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

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(54) **LEADFRAME**

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(73) Assignee: **Diodes Incorporated**, Plano, TX (US)

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

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Related U.S. Application Data

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

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

(58) **Field of Classification Search**
USPC D13/182
CPC H01L 23/49548; H01L 23/49541; H01L 24/09; H01L 24/48
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

- 10,347,571 B1 * 7/2019 Rozbicki H01L 23/3121
- D864,884 S * 10/2019 Yoneyama D13/182
- D900,759 S * 11/2020 Majima D13/182
- D906,273 S * 12/2020 Majima D13/182
- D939,458 S * 12/2021 Huang D13/182
- D940,090 S * 1/2022 Huang D13/182
- 2005/0258520 A1 * 11/2005 Dolan H01L 23/49503
257/E23.037
- 2009/0278241 A1 * 11/2009 Liu H01L 24/48
257/676
- 2015/0084172 A1 * 3/2015 Do H01L 24/96
257/676

- 2015/0200156 A1 * 7/2015 Weld H01L 23/49562
438/107
 - 2015/0221584 A1 * 8/2015 Lopez H01L 24/40
257/676
 - 2018/0130723 A1 * 5/2018 Lin H01L 23/49503
 - 2018/0182642 A1 * 6/2018 Milo H01L 23/49548
 - 2019/0198352 A1 * 6/2019 Nangia H01L 23/5223
 - 2019/0355651 A1 * 11/2019 Milo H01L 23/49513
 - 2020/0035586 A1 * 1/2020 Liong H01L 21/4828
 - 2020/0194351 A1 * 6/2020 Talledo H01L 21/4828
 - 2020/0194357 A1 * 6/2020 Shibuya H01L 24/17
- (Continued)

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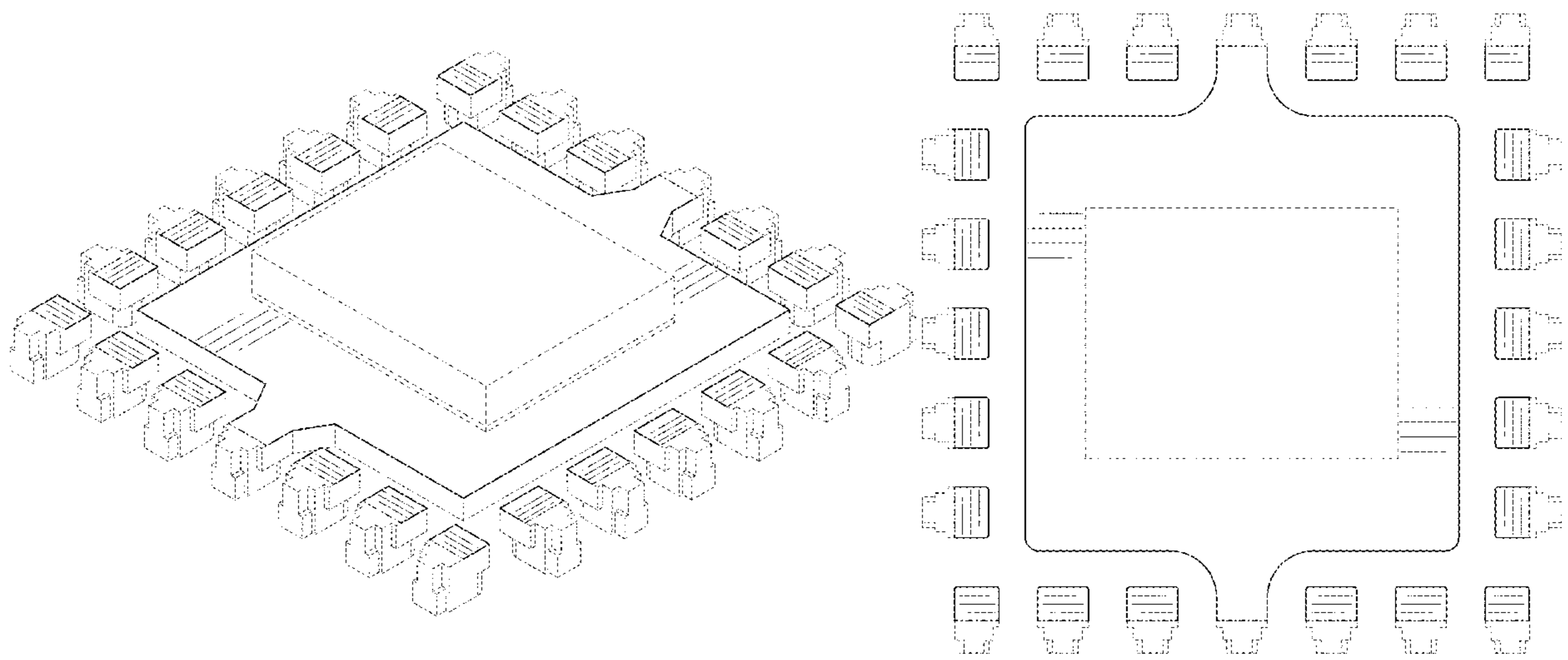
(57) **CLAIM**

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

DESCRIPTION

FIG. 1 is a top perspective view of a leadframe showing our new design;
 FIG. 2 is a top plan view thereof;
 FIG. 3 is a front elevational view thereof;
 FIG. 4 is a rear elevational view thereof;
 FIG. 5 is a right side elevational view thereof;
 FIG. 6 is a left side elevational view thereof;
 FIG. 7 is a top perspective view of a leadframe showing a variation of our new design;
 FIG. 8 is a top plan view thereof;
 FIG. 9 is a front elevational view thereof;
 FIG. 10 is a rear elevational view thereof;
 FIG. 11 is a right side elevational view thereof; and,
 FIG. 12 is a left side elevational view thereof.
 The broken lines in the figures represent unclaimed subject matter and form no part of the claimed design.
 The shade lines in the figures show contours and not surface ornamentation.

1 Claim, 12 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2020/0211933 A1* 7/2020 Raposas H01L 24/92
2020/0258825 A1* 8/2020 Tang H01L 23/49562
2020/0303609 A1* 9/2020 Yoon H01L 24/32
2020/0312754 A1* 10/2020 Yasuda H01L 24/45
2020/0312958 A1* 10/2020 Murthy H01L 29/456
2020/0343168 A1* 10/2020 Cadag H01L 21/4828
2020/0411421 A1* 12/2020 Teyseyre H01L 24/84
2021/0020553 A1* 1/2021 Macheiner H01L 22/12
2021/0090980 A1* 3/2021 Noquil H01L 23/3107
2021/0225742 A1* 7/2021 Jhan H01L 23/49548
2022/0020680 A1* 1/2022 Huang H01L 23/49586
2022/0028767 A1* 1/2022 Anjum H01L 23/49805
2022/0102248 A1* 3/2022 Almagro H01L 23/49562
2022/0139812 A1* 5/2022 Huang H01L 24/48
257/667

* cited by examiner

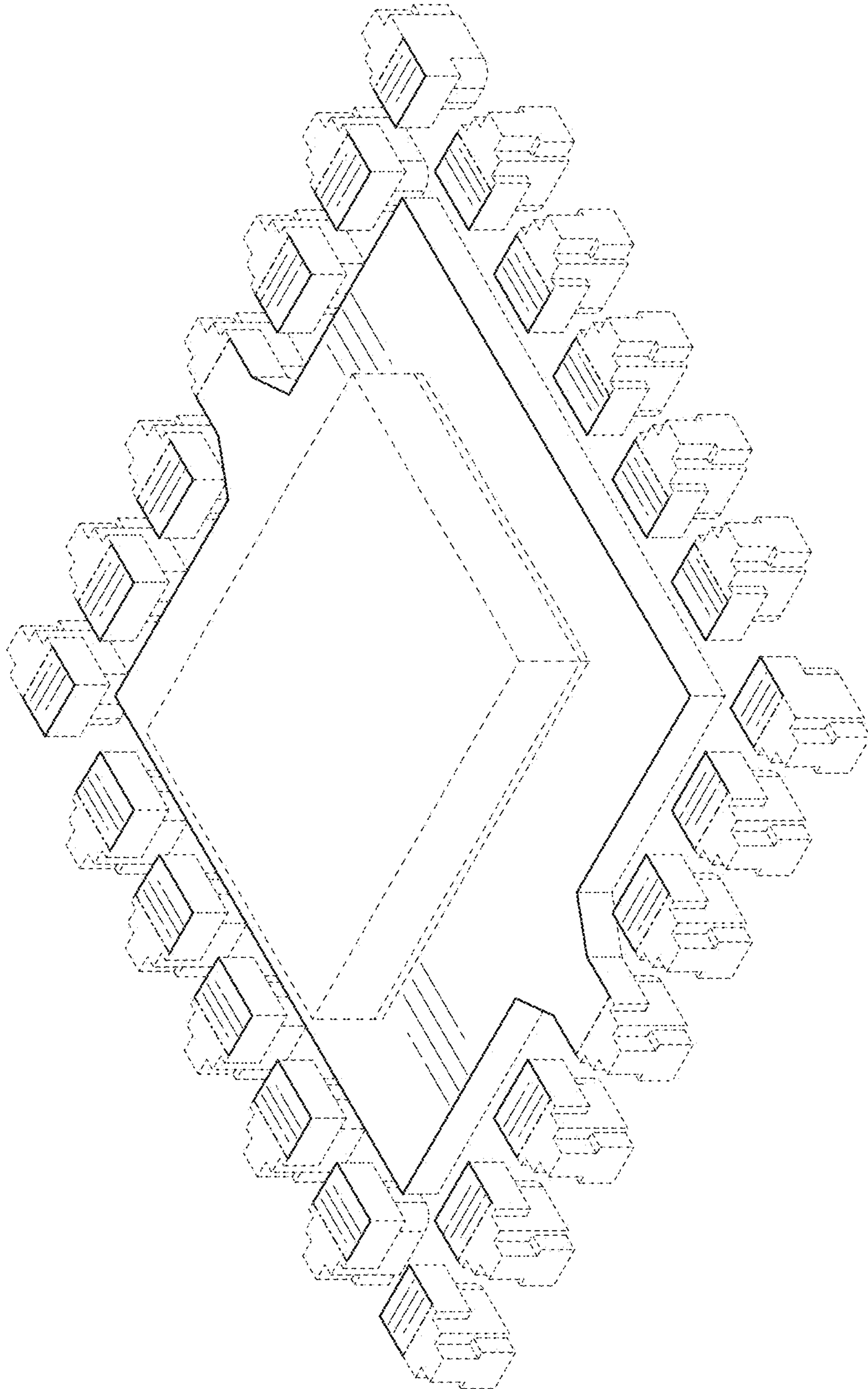


FIG. 1

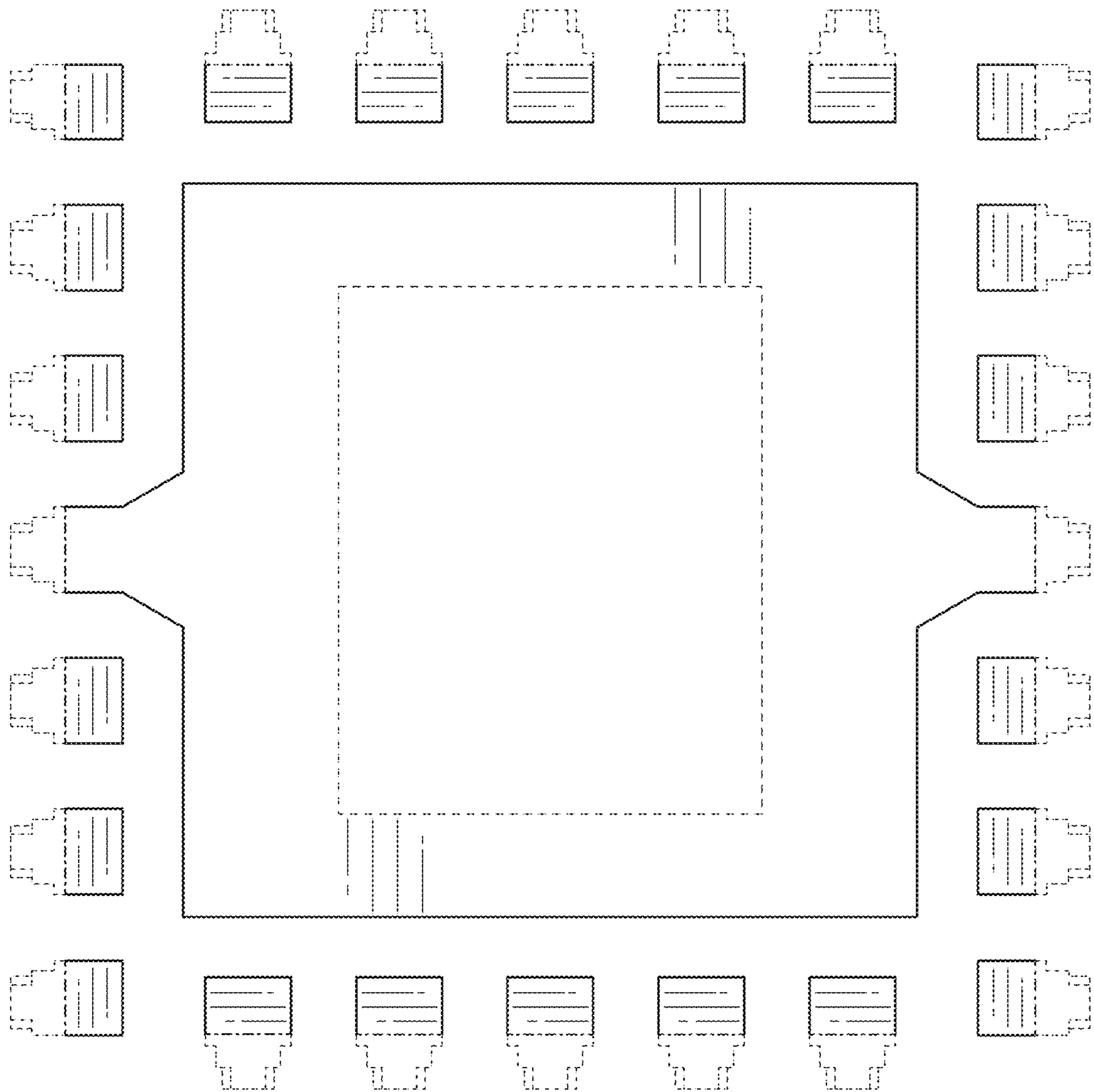


FIG. 2

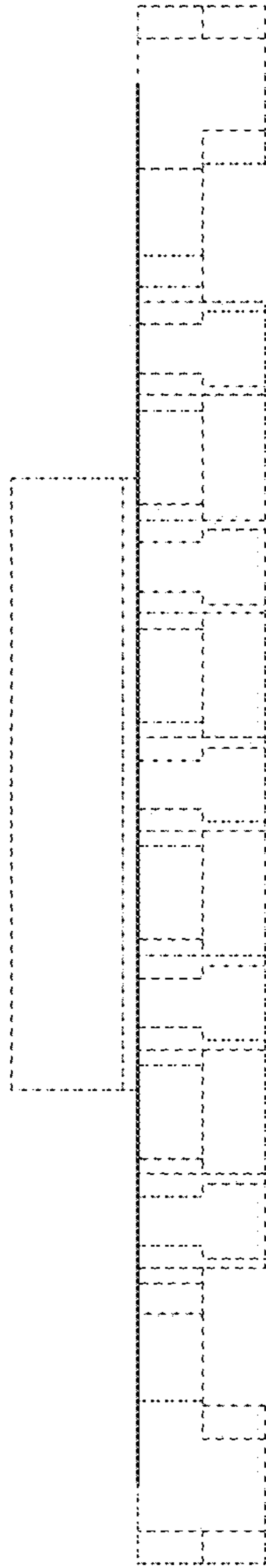


FIG. 3

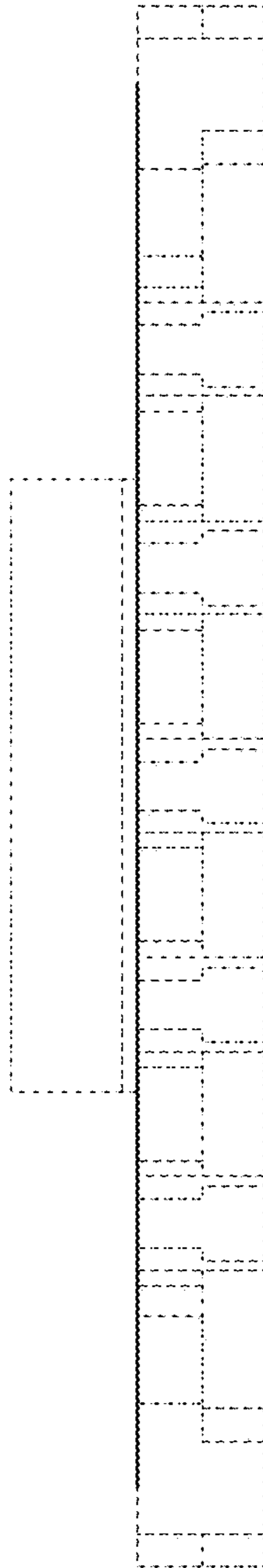


FIG. 4

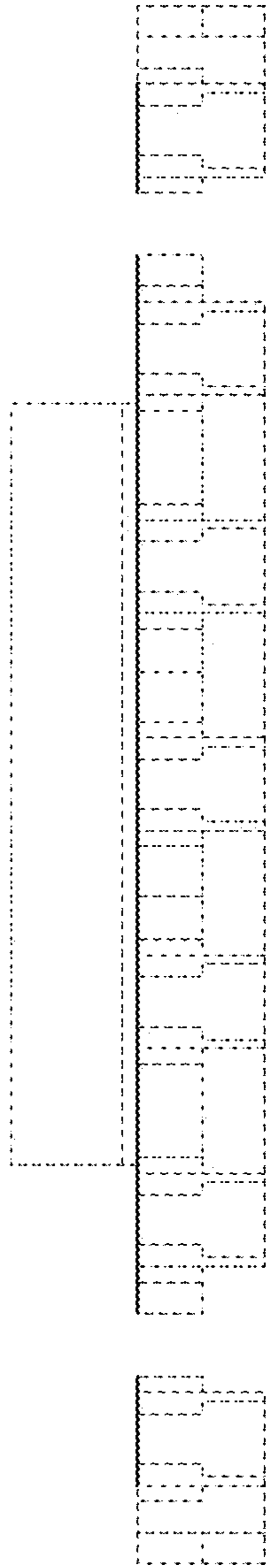


FIG. 5

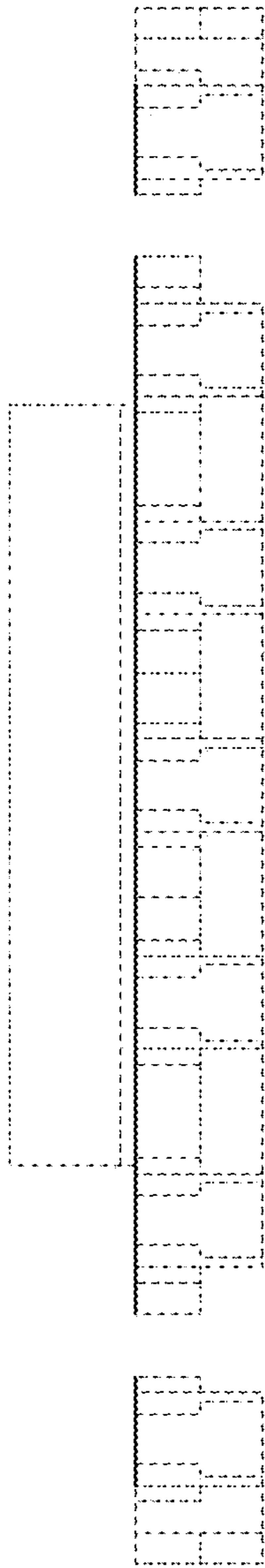


FIG. 6

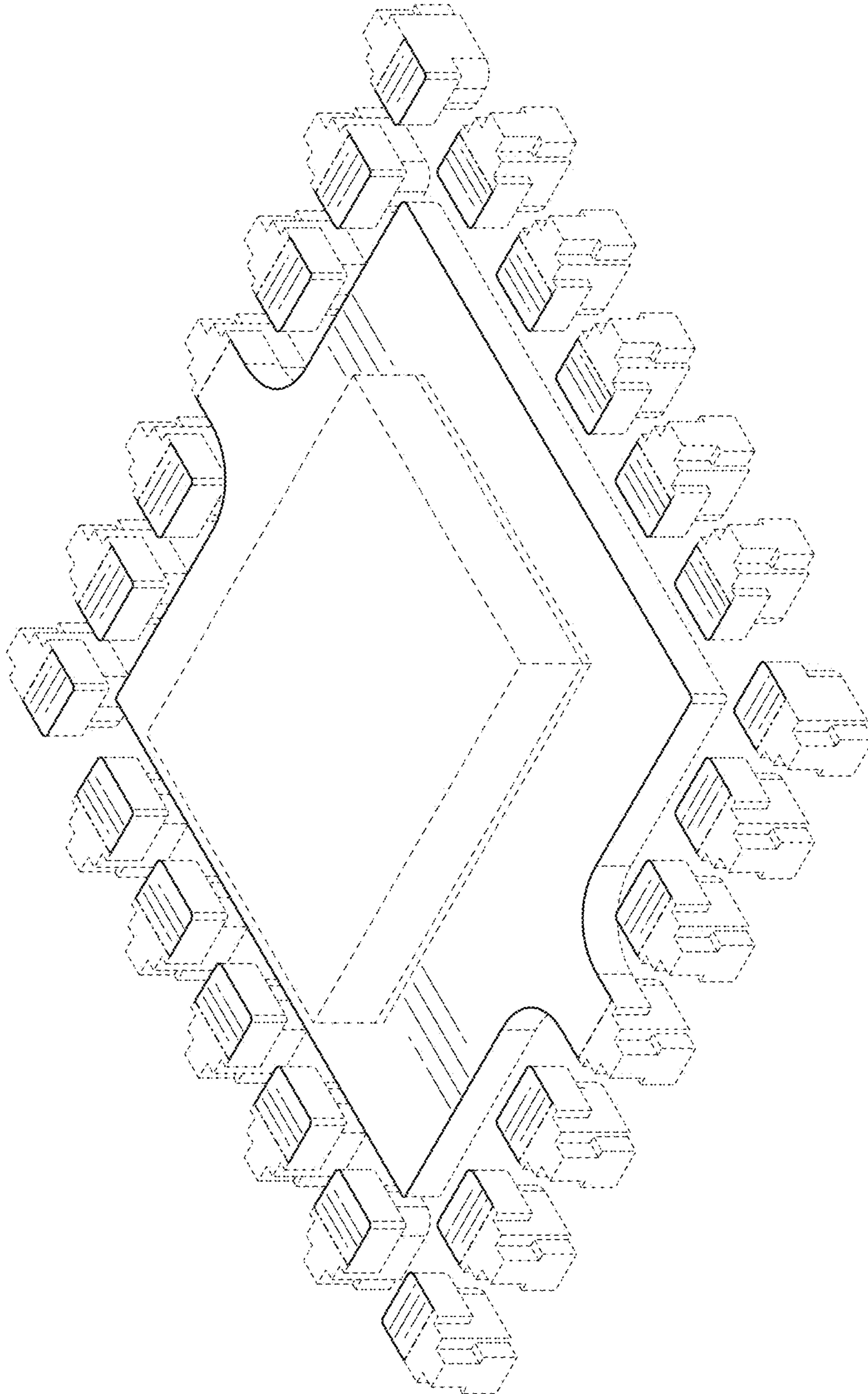


FIG. 7

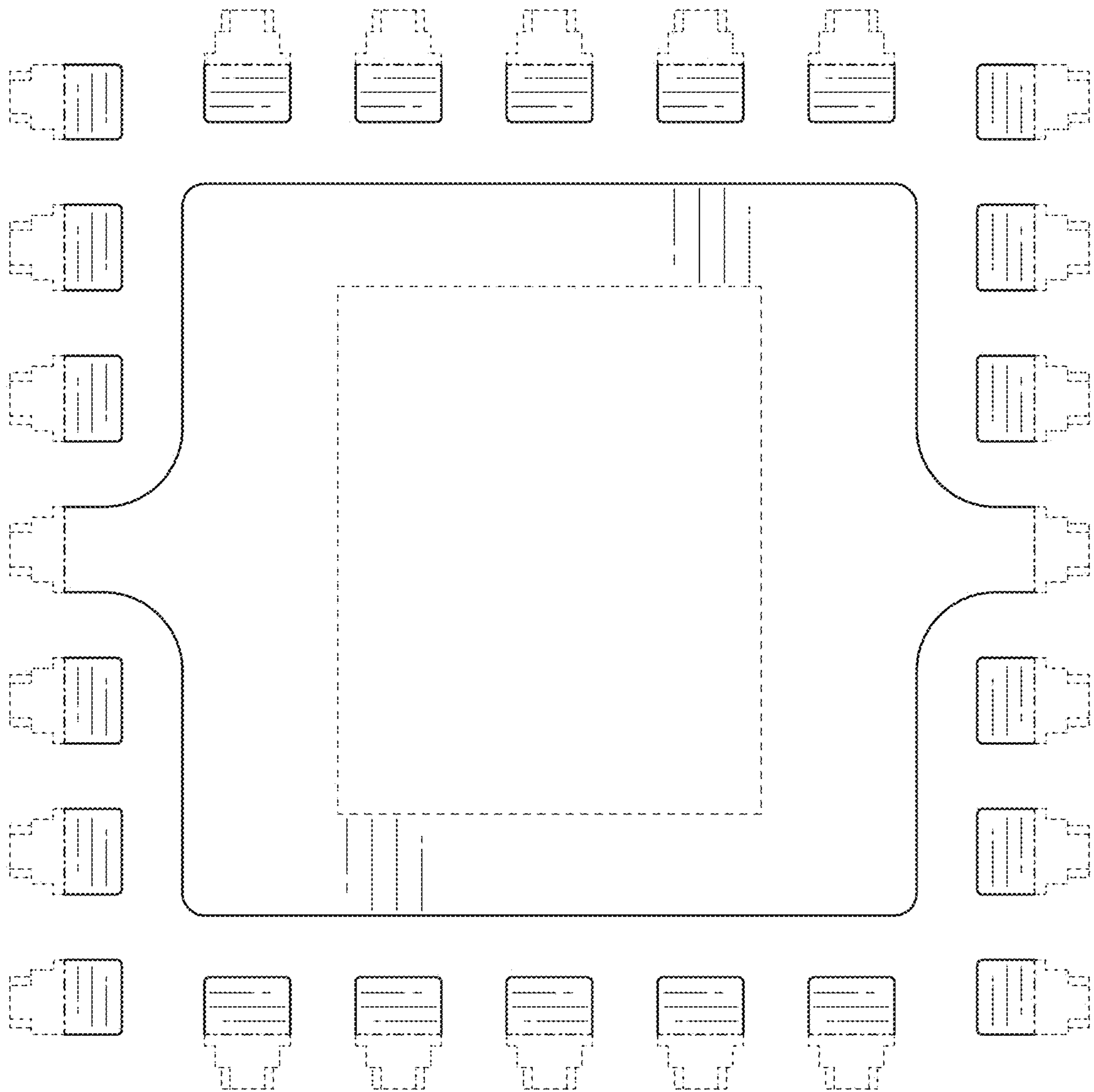


FIG. 8

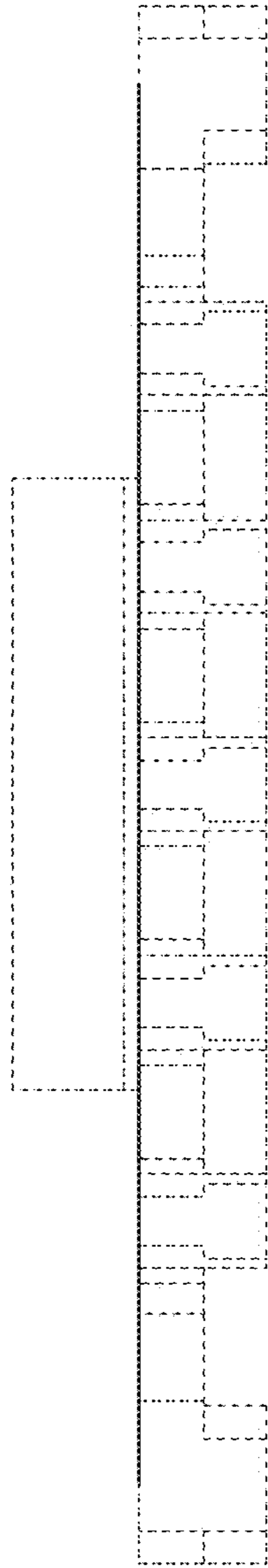


FIG. 9

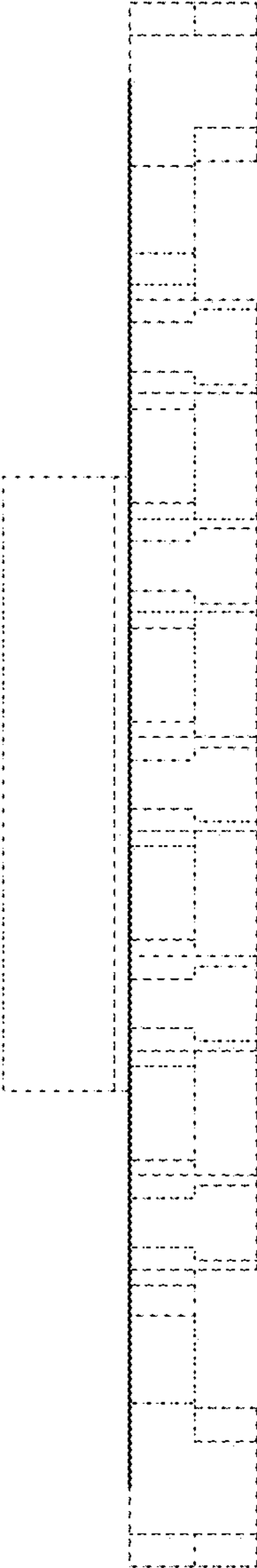


FIG. 10

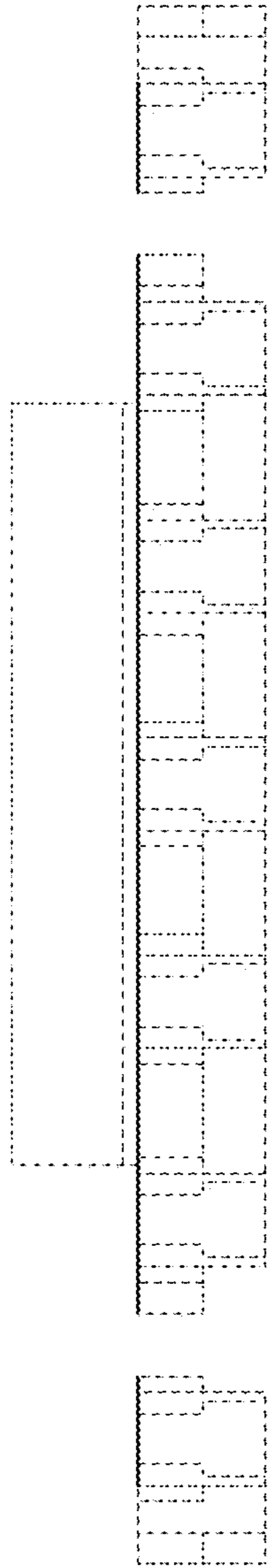


FIG. 11

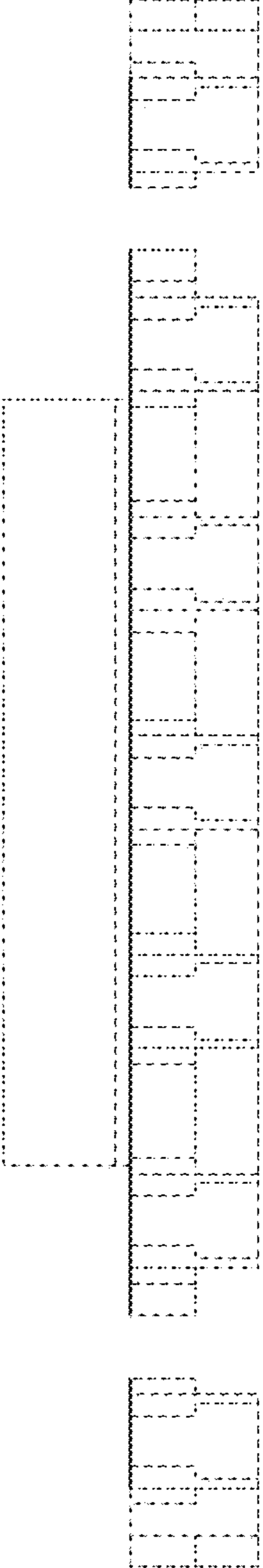


FIG. 12