



US00D574339S

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

(10) **Patent No.:** **US D574,339 S**
(45) **Date of Patent:** **** Aug. 5, 2008**

(54) **PATTERN FORMED ON THE GROUND LAYER OF A MULTILAYER PRINTED CIRCUIT BOARD**

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

(21) Appl. No.: **29/245,352**

(22) Filed: **Dec. 22, 2005**

(30) **Foreign Application Priority Data**

Jun. 24, 2005 (JP) 2005-018348
Jun. 24, 2005 (JP) 2005-018349

(51) **LOC (8) Cl.** **13-03**

(52) **U.S. Cl.** **D13/182**

(58) **Field of Classification Search** D13/182;
174/254, 261; 428/209, 901; 439/55
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,819,989 A * 6/1974 Braune 361/749

(Continued)

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(57) **CLAIM**

The ornamental design for a pattern formed on the ground layer of a multilayer printed circuit board, as shown and described.

DESCRIPTION

FIG. 1 shows a front view of the design according to a first embodiment of the present invention.

FIG. 2 shows a back view of the design according to a first embodiment of the present invention.

FIG. 3 shows a top plan view of the design according to a first embodiment of the present invention.

FIG. 4 shows a bottom plan view of the design according to a first embodiment of the present invention.

FIG. 5 shows a left side view of the design according to a first embodiment of the present invention.

FIG. 6 shows a right side view of the design according to a first embodiment of the present invention.

FIG. 7 shows a partial view of FIG. 1 corresponding to the area indicated by the dashed box in FIG. 1.

FIG. 8 shows a detailed view of an enlarged portion of FIG. 7 indicated by the dashed box in FIG. 7.

FIG. 9 shows a sectional view along the line 9—9 indicated in FIG. 7.

FIG. 10 shows a front plan view of the design according to a second embodiment of the present invention. In this embodiment, the ground layer is transparent.

FIG. 11 shows a back view of the design according to a second embodiment of the present invention.

FIG. 12 shows a top plan view of the design according to a second embodiment of the present invention.

FIG. 13 shows a bottom plan view of the design according to a second embodiment of the present invention.

FIG. 14 shows a right side view of the design according to a second embodiment of the present invention.

FIG. 15 shows a left side view of the design according to a second embodiment of the present invention.

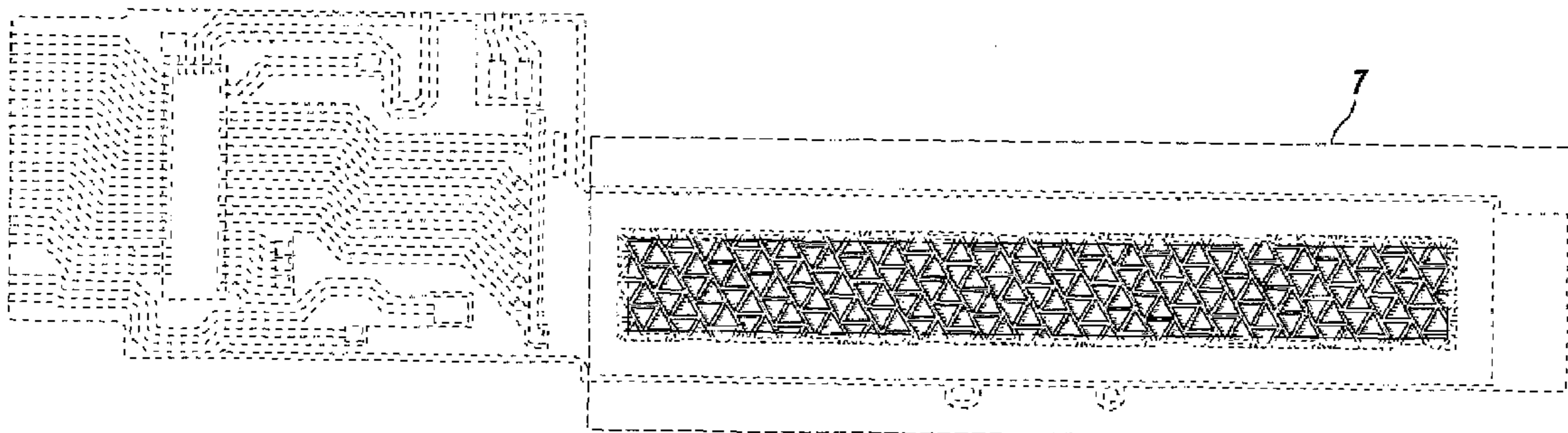
FIG. 16 shows a partial view of FIG. 11 corresponding to the area indicated by the dashed box in FIG. 11.

FIG. 17 shows a detailed view of an enlarged portion of FIG. 17 indicated by the dashed box in FIG. 17; and,

FIG. 18 shows a sectional view along the line 19—19 indicated in FIG. 17.

The broken lines represent unclaimed subject matter.

1 Claim, 8 Drawing Sheets



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U.S. PATENT DOCUMENTS

4,524,239	A *	6/1985	Rouge	174/254	6,385,035	B1 *	5/2002	Matoba et al.	361/321.1
4,791,238	A *	12/1988	Kanno et al.	174/266	2002/0075660	A1 *	6/2002	Samant et al.	361/752
5,855,988	A *	1/1999	Matsuo	428/195.1	2005/0018409	A1 *	1/2005	Hirakata	361/752
5,999,097	A *	12/1999	Liddle et al.	340/550	2006/0175082	A1 *	8/2006	Tanaka	174/254
6,380,493	B1 *	4/2002	Morita et al.	174/258	2006/0246268	A1 *	11/2006	Honjo et al.	428/209
D457,146	S *	5/2002	Yamamoto et al.	D13/182					

* cited by examiner

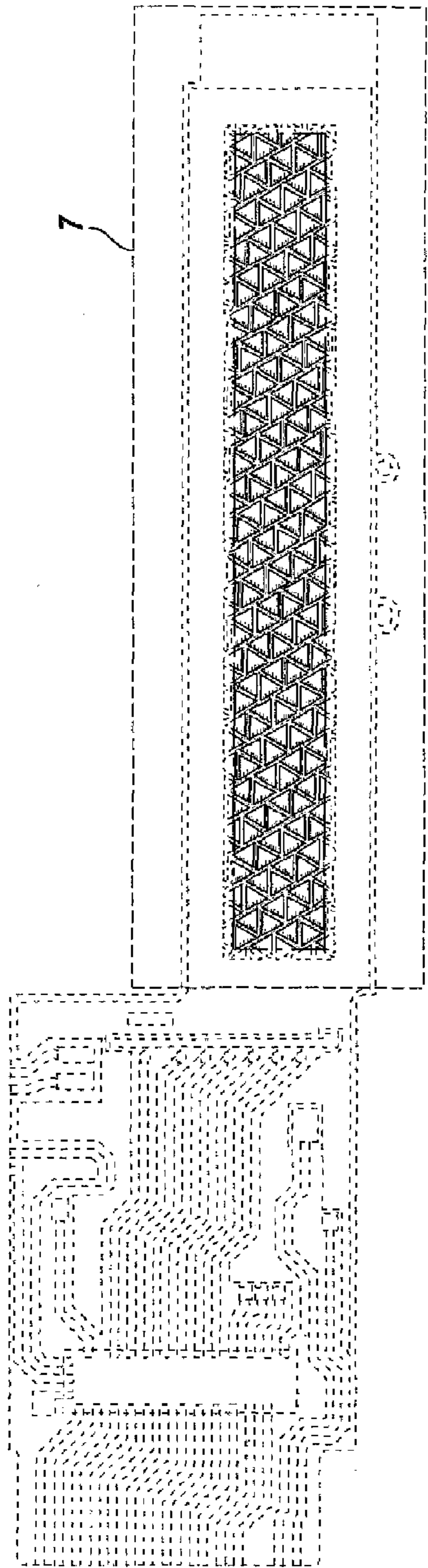


FIG. 1

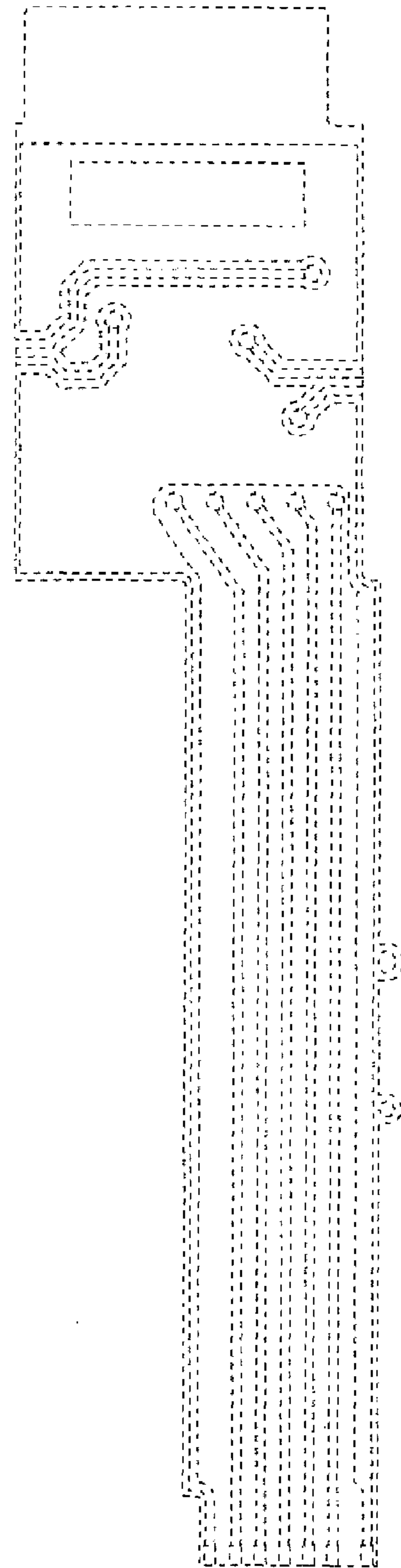


FIG. 2



FIG. 3



FIG. 4

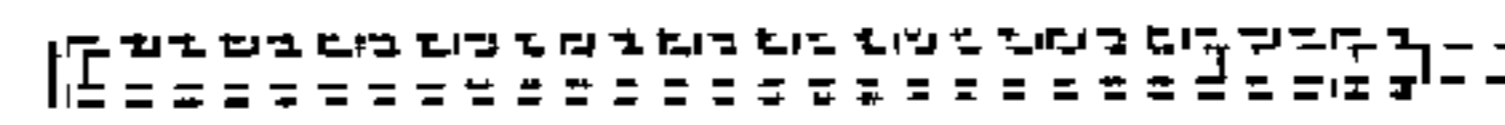


FIG. 5

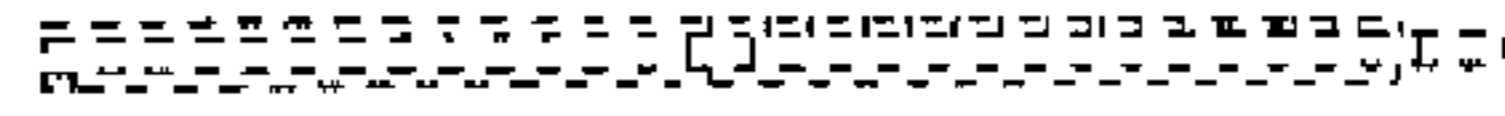


FIG. 6

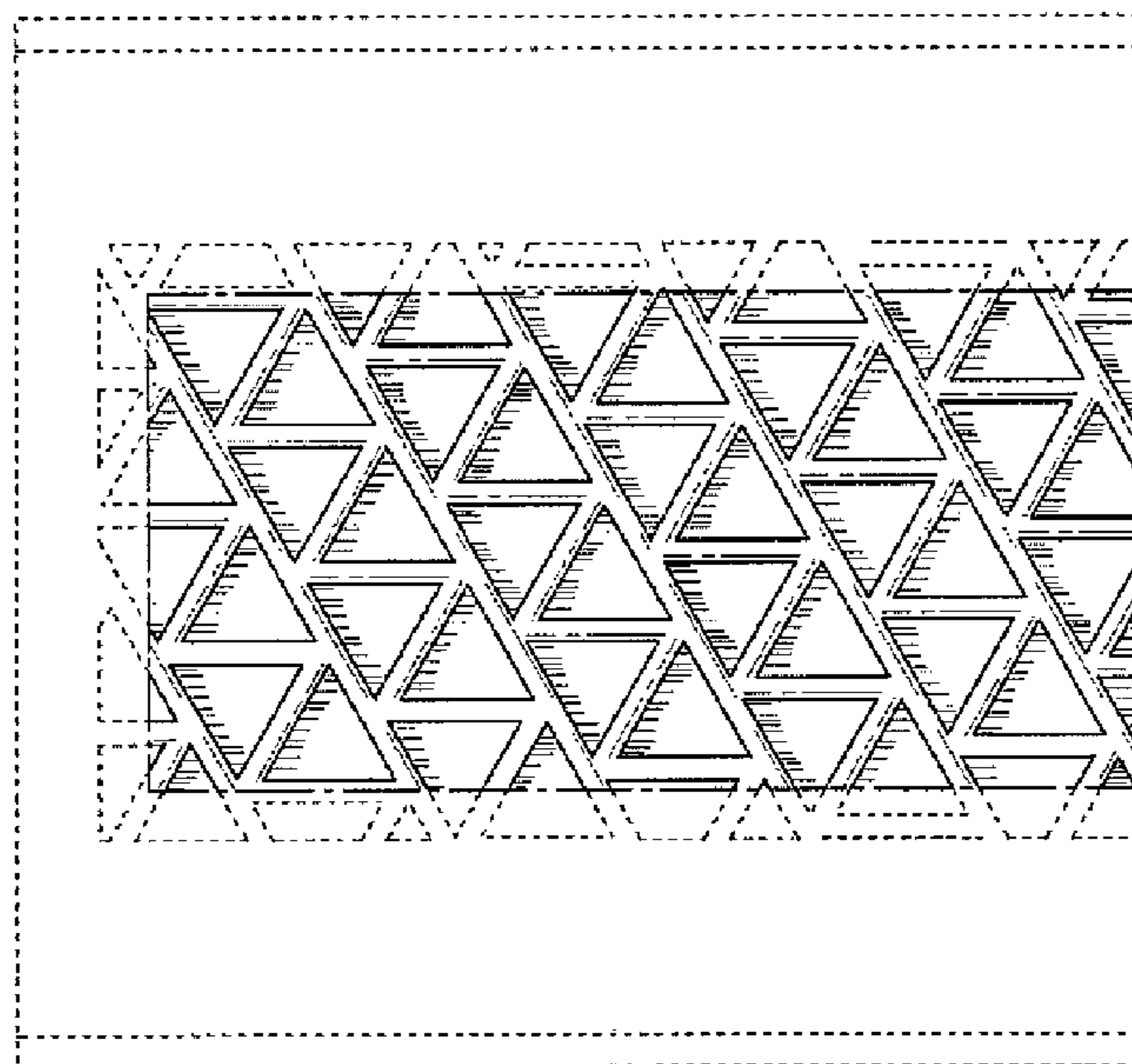
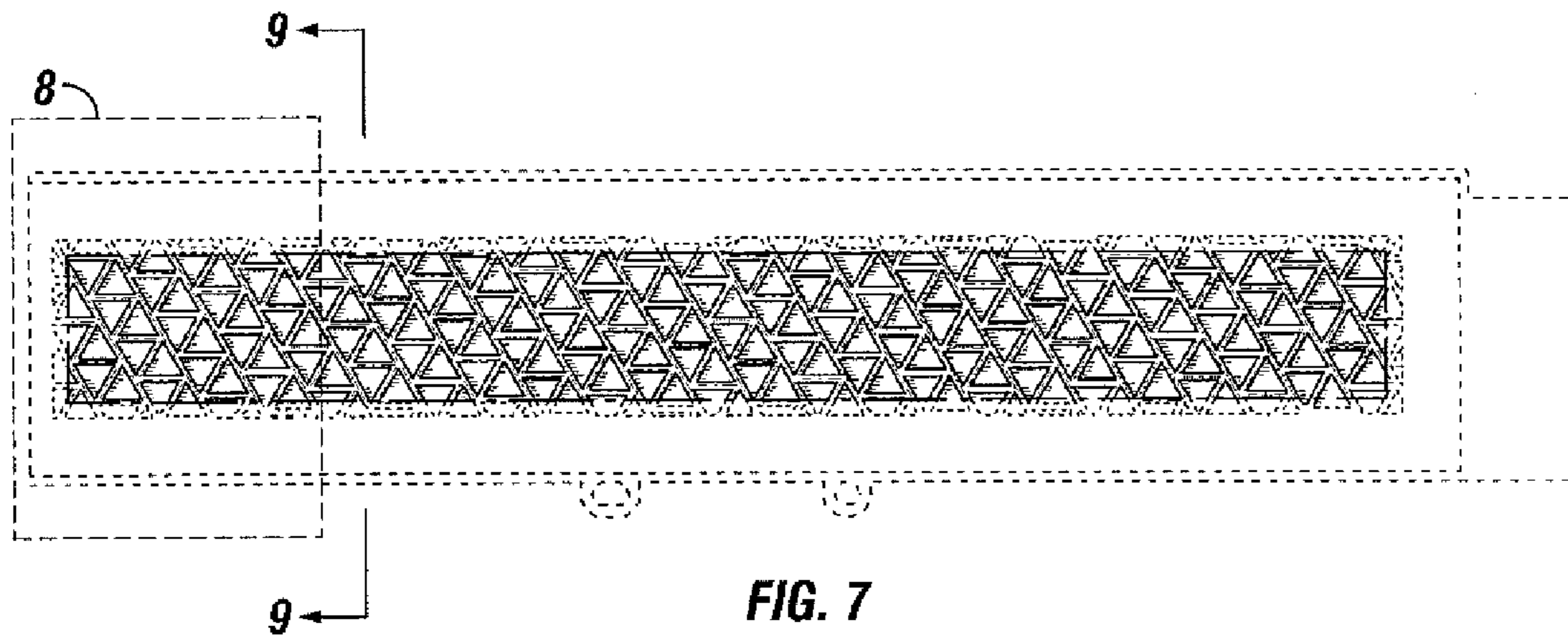


FIG. 8

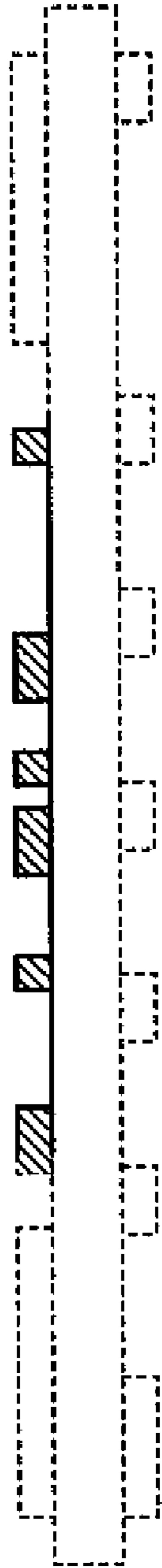


FIG. 9

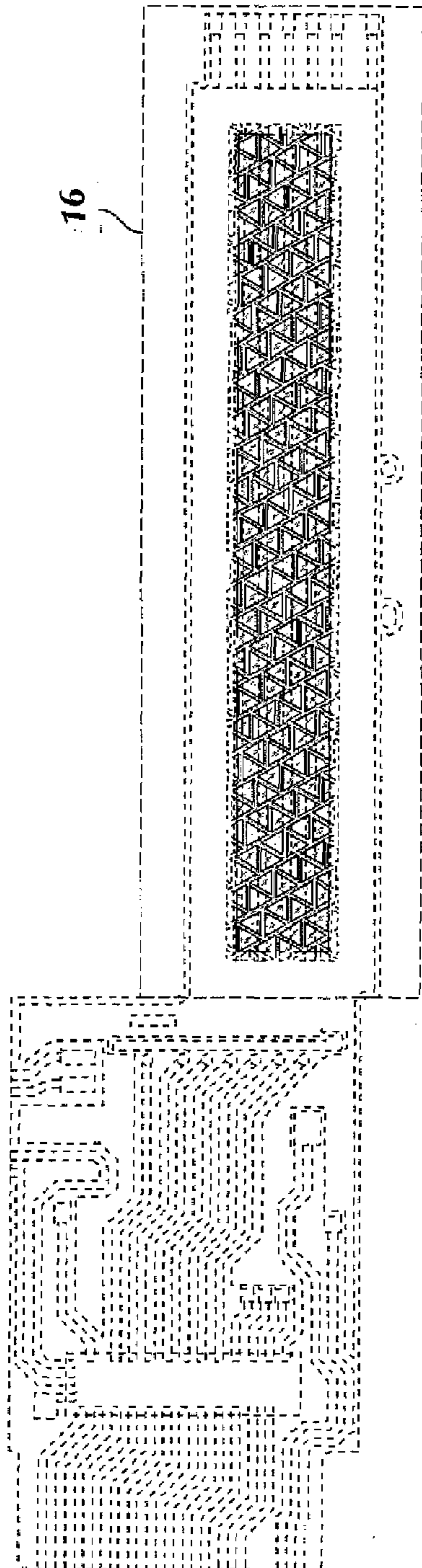


FIG. 10

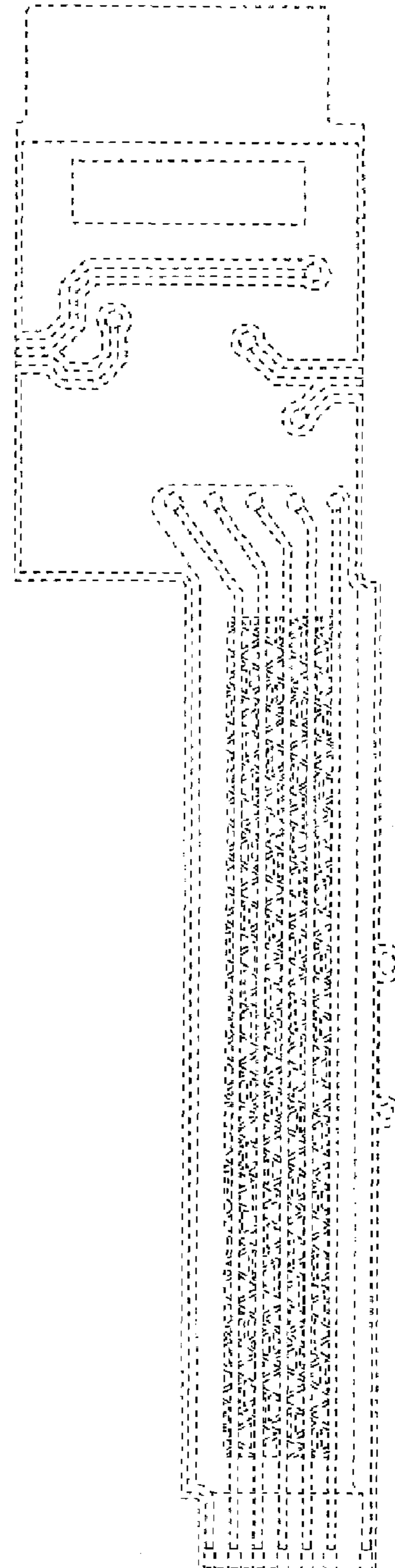


FIG. 11

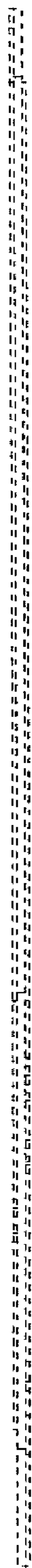


FIG. 12

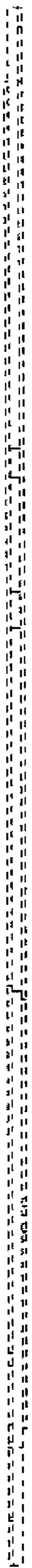


FIG. 13

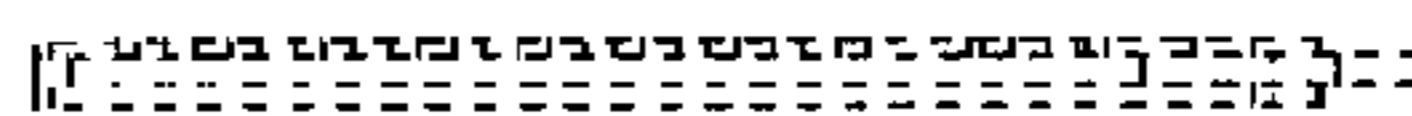


FIG. 14



FIG. 15

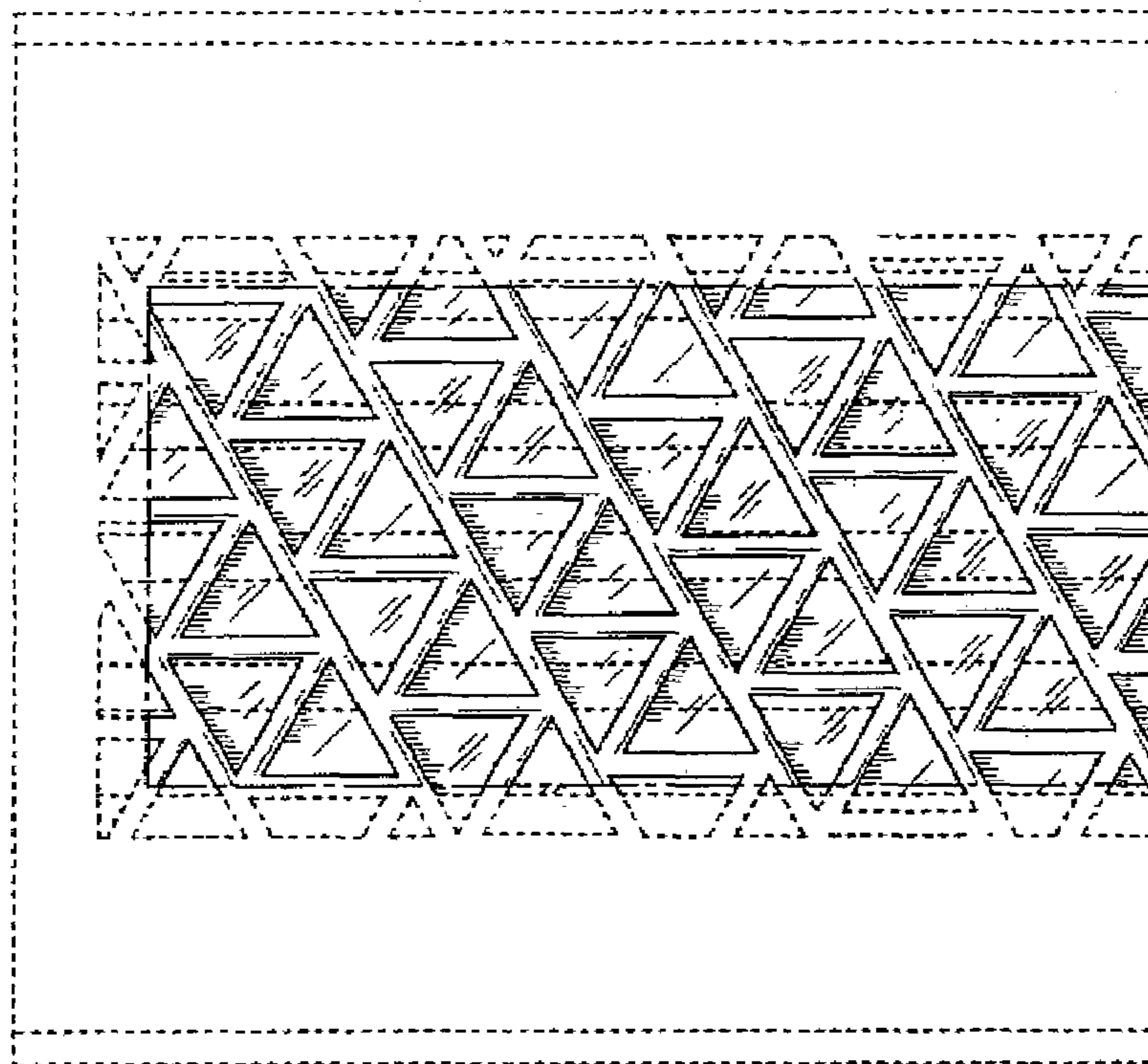
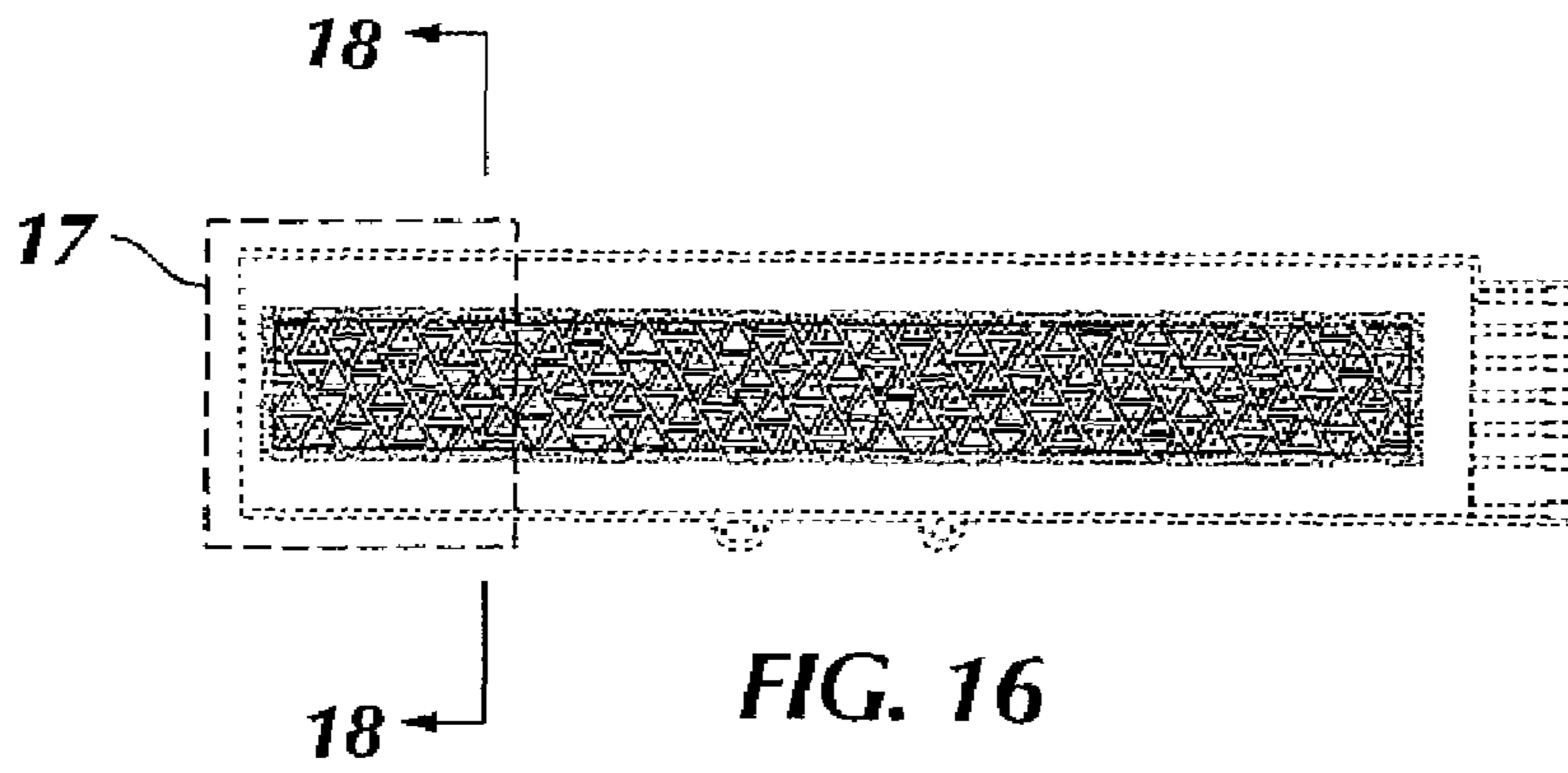


FIG. 17

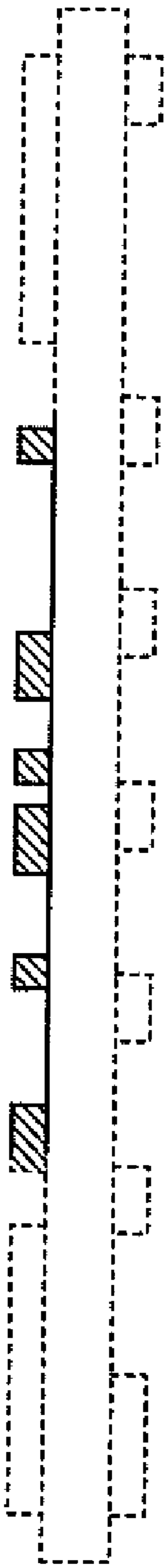


FIG. 18