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(12) United States Design Patent

Aoki

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(45) Date of Patent: ** May 11, 2021

(54) **CATALYST CARRIER FOR EXHAUST GAS PURIFICATION**

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(72) Inventor: **Yoichi Aoki**, Nagoya (JP)

(73) Assignee: **NGK Insulators, Ltd.**, Nagoya (JP)

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

(21) Appl. No.: **29/651,498**

(22) Filed: **Aug. 17, 2018**

(30) **Foreign Application Priority Data**

Feb. 20, 2018 (JP) 2018-003390
Feb. 20, 2018 (JP) 2018-003391
(Continued)

(51) **LOC (13) Cl.** **23-04**
(52) **U.S. Cl.**
USPC **D23/365**; D23/355; D15/5
(58) **Field of Classification Search**
USPC D23/209, 341, 354, 355, 364–365, D23/386–391; D25/114–116, 118–125
(Continued)

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Primary Examiner — Sheryl Lane
Assistant Examiner — Calvin E Vansant
(74) *Attorney, Agent, or Firm* — Burr & Brown, PLLC

(57) **CLAIM**

The ornamental design for a catalyst carrier for exhaust gas purification, as shown and described.

DESCRIPTION

FIG. **1** is a perspective view of a first embodiment of a catalyst carrier for exhaust gas purification illustrating my new design;
FIG. **2** is a front view thereof, the rear view thereof being a right-and-left reversed image;
FIG. **3** is a top view thereof, the bottom view thereof being a mirror image;
FIG. **4** is a right view thereof, the left view thereof being a mirror image;
FIG. **5** is an enlarged view delimited by the lines labelled **5** in FIG. **2**;
FIG. **6** is a middle omitted cross-sectional view taken through line **6-6** of FIG. **5**;
FIG. **7** is a middle omitted cross-sectional view taken through line **7-7** of FIG. **5**;
FIG. **8** is a perspective view of a second embodiment of a catalyst carrier for exhaust gas purification illustrating my new design;
FIG. **9** is a front view thereof, the rear view thereof being a right-and-left reversed image;
FIG. **10** is a top view thereof, the bottom view thereof being a mirror image;
FIG. **11** is a right view thereof, the left view thereof being a mirror image;
FIG. **12** is an enlarged view delimited by the lines labelled **12** in FIG. **9**;
FIG. **13** is a middle omitted cross-sectional view taken through line **13-13** of FIG. **12**;
FIG. **14** is a middle omitted cross-sectional view taken through line **14-14** of FIG. **12**;
(Continued)

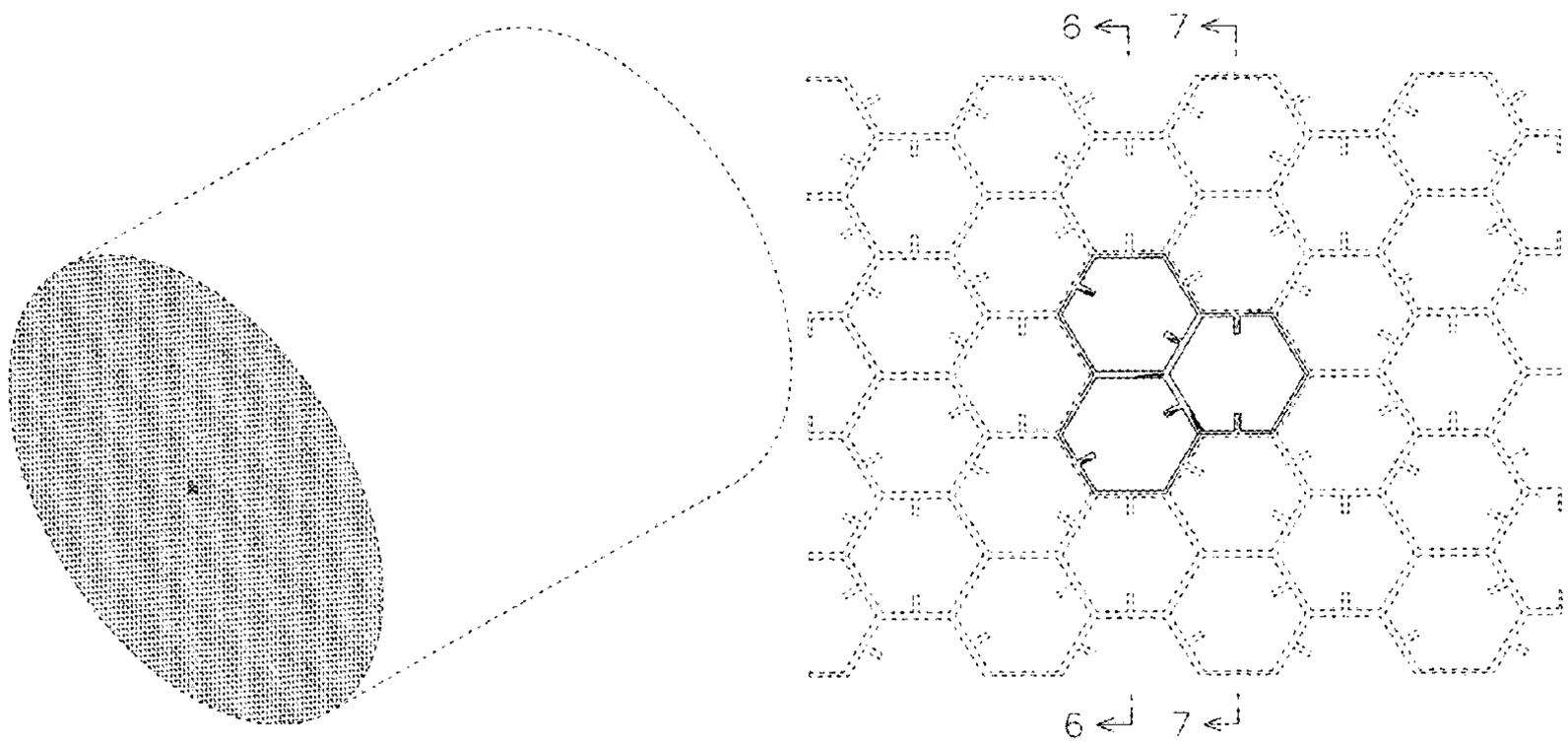

FIG. **15** is a perspective view of a third embodiment of a catalyst carrier for exhaust gas purification illustrating my new design;

FIG. **16** is a front view thereof, the rear view thereof being a right-and-left reversed image;

FIG. **17** is a top view thereof, the bottom view thereof being a mirror image;

FIG. **18** is a right view thereof, the left view thereof being a mirror image;

FIG. **19** is an enlarged view thereof delimited by the lines labelled **19** in FIG. **16**;

FIG. **20** is a middle omitted cross-sectional view thereof taken through line **20-20** of FIG. **19**;

FIG. **21** is a middle omitted cross-sectional view thereof taken through line **21-21** of FIG. **19**;

FIG. **22** is a perspective view of a fourth embodiment of a catalyst carrier for exhaust gas purification illustrating my new design;

FIG. **23** is a front view thereof, the rear view thereof being a right-and-left reversed image;

FIG. **24** is a top view thereof, the bottom view thereof being a mirror image;

FIG. **25** is a right view thereof, the left view thereof being a mirror image;

FIG. **26** is an enlarged view thereof delimited by the lines labelled **26** in FIG. **23**;

FIG. **27** is a middle omitted cross-sectional view thereof taken through line **27-27** of FIG. **26**; and,

FIG. **28** is a middle omitted cross-sectional view thereof taken through line **28-28** of FIG. **26**.

The catalyst carrier is used for removing toxic substances contained in exhaust fumes emitted from automobile engines and the like. The catalyst carrier has fins in each of its cells. The fin is provided in the same sectional shape over the whole length of the cells.

The broken lines in the drawings are for illustrative purposes only and form no part of the claimed design.

The dot-dash broken lines in the drawings depict a boundary between the claimed design and the unclaimed subject matter and form no part of the claimed design.

1 Claim, 28 Drawing Sheets

(30) **Foreign Application Priority Data**

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Feb. 20, 2018 (JP) 2018-003393
Feb. 20, 2018 (JP) 2018-003394
Feb. 20, 2018 (JP) 2018-003395

(58) **Field of Classification Search**
CPC F01N 2330/06; F01N 3/0222; B01D 46/2429; B01D 46/2451; B01D 46/247; B01D 46/2492; B01D 46/2481; F28F 1/40; E04B 2/42; E04B 2/44; E04B 2/50; E04B 2/52; E04B 2/54; C02F 3/101
See application file for complete search history.

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Fig.1

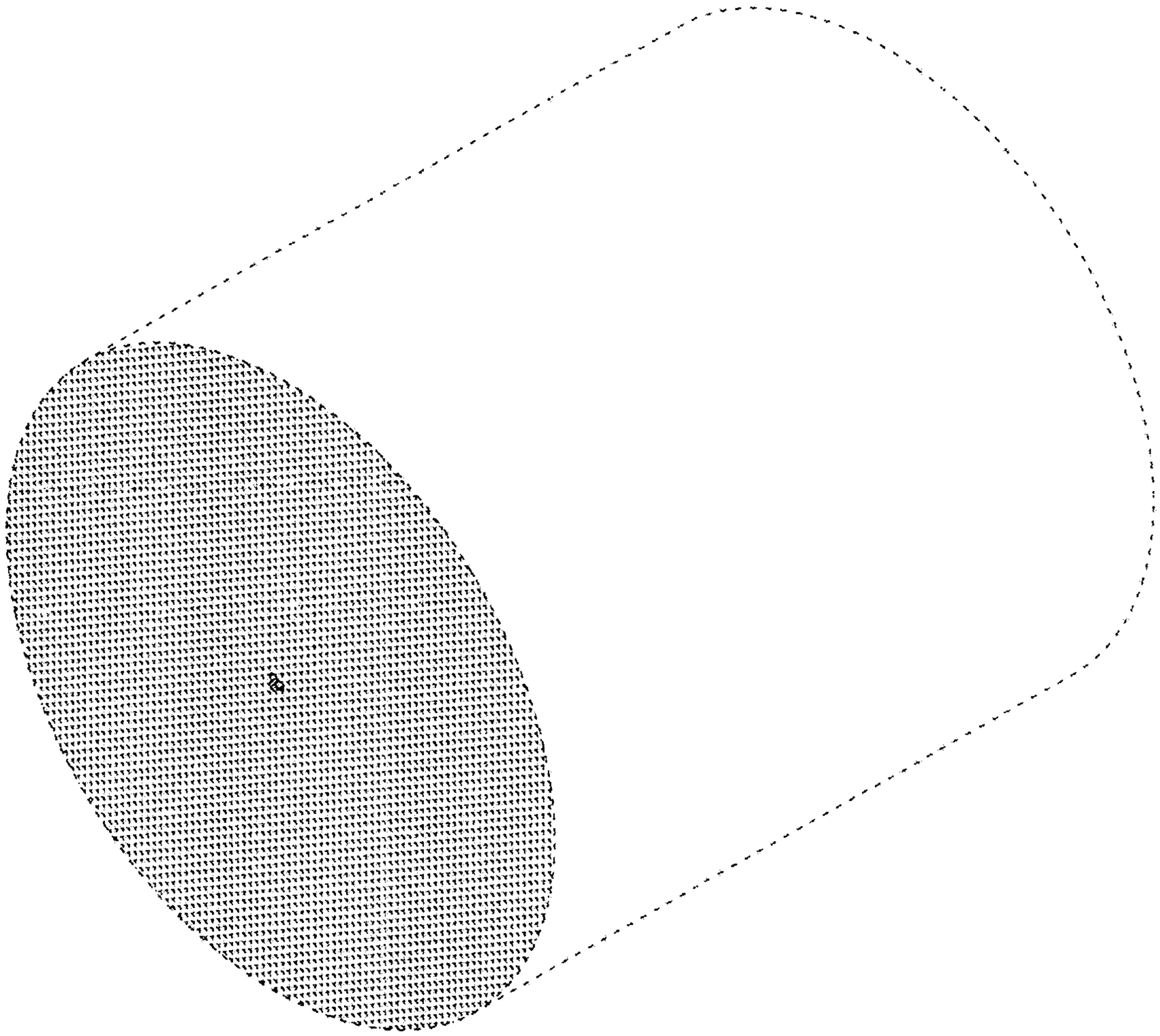


Fig.2

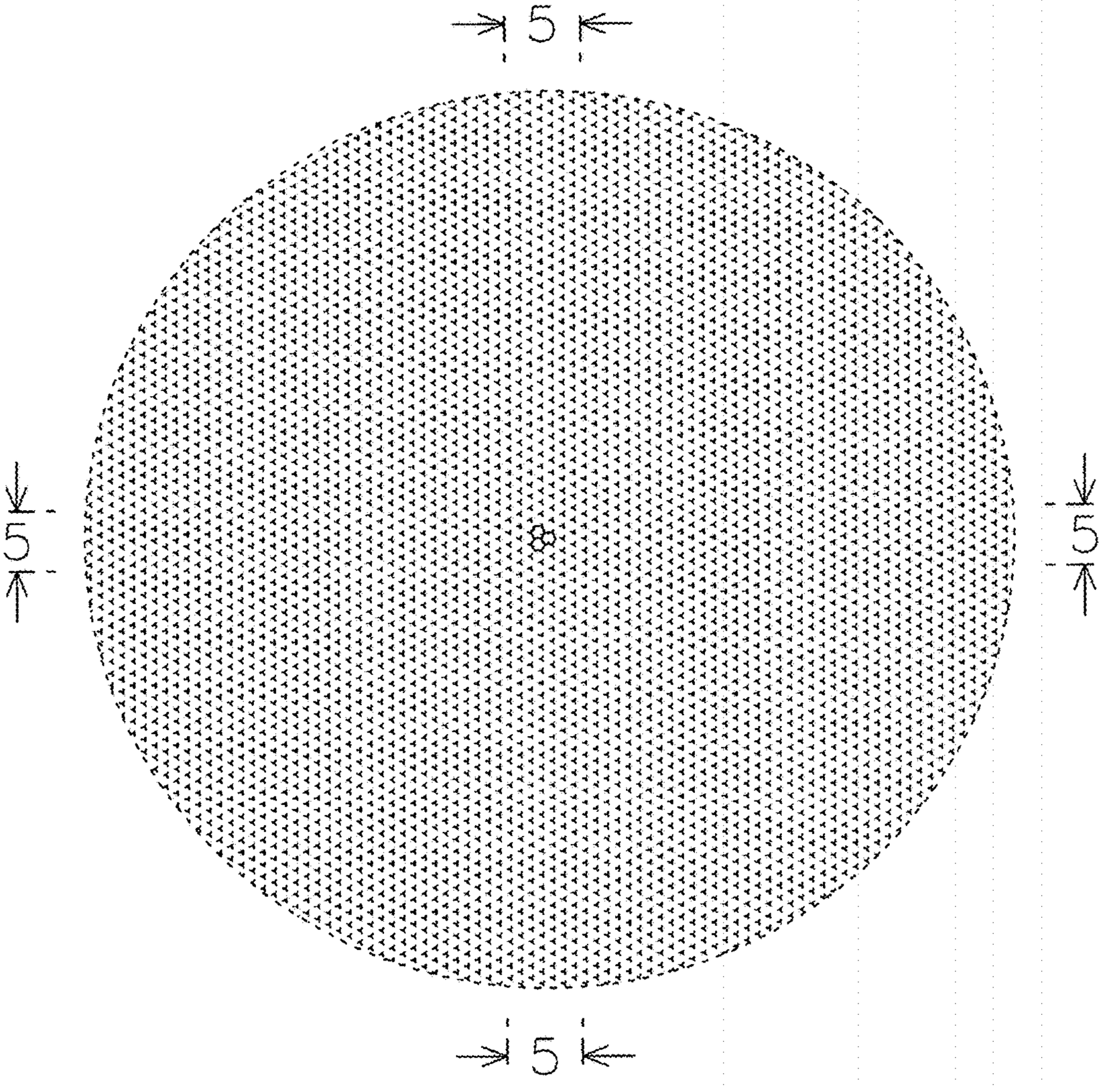


Fig.3

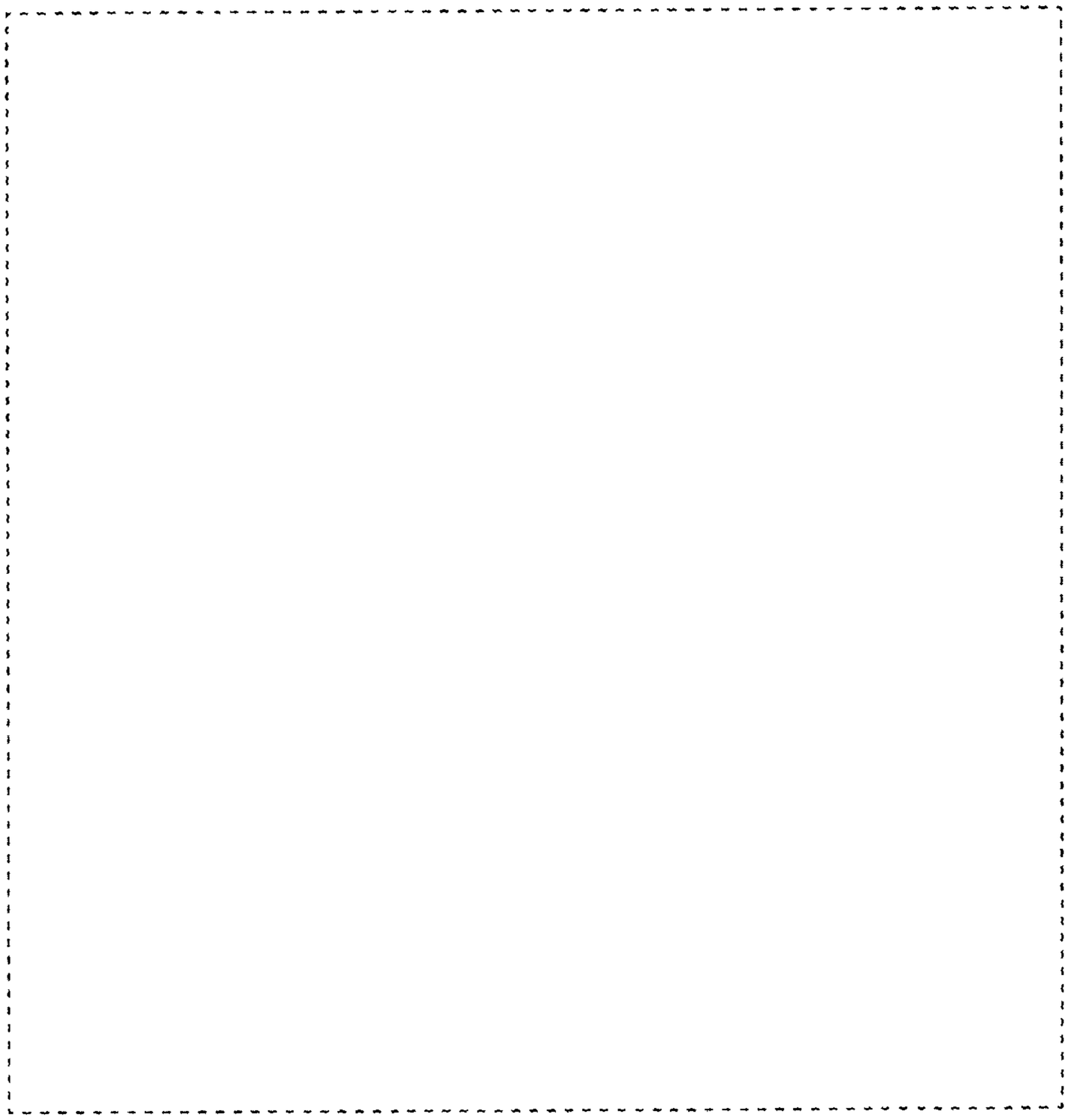


Fig. 4

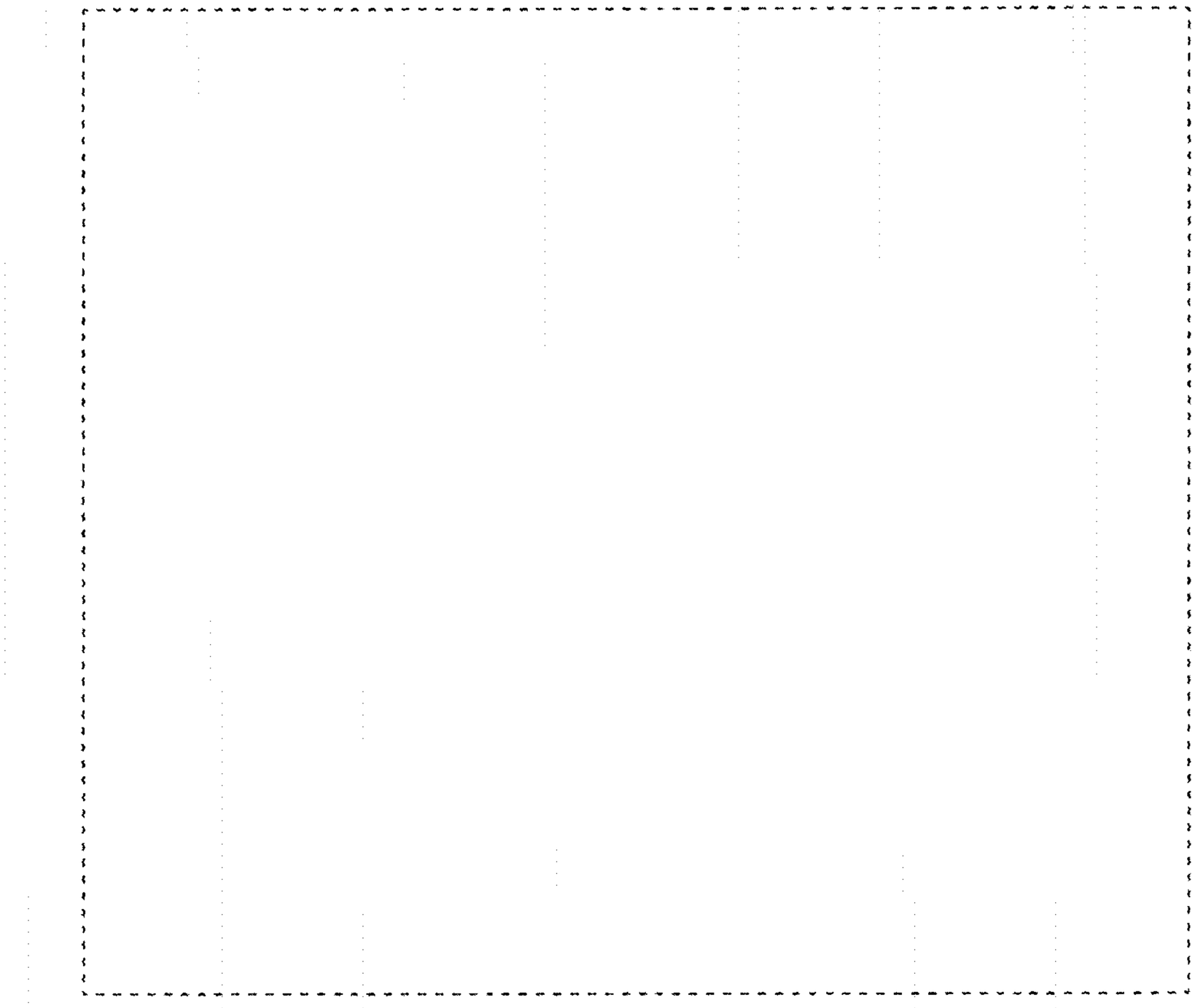


Fig.5

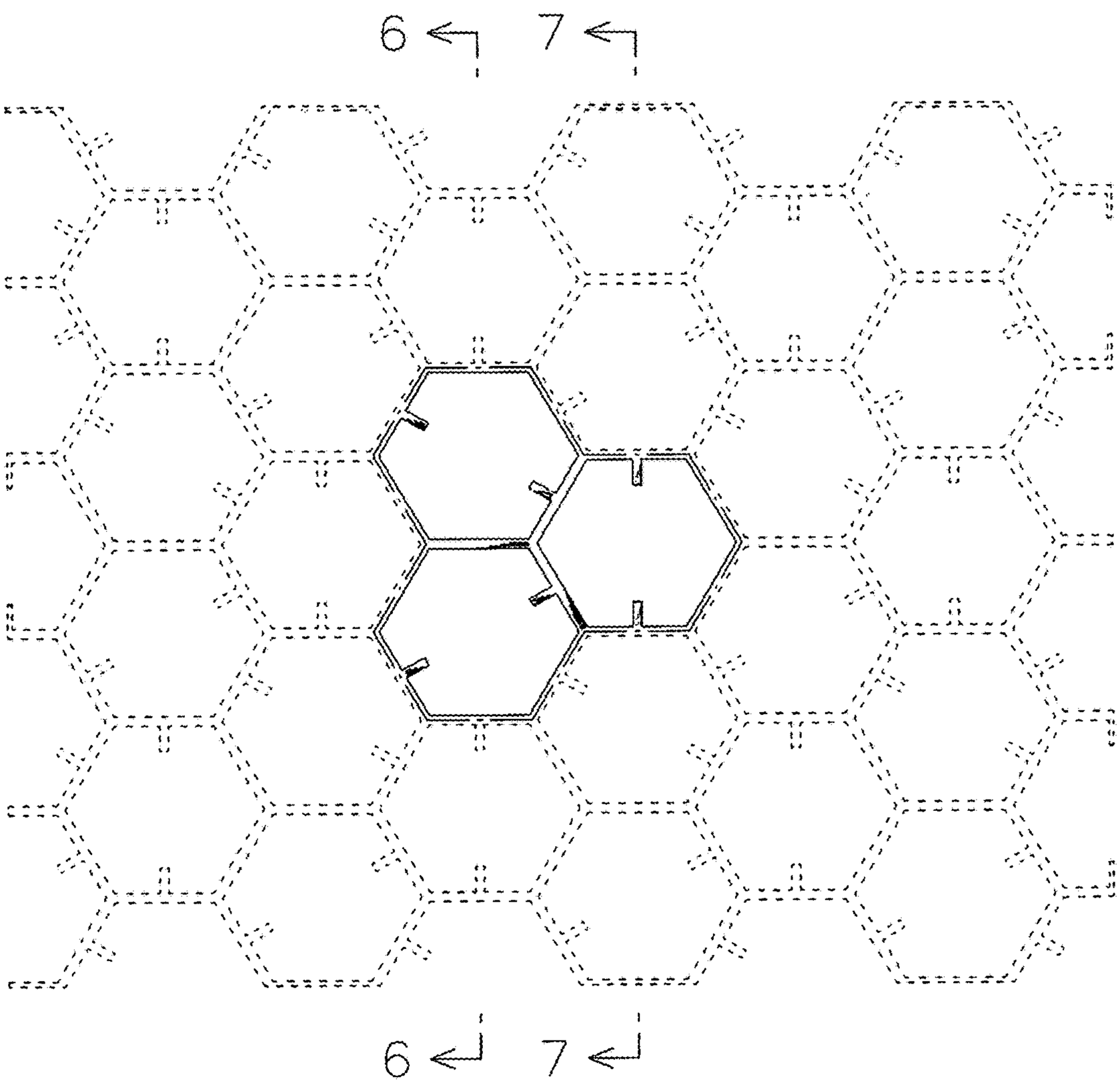
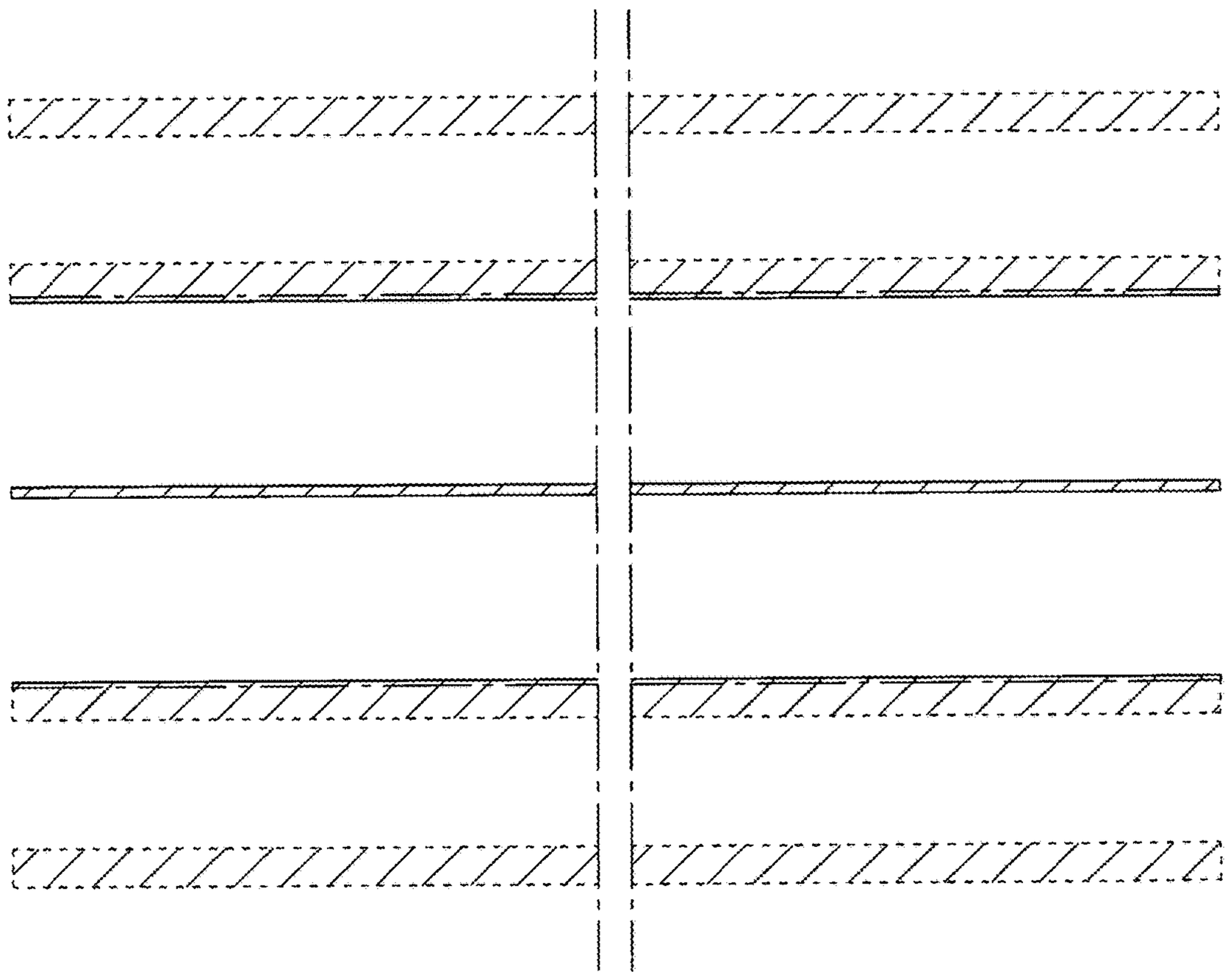


Fig.6



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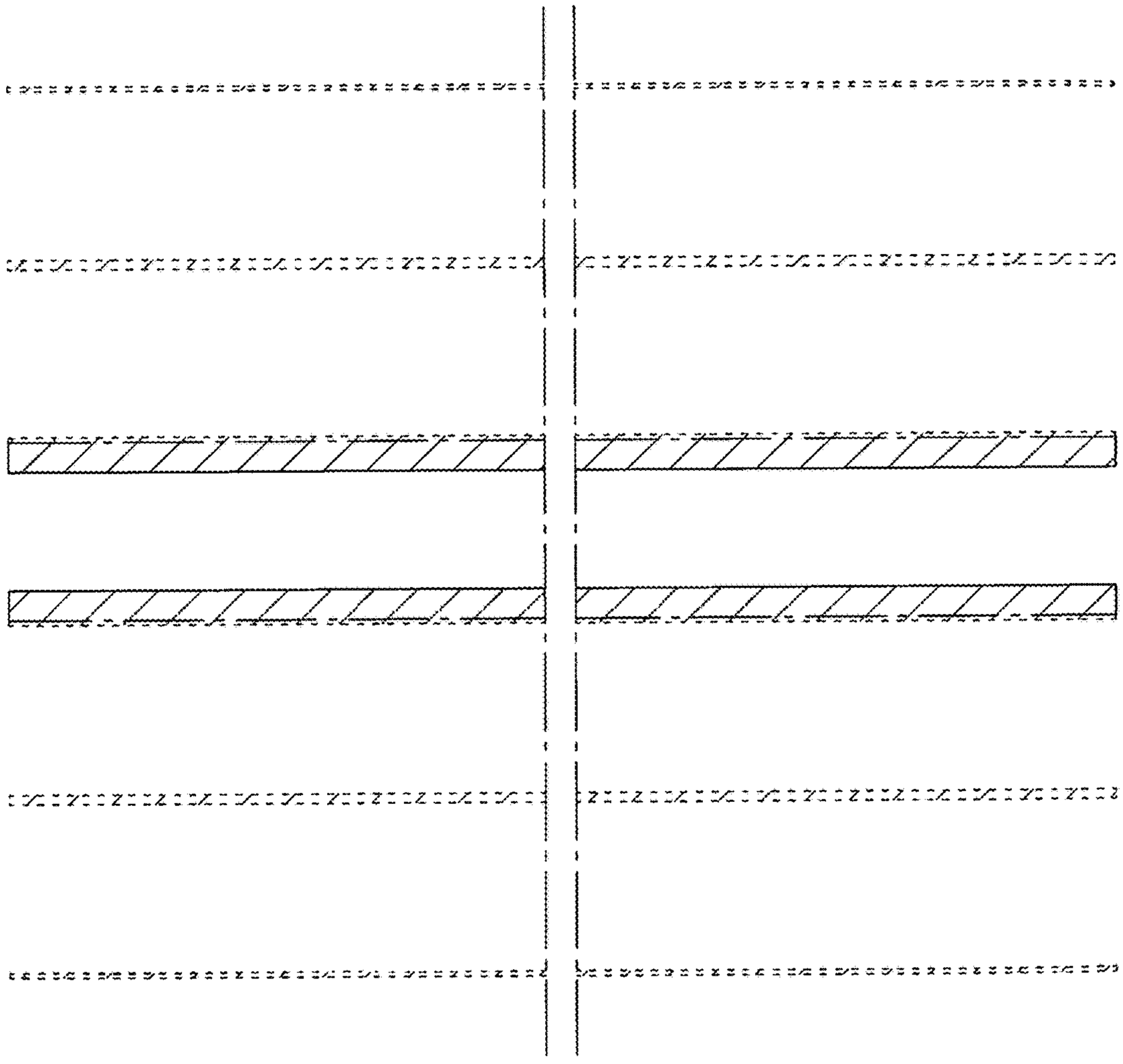

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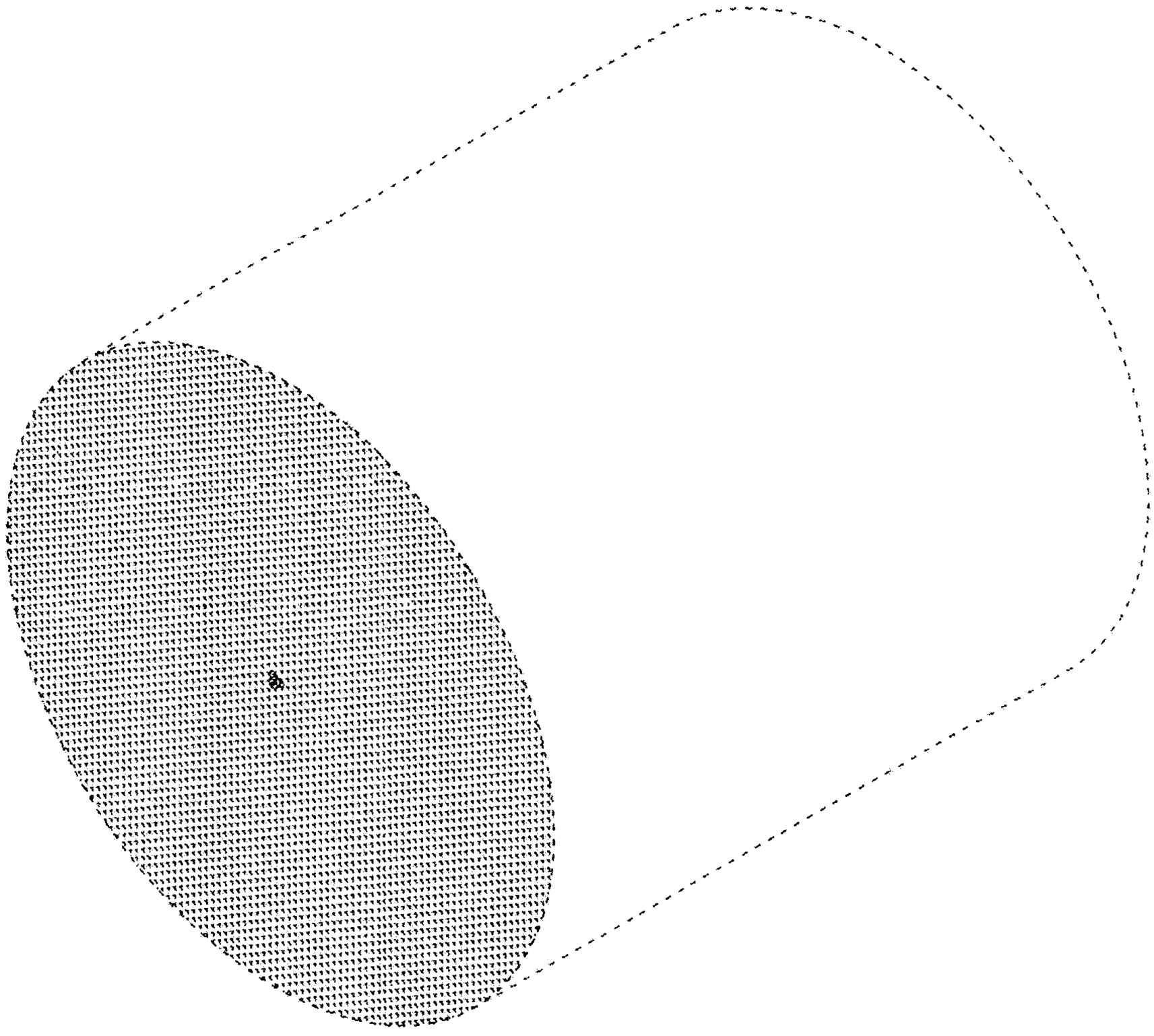

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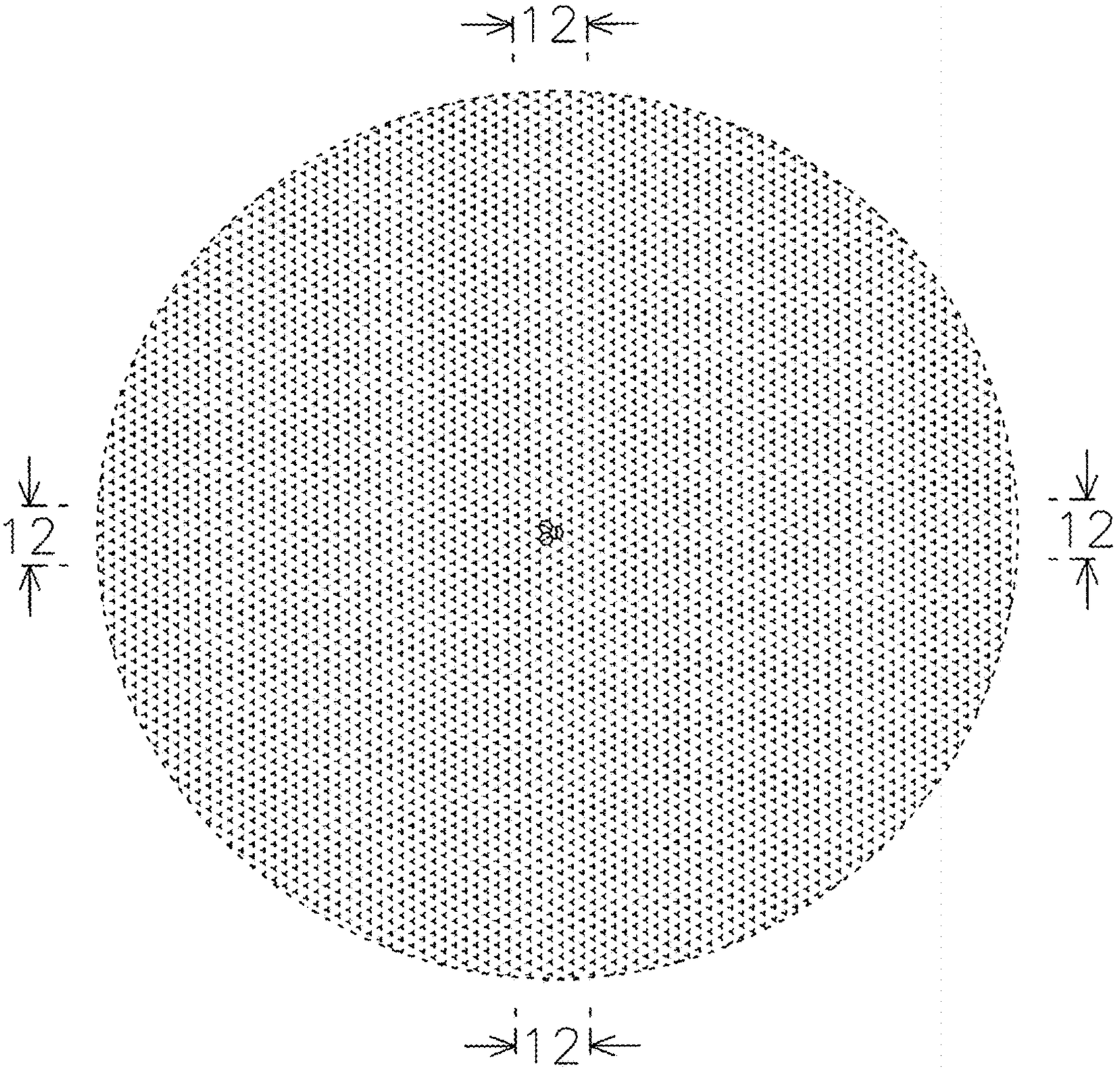


Fig.10

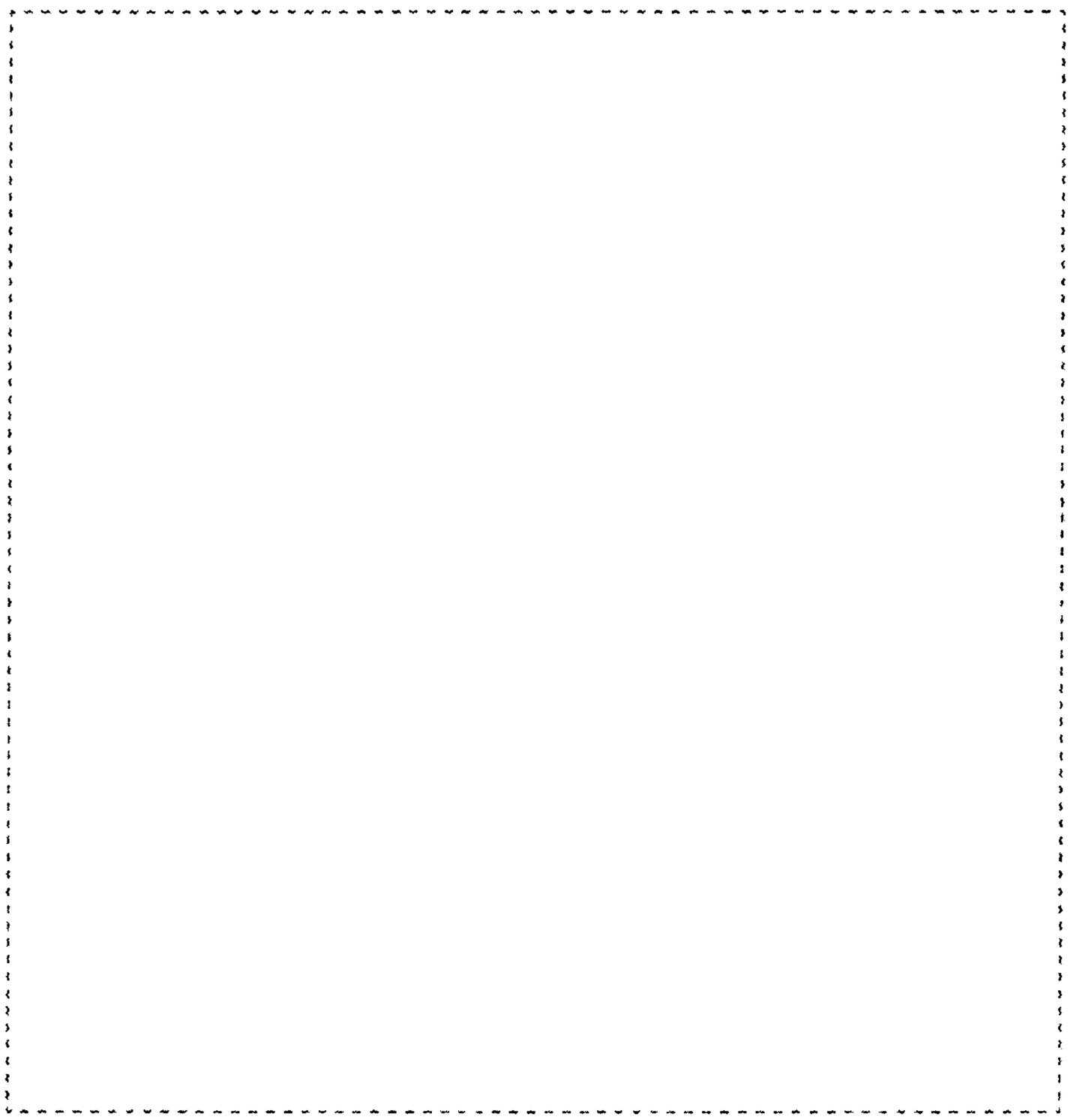


Fig.11

Fig.12

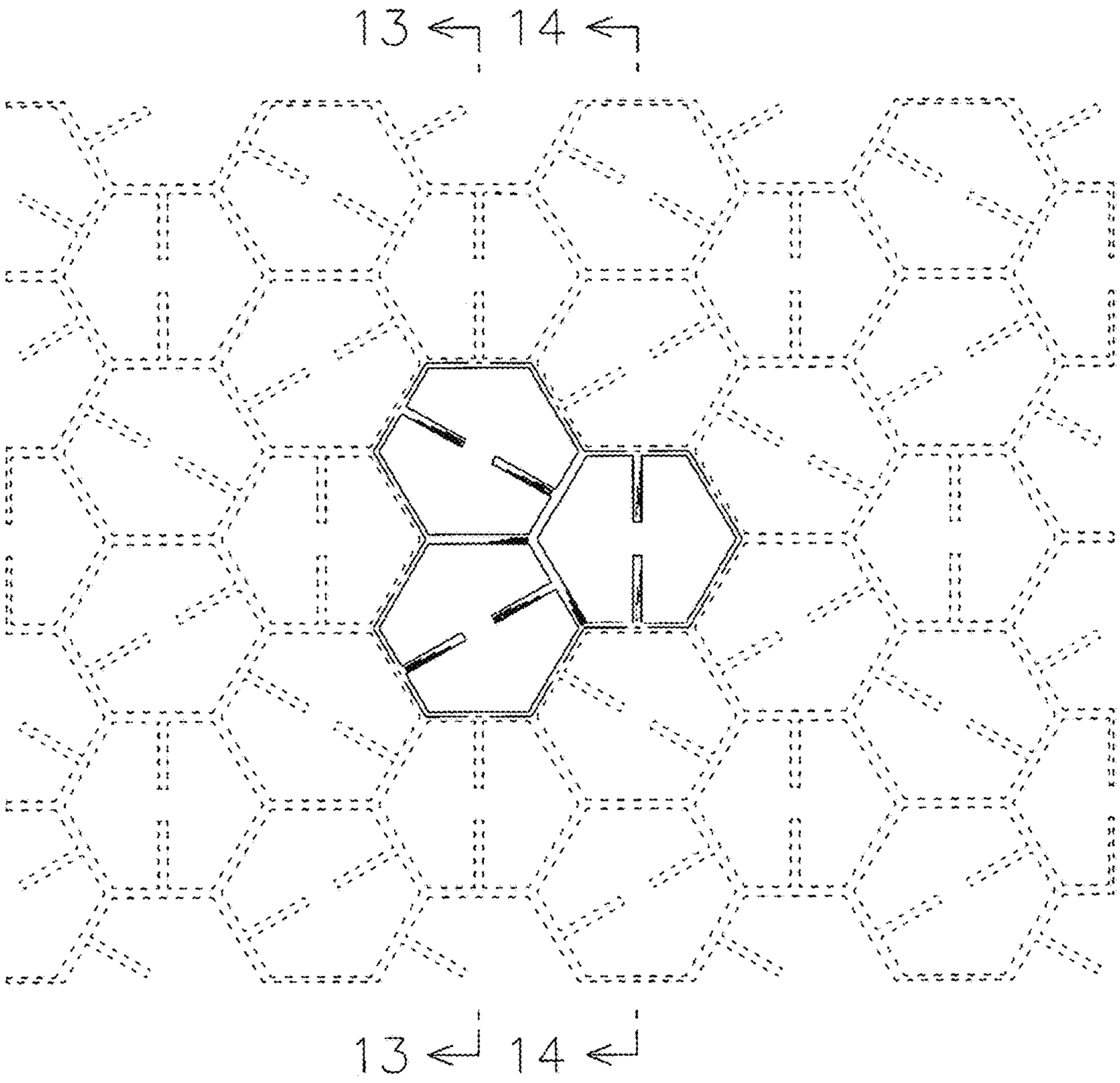
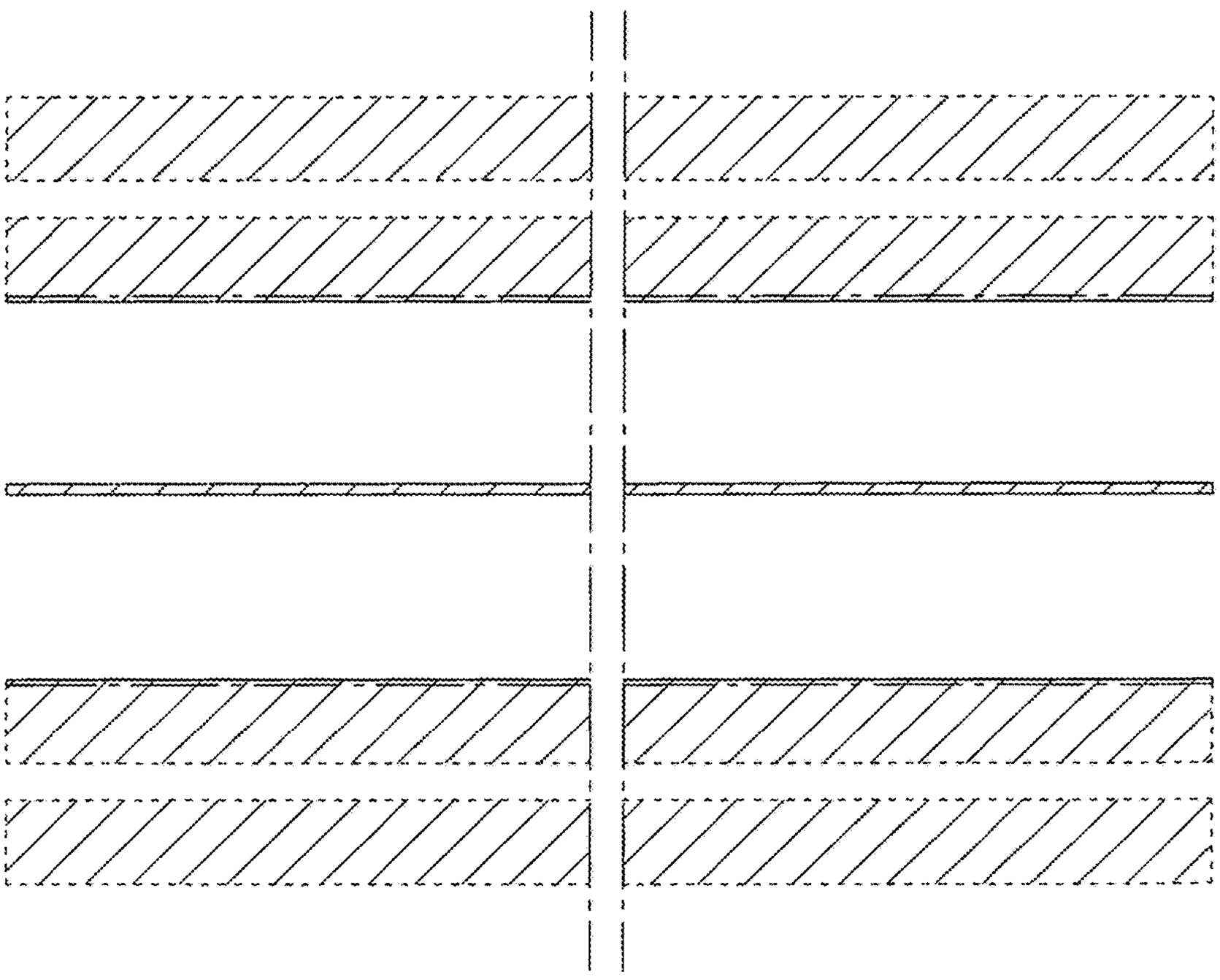


Fig.13



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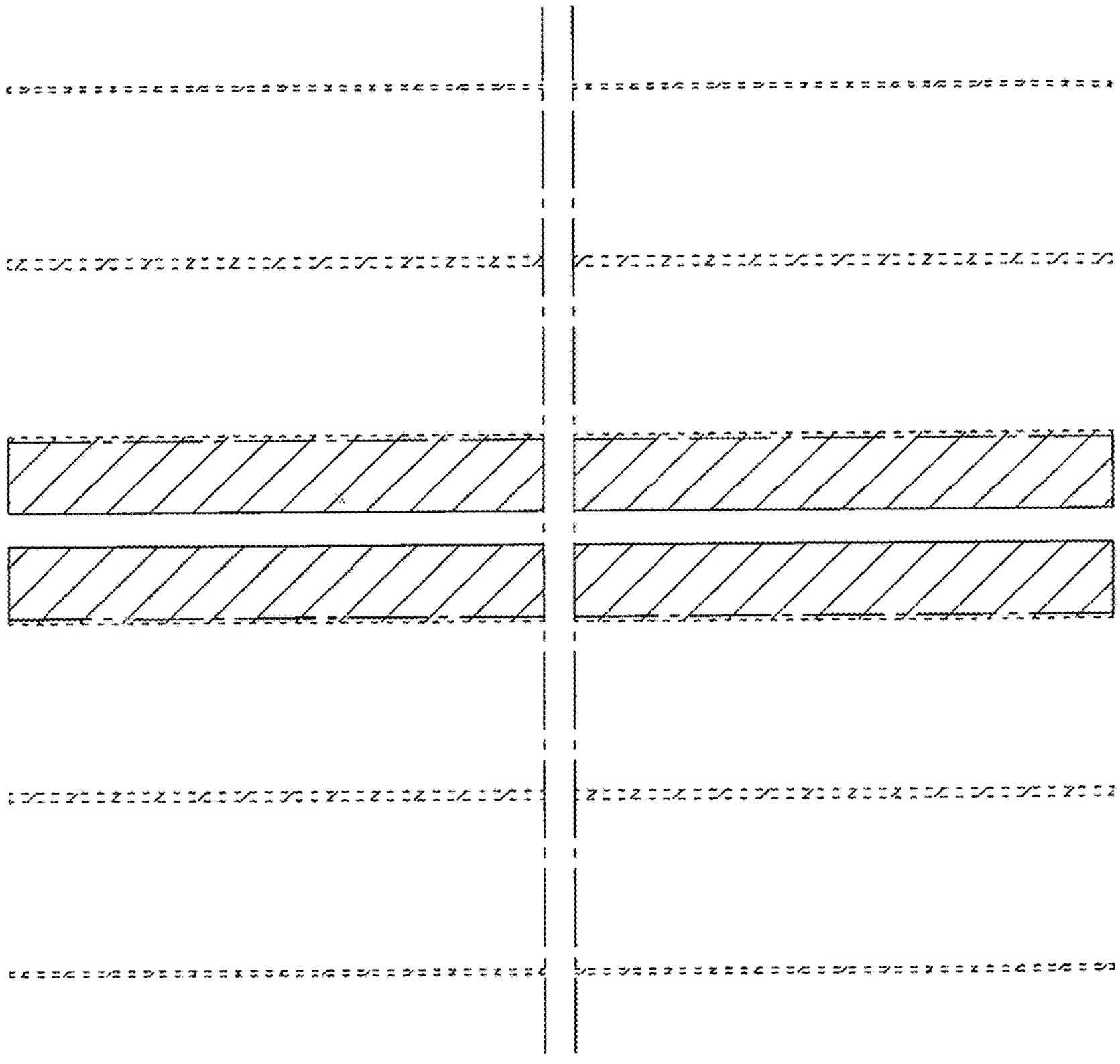
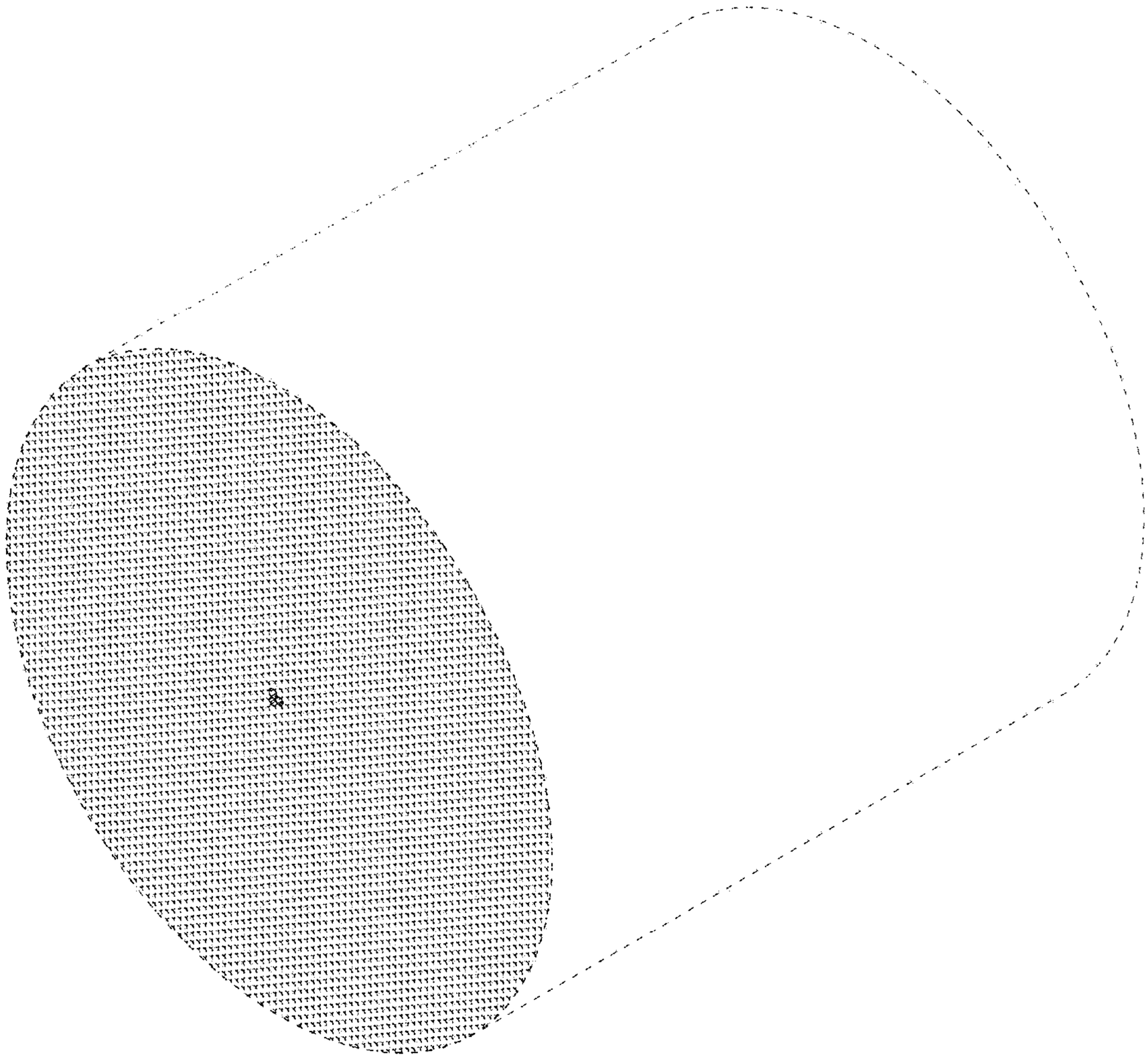


Fig. 15



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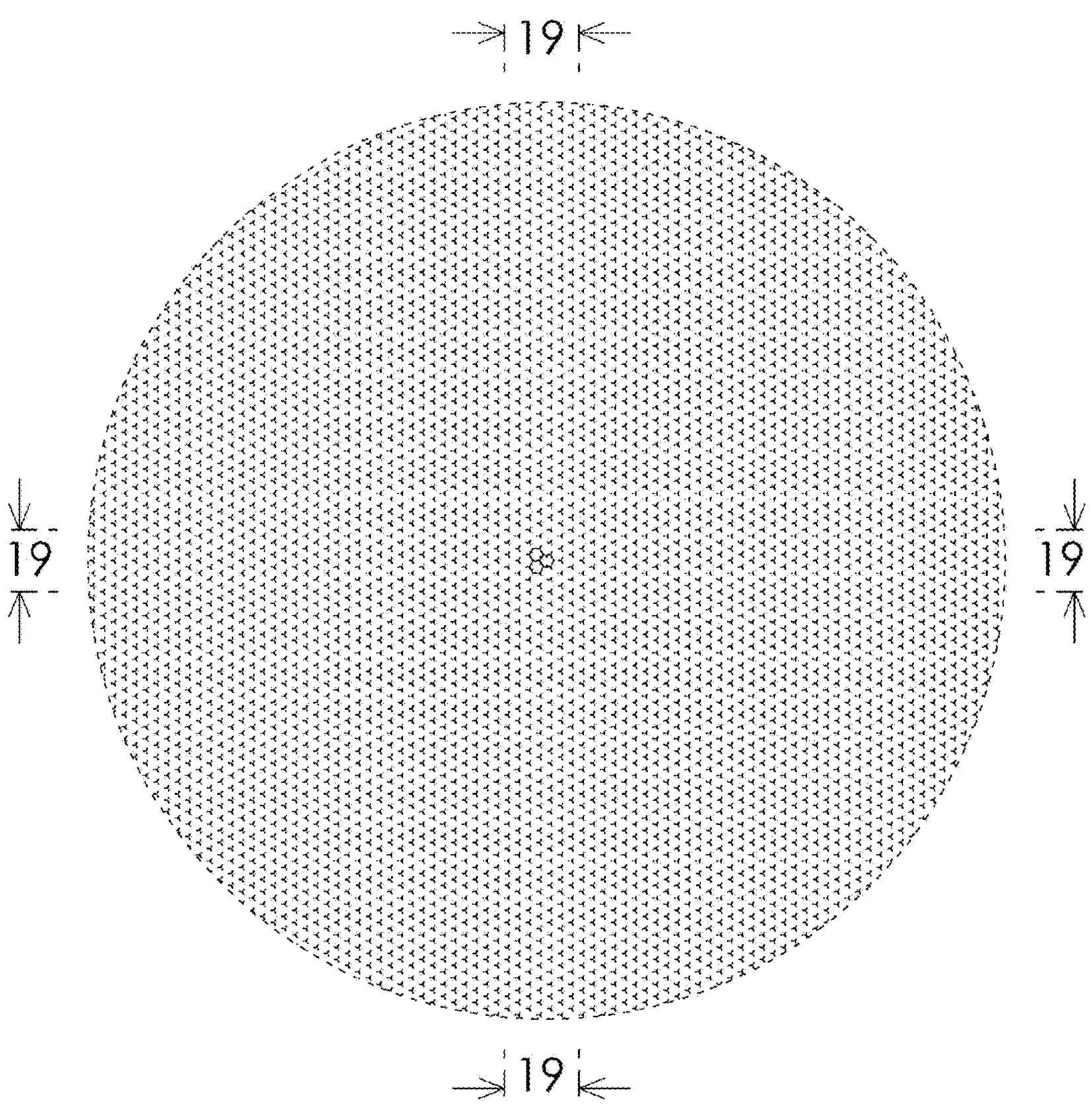
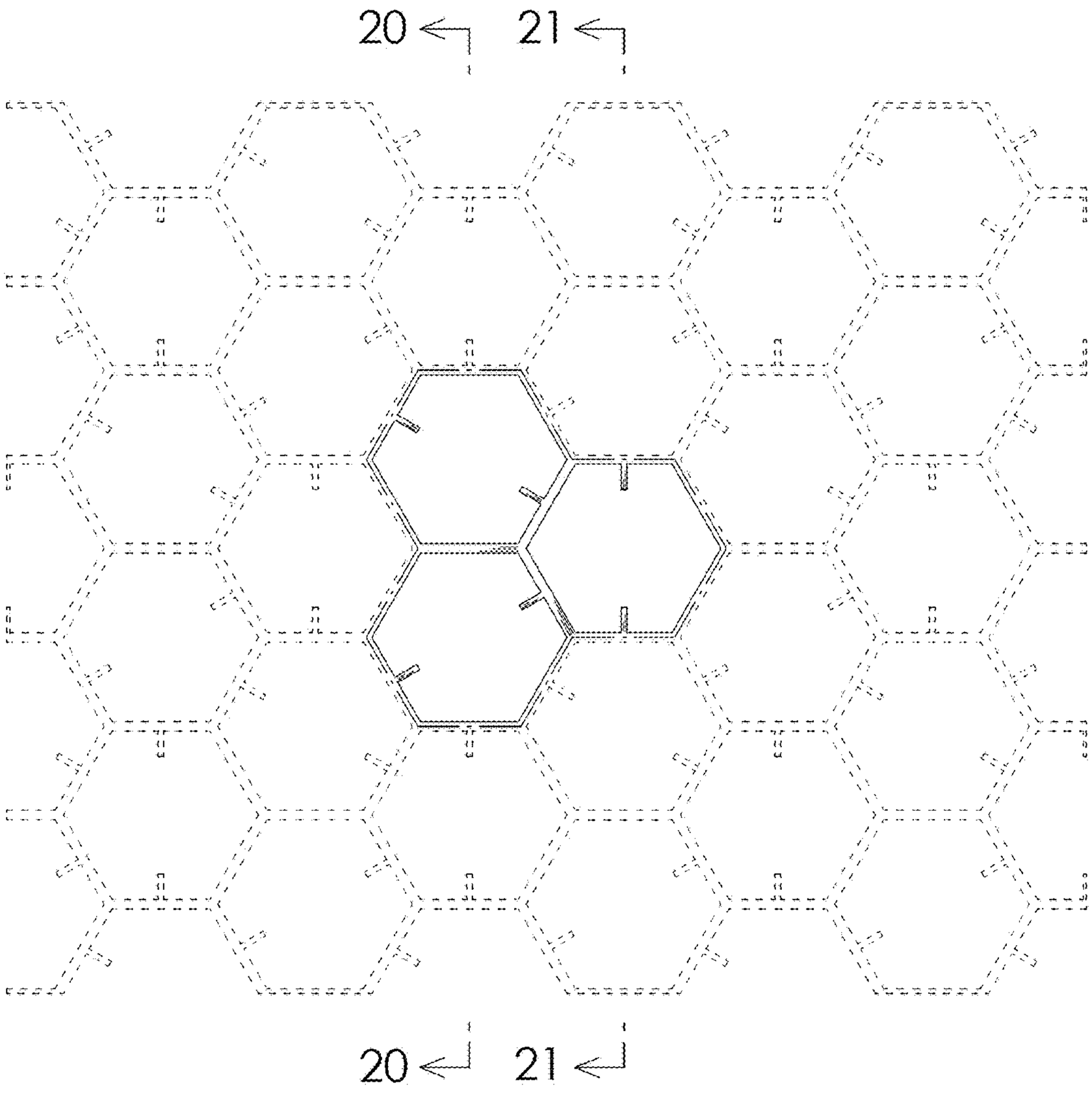


Fig. 17

Fig. 18

Fig. 19



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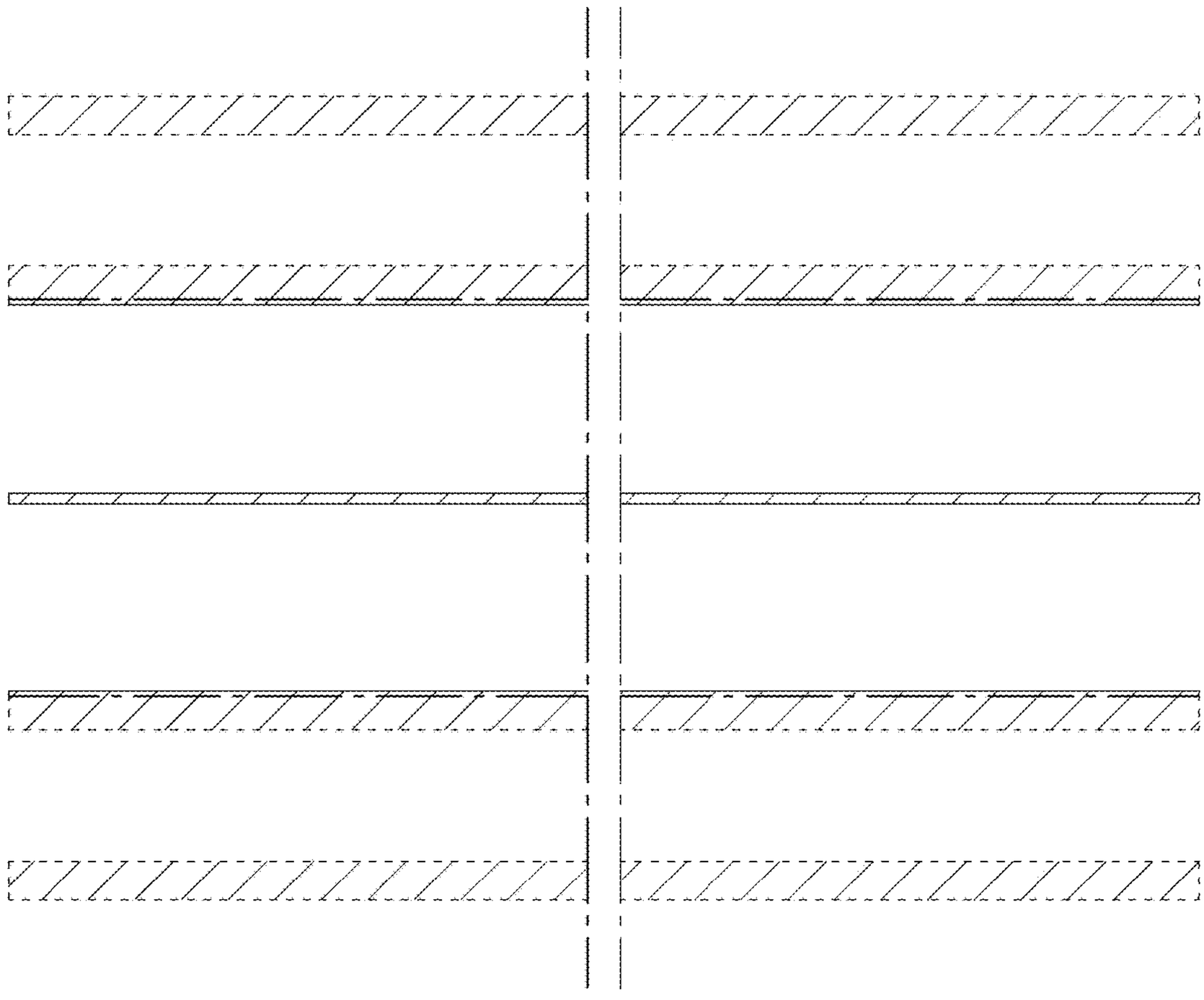

Fig. 21

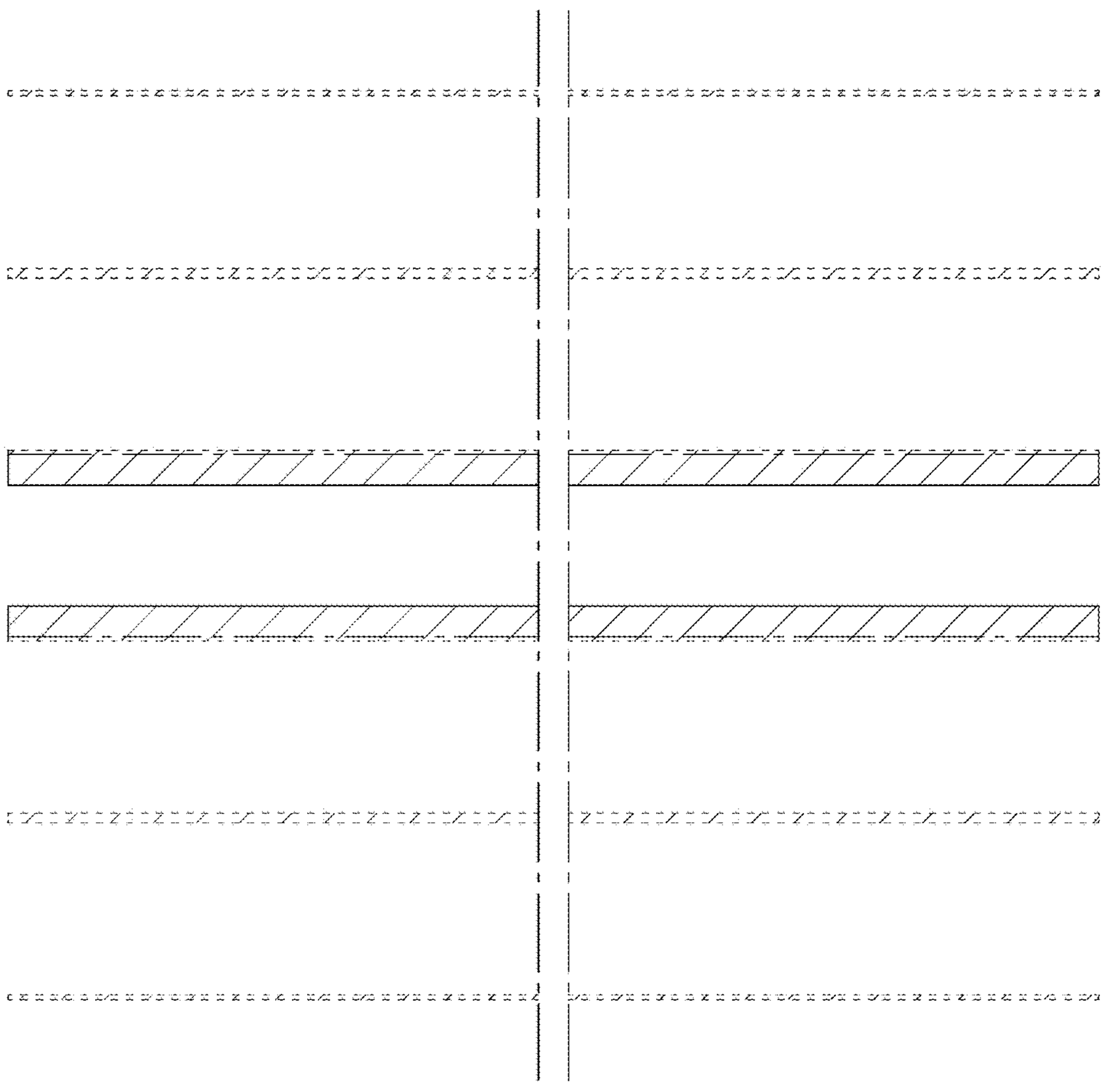

Fig. 22

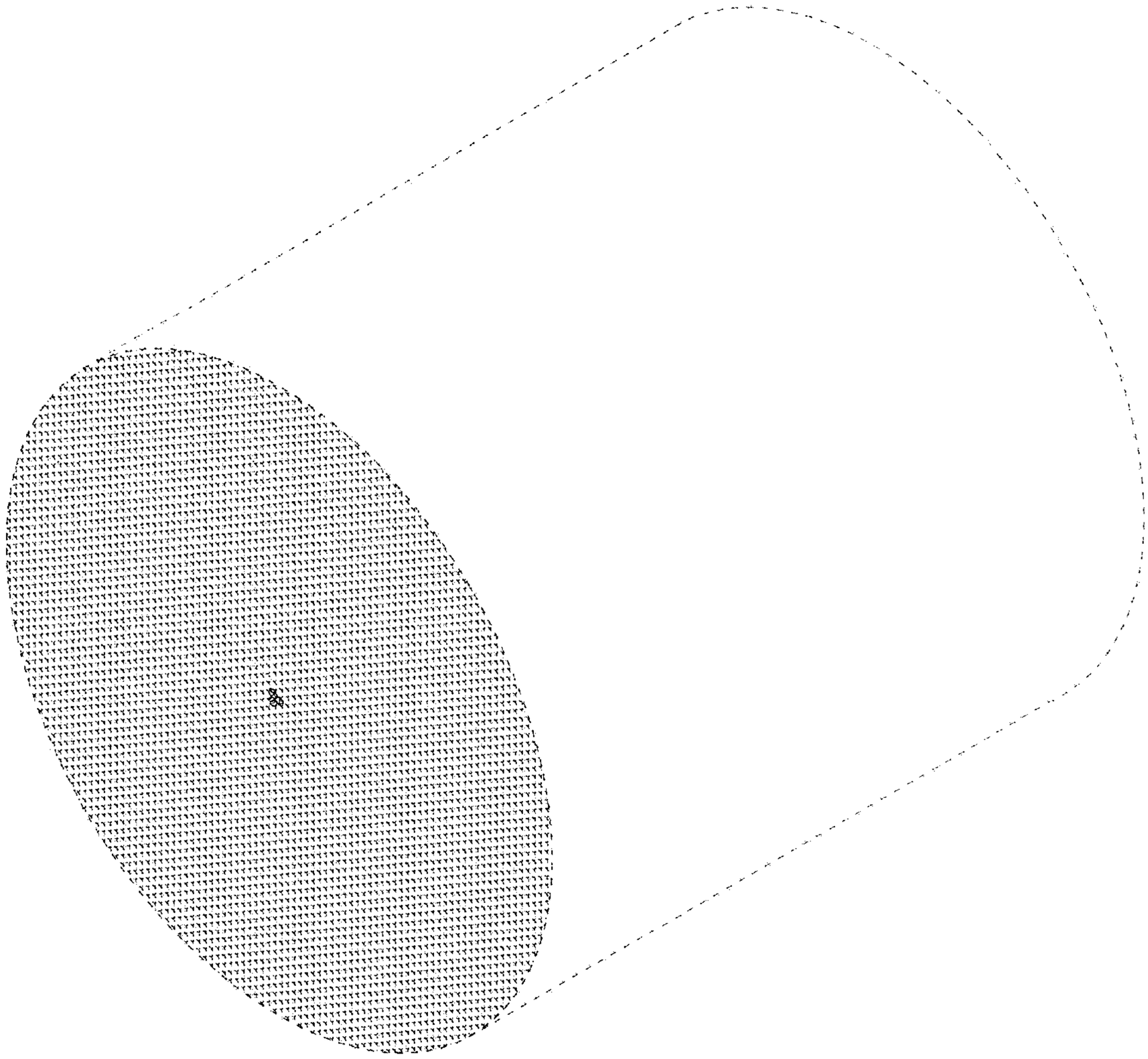

Fig. 23

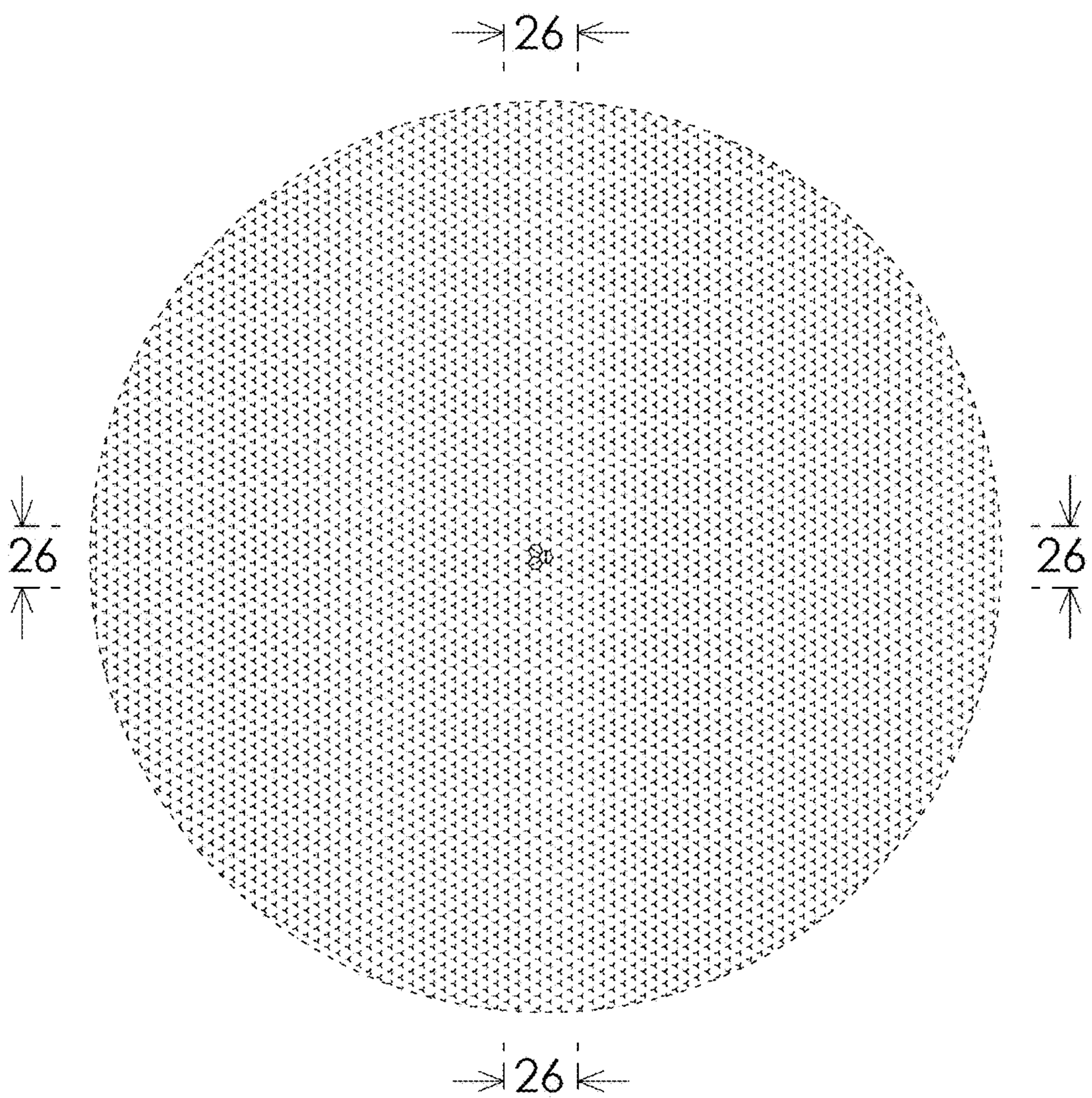

Fig. 24

Fig. 25

Fig. 26

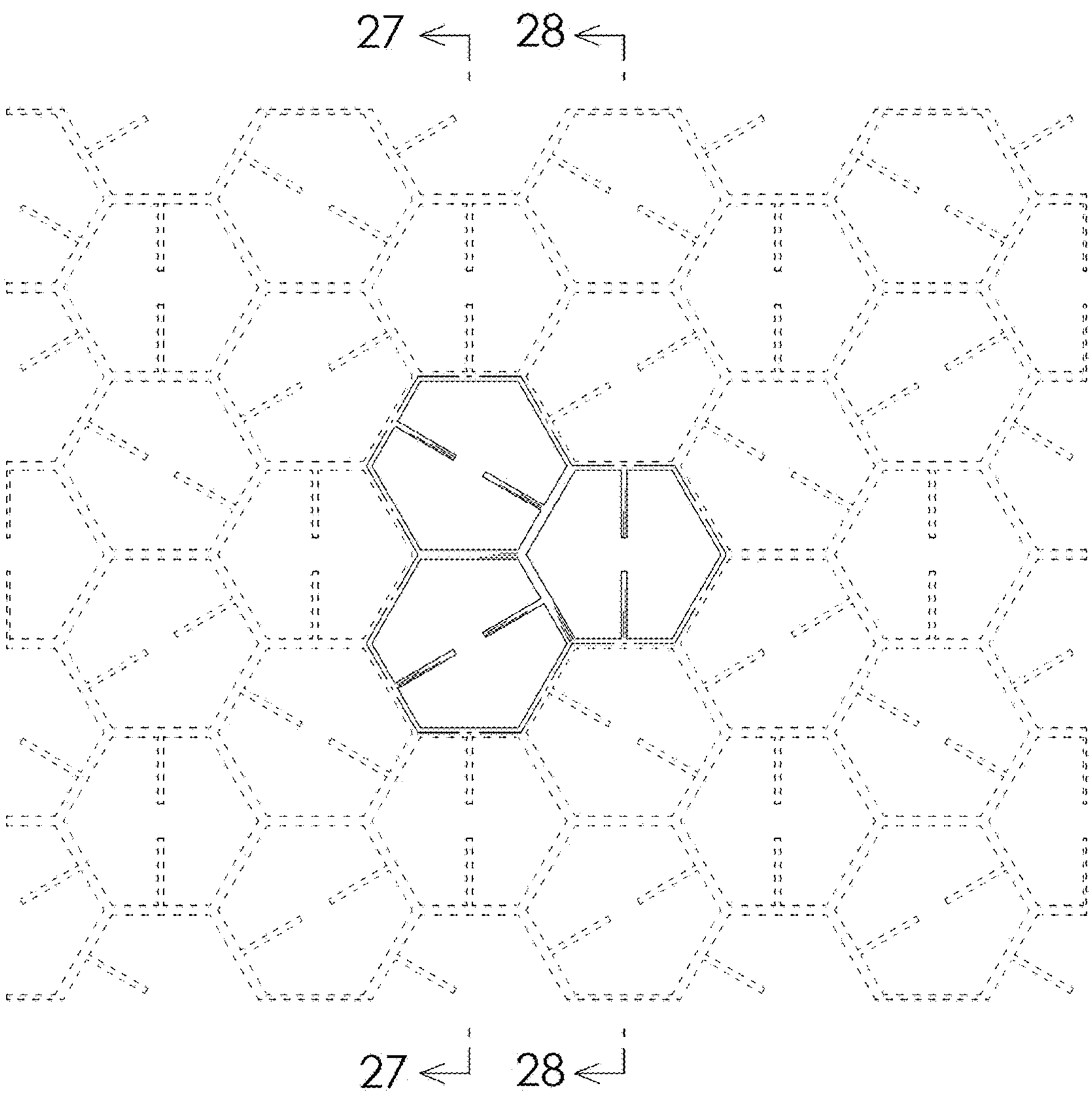

Fig. 27

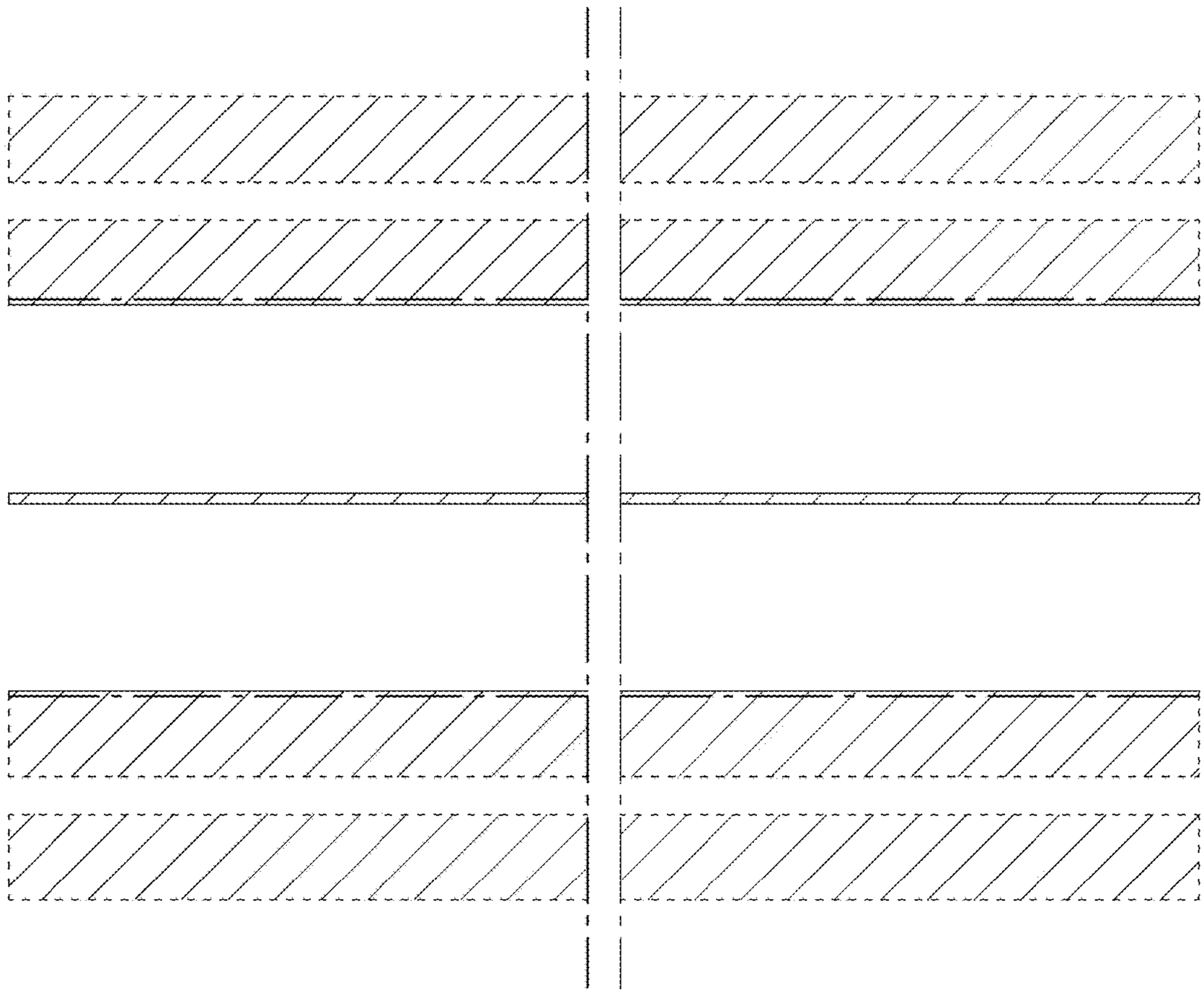

Fig. 28