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

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(54) **REDUCTION GEAR**

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- (73) Assignee: **NABTESCO CORPORATION** (JP)
- (**) Term: **15 Years**
- (21) Appl. No.: **29/570,891**
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(30) **Foreign Application Priority Data**

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(51) **LOC (11) Cl.** **15-99**

(52) **U.S. Cl.**
USPC **D15/149**; D15/148

(58) **Field of Classification Search**
USPC D8/17, 21, 25, 29; D15/5, 148, 149
CPC F16H 63/44; F16H 57/033; F16H 3/666;
F16H 3/72; B25F 5/001
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

- 2009/0291799 A1* 11/2009 Scekic F16H 3/72
475/269
- 2012/0149516 A1* 6/2012 Larrabee B63H 23/18
475/5
- 2013/0172139 A1* 7/2013 Todd F16H 3/72
475/1
- 2015/0360750 A1* 12/2015 Luk B62M 11/14
475/149

FOREIGN PATENT DOCUMENTS

- CA 2351240 A1* 12/2001 F16H 3/72
- EP 1191255 A1* 3/2002 B25B 21/008
- WO WO 2013091051 A1* 6/2013 F16H 47/08

OTHER PUBLICATIONS

Cycloidal Designed Gearboxes, posted on nabtescomotioncontrol.com, no posted date given, no production date given, [online], [site visited May 8, 2017], Available from Internet, <URL: http://www.nabtescomotioncontrol.com/>.*

(Continued)

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(57) **CLAIM**

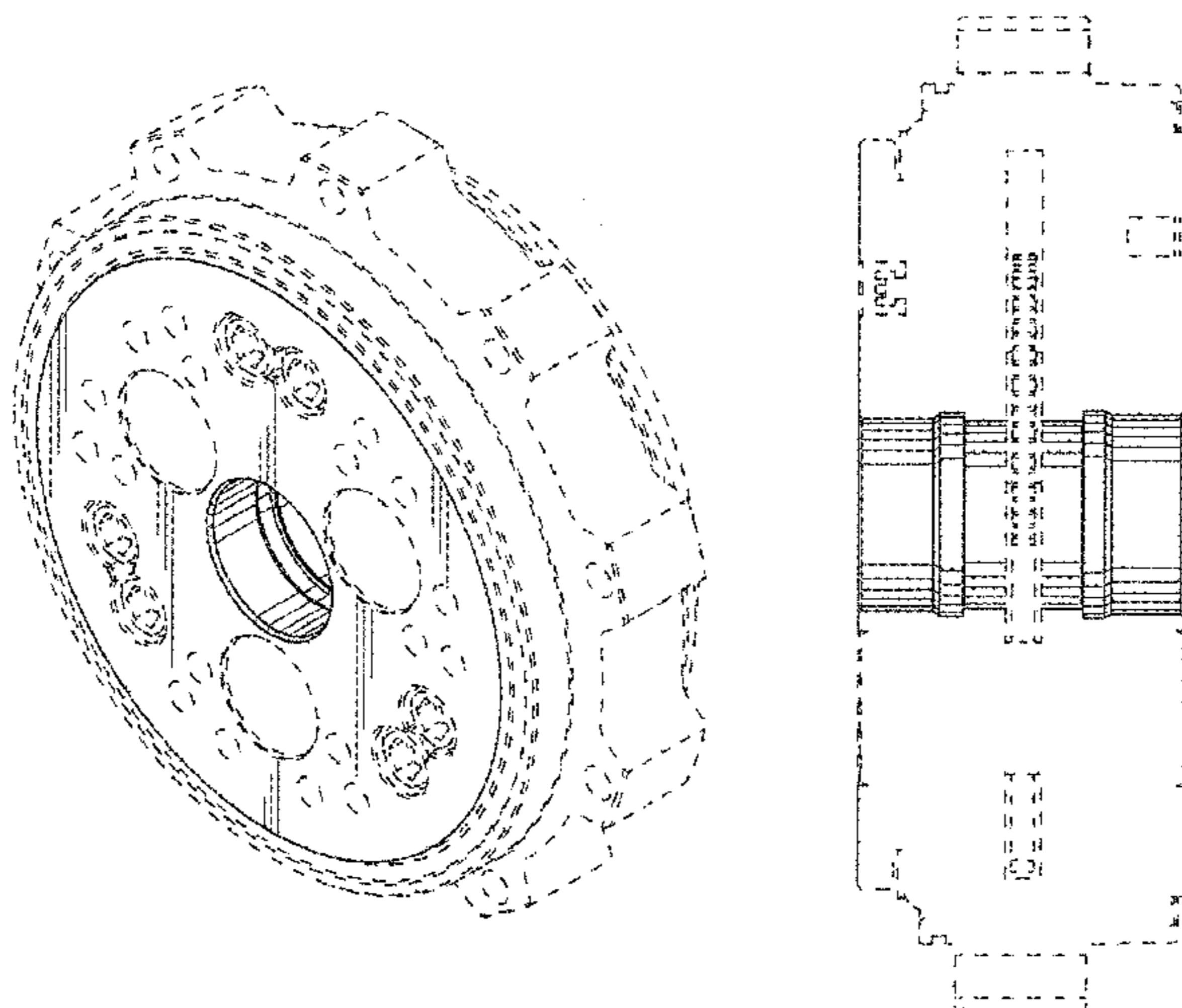
The ornamental design for a reduction gear, as shown and described.

DESCRIPTION

FIG. 1 is a first perspective view of a reduction gear;
 FIG. 2 is a second perspective view thereof;
 FIG. 3 is a front view thereof;
 FIG. 4 is a rear view thereof;
 FIG. 5 is a left side view thereof, the opposite side being a mirror image of the side shown herein;
 FIG. 6 is a top view thereof, the opposite side being a mirror image of the side shown herein;
 FIG. 7 is an enlarged cross-sectional view taken along line 7-7 in FIG. 3 thereof, in which the internal mechanism is omitted; and,
 FIG. 8 is an enlarged cross-sectional view taken along line 8-8 in FIG. 3 thereof, in which the internal mechanism is omitted.

The broken lines depict portions of the reduction gear in which the design is embodied that are not considered part of the claimed design.

1 Claim, 8 Drawing Sheets



(56)

References Cited

OTHER PUBLICATIONS

RV-N Standard Inline Cycloidal Gear Reducer, posted on [dpbrowntech.com](http://www.dpbrowntech.com), copyrighted 2015, no production date given, [online], [site visited May 8, 2017], Available from Internet, <URL: <http://www.dpbrowntech.com/products/nabtesco/rv-n.php>>.*

Compact Cycloidal Gears Vigo Drive RV-N And RH-N, posted on worldindustrialreporter.com, posted Aug. 31, 2015, no production date given, [online], [site visited May 8, 2015], Available from Internet, <URL: <https://worldindustrialreporter.com/compact-cycloidal-gears-vigo-drive-rv-n-and-rh-n/>>.*

* cited by examiner

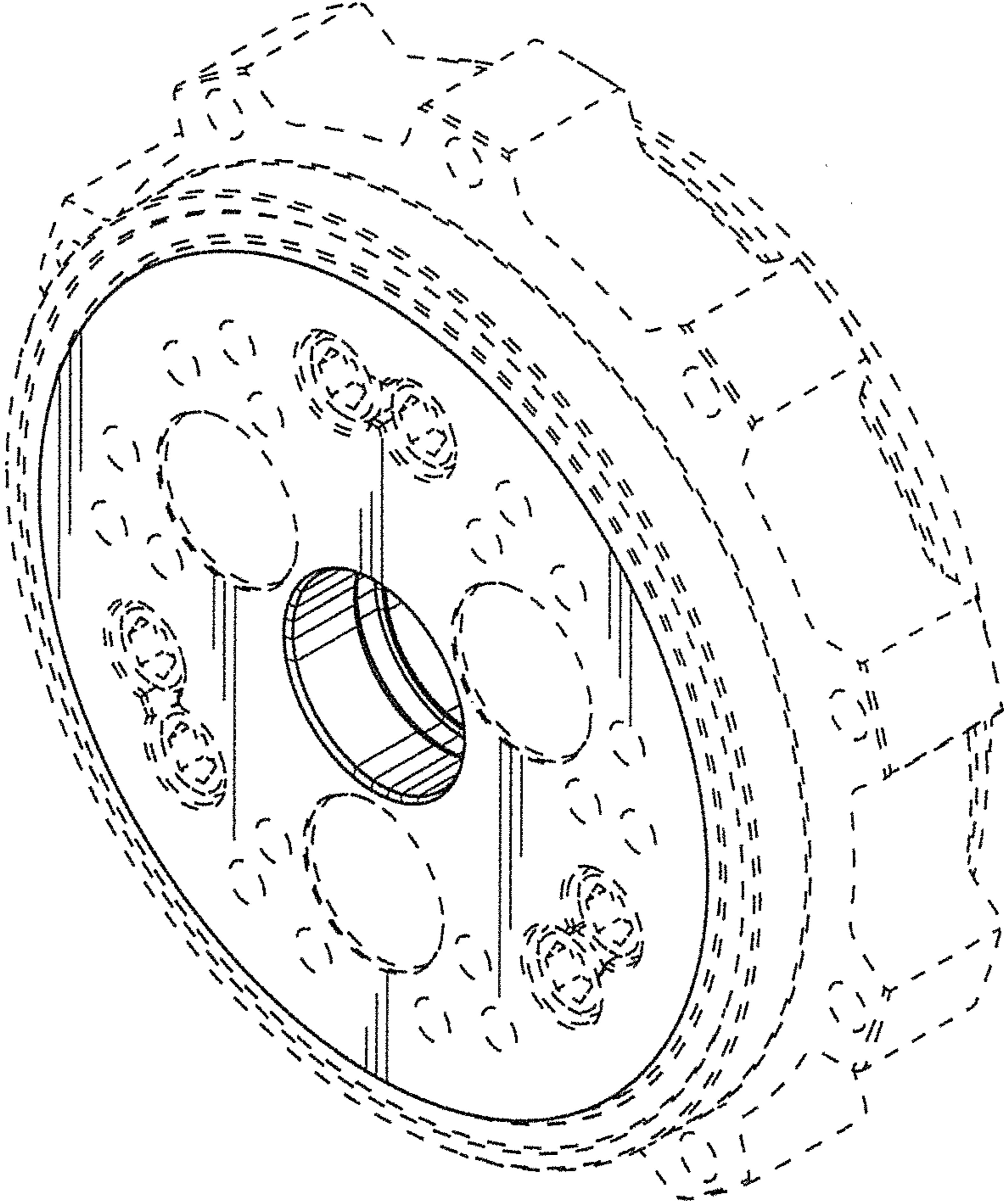


FIG. 1

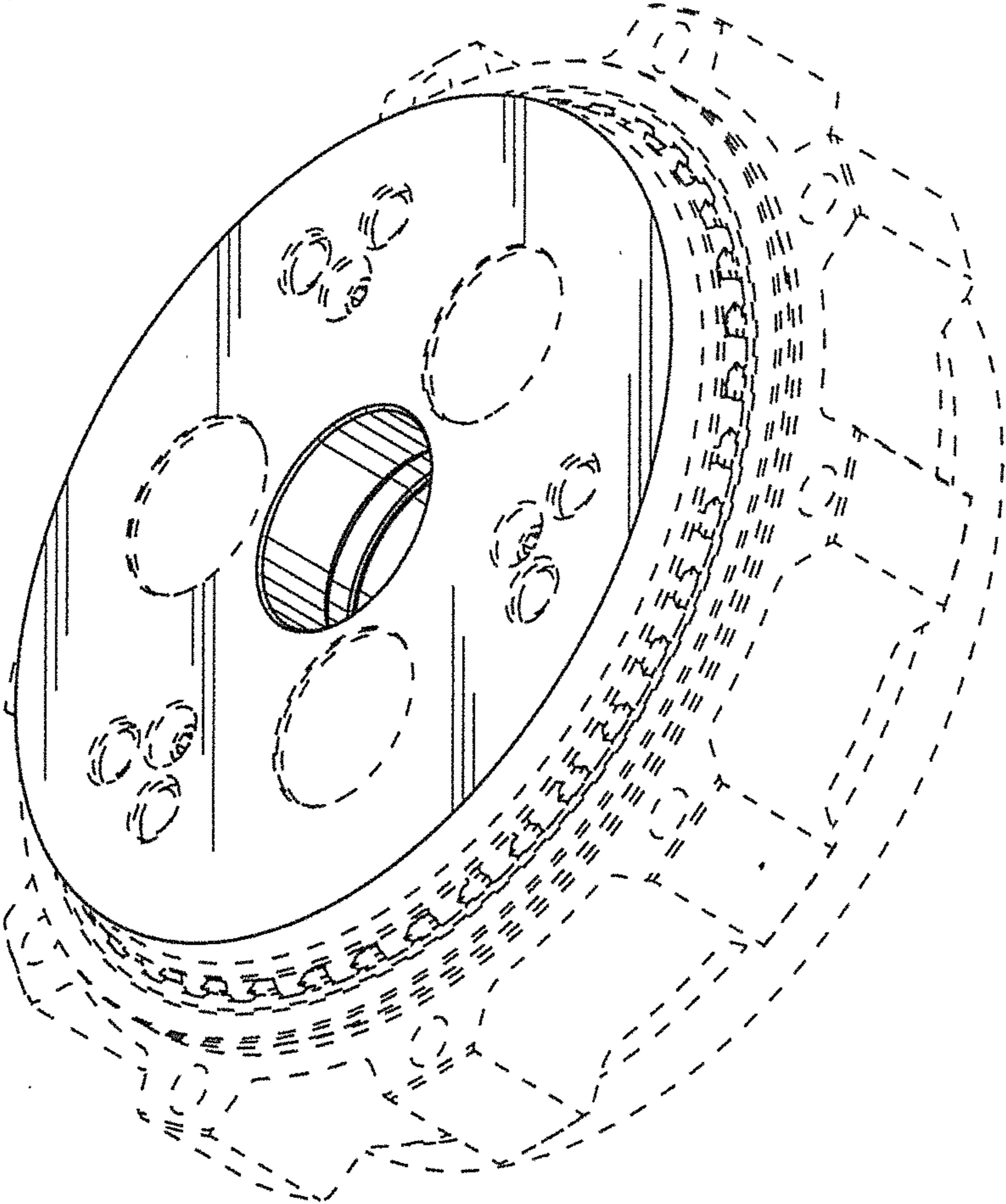


FIG.2

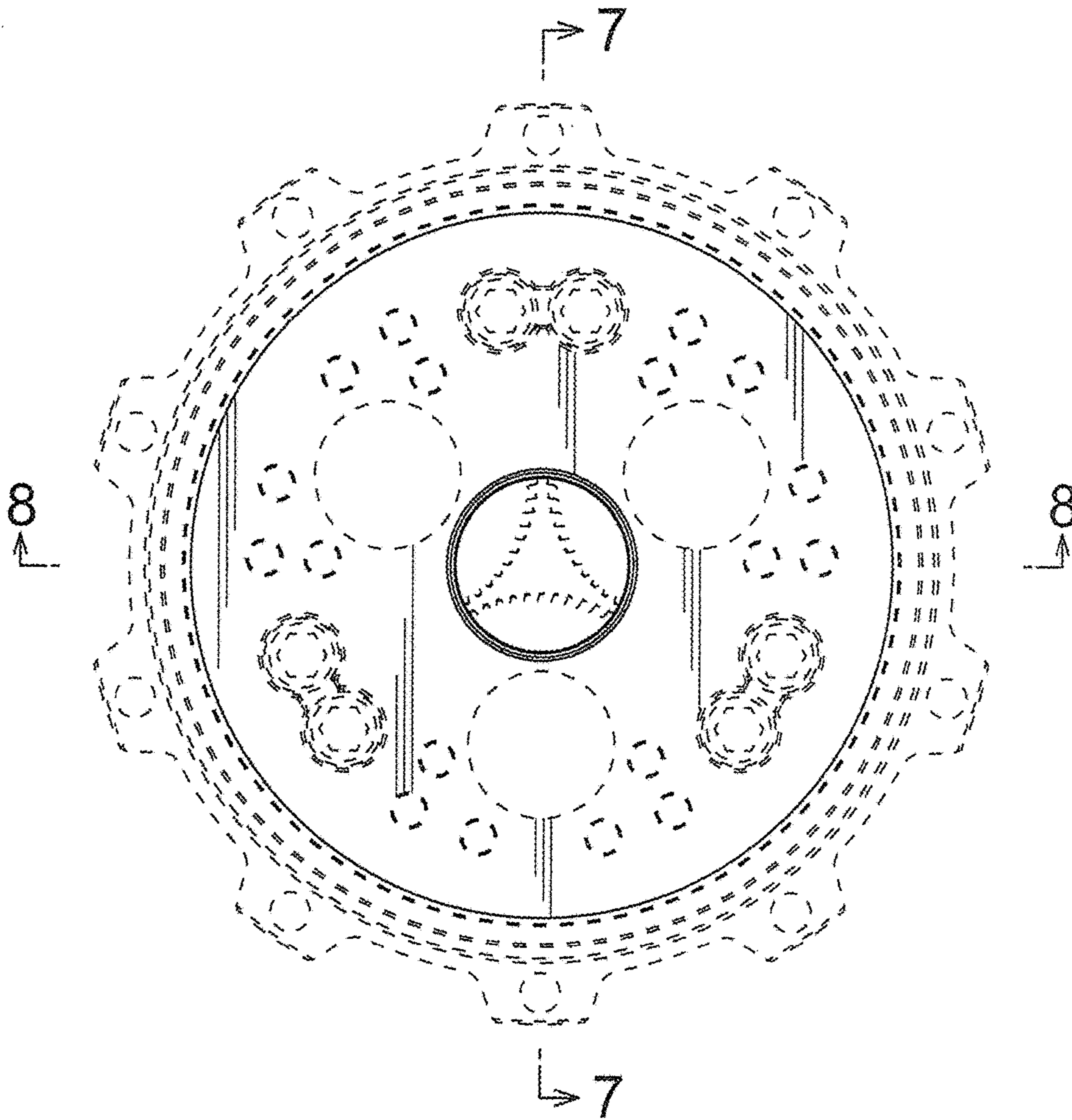


FIG. 3

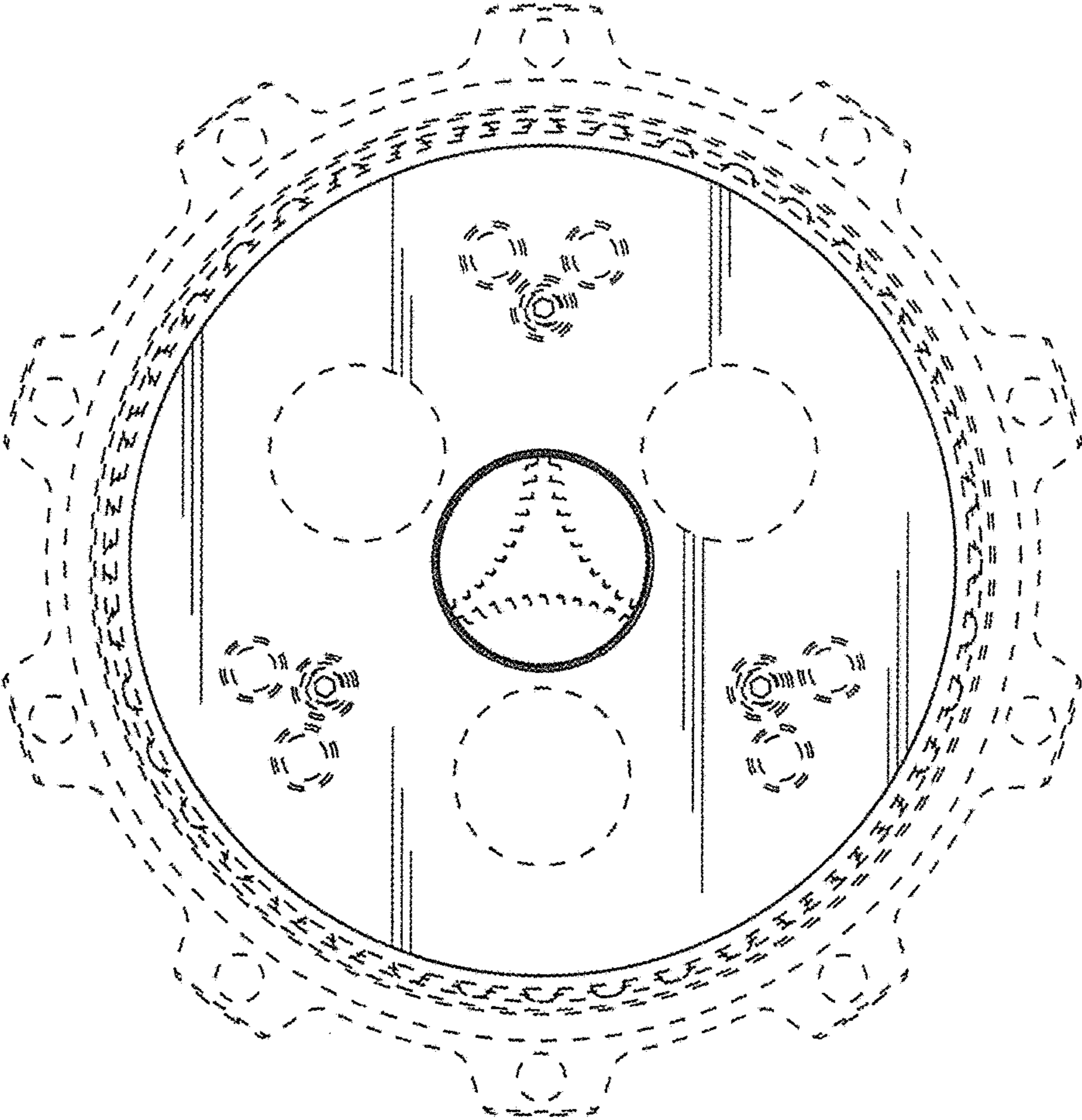


FIG.4

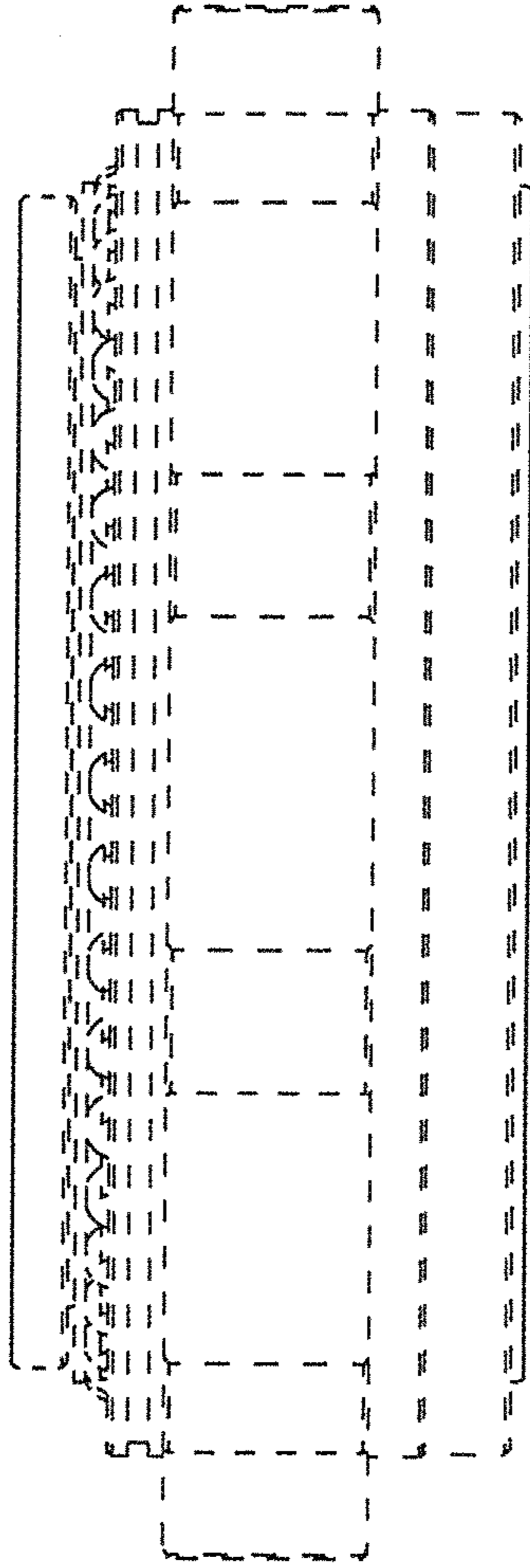


FIG.5

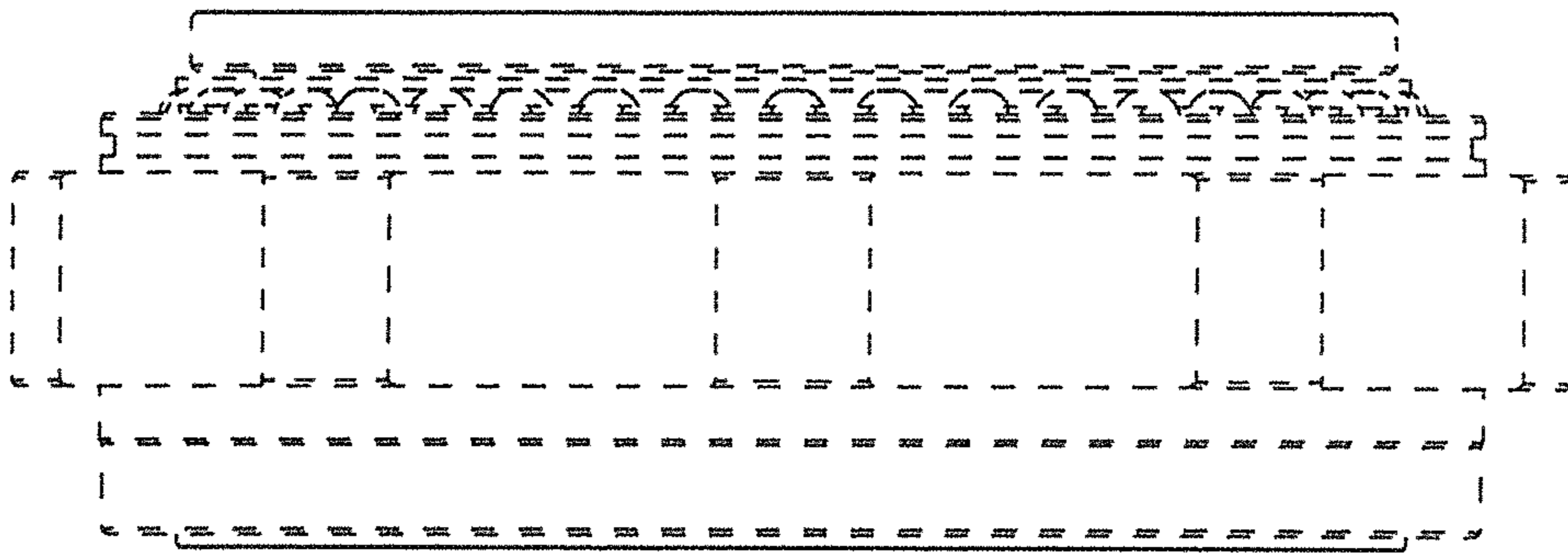


FIG.6

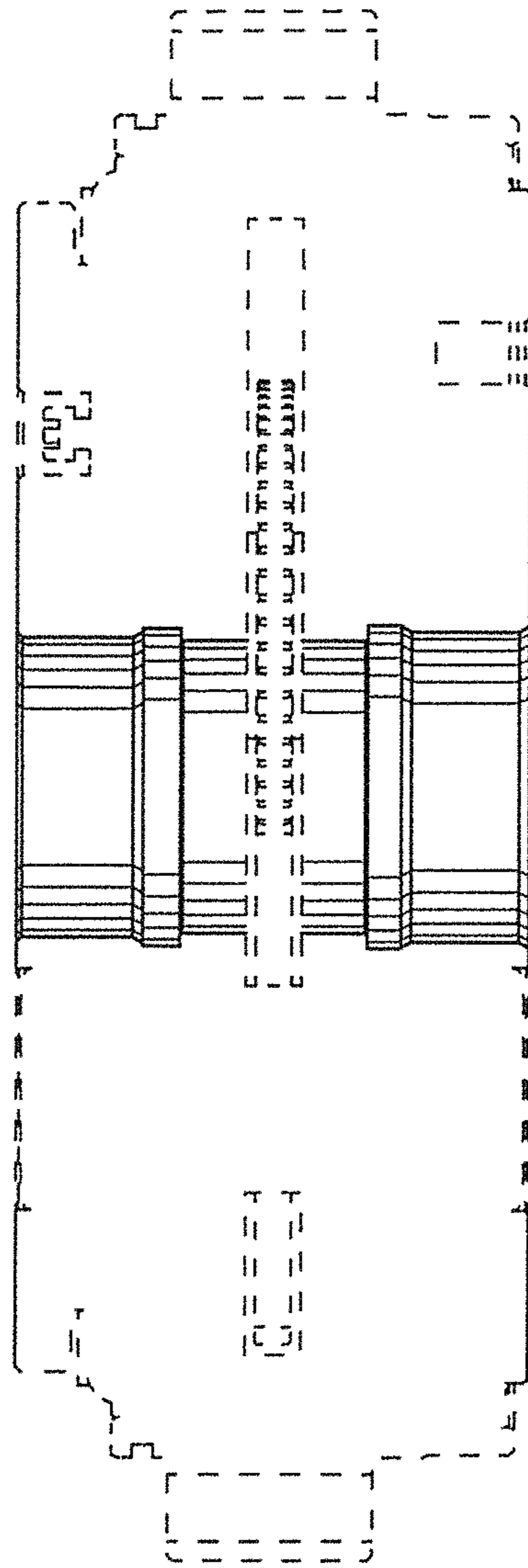


FIG.7

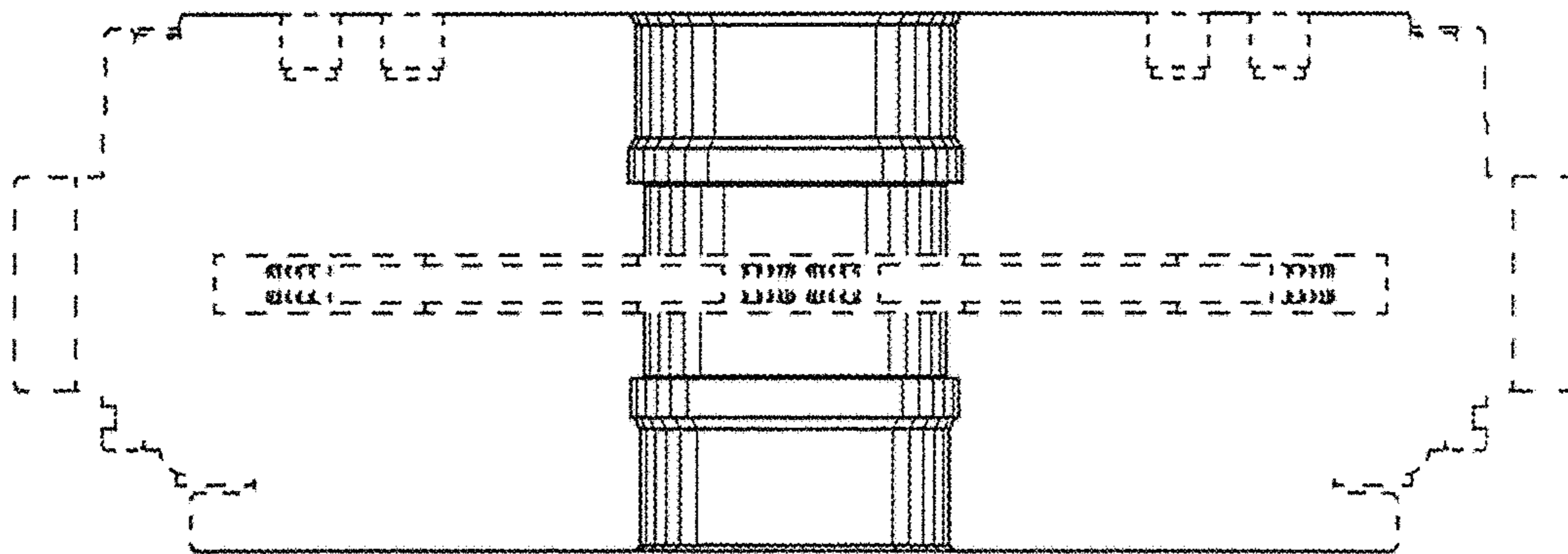


FIG.8