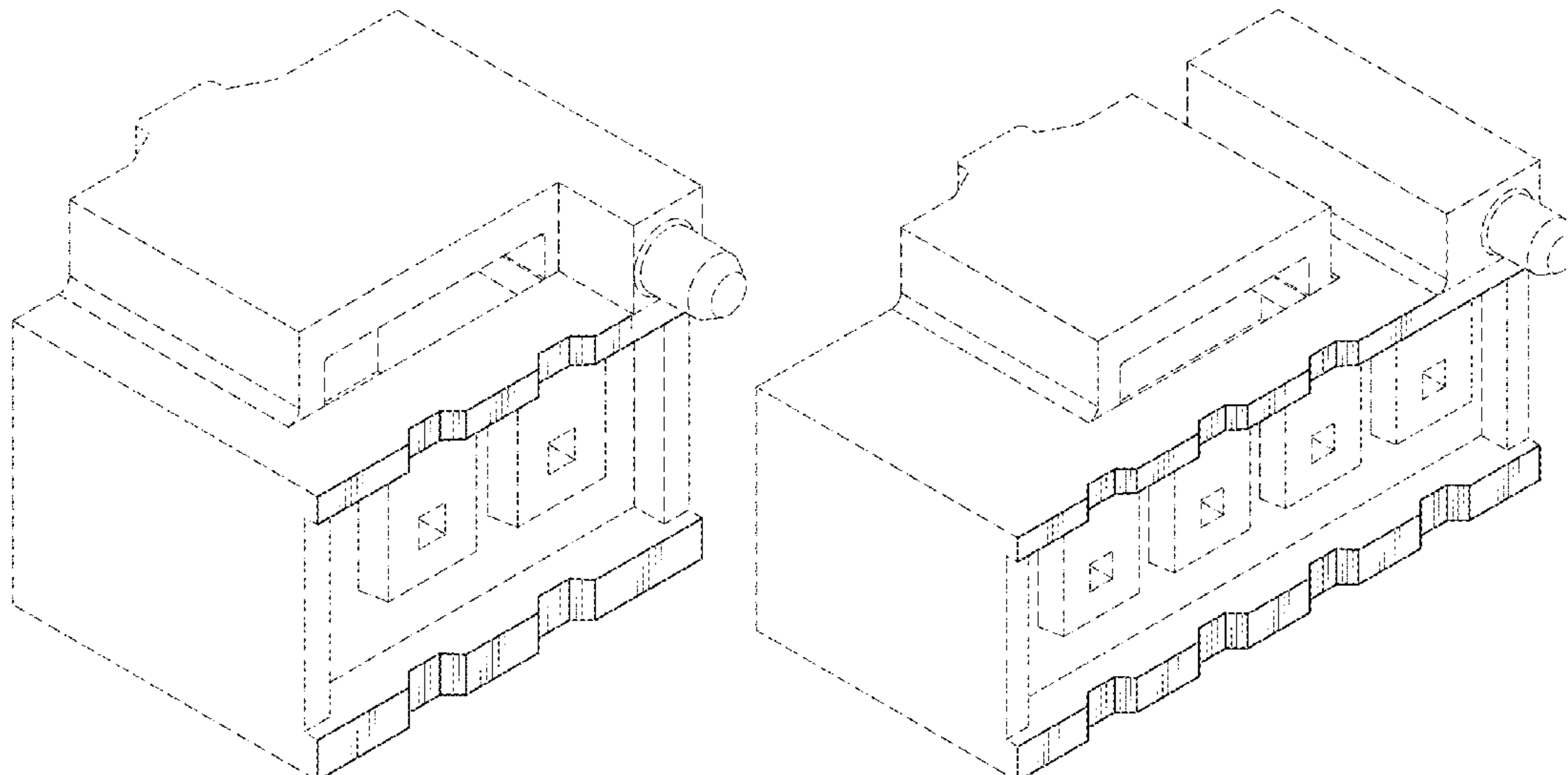
(57) **CLAIM**

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

DESCRIPTION

FIG. 1 is a front right perspective view of a connector showing our new design;
FIG. 2 is a front left perspective view thereof;
FIG. 3 is a rear view thereof;
FIG. 4 is a front view thereof;
FIG. 5 is right side view thereof;
FIG. 6 is a left side view thereof;
FIG. 7 is a top view thereof;
FIG. 8 is a bottom view thereof;
FIG. 9 is a rear perspective view thereof;
FIG. 10 is a front right perspective view of an alternate embodiment of the connector showing our new design;
FIG. 11 is a front left perspective view thereof;
FIG. 12 is a rear view thereof;
FIG. 13 is a front view thereof;
FIG. 14 is right side view thereof;
FIG. 15 is a left side view thereof;
FIG. 16 is a top view thereof;
FIG. 17 is a bottom view thereof;
FIG. 18 is a rear perspective view thereof;
FIG. 19 is a front right perspective view of an alternate embodiment of the connector showing our new design;
FIG. 20 is a front left perspective view thereof;
FIG. 21 is a rear view thereof;
FIG. 22 is a front view thereof;
FIG. 23 is right side view thereof;
FIG. 24 is a left side view thereof;
FIG. 25 is a top view thereof;
FIG. 26 is a bottom view thereof; and,
FIG. 27 is a rear perspective view thereof.
The dot-dashed broken lines depict boundaries of the claim that form no part of the claimed design. The remainder of the broken lines depict portions of the connector that form no part of the claimed design.

1 Claim, 15 Drawing Sheets



(58) **Field of Classification Search**
 USPC D13/149–156, 158, 177, 184, 199, 242;
 D14/240, 242, 256, 432, 433, 434, 435.1,
 D14/438, 480.1–480.7, 484
 See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D434,385	S	11/2000	Ko et al.	
D524,742	S	7/2006	Kumagai	
D524,751	S	7/2006	Lee et al.	
D538,230	S *	3/2007	Kudo	D13/147
D564,452	S	3/2008	Kudo	
D583,324	S *	12/2008	Iijima	D13/147
D652,387	S	1/2012	Ohkuma	
D708,583	S *	7/2014	Asano	D13/147
D733,652	S	7/2015	Wenji et al.	
D747,689	S	1/2016	Endo et al.	
D748,580	S	2/2016	Endo et al.	
D748,588	S	2/2016	Endo et al.	
D751,990	S	3/2016	Ikeda et al.	
9,620,879	B2 *	4/2017	Li	H01R 4/185
D791,080	S	7/2017	Li et al.	
D791,083	S	7/2017	Li et al.	
D792,853	S *	7/2017	Li	D13/147
D795,199	S	8/2017	Ikeda et al.	
D802,538	S *	11/2017	Li	D13/147
D831,581	S	10/2018	Motoshige et al.	
10,263,350	B2 *	4/2019	Huo	H01R 12/716
D847,755	S *	5/2019	Hamachi	D13/147
D847,756	S	5/2019	Endo et al.	
D852,753	S	7/2019	Endo et al.	
D854,503	S	7/2019	Gieski et al.	

D870,673	S	12/2019	Obata et al.	
D877,703	S	3/2020	Holub et al.	
D884,638	S	5/2020	Kim et al.	
D896,757	S	9/2020	Somanathapura Ramanna et al.	
D897,963	S *	10/2020	Wu	D13/147
D899,370	S	10/2020	Thyagaraj et al.	
D900,030	S	10/2020	Thyagaraj et al.	
D900,745	S	11/2020	Thyagaraj et al.	
D900,755	S	11/2020	Kurita et al.	
D901,389	S *	11/2020	Gonzalez	D13/146
2011/0207357	A1 *	8/2011	Dick	H01R 13/4365 439/345
2013/0008712	A1	1/2013	Kobayashi et al.	
2013/0316560	A1	11/2013	Yoon et al.	
2014/0045381	A1	2/2014	Tsukamoto et al.	
2015/0056848	A1 *	2/2015	Yu	H01R 13/4367 439/485
2016/0064837	A1 *	3/2016	Yu	H01R 13/41 439/374
2019/0118739	A1	4/2019	Takamatsu et al.	
2020/0136303	A1 *	4/2020	Ito	H01R 13/521

OTHER PUBLICATIONS

Non Final Office Action received for U.S. Appl. No. 29/713,312, dated Dec. 16, 2020, 8 Pages.
 Non Final Office Action received for U.S. Appl. No. 29/713,323, dated Jan. 22, 2021, 10 Pages.
 Connectors, Date ranges: May 2, 2001-Jun. 17, 2019, [Online PDF of Foreign Prior Art references], Site visited Jan. 6, 2021, Available from Internet URL: <https://www.orbit.com/export/UCZAH96B/pdf4/547df235-4de8-4e6b-9dc5-57b64c2a032a142130.pdf> (Year: 2021).

* cited by examiner

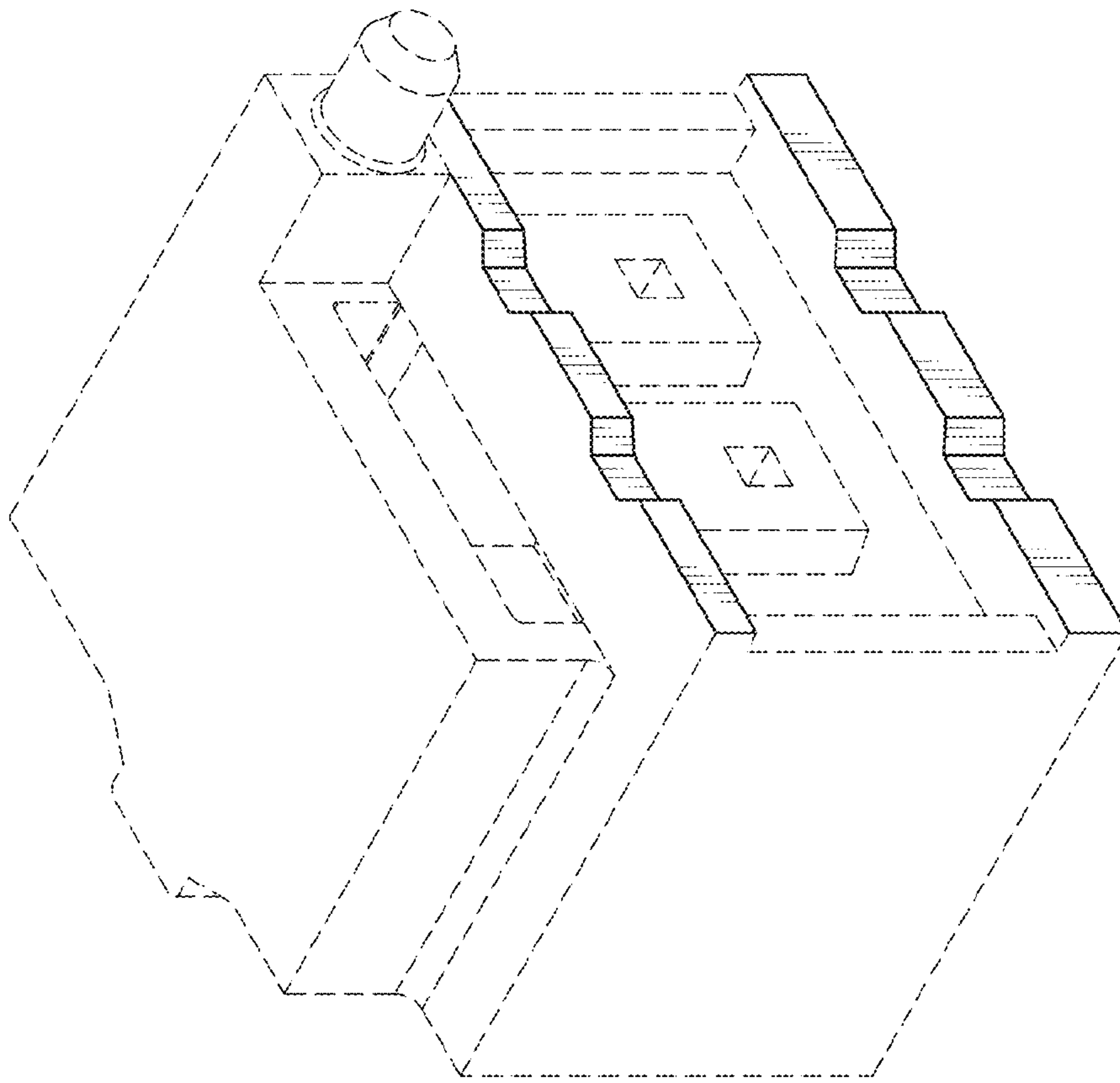


FIG. 2

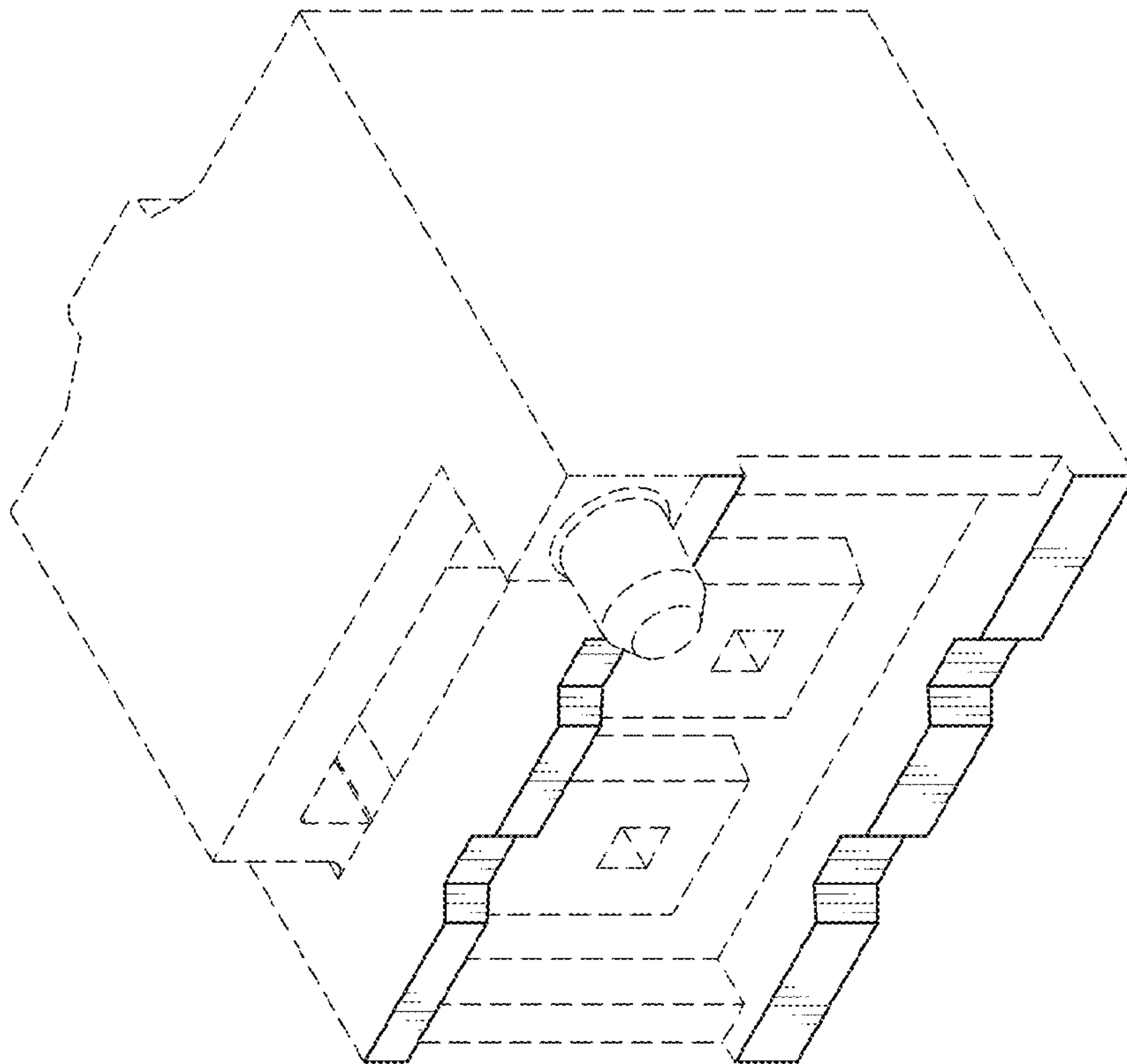


FIG. 1

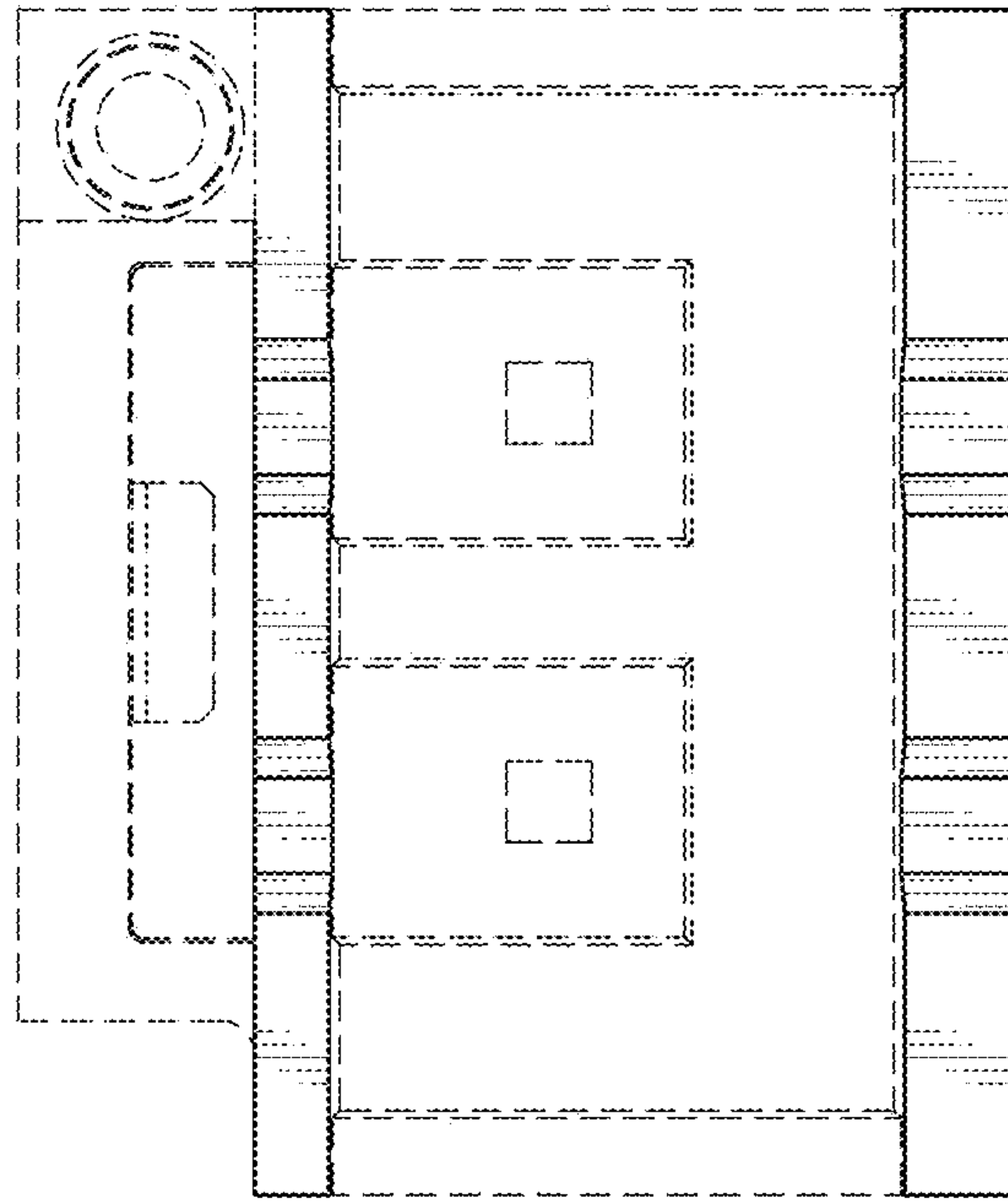


FIG. 4

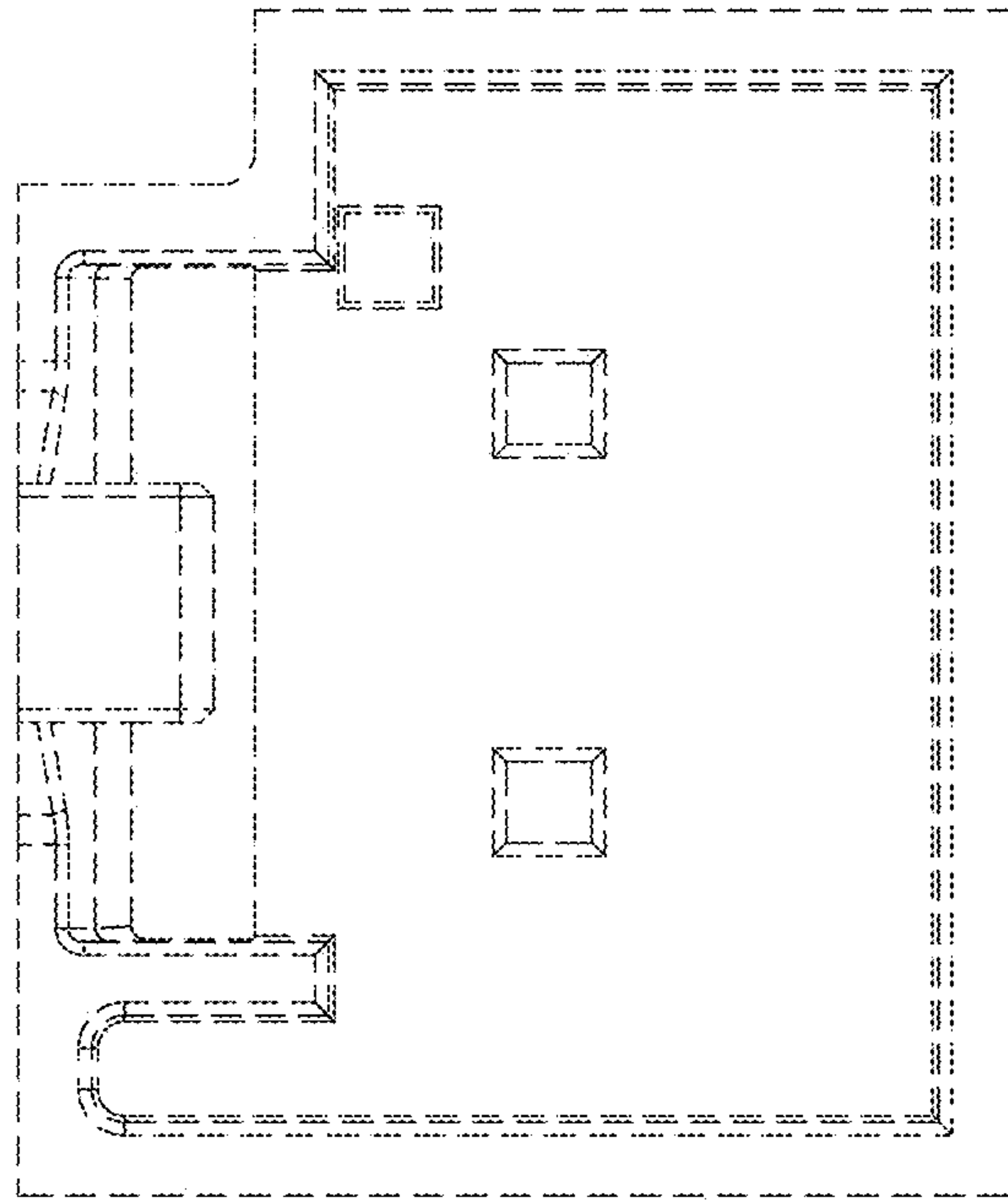


FIG. 3

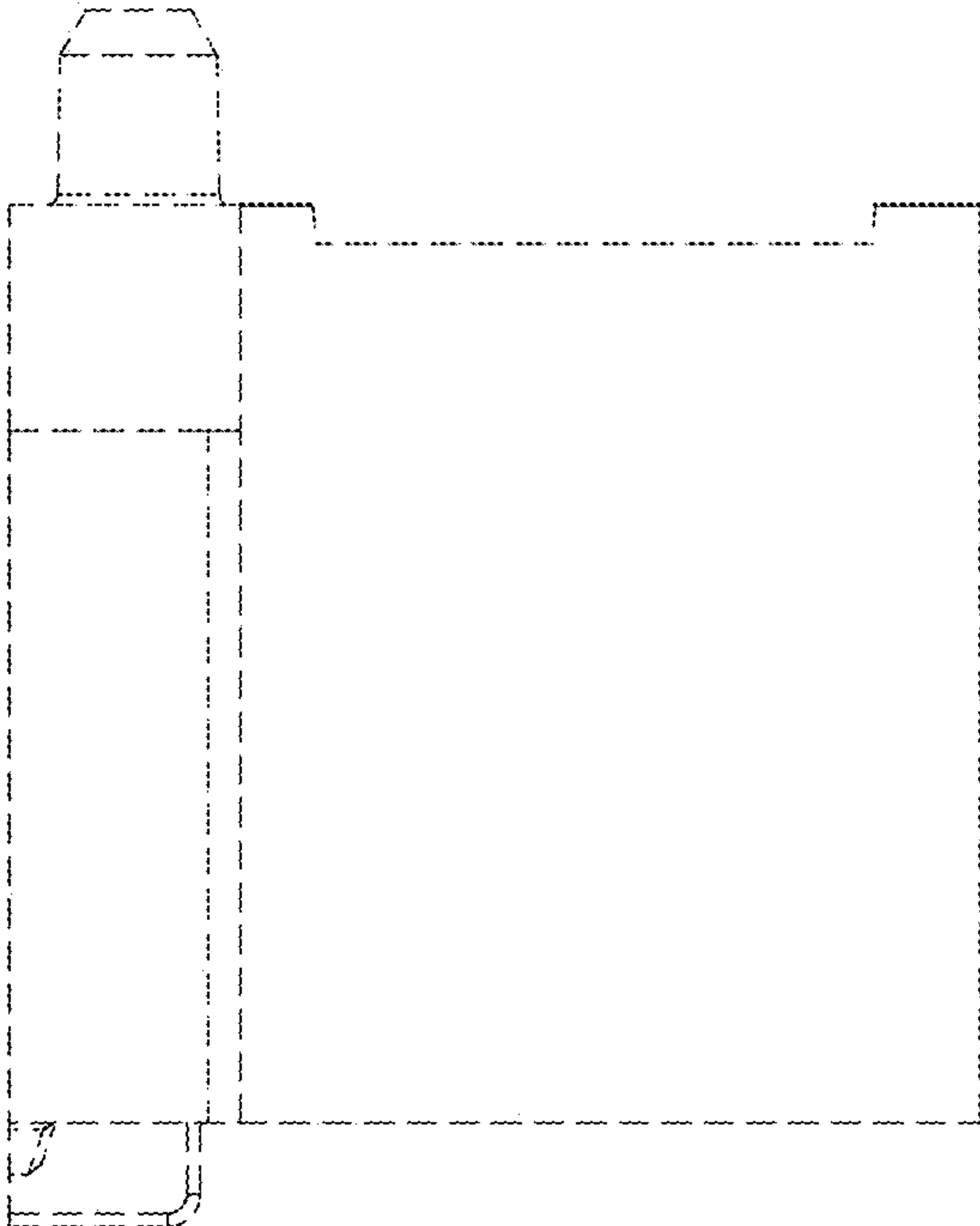


FIG. 6

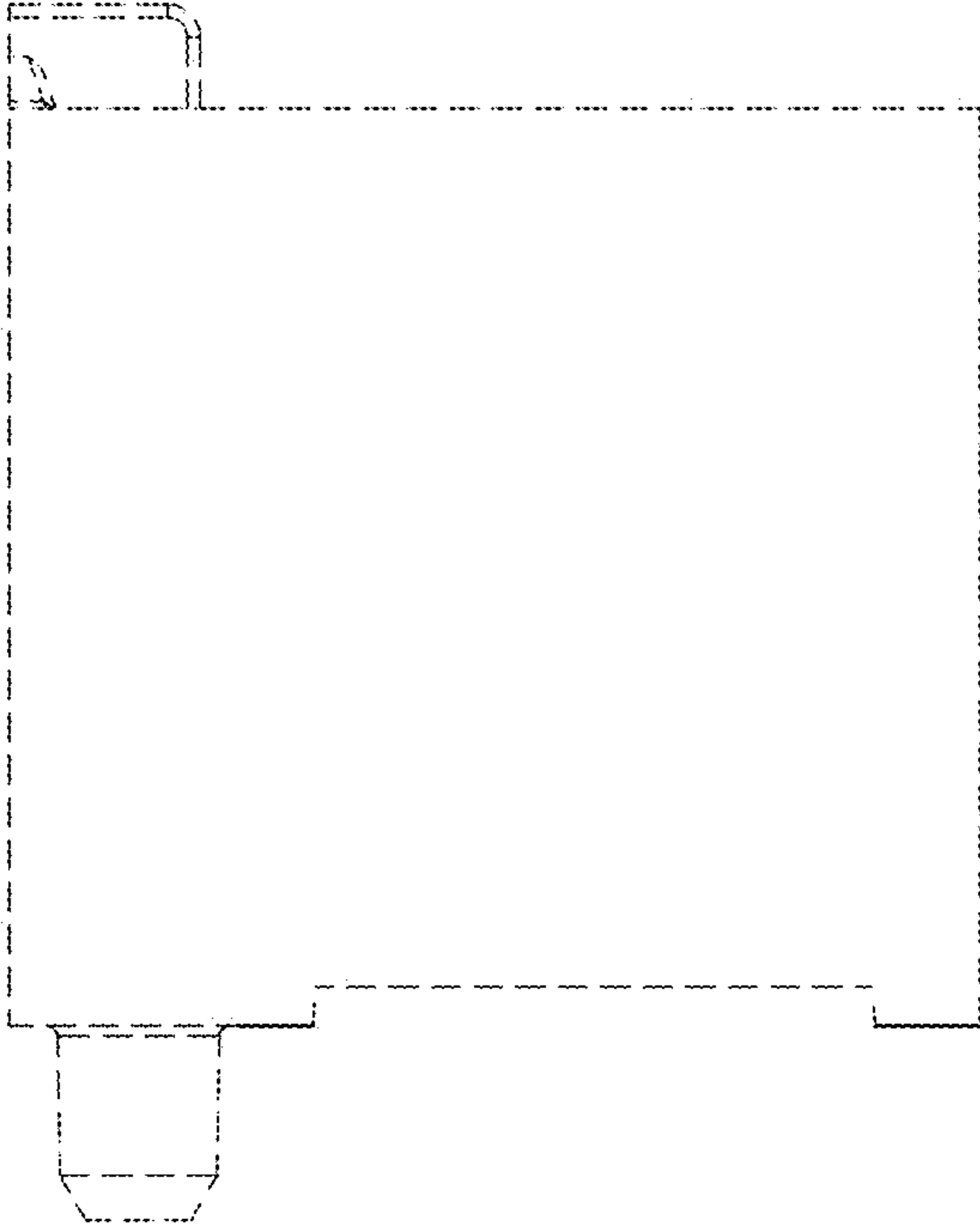


FIG. 5

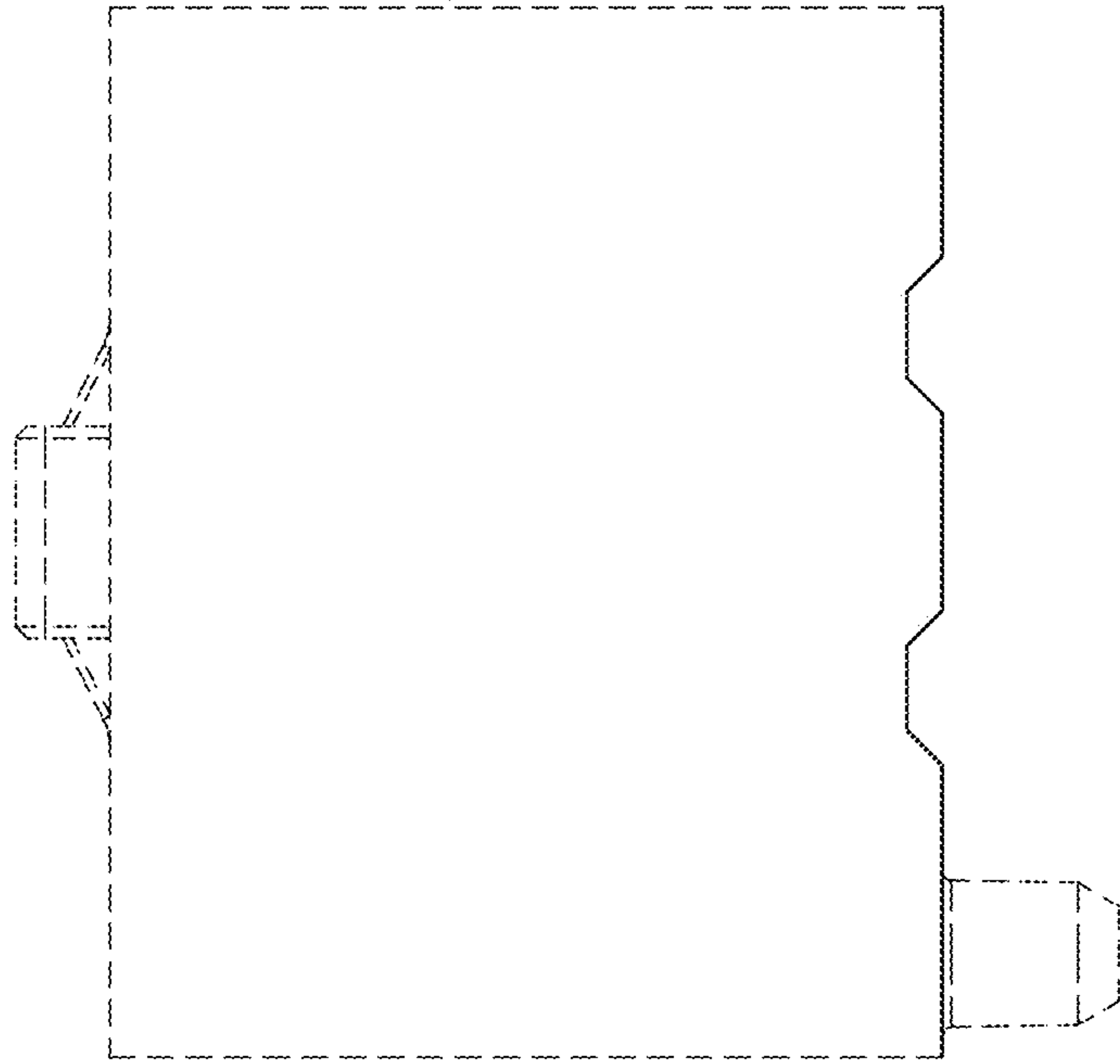


FIG. 8

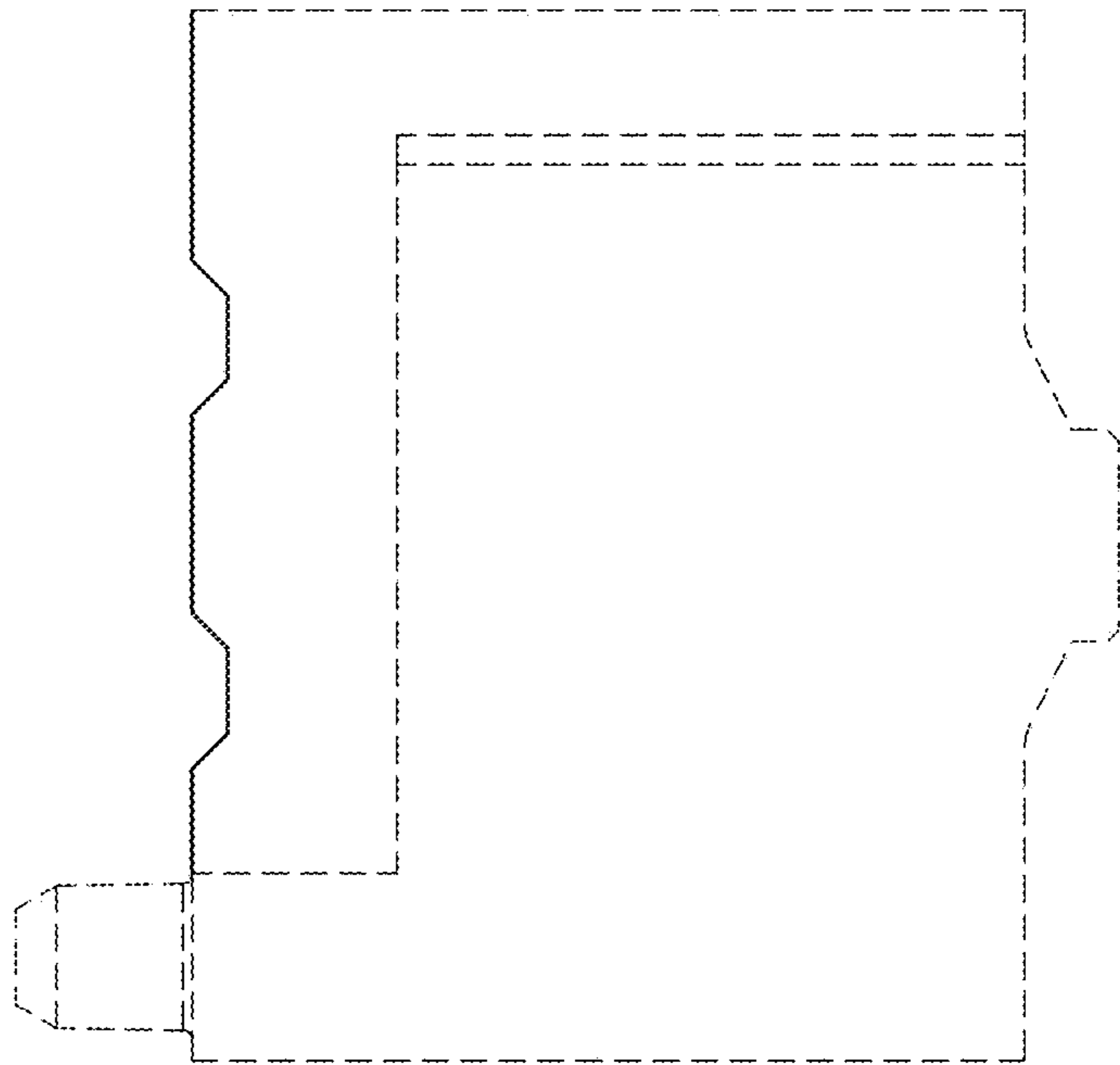


FIG. 7

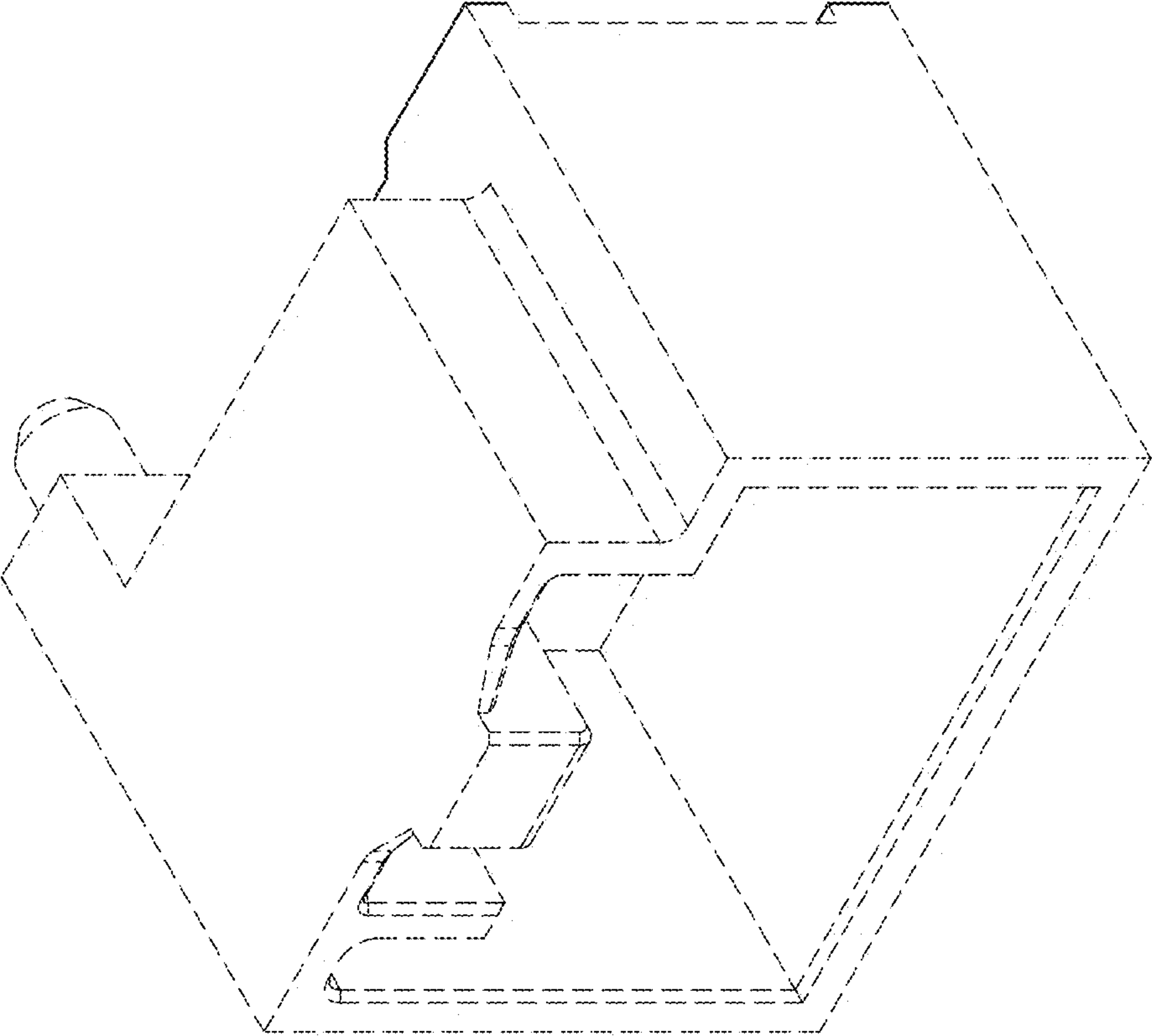


FIG. 9

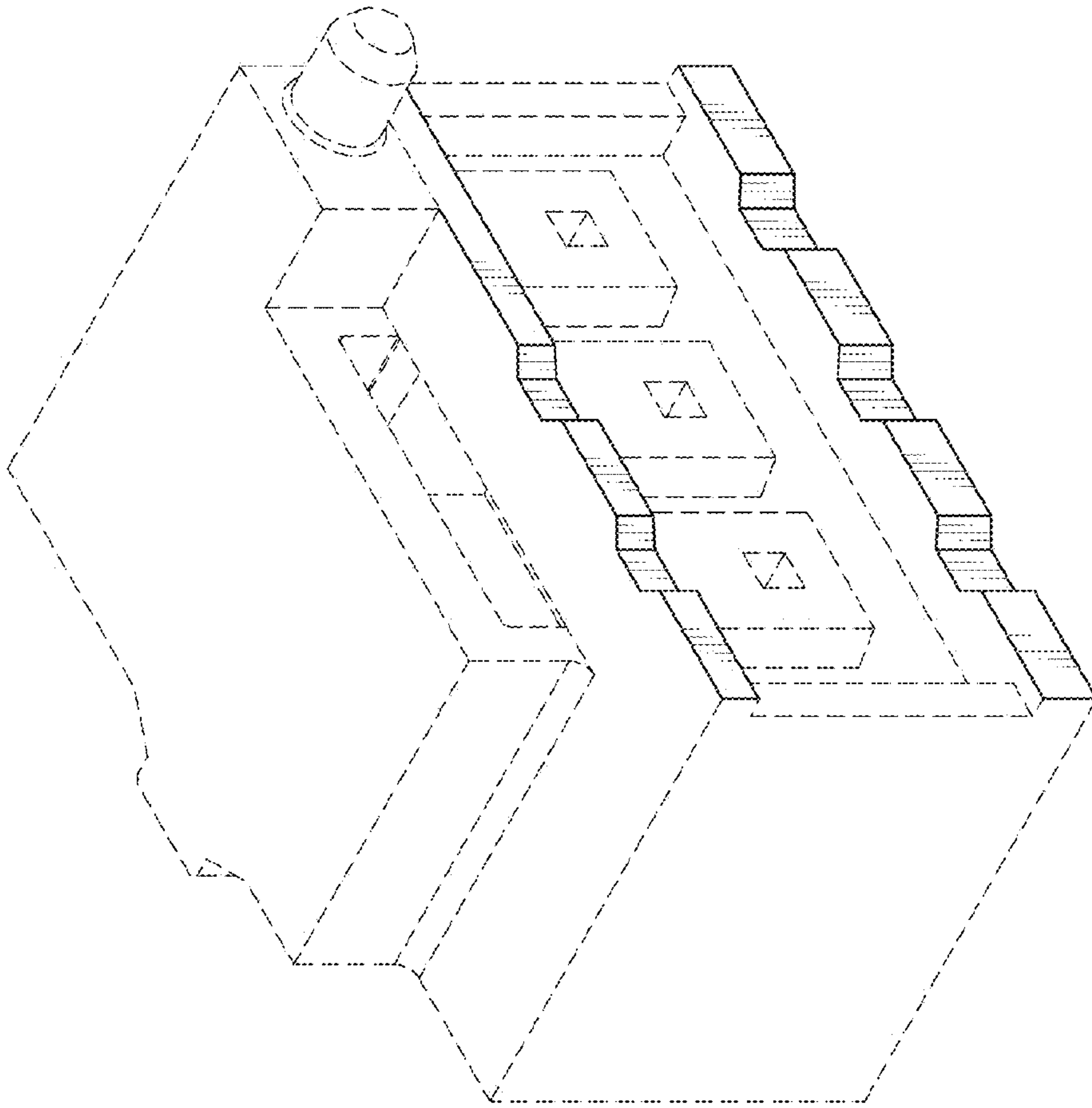


FIG. 11

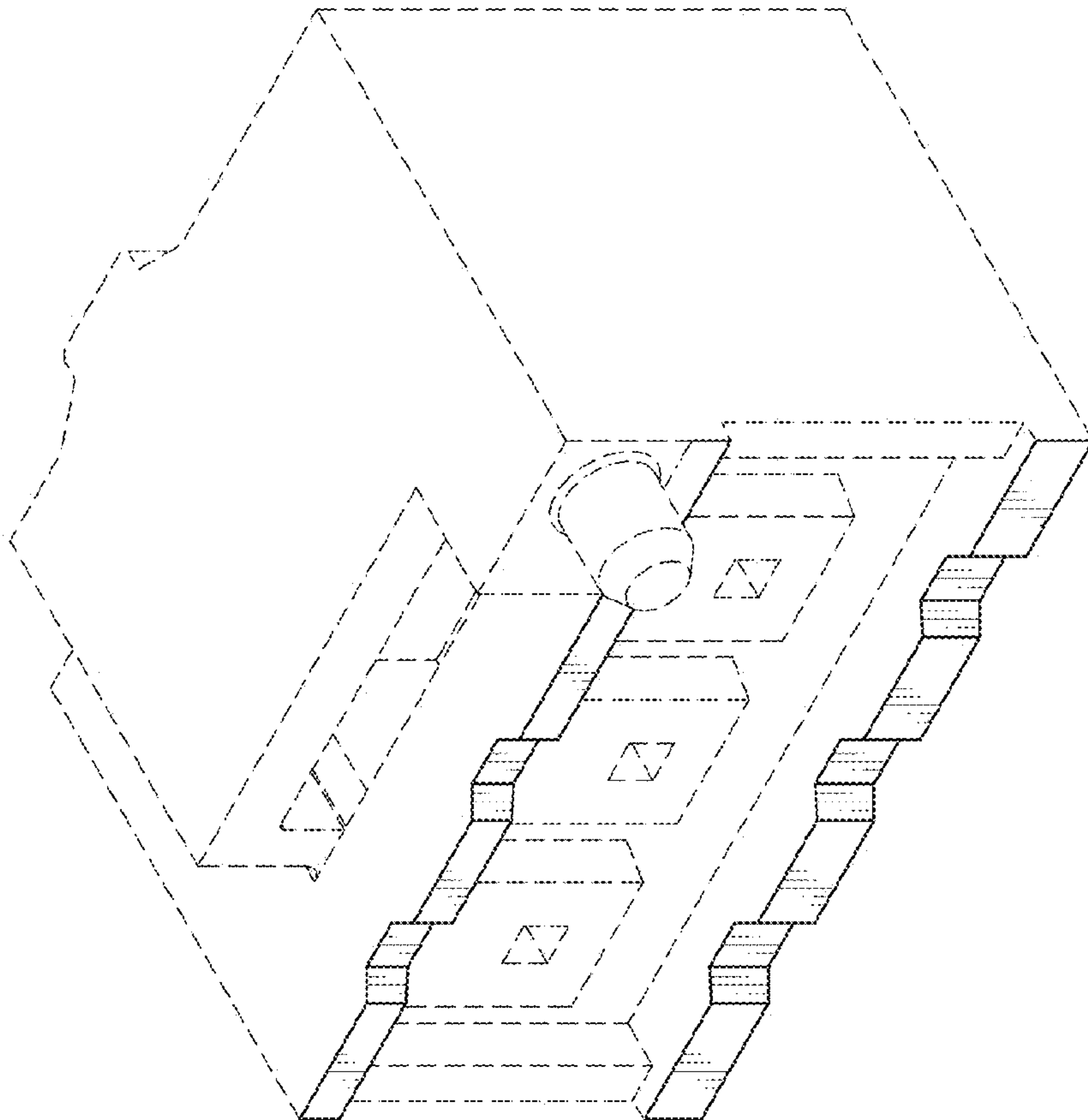


FIG. 10

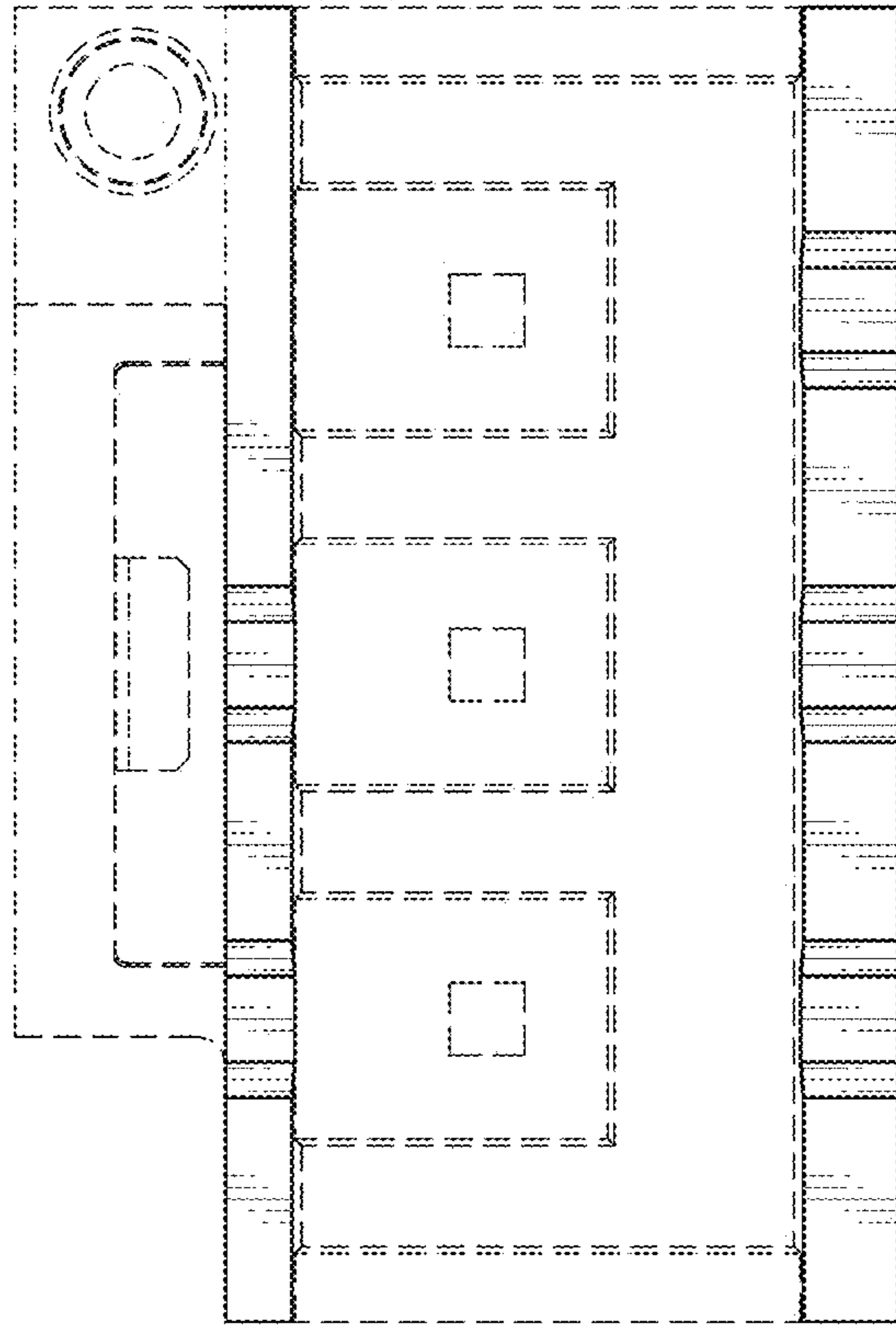


FIG. 12

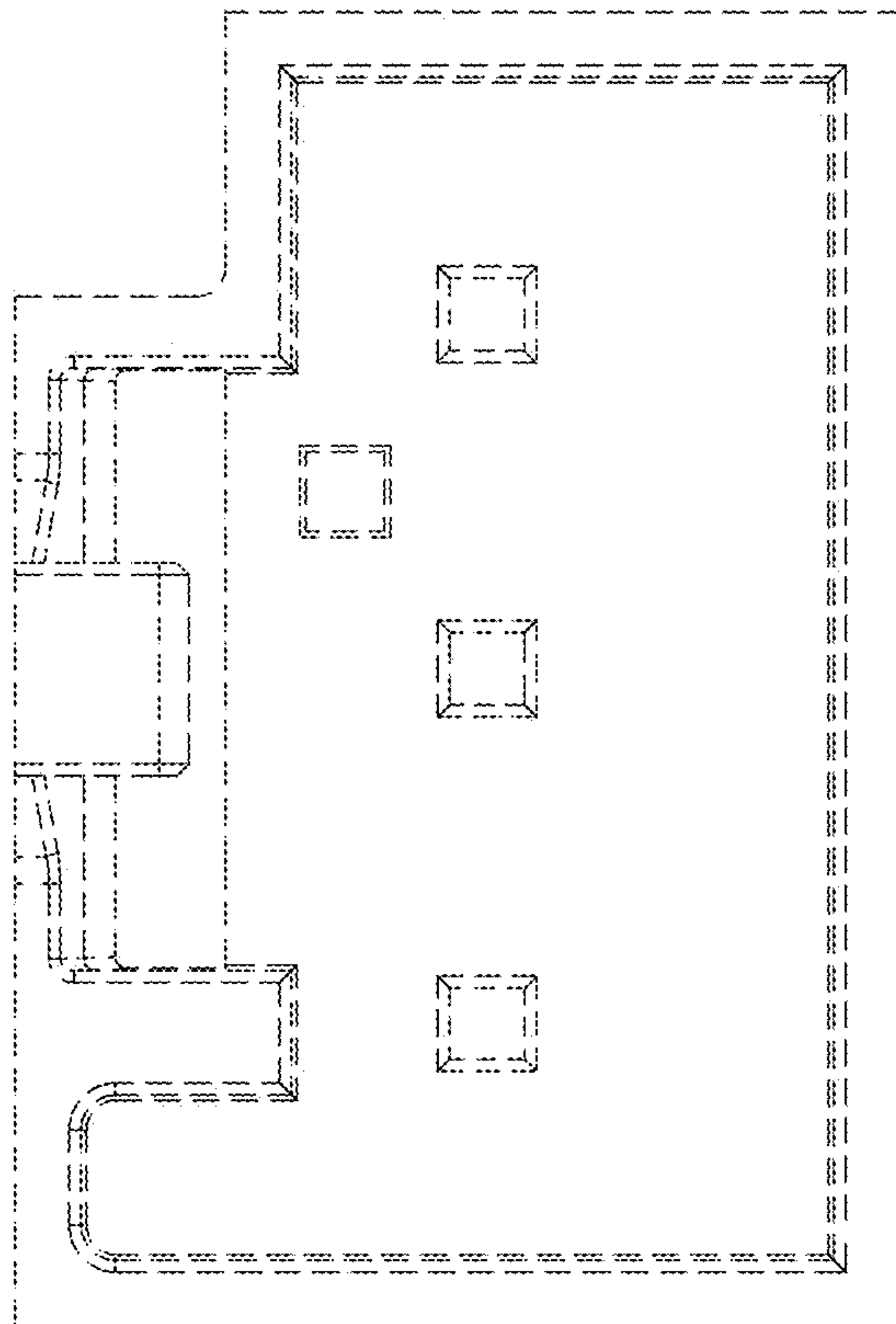


FIG. 13

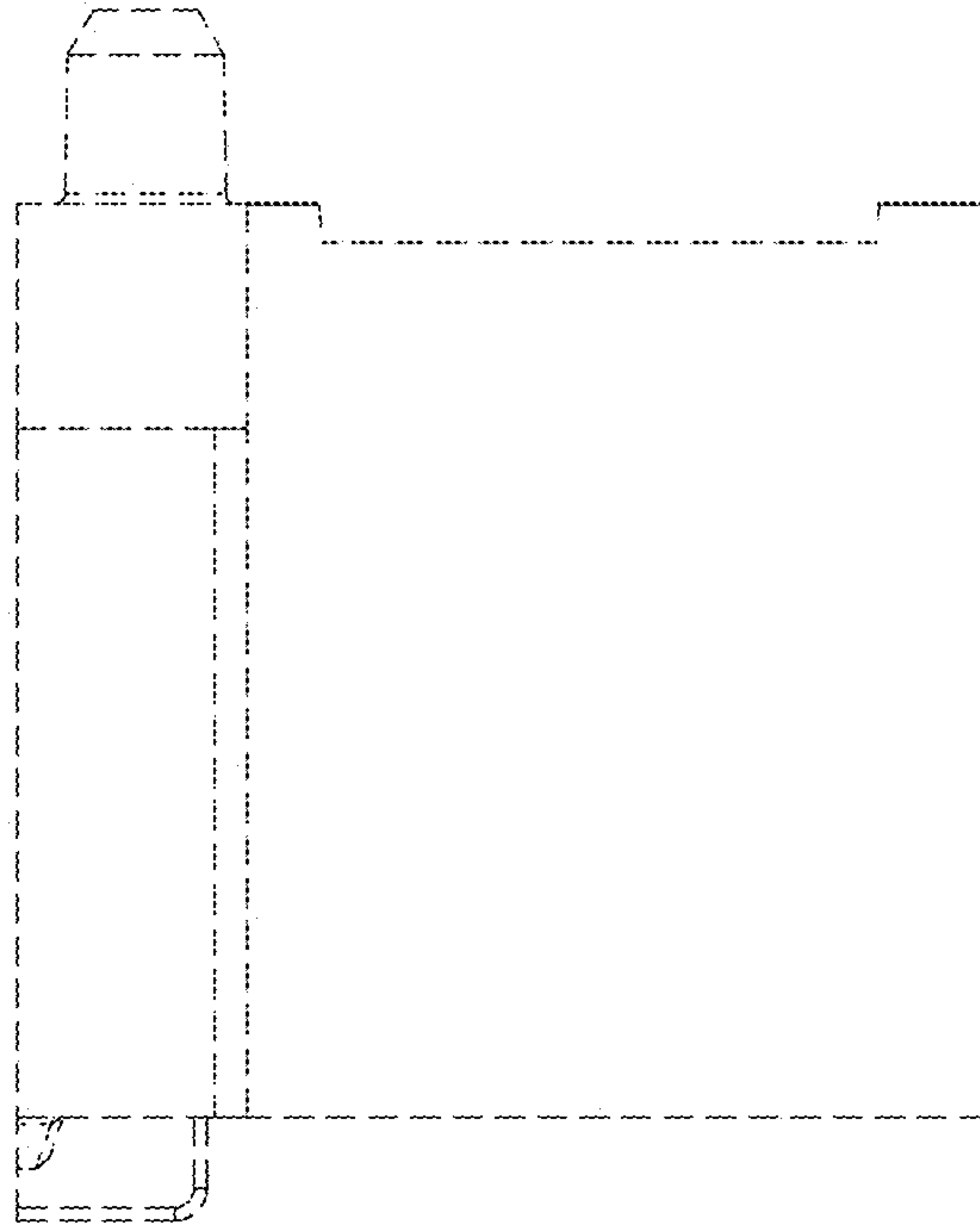


FIG. 15

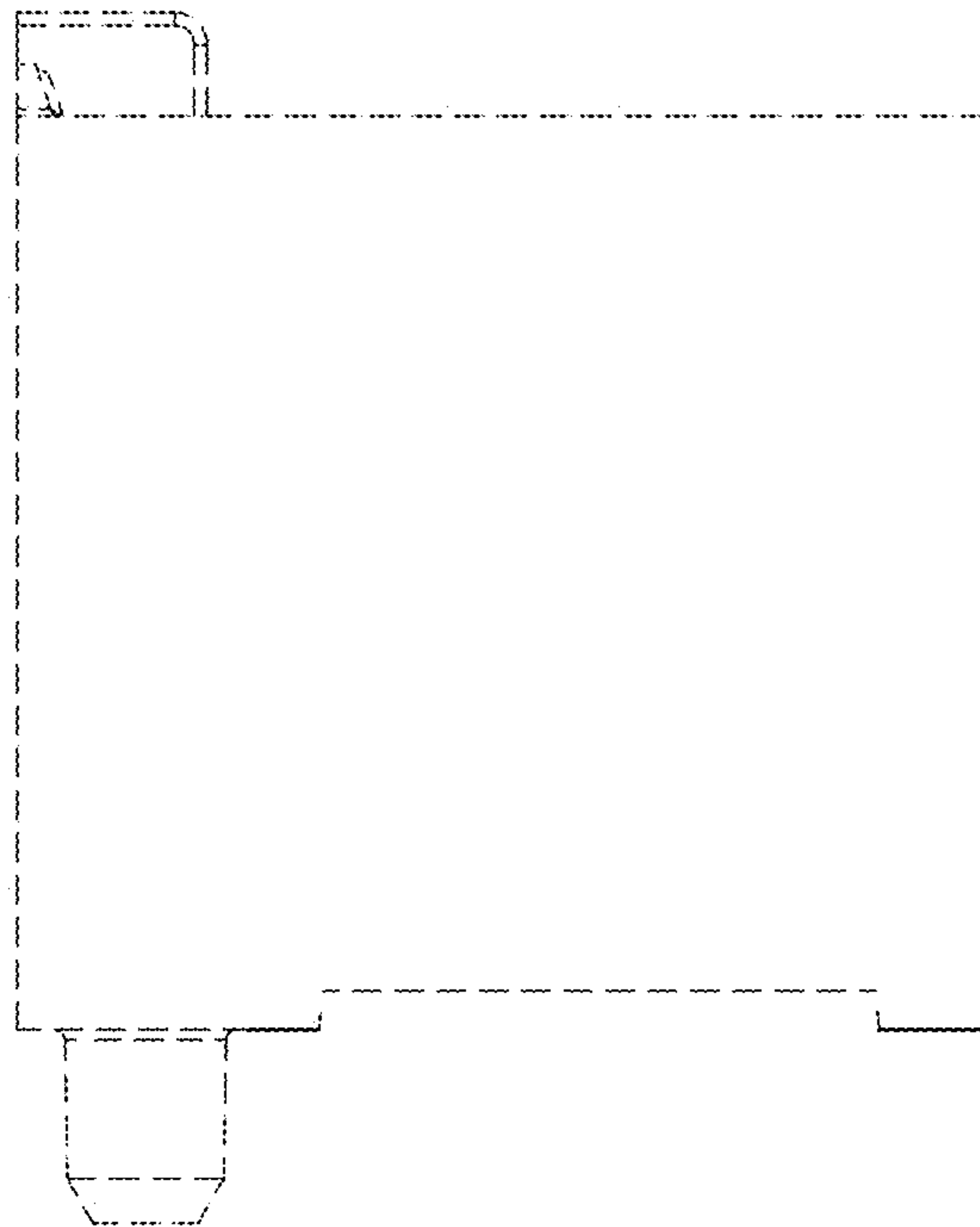


FIG. 14

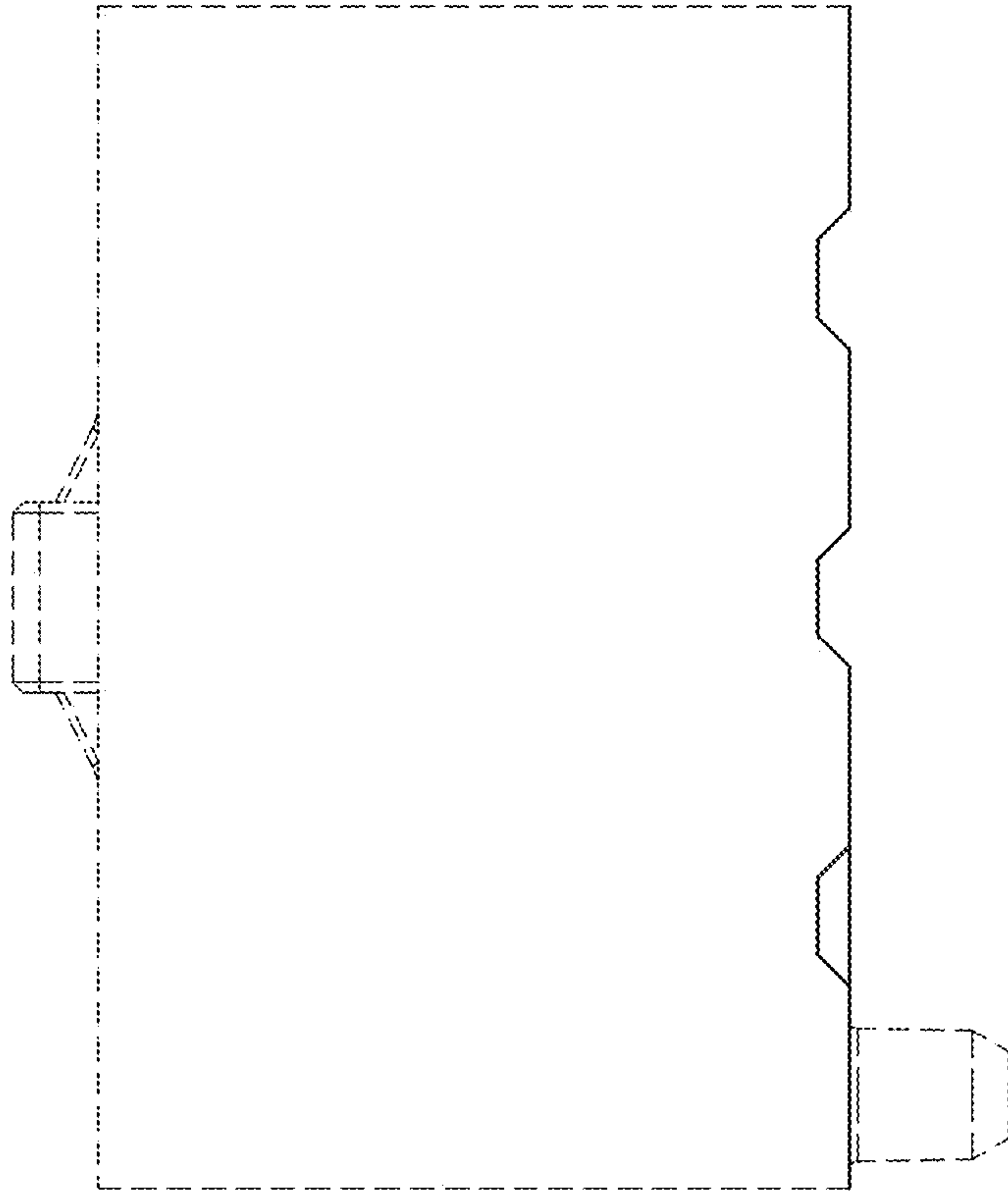


FIG. 17

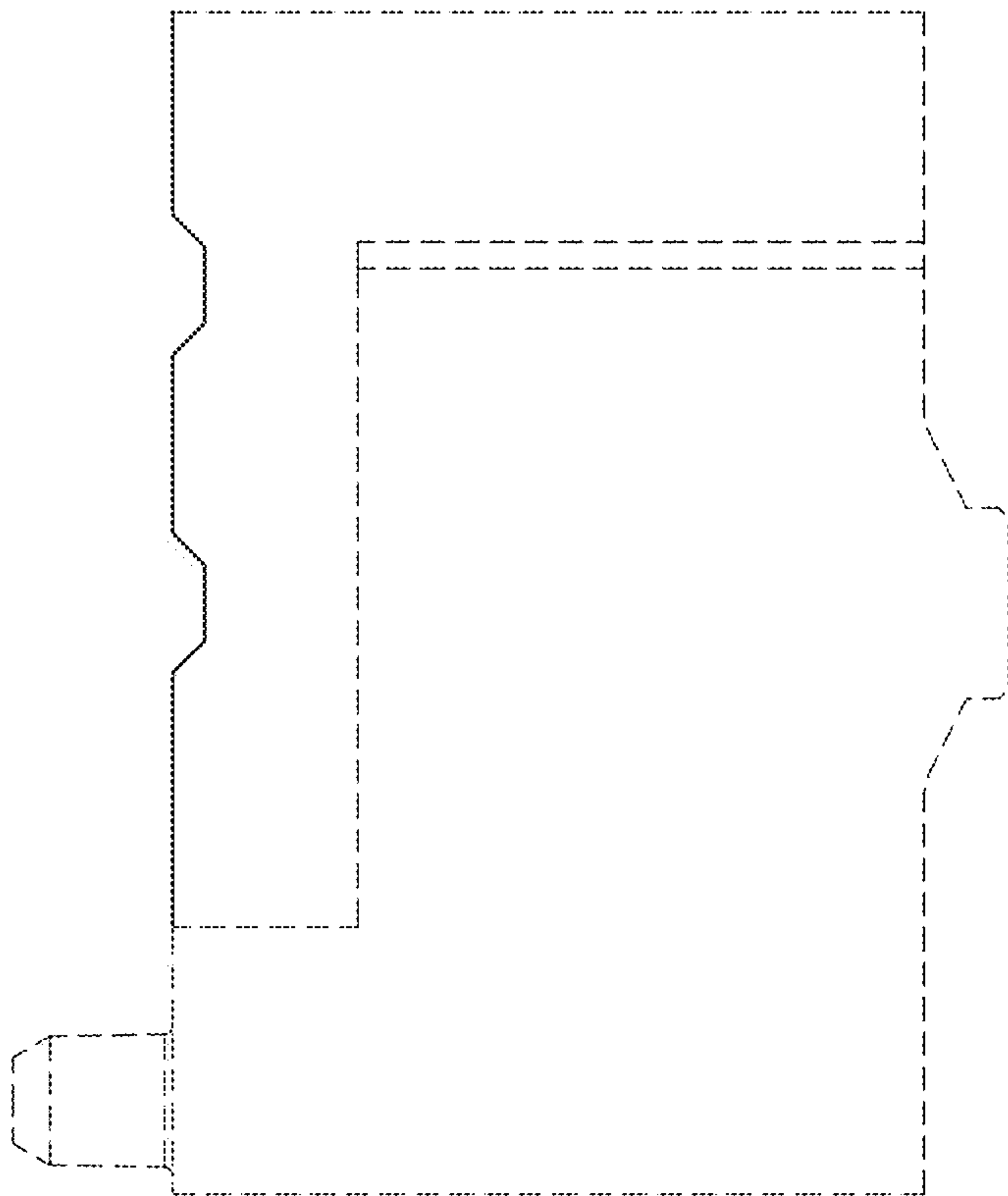


FIG. 16

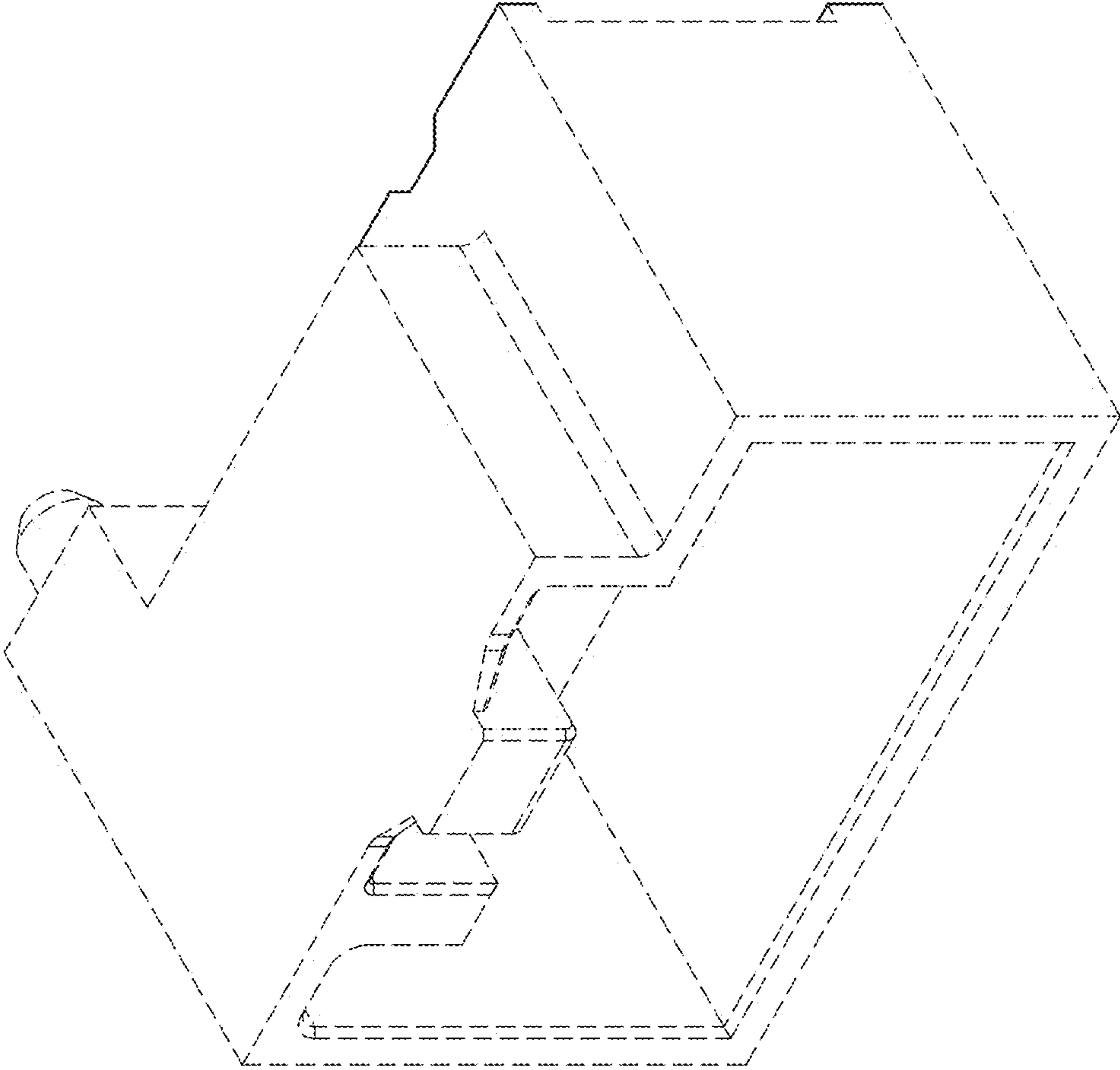


FIG. 18

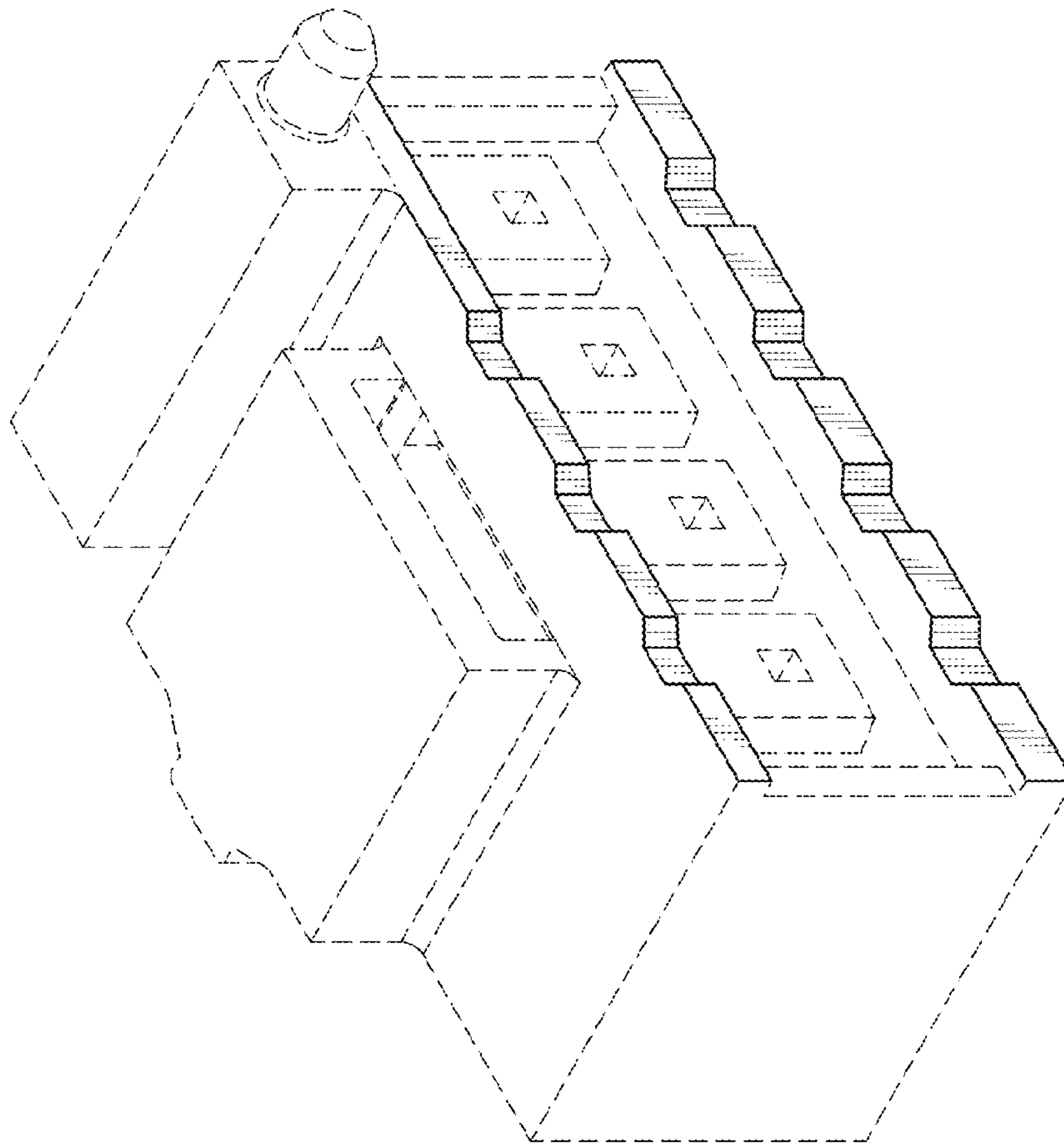


FIG. 20

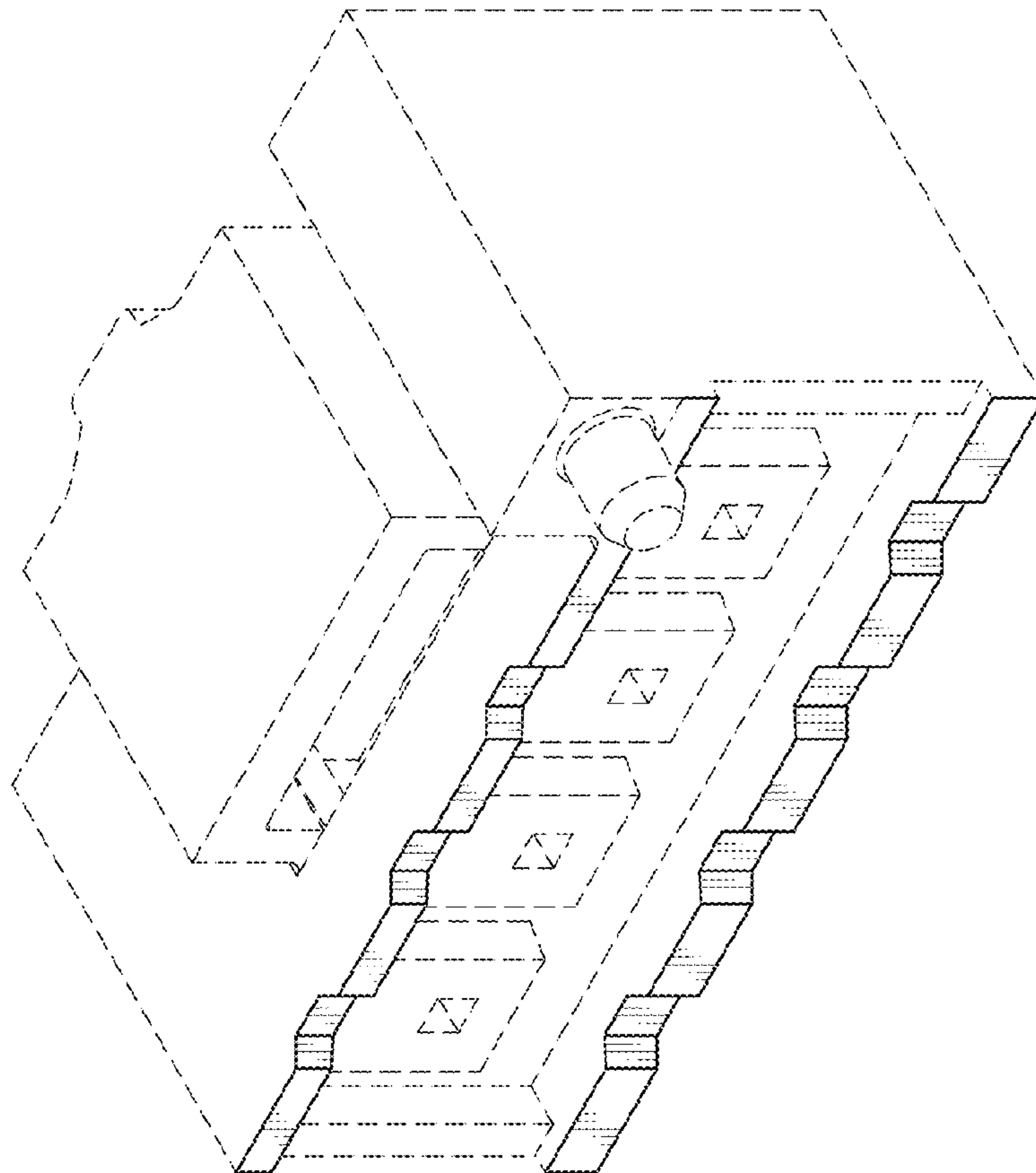


FIG. 19

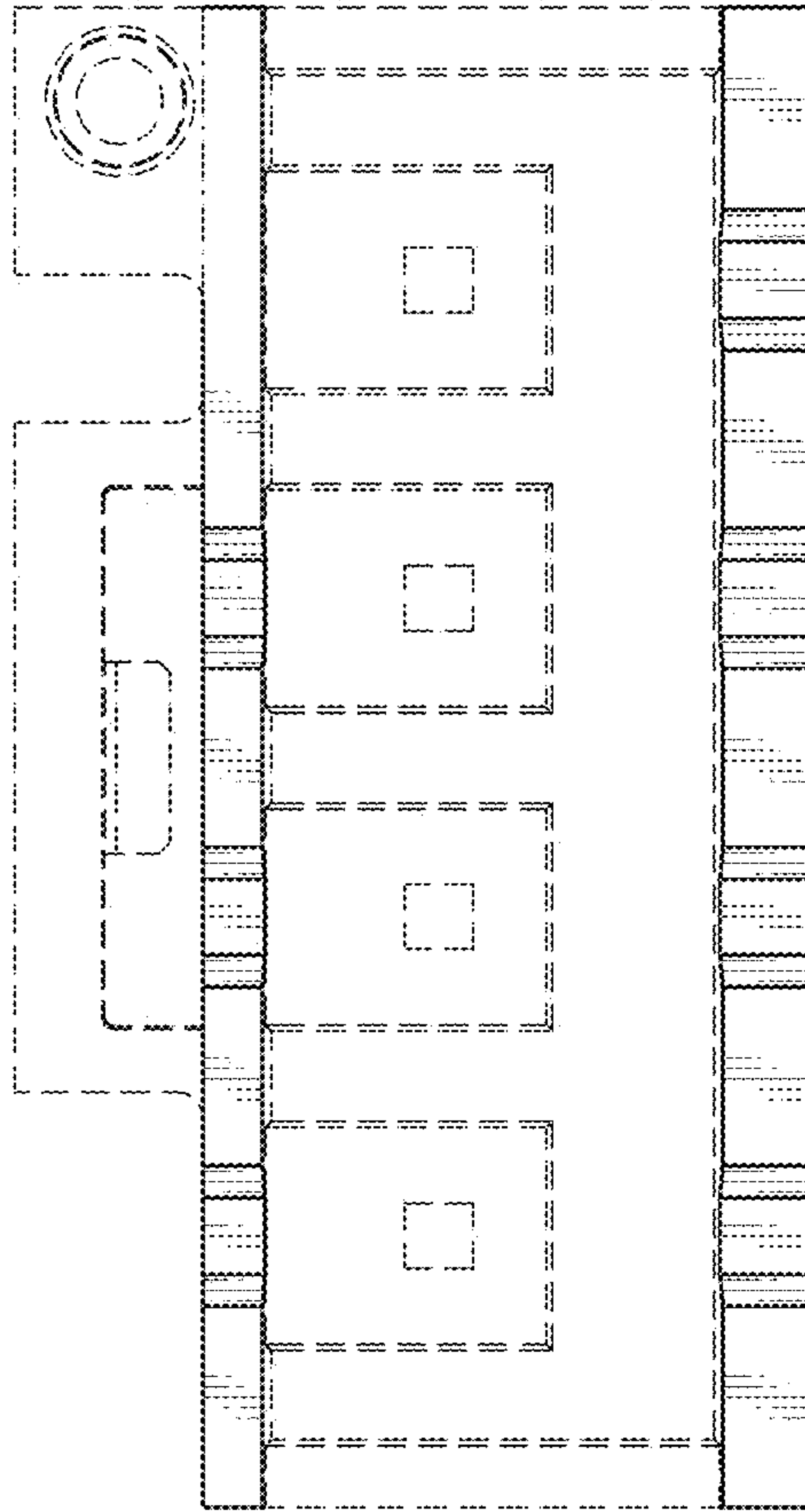


FIG. 22

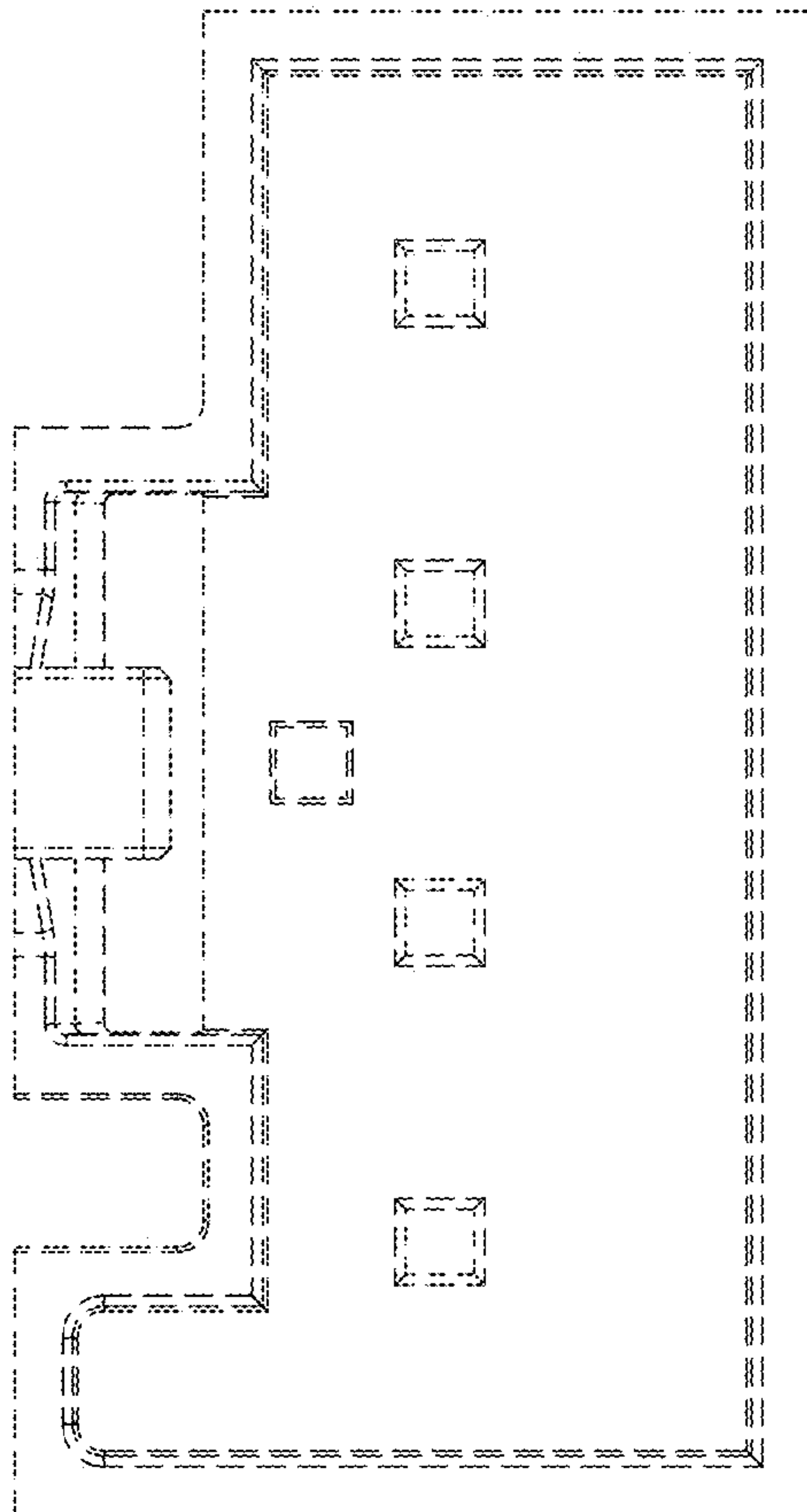


FIG. 21

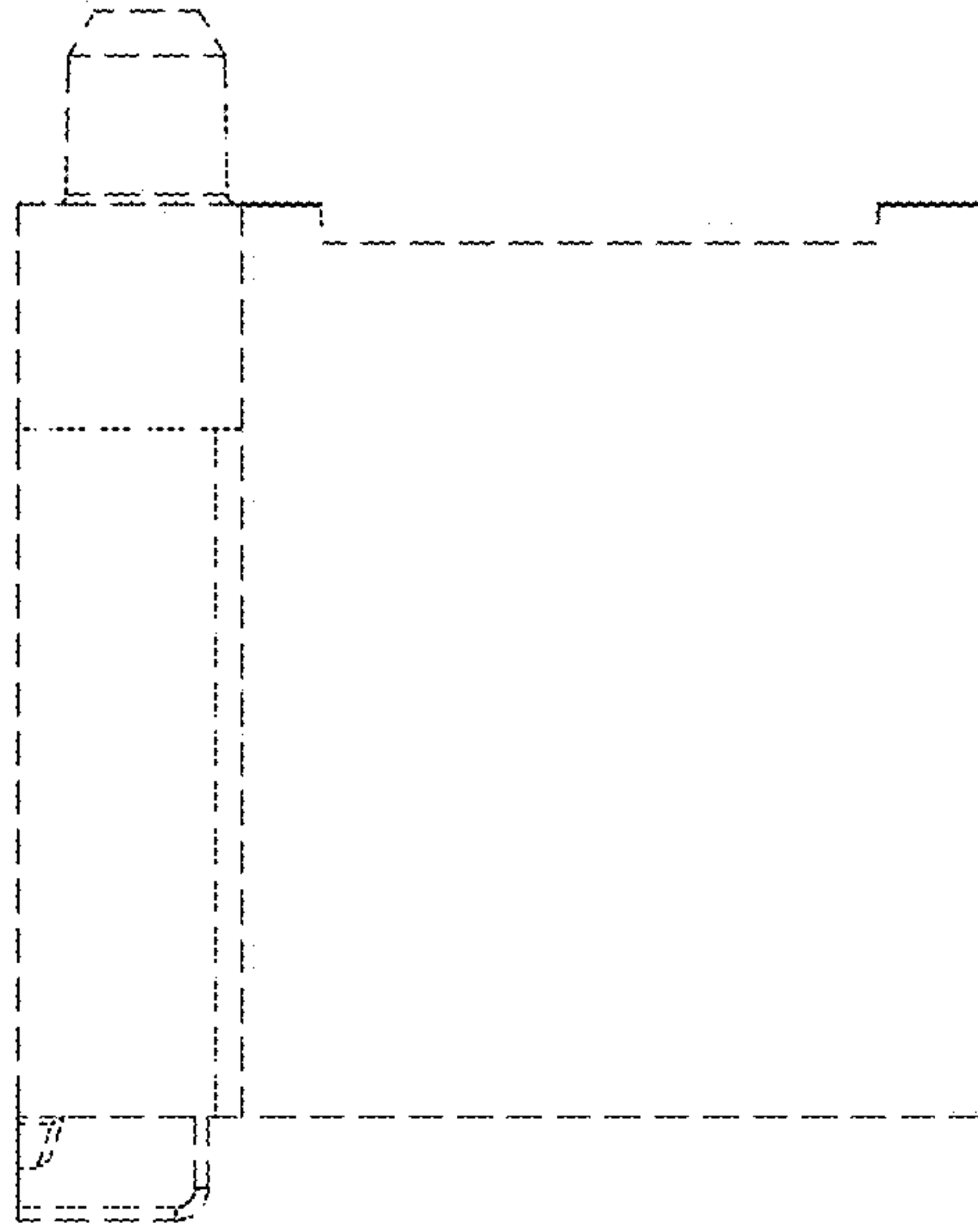


FIG. 24

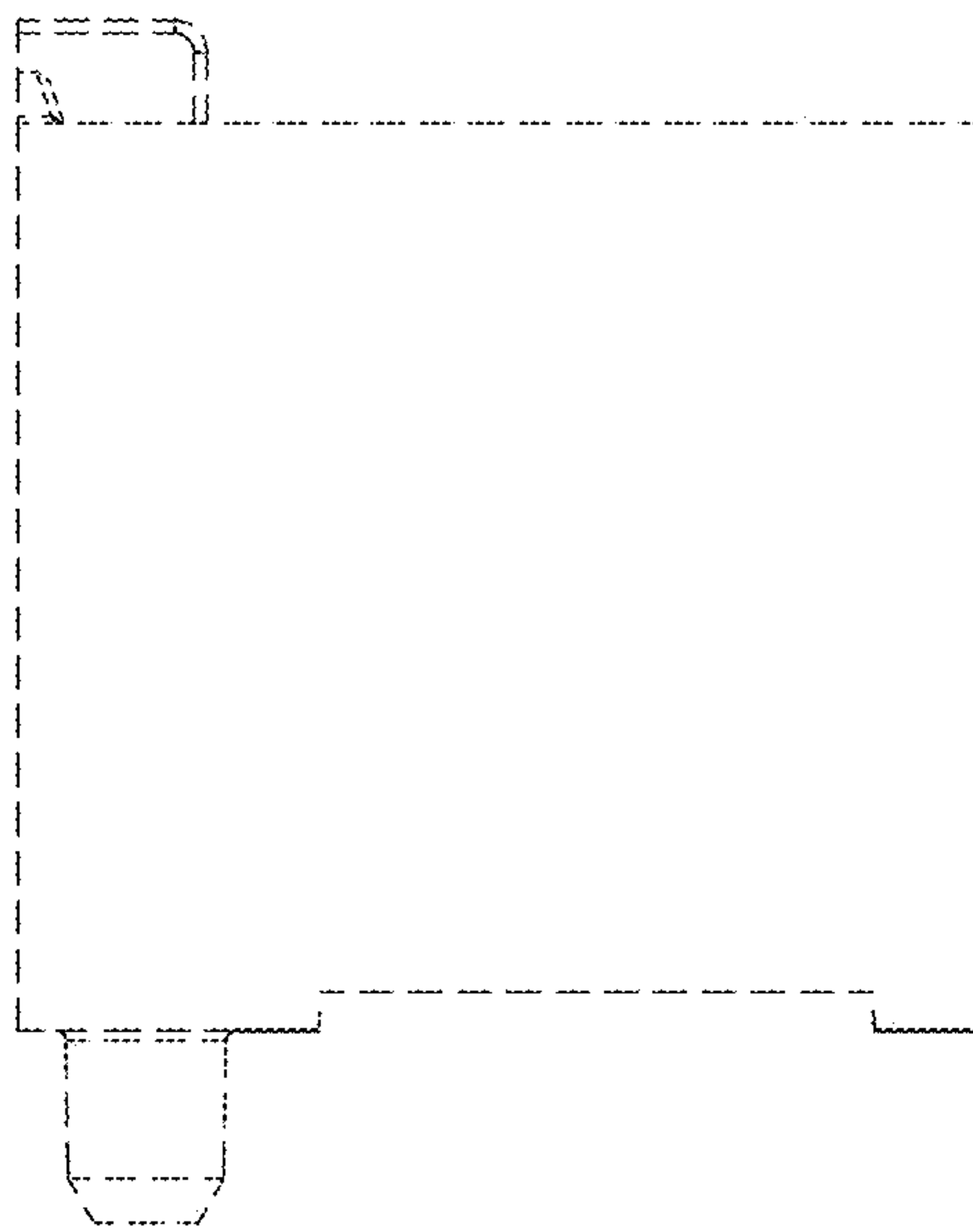


FIG. 23

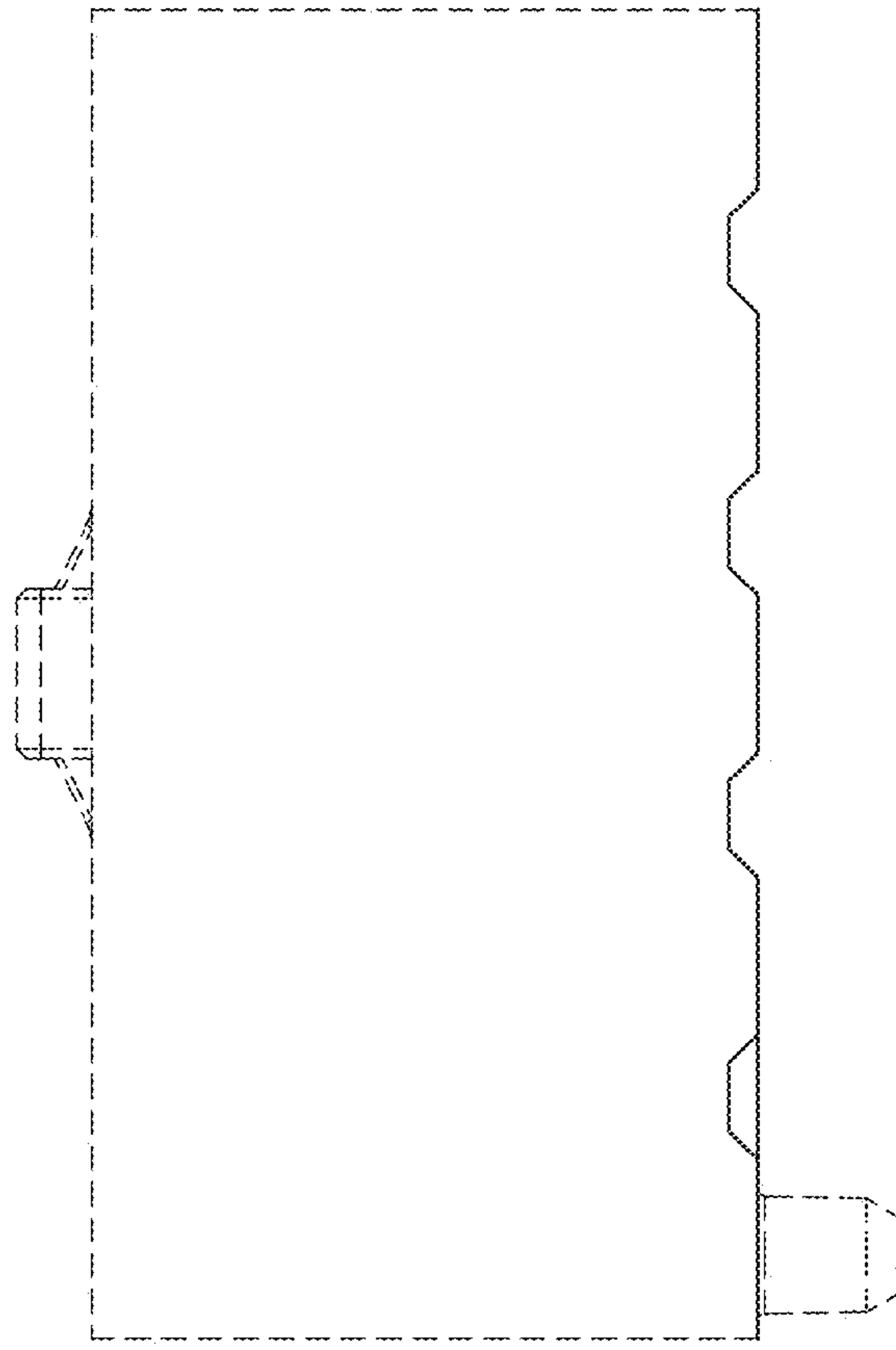


FIG. 26

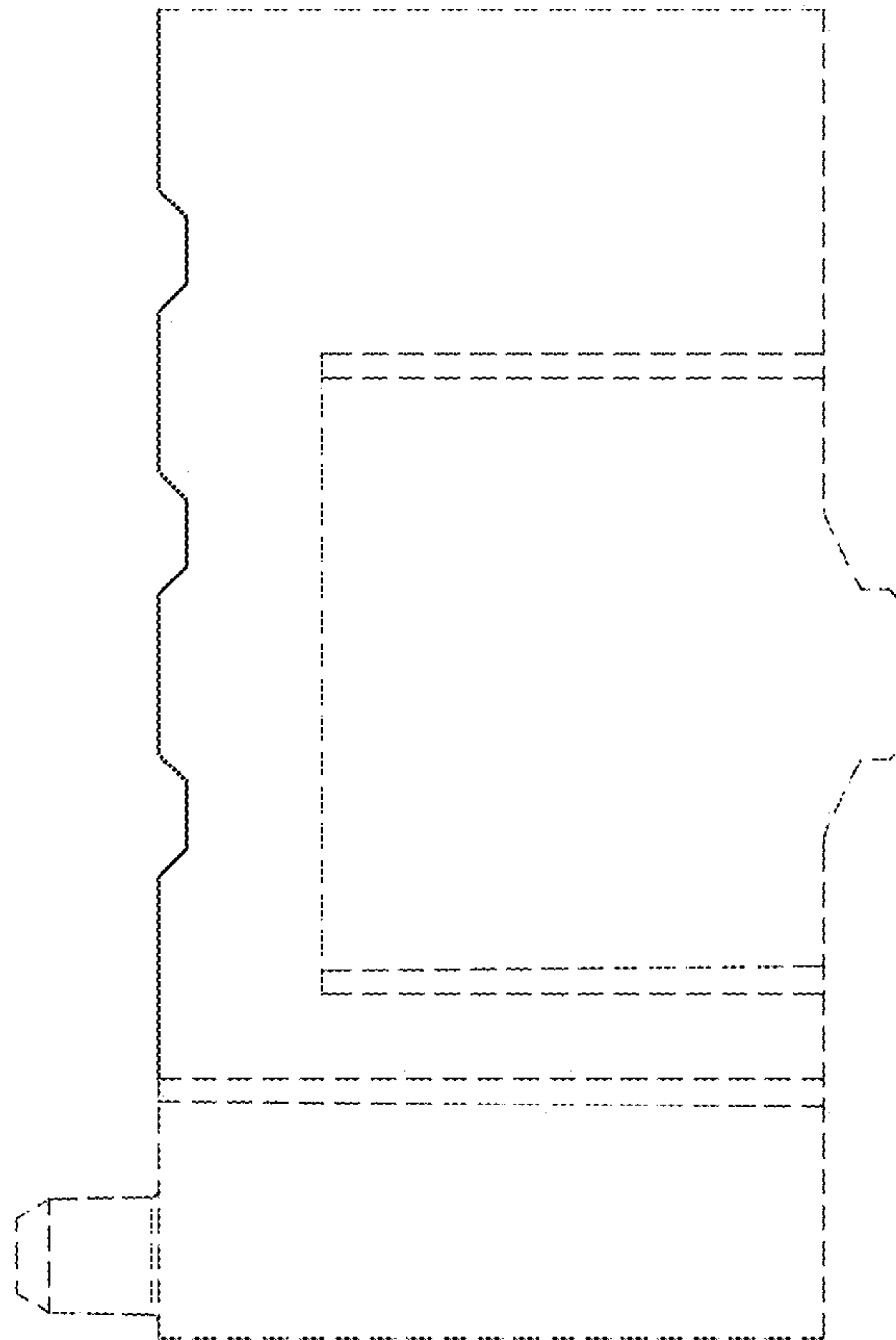


FIG. 25

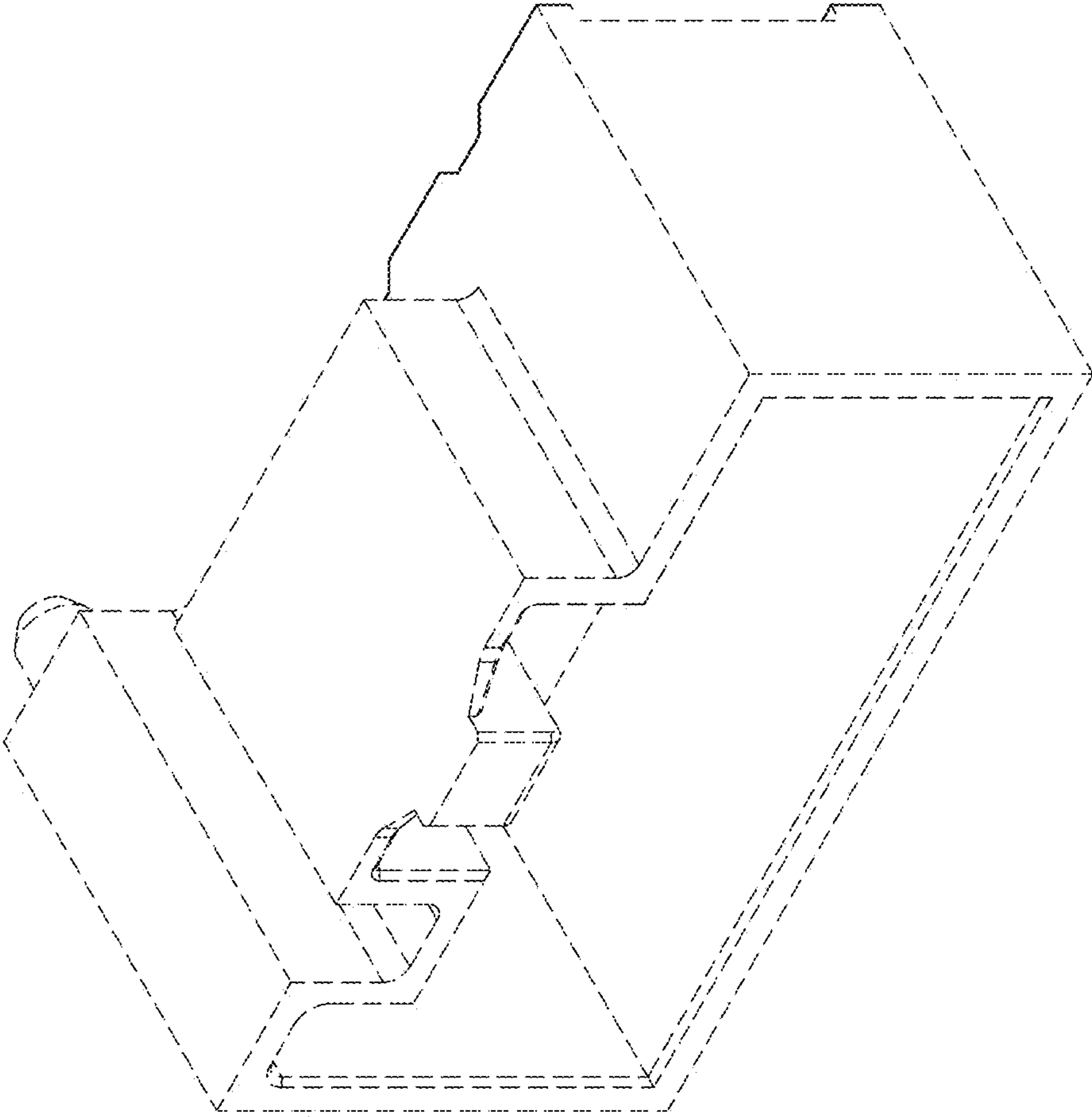


FIG. 27