



US00D615503S

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

(10) **Patent No.:** **US D615,503 S**

(45) **Date of Patent:** **** May 11, 2010**

(54) **HEAT SINK**

(75) Inventors: **Takaya Otsuki**, Kyoto (JP); **Takamasa Yamashita**, Kyoto (JP); **Akira Hirakawa**, Kyoto (JP)

(73) Assignee: **Nidec Corporation**, Kyoto (JP)

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

(21) Appl. No.: **29/340,292**

(22) Filed: **Jul. 16, 2009**

Related U.S. Application Data

(62) Division of application No. 29/299,170, filed on Dec. 20, 2007, now Pat. No. Des. 600,218.

(30) **Foreign Application Priority Data**

Jun. 20, 2007 (JP) 2007-016489
Jul. 23, 2007 (JP) 2007-019935

(51) **LOC (9) Cl.** **13-03**

(52) **U.S. Cl.** **D13/179**

(58) **Field of Classification Search** D13/179;
165/80.3, 104.33, 151, 122, 185; 257/706,
257/707, 718-722; 361/687, 695, 697, 700,
361/702, 704, 709, 710, 711, 719

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D568,829 S * 5/2008 Yamashita et al. D13/179
D593,042 S * 5/2009 Yamashita et al. D13/179
D600,218 S * 9/2009 Otsuki et al. D13/179
7,623,348 B2 * 11/2009 Otsuki et al. 361/697
2006/0126303 A1 * 6/2006 Wang et al. 361/704

OTHER PUBLICATIONS

Otsuki et al.; "Heat Sink"; U.S. Appl. No. 29/299,170, filed Dec. 20, 2007.

* cited by examiner

Primary Examiner—Selina Sikder

(74) *Attorney, Agent, or Firm*—Keating & Bennett, LLP

(57) **CLAIM**

The ornamental design for a heat sink, as shown and described.

DESCRIPTION

FIG. 1 is a front elevation view of a heat sink according to a modification of our new design;

FIG. 2 is a rear elevation view thereof;

FIG. 3 is a right side elevation view thereof;

FIG. 4 is a left side elevation view thereof;

FIG. 5 is a top plan view thereof;

FIG. 6 is a bottom plan view thereof;

FIG. 7 is a perspective view thereof;

FIG. 8 is another perspective view thereof;

FIG. 9 is another front elevation view thereof;

FIG. 10 is a sectional view along A—A' in FIG. 9;

FIG. 11 is a front elevation view of a heat sink according to another modification of our new design;

FIG. 12 is a rear elevation view thereof;

FIG. 13 is a right side elevation view thereof;

FIG. 14 is a left side elevation view thereof;

FIG. 15 is a top plan view thereof;

FIG. 16 is a bottom plan view thereof;

FIG. 17 is a perspective view thereof;

FIG. 18 is another perspective view thereof;

FIG. 19 is another front elevation view thereof;

FIG. 20 is a sectional view along A—A' in FIG. 19;

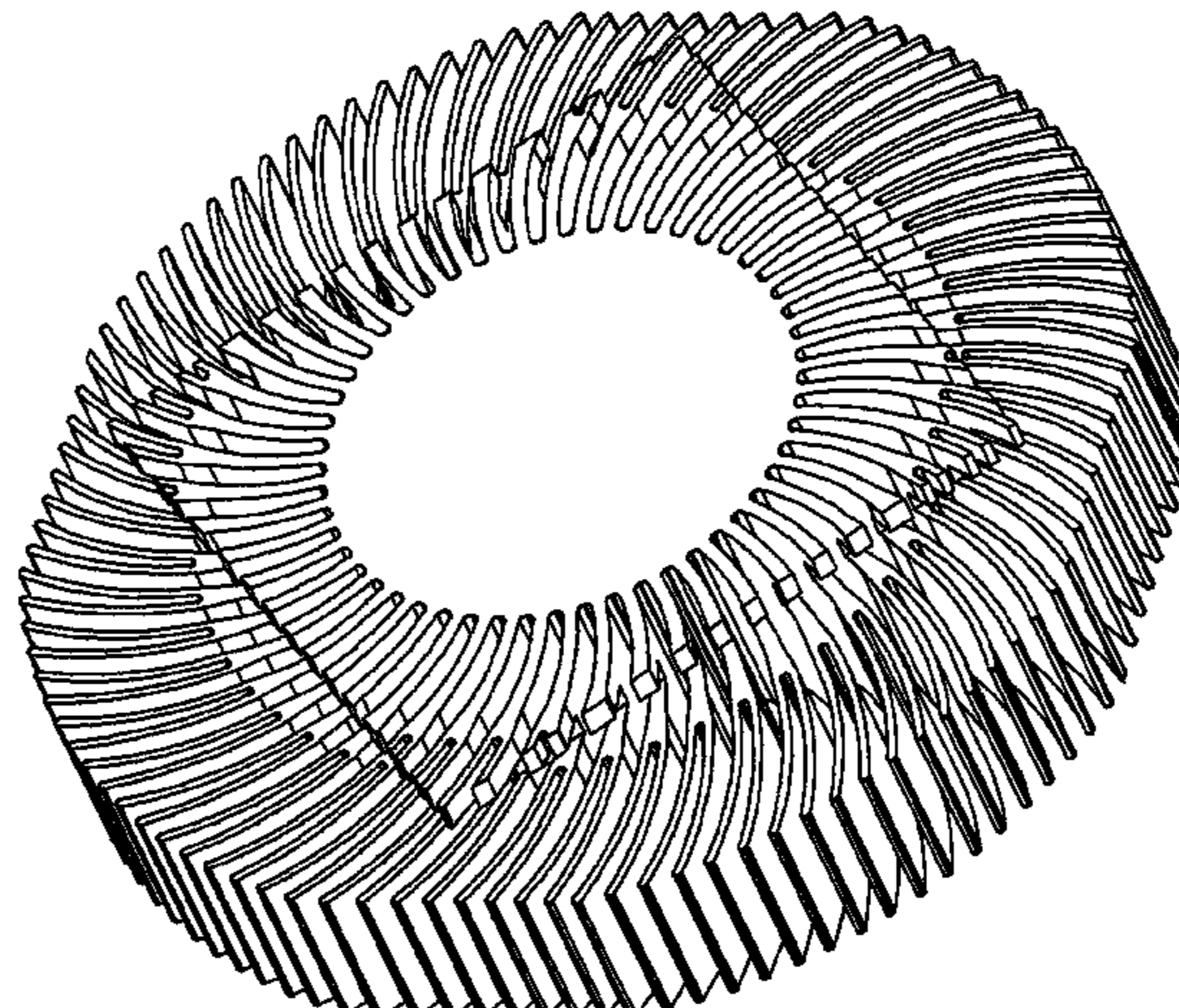
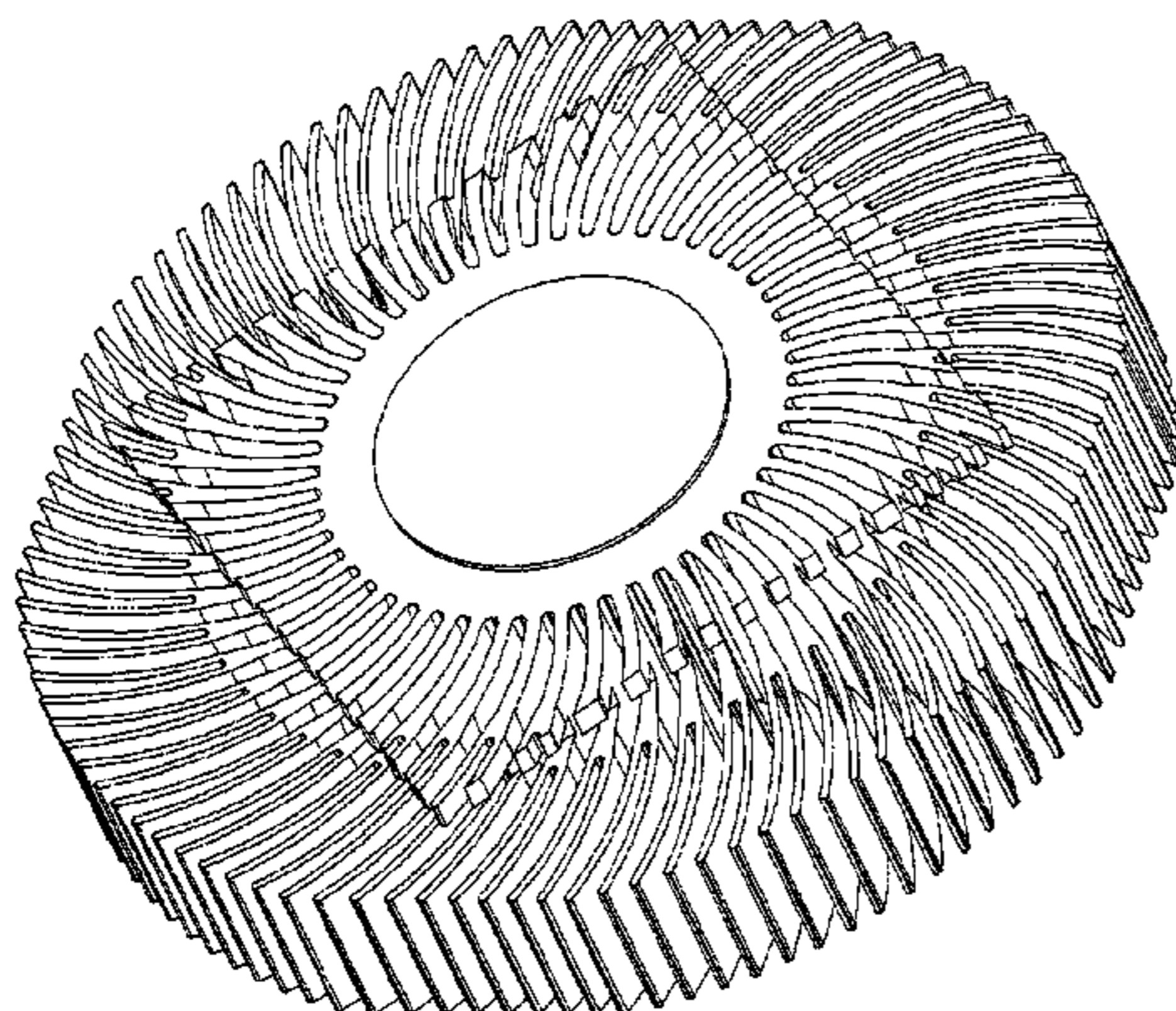
FIG. 21 is a front elevation view of a heat sink according to another modification of our new design;

FIG. 22 is a rear elevation view thereof;

FIG. 23 is a right side elevation view thereof;

FIG. 24 is a left side elevation view thereof;

FIG. 25 is a top plan view thereof;



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FIG. 26 is a bottom plan view thereof;

FIG. 27 is a perspective view thereof;

FIG. 28 is another perspective view thereof;

FIG. 29 is a front elevation view of a heat sink according to another modification of our new design;

FIG. 30 is a rear elevation view thereof;

FIG. 31 is a right side elevation view thereof;

FIG. 32 is a left side elevation view thereof;

FIG. 33 is a top plan view thereof;

FIG. 34 is a bottom plan view thereof;

FIG. 35 is a perspective view thereof; and,

FIG. 36 is another perspective view thereof.

1 Claim, 36 Drawing Sheets

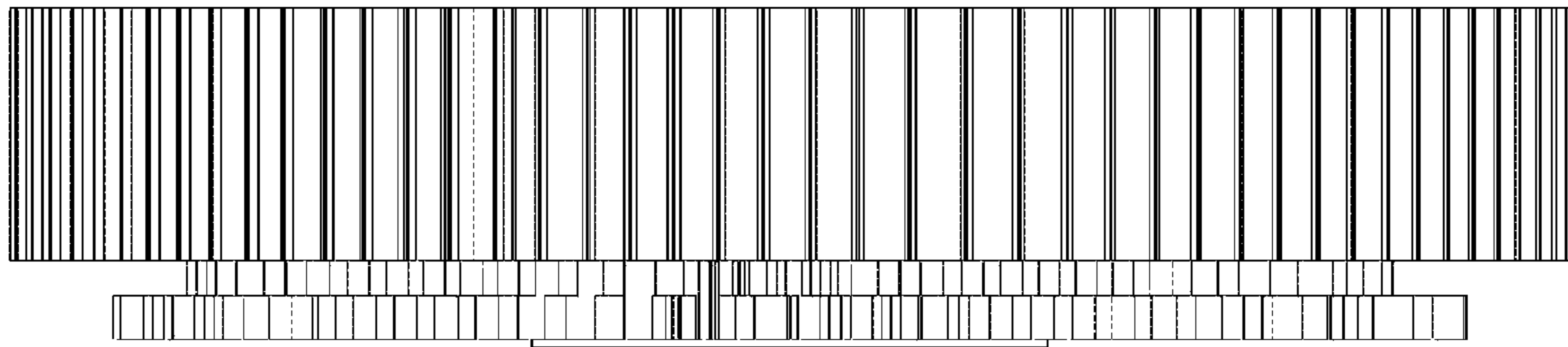


FIG. 1

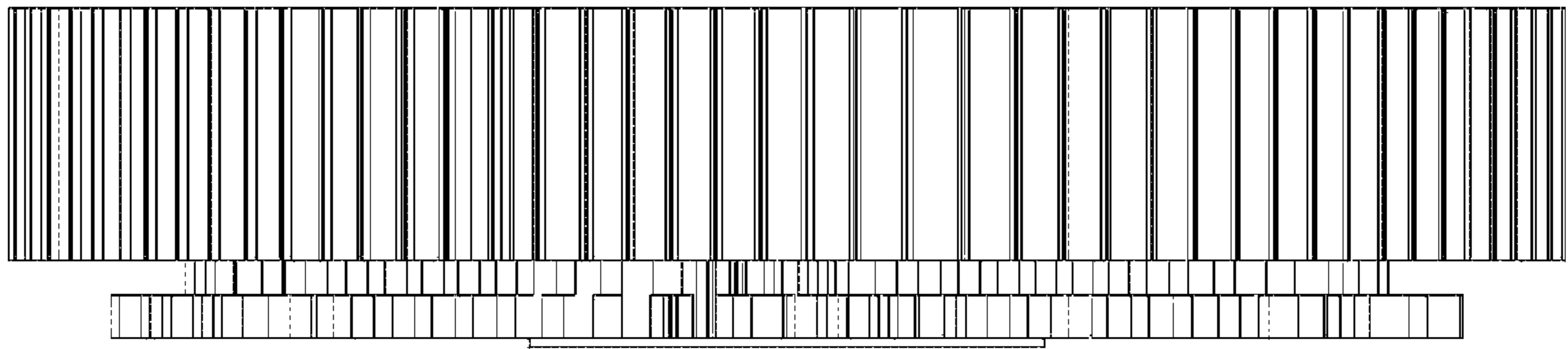


FIG. 2

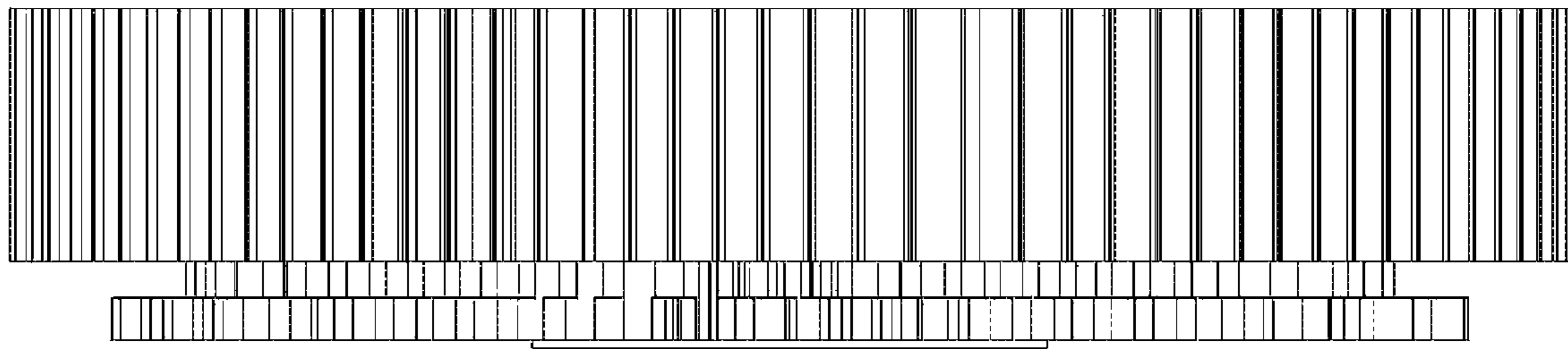


FIG. 3

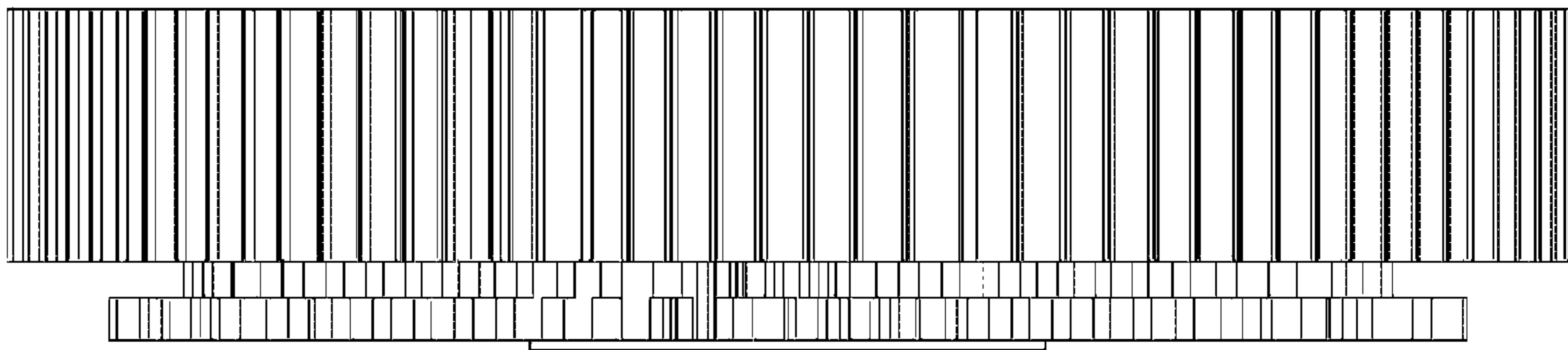


FIG. 4

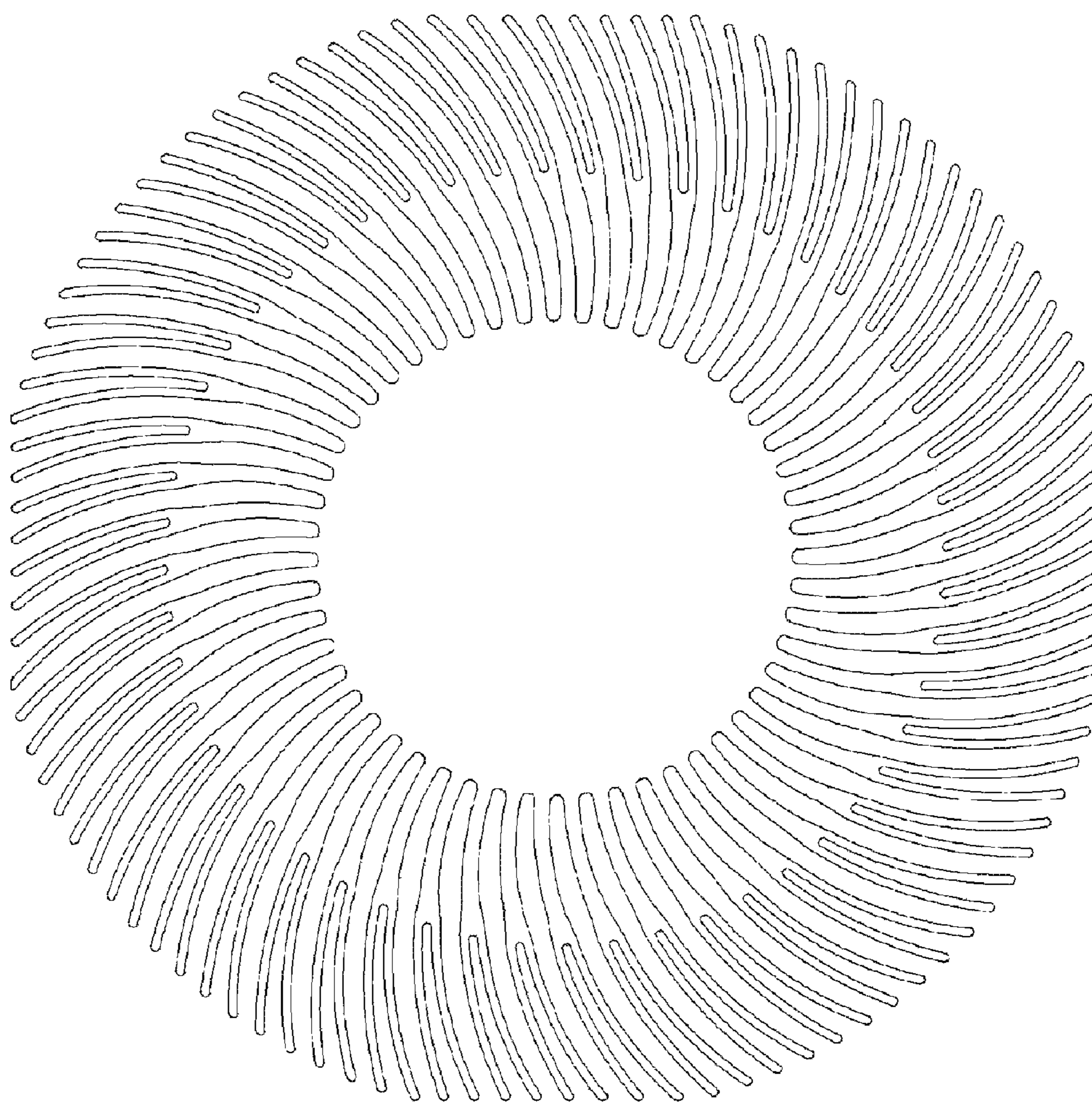


FIG. 5

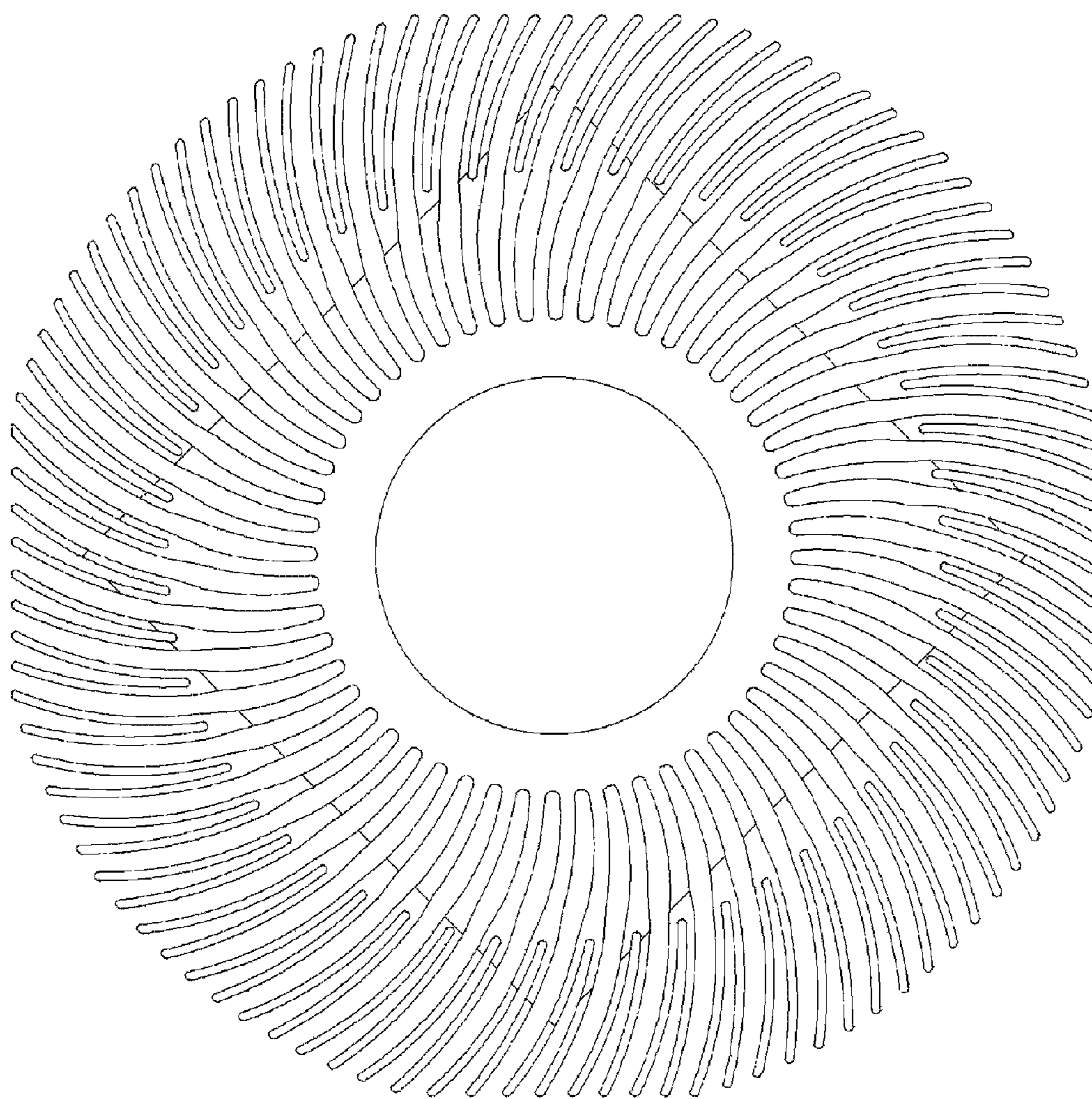


FIG. 6

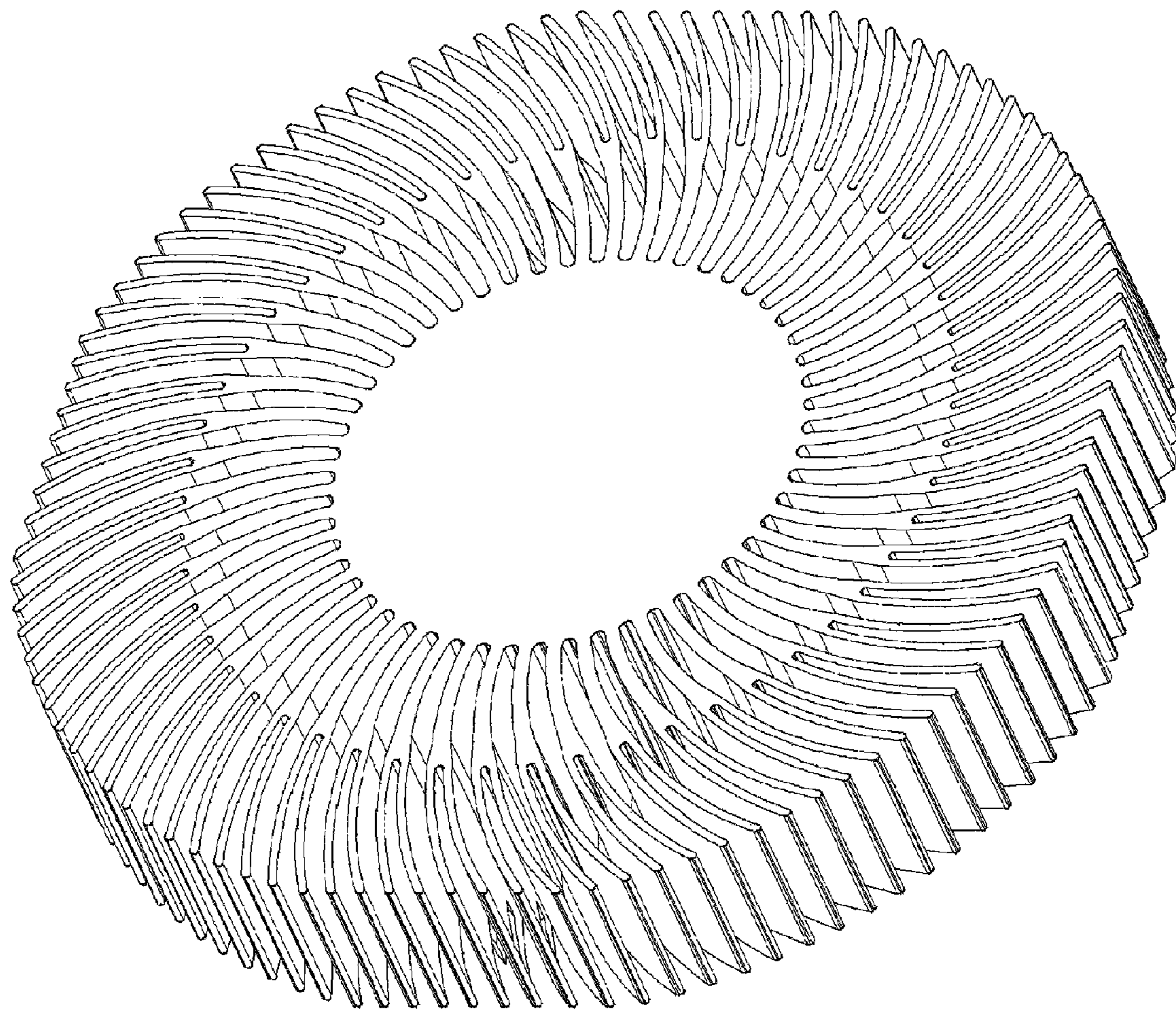


FIG. 7

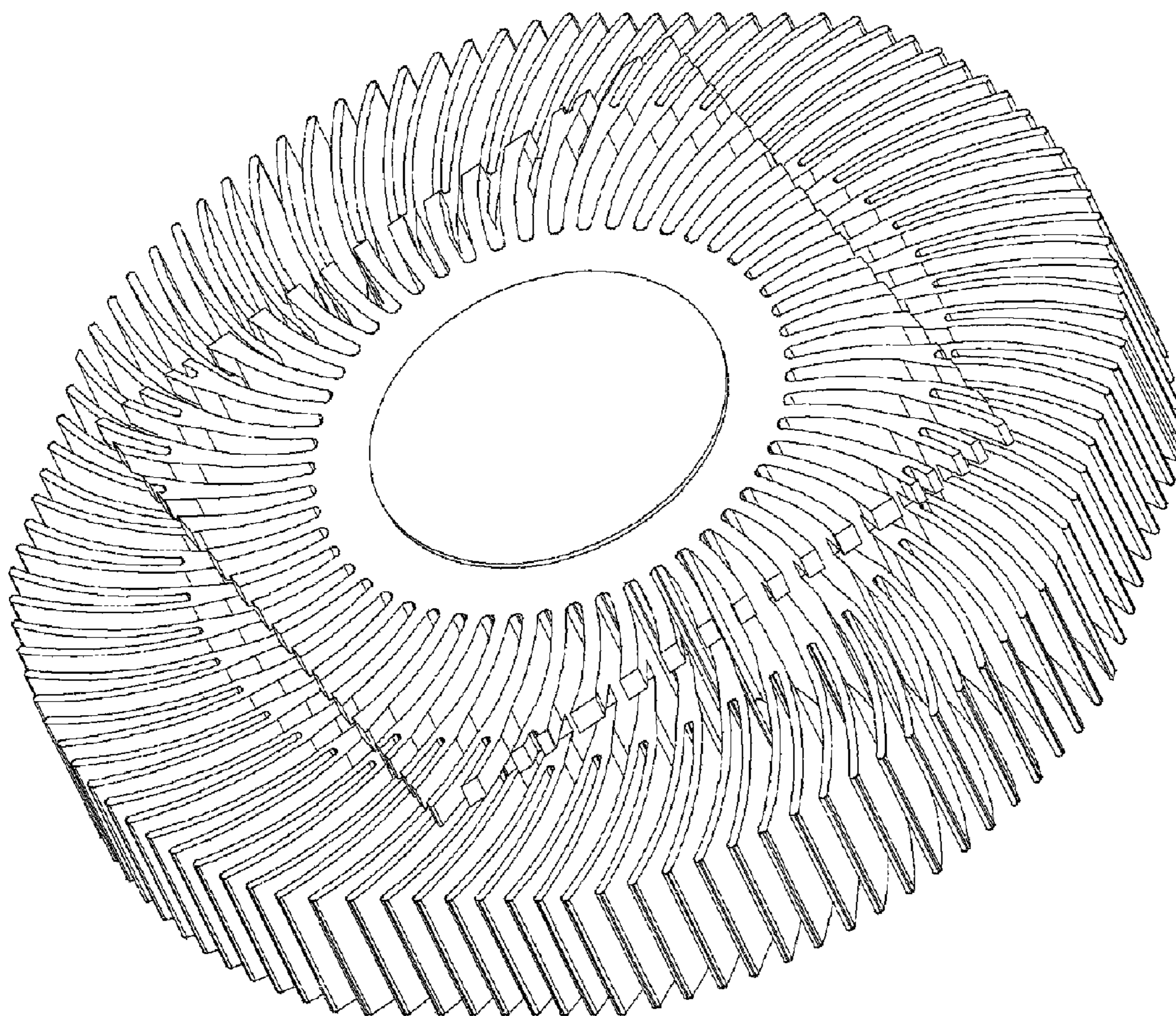


FIG. 8

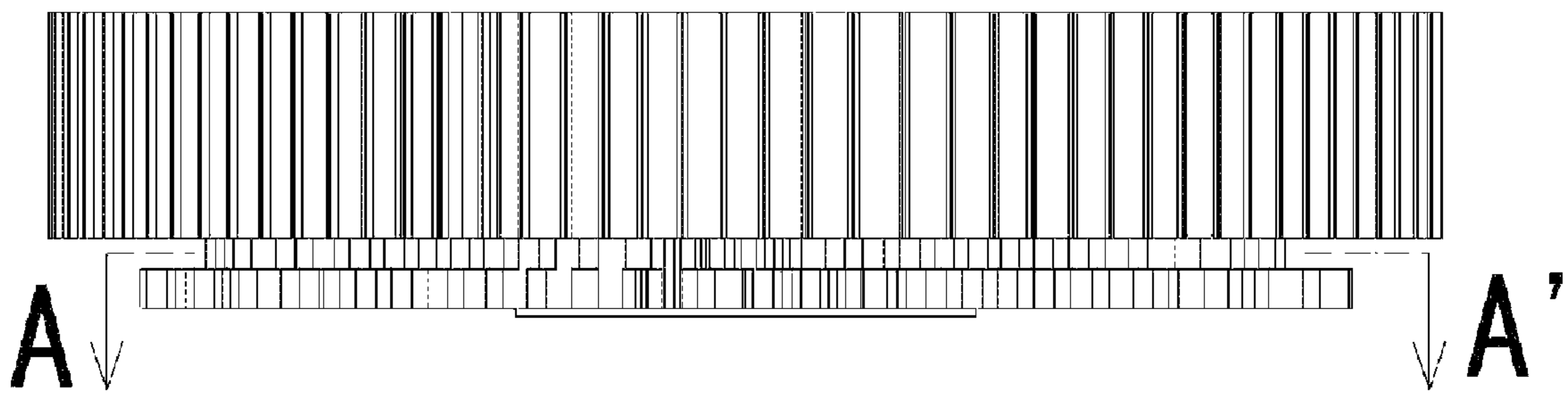


FIG. 9

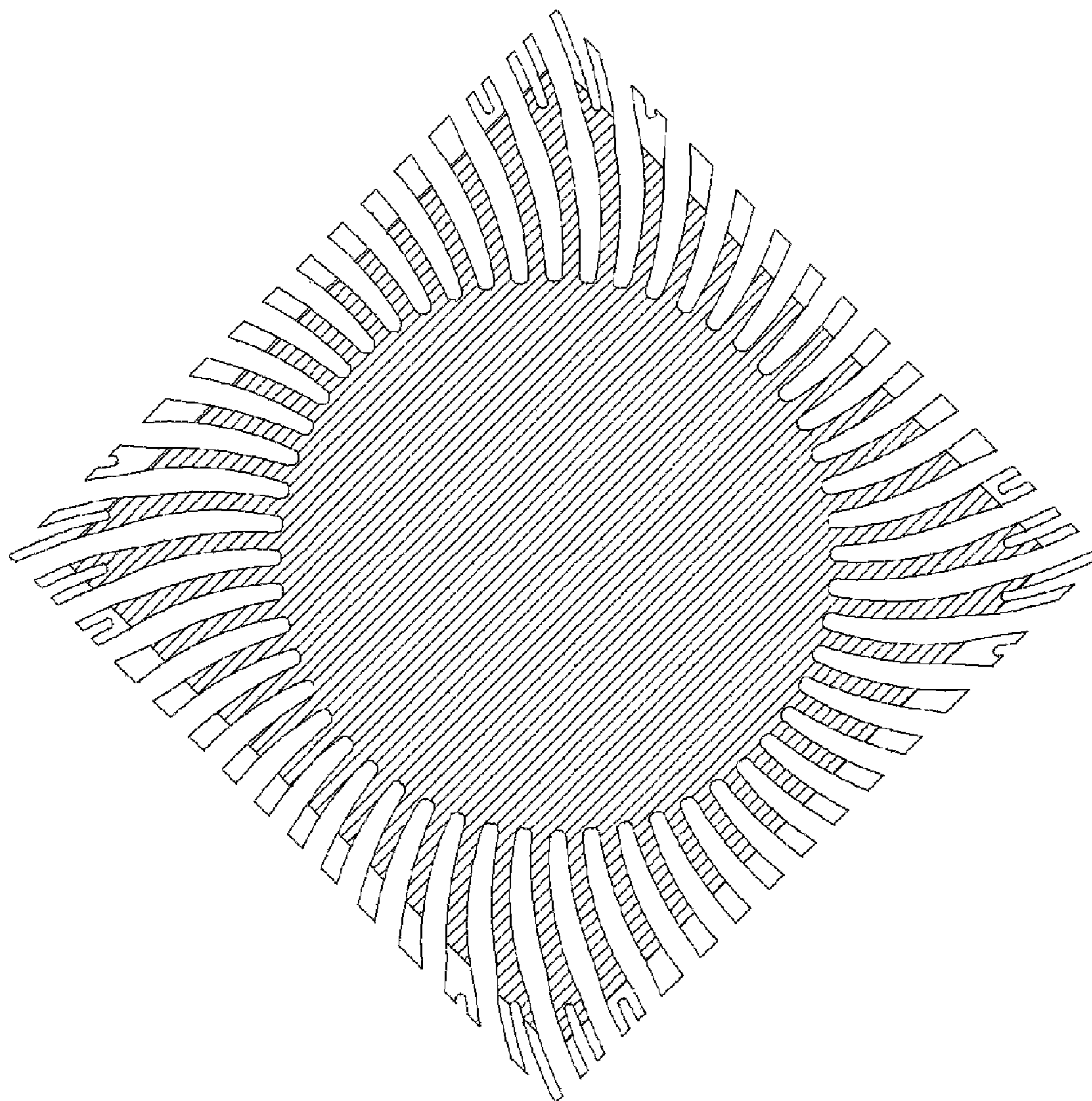


FIG. 10

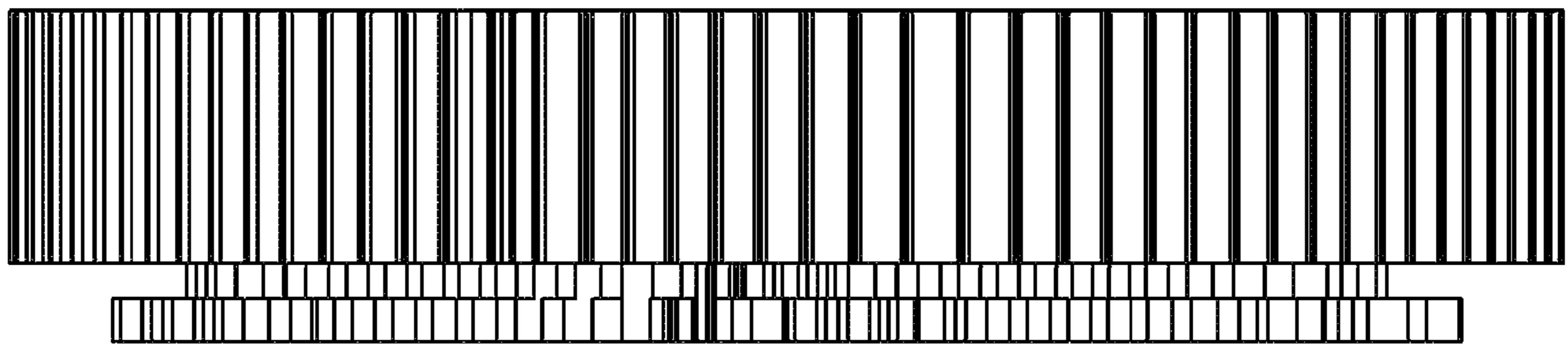


FIG. 11

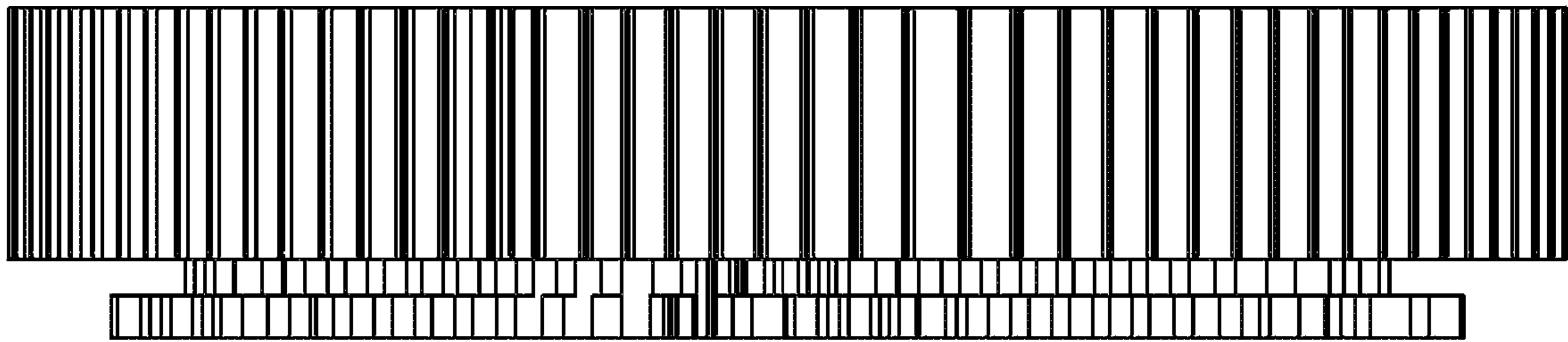


FIG. 12

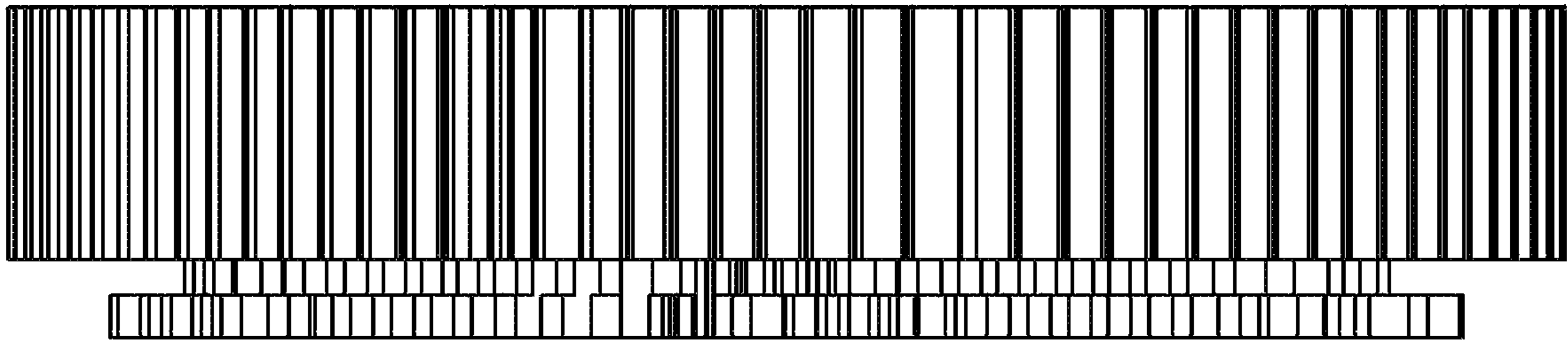


FIG. 13

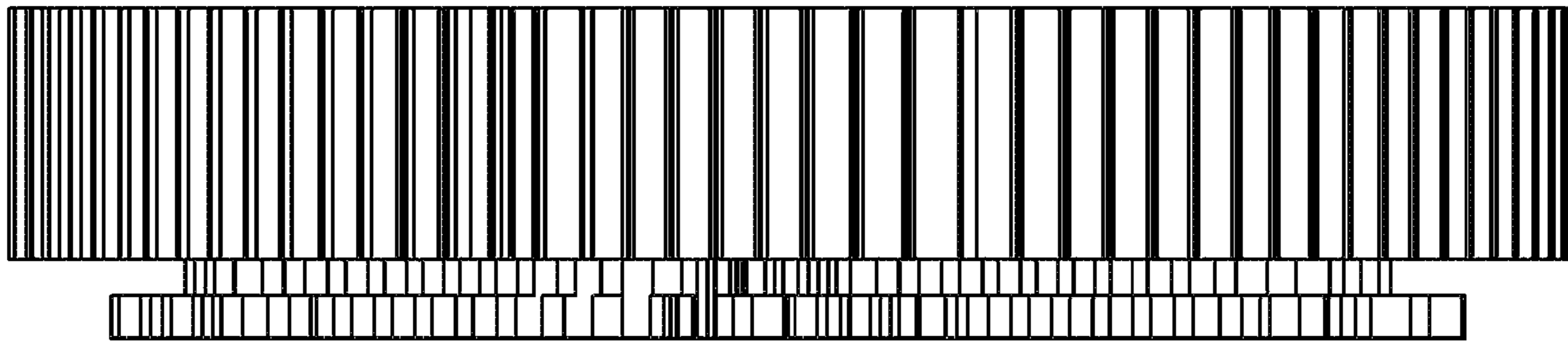


FIG. 14

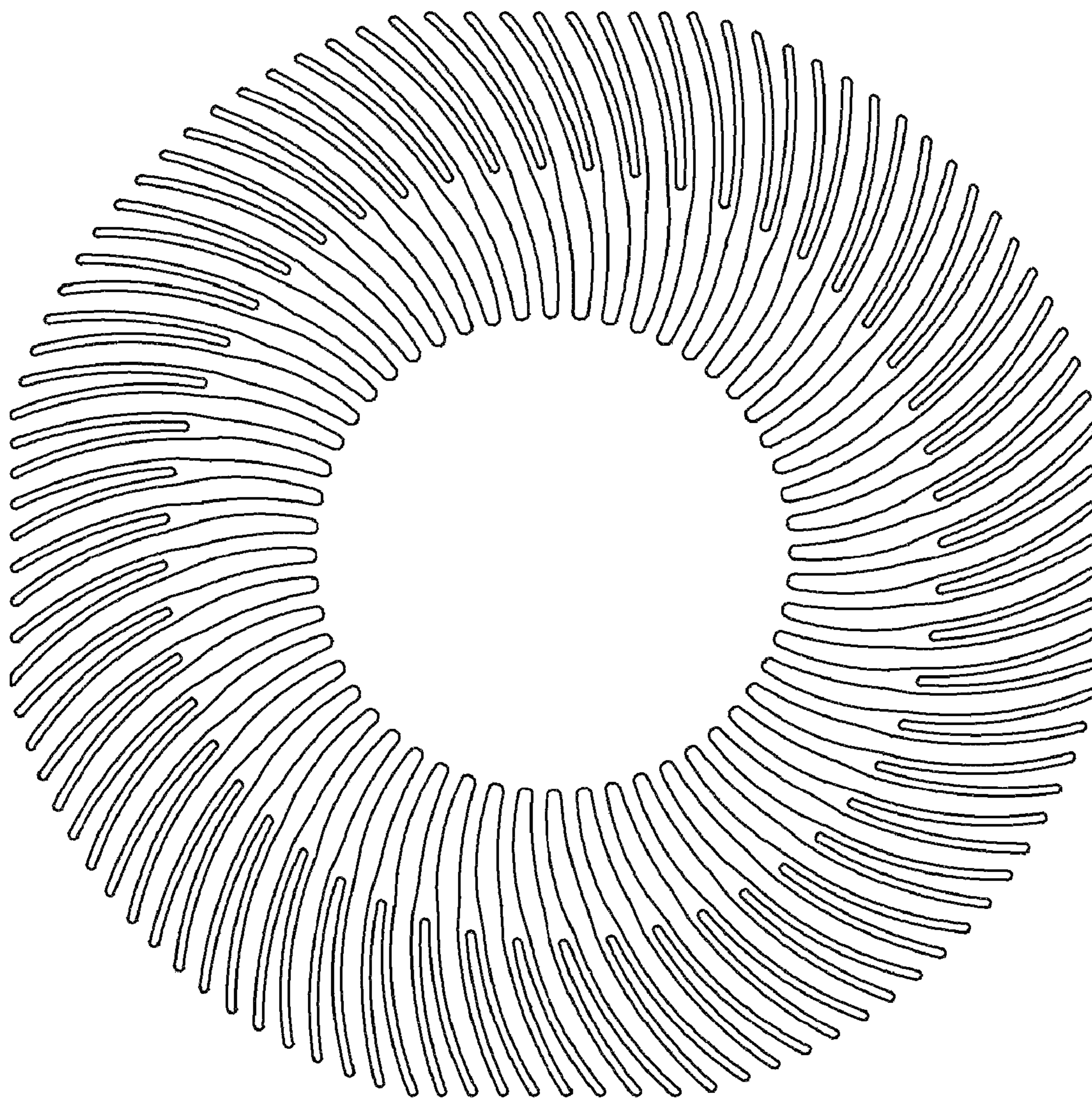


FIG. 15

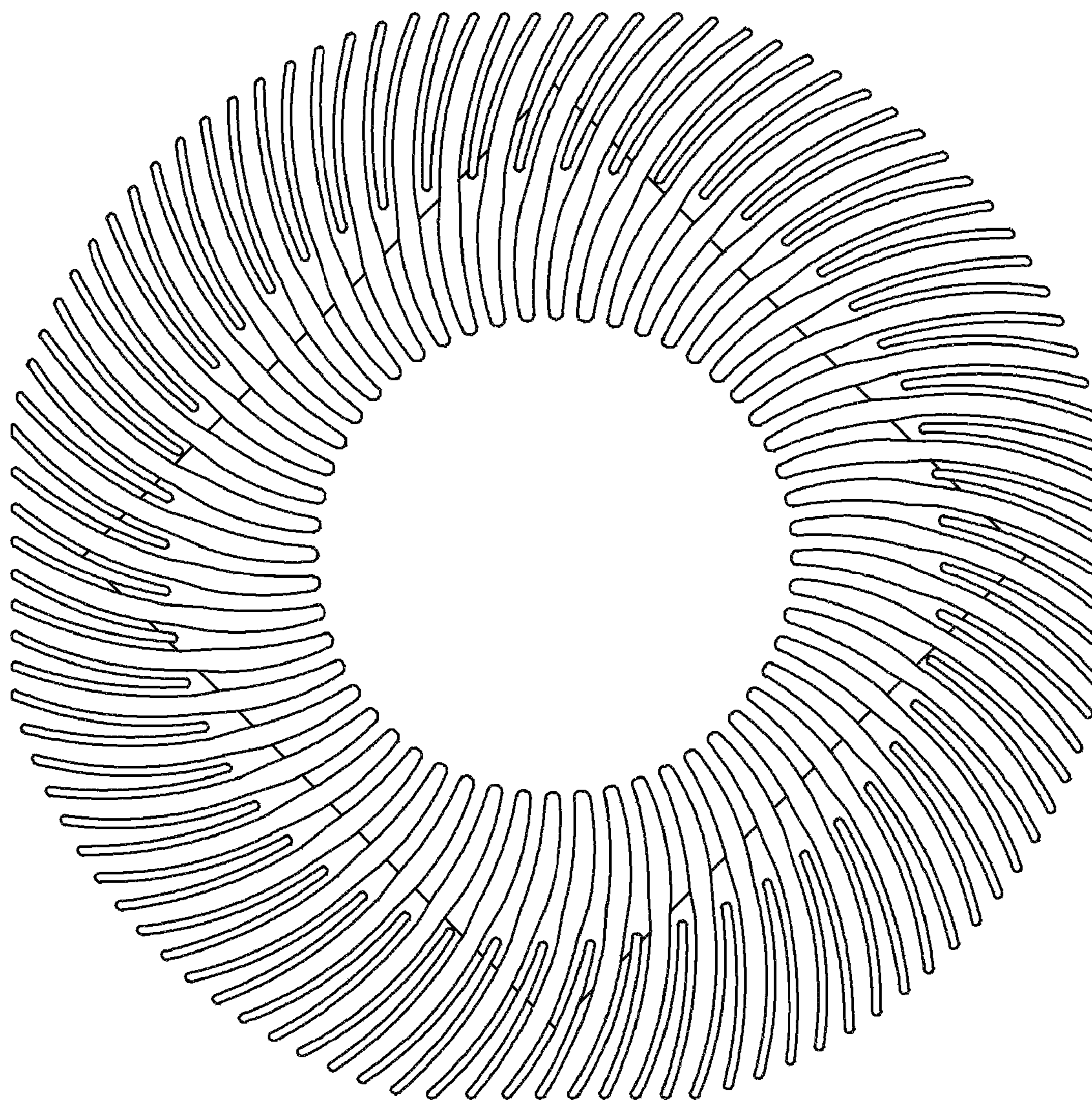


FIG. 16

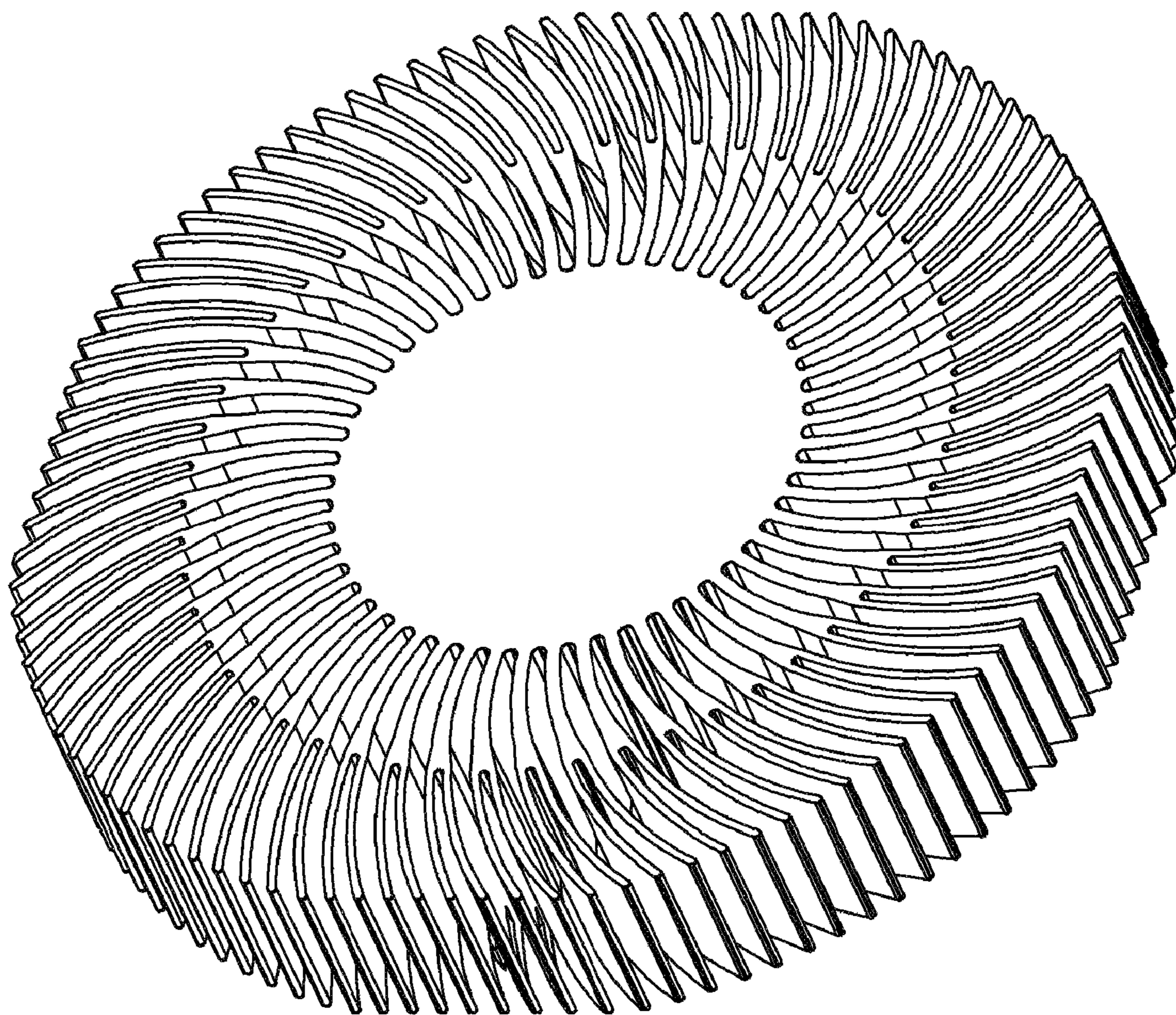


FIG. 17

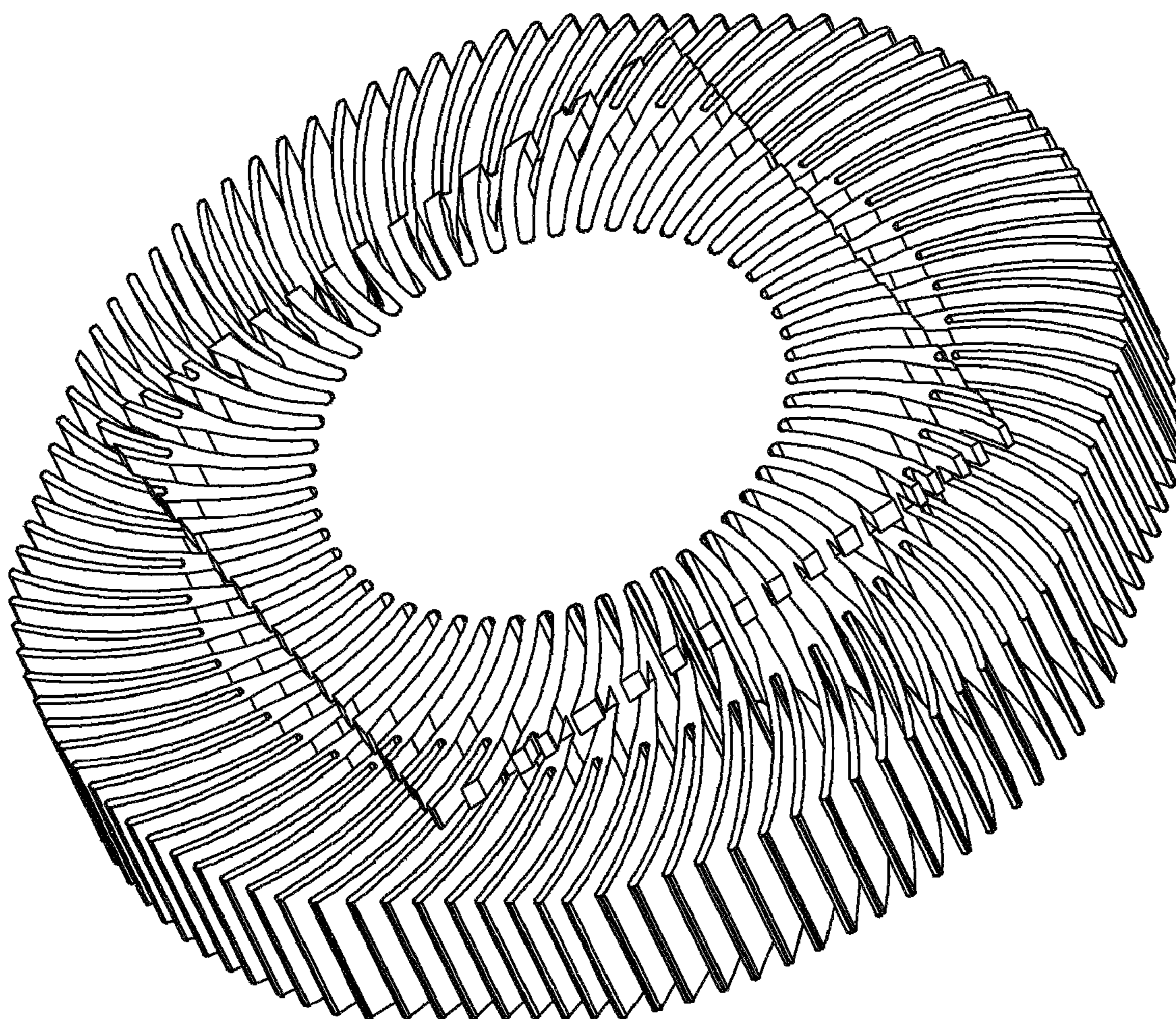


FIG. 18

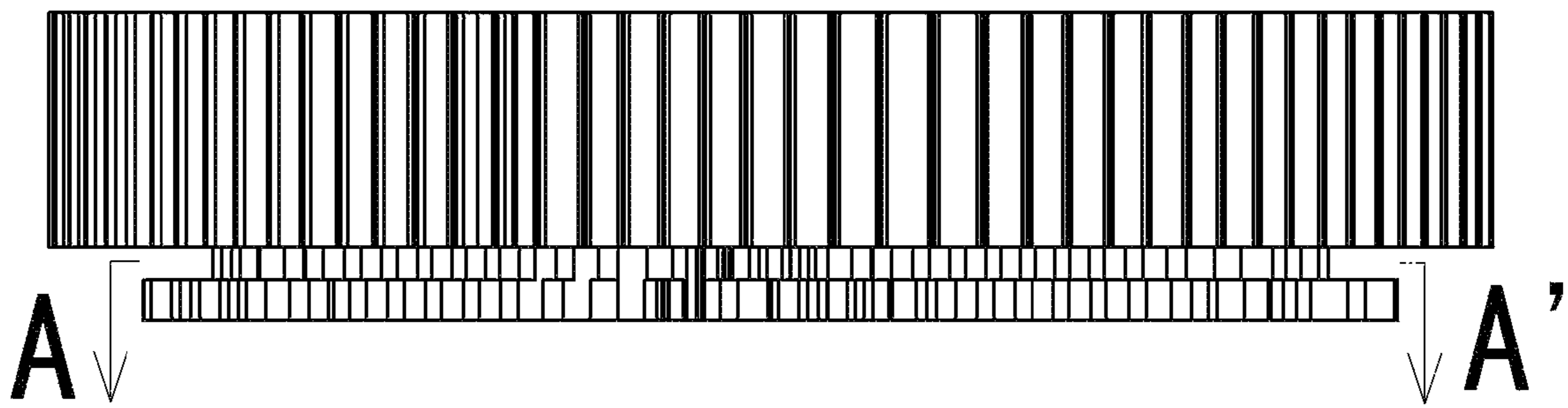


FIG. 19

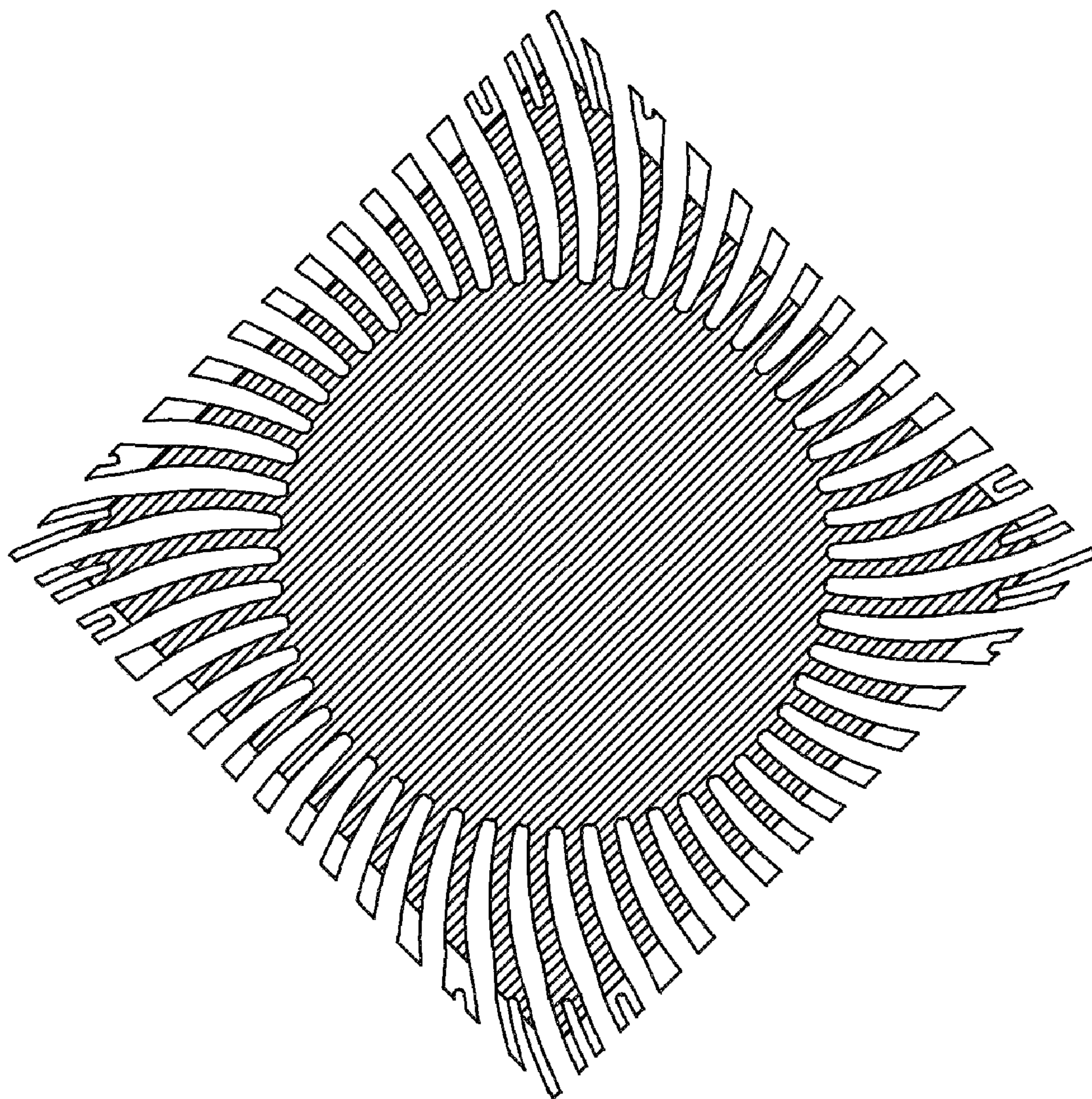


FIG. 20

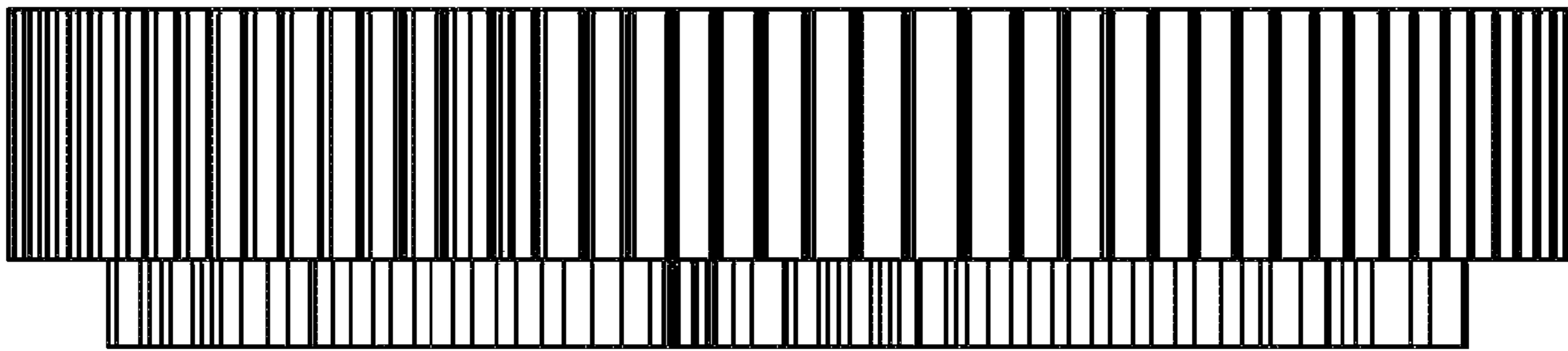


FIG. 21

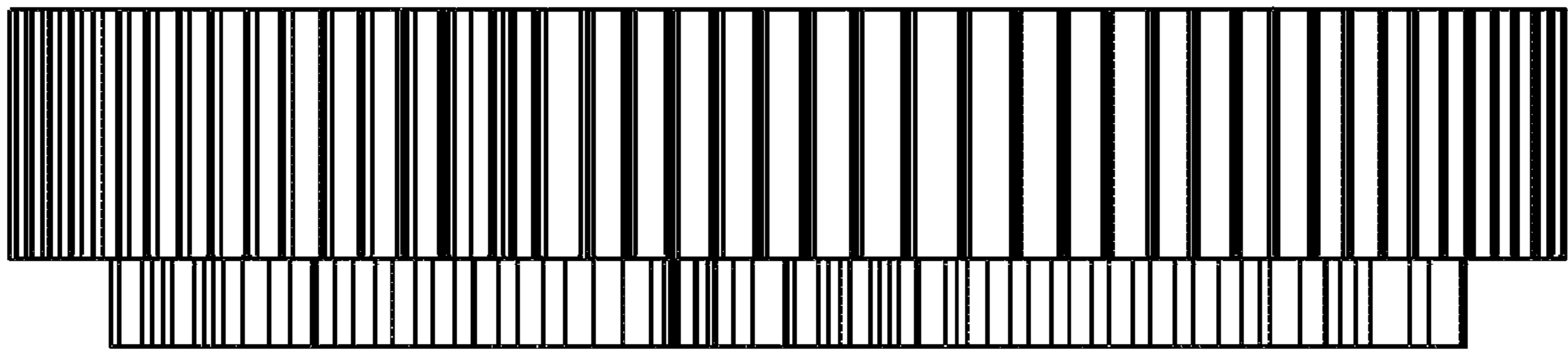


FIG. 22

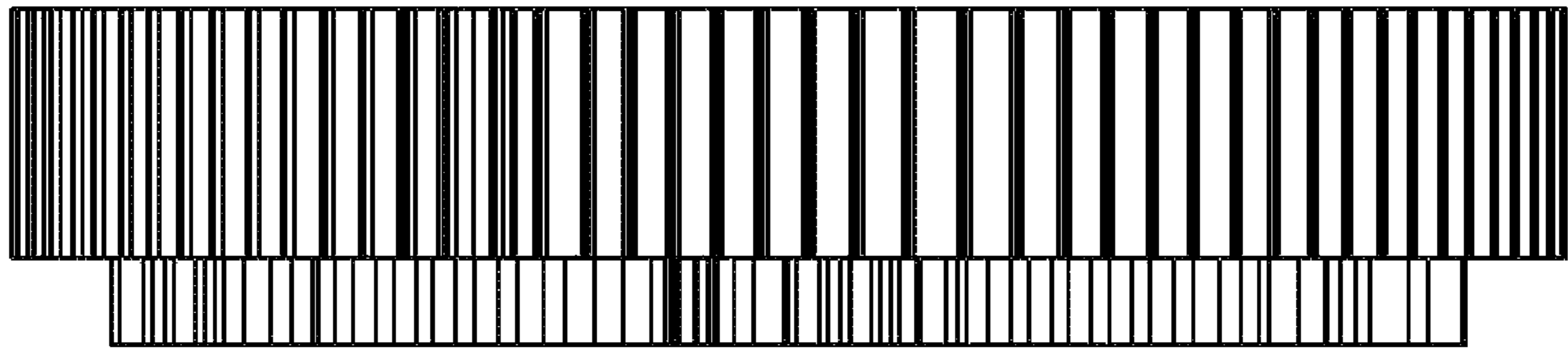


FIG. 23

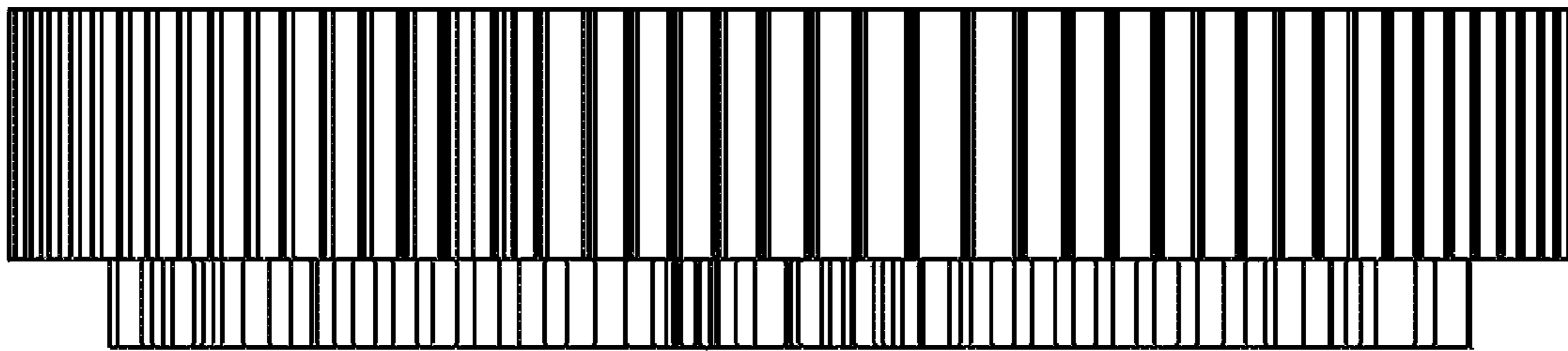


FIG. 24

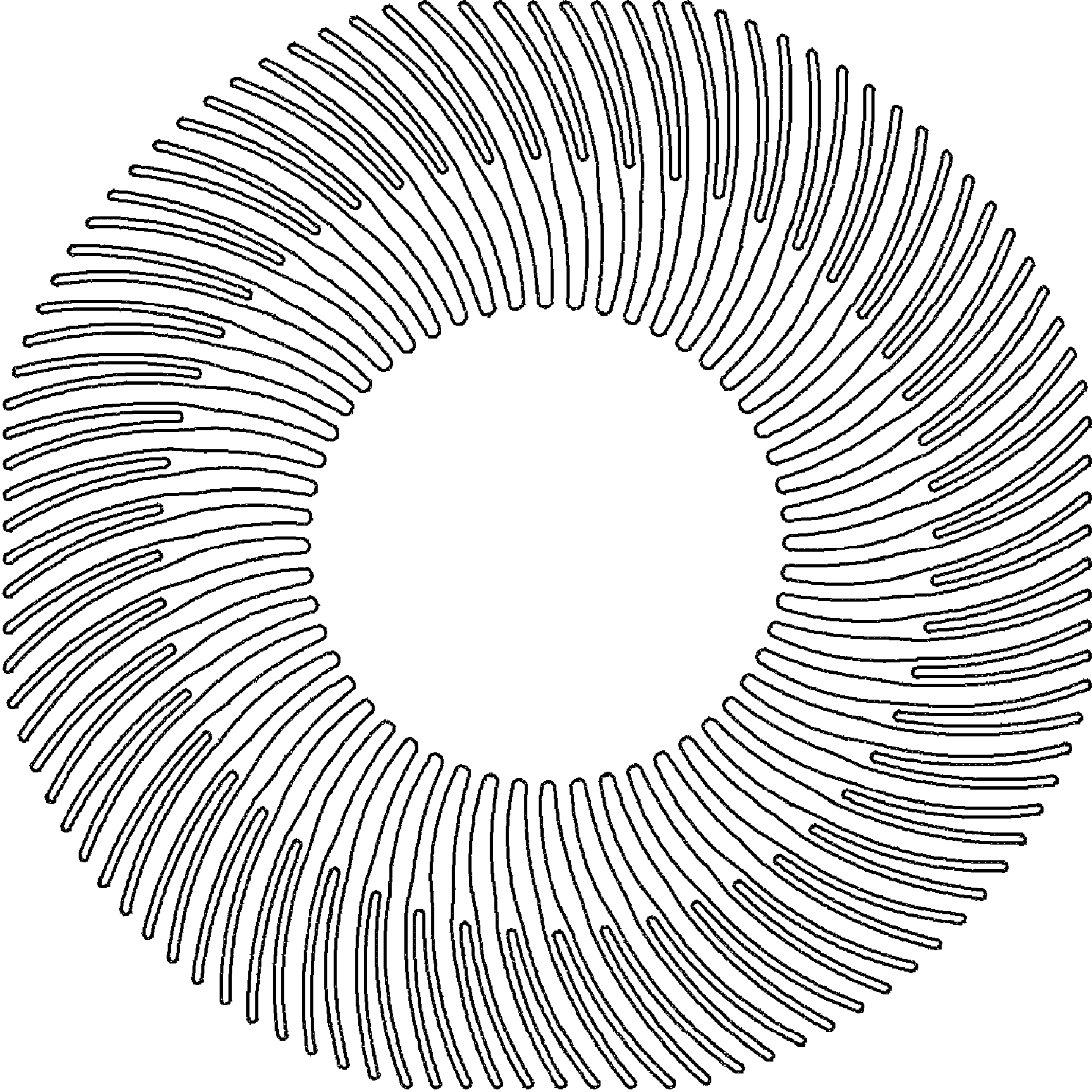


FIG. 25

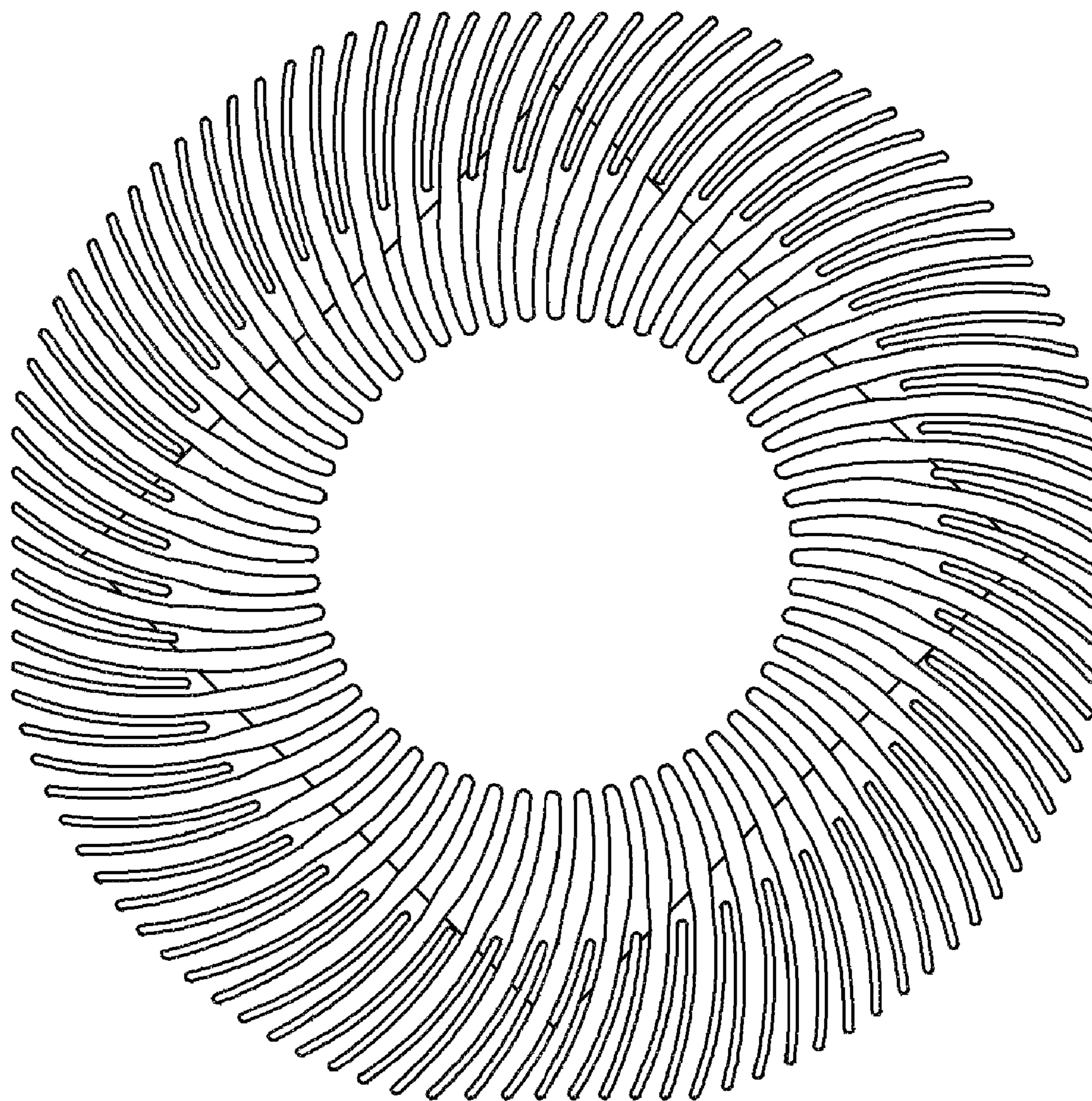


FIG. 26

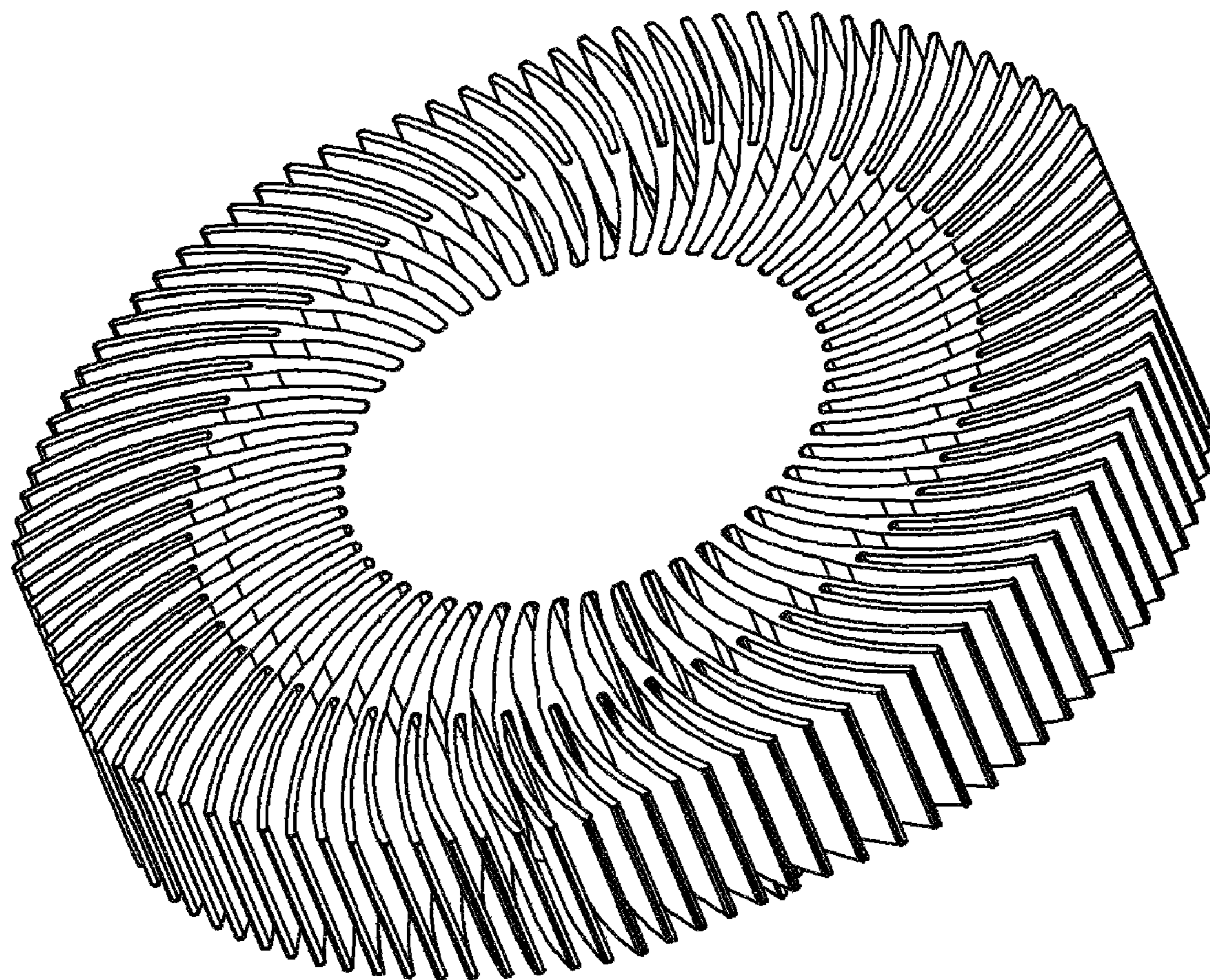


FIG. 27

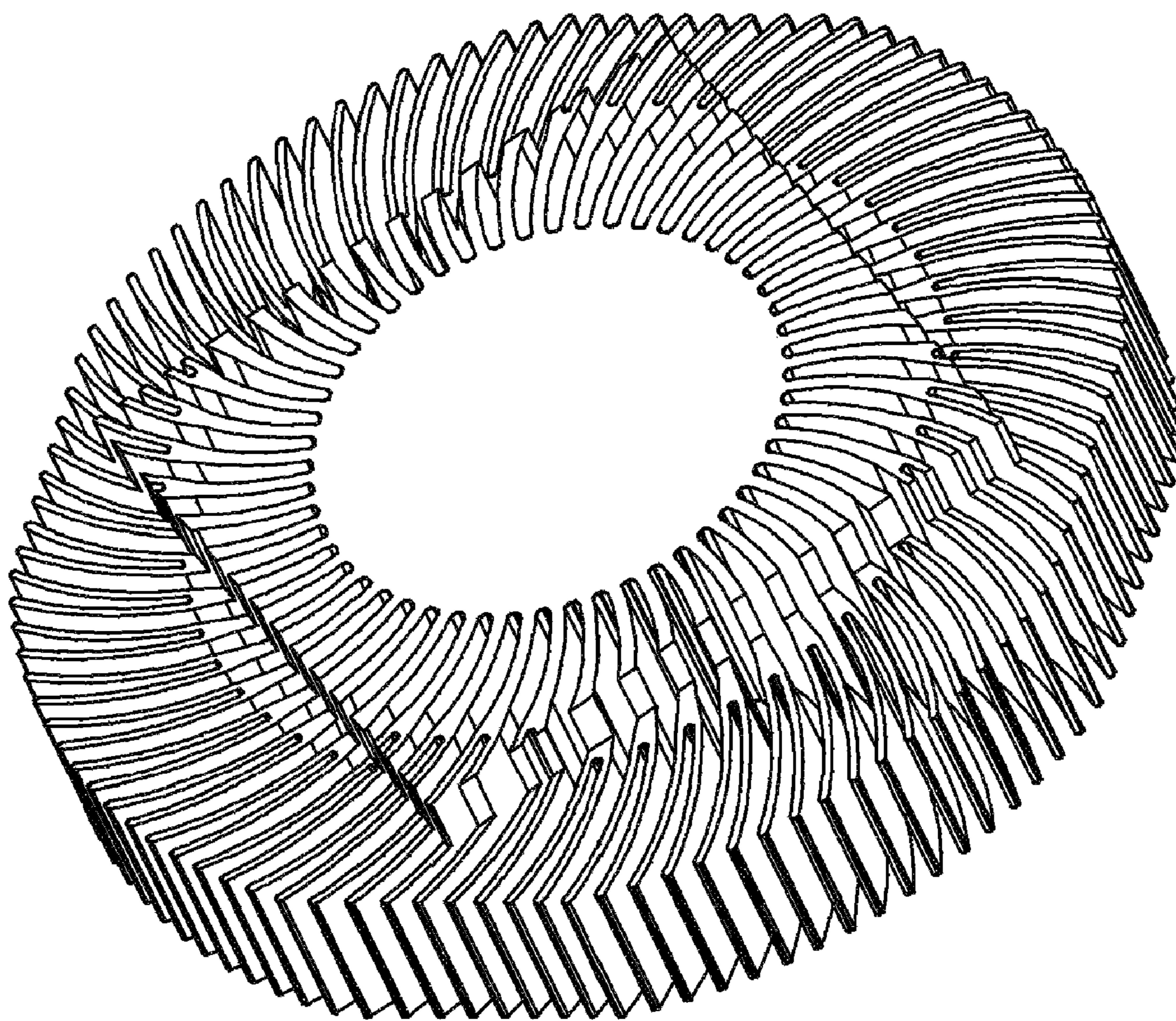


FIG. 28

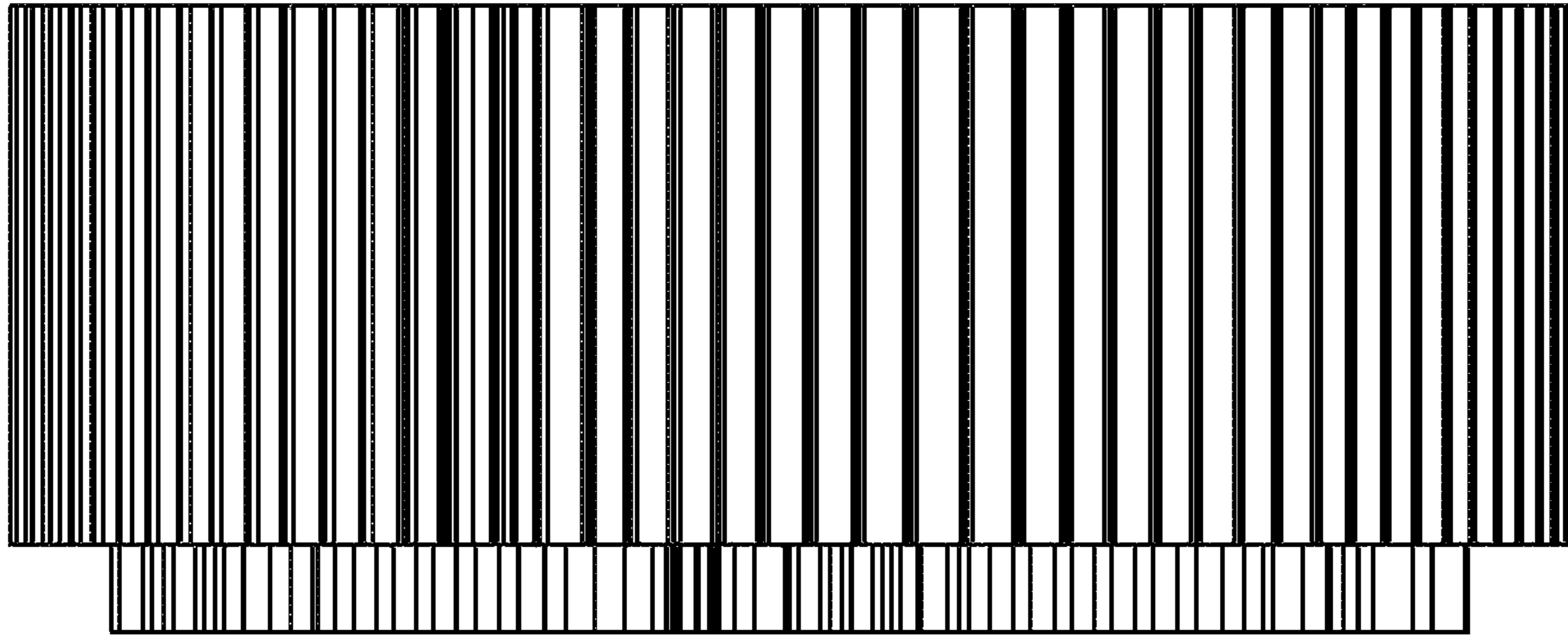


FIG. 29

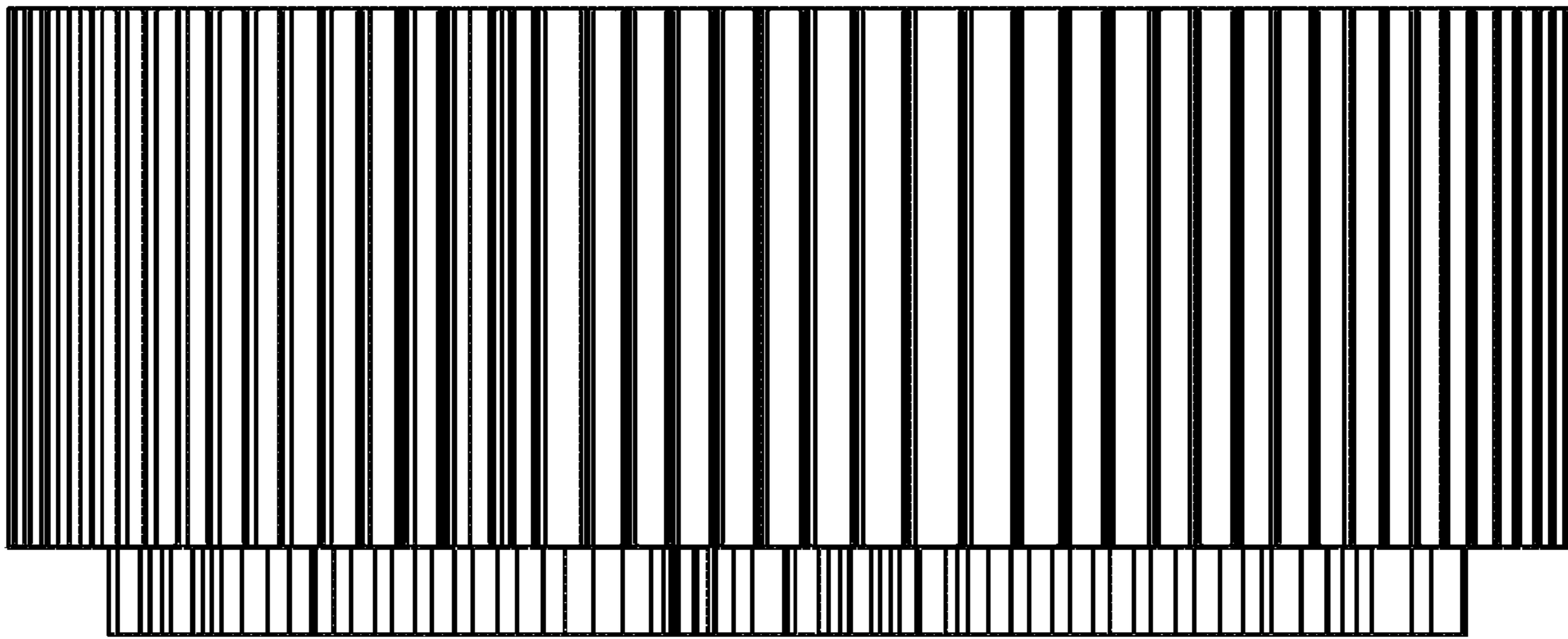


FIG. 30

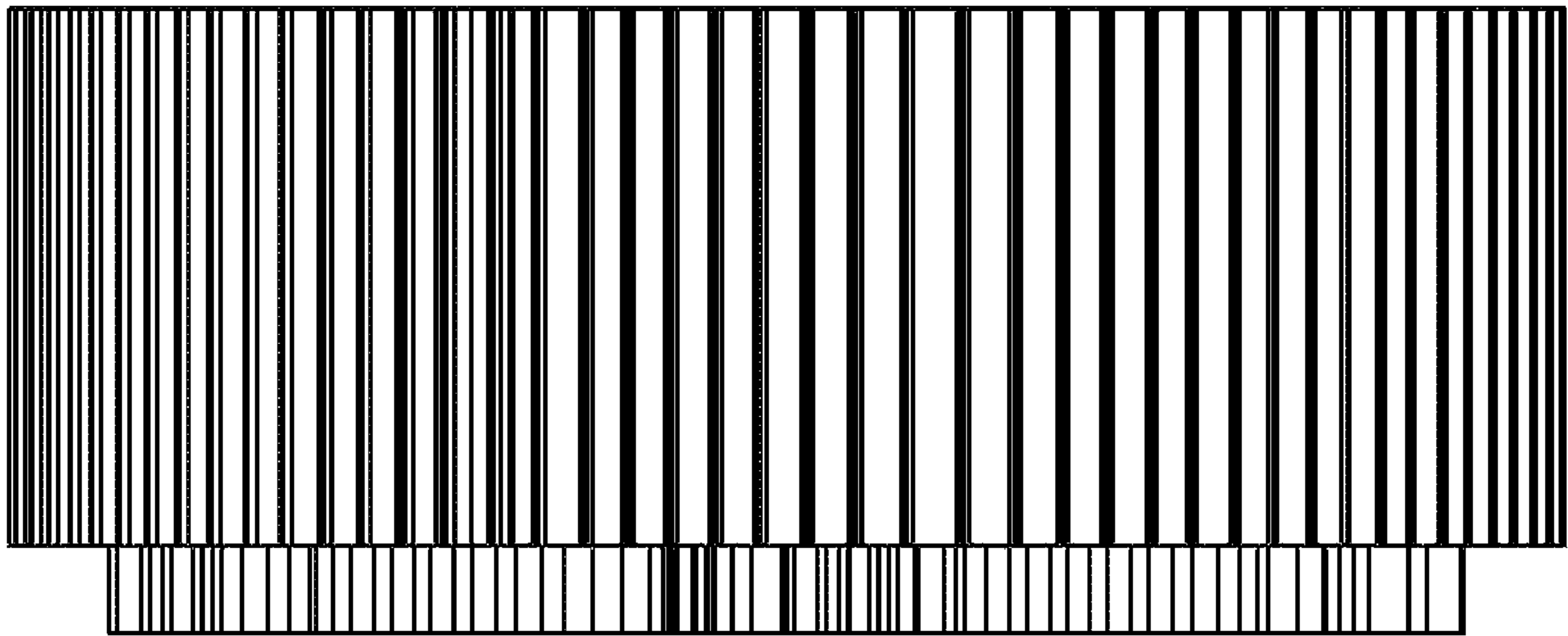


FIG. 31

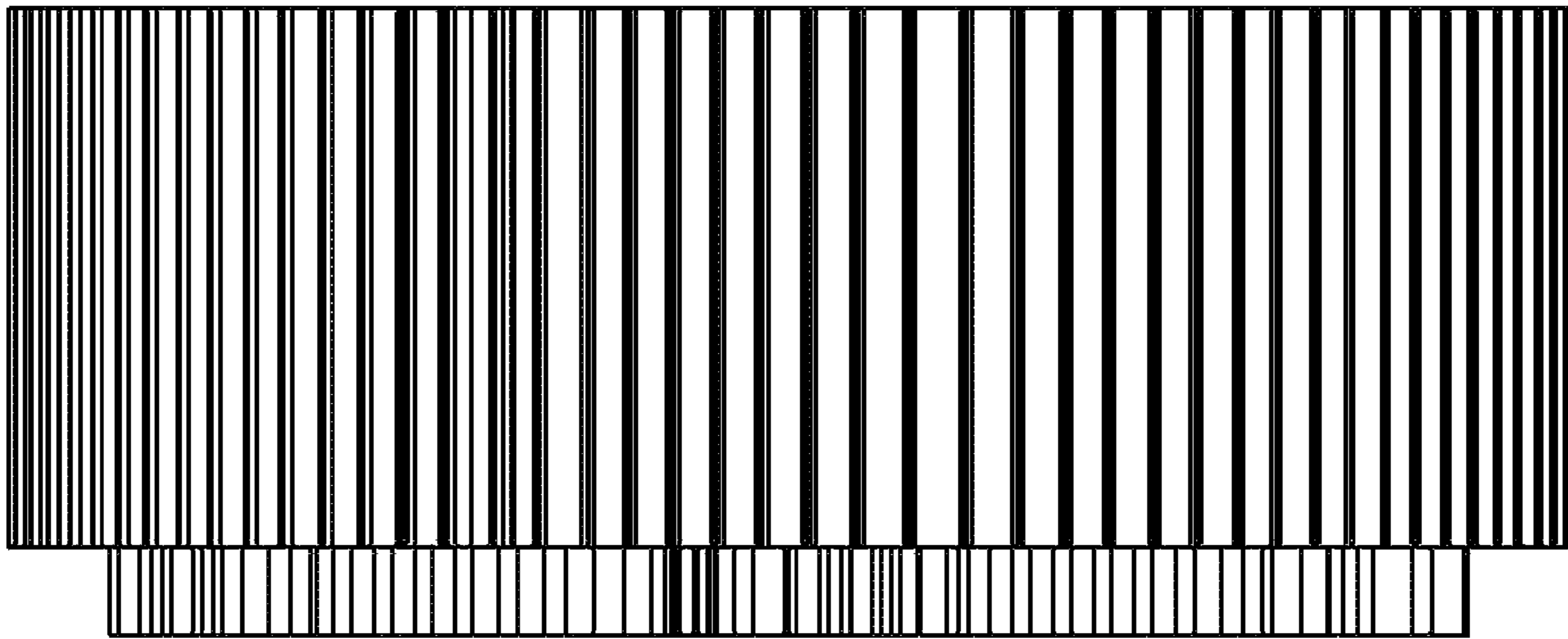


FIG. 32

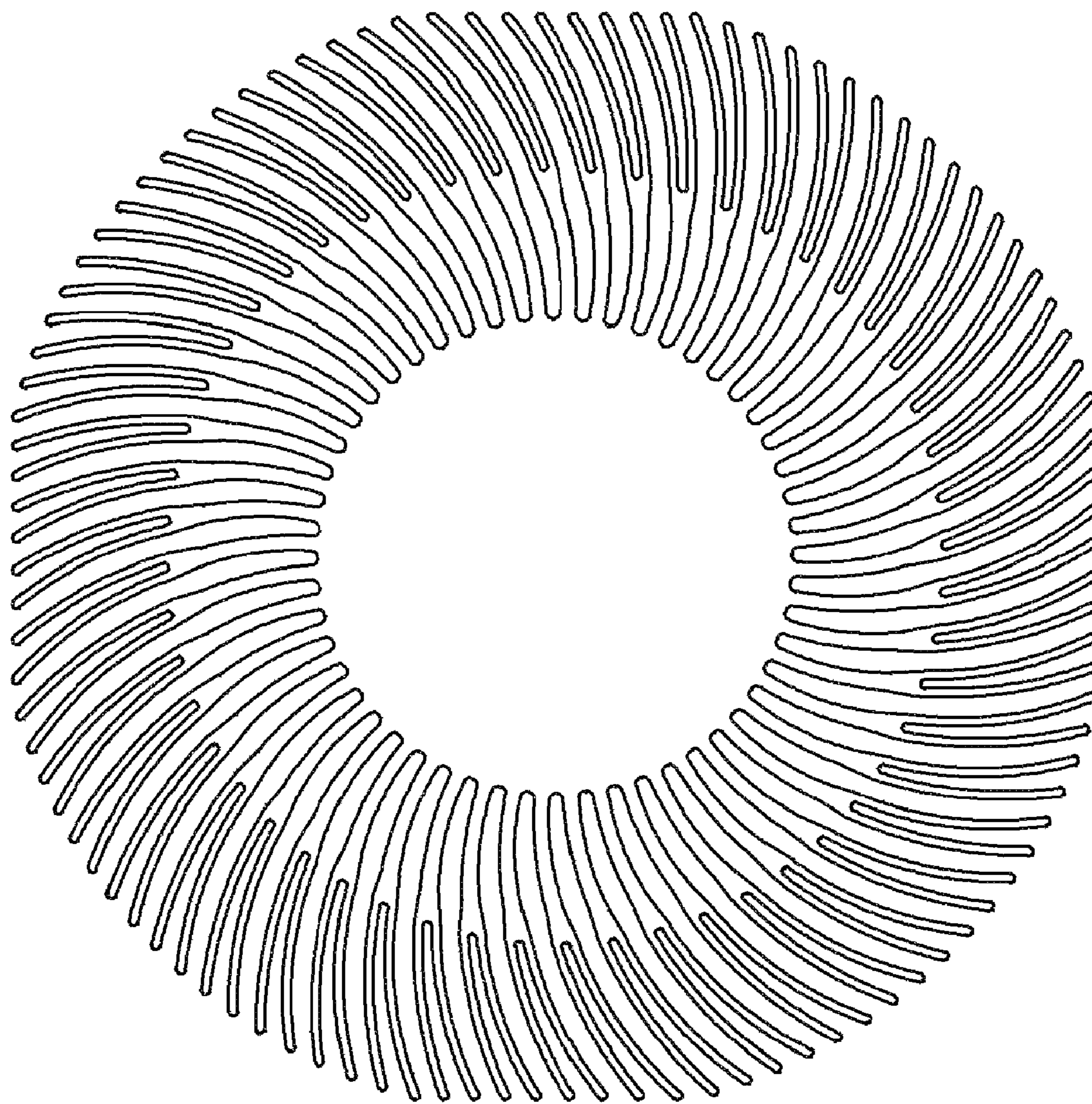


FIG. 33

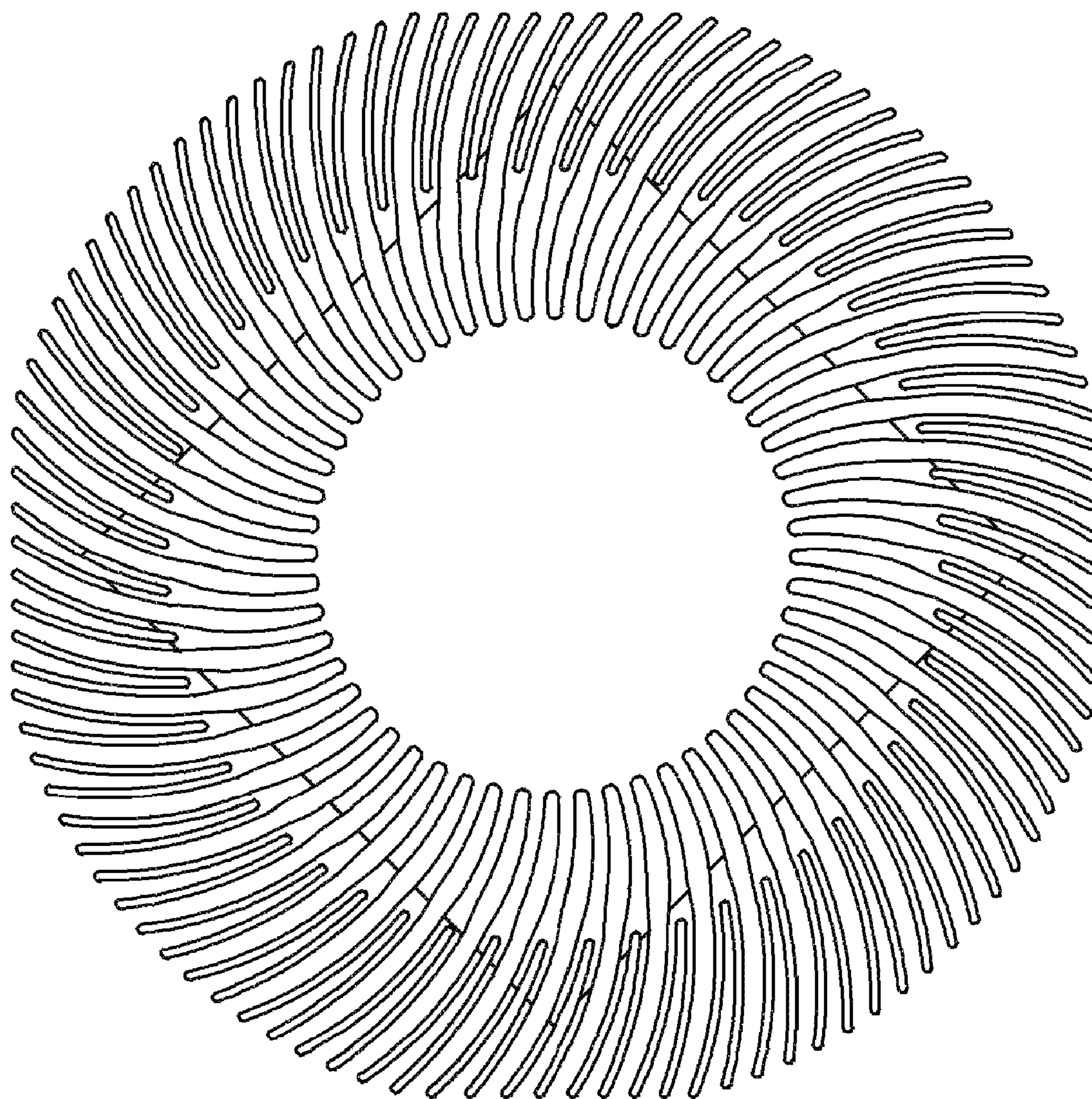


FIG. 34

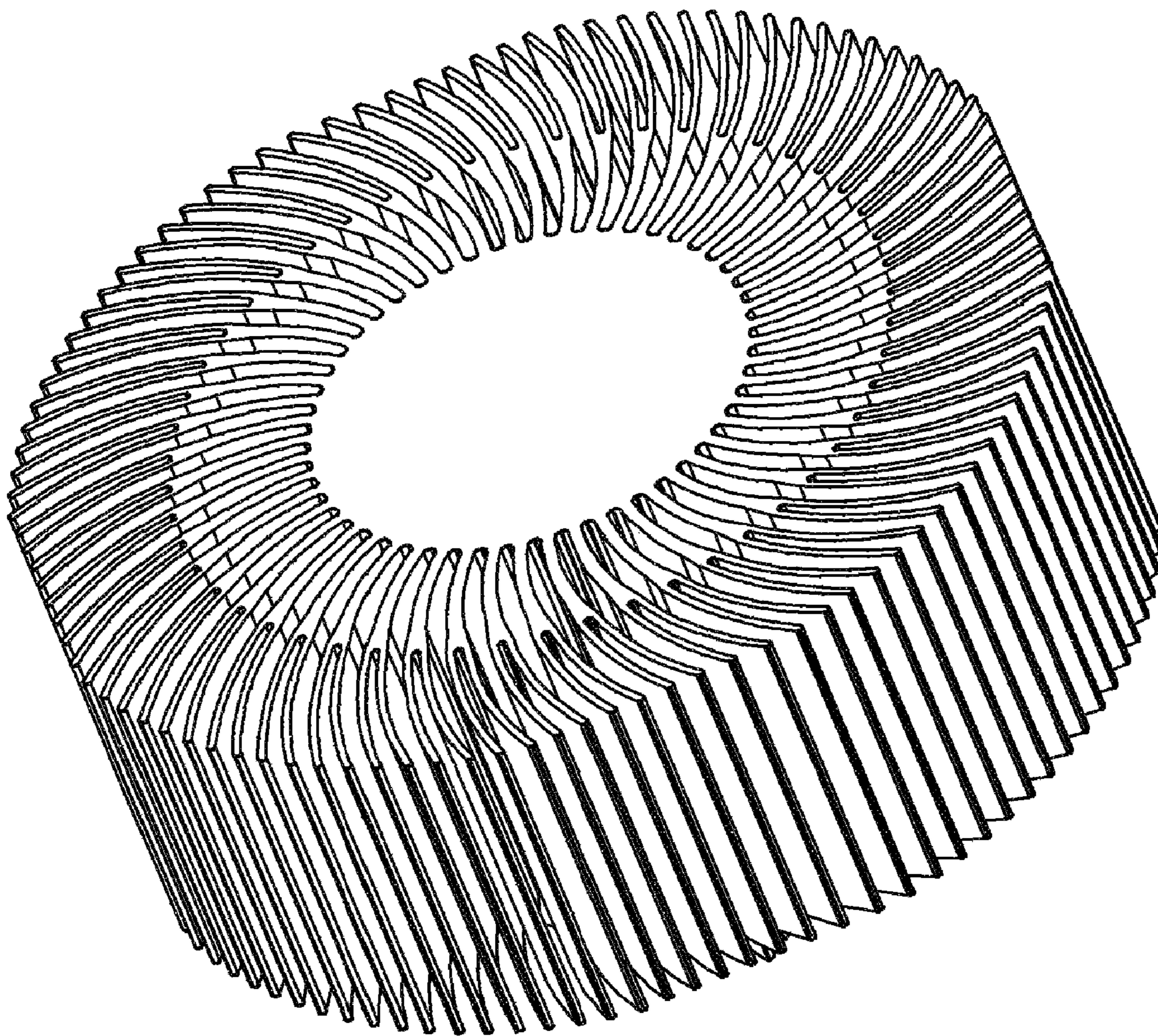


FIG. 35

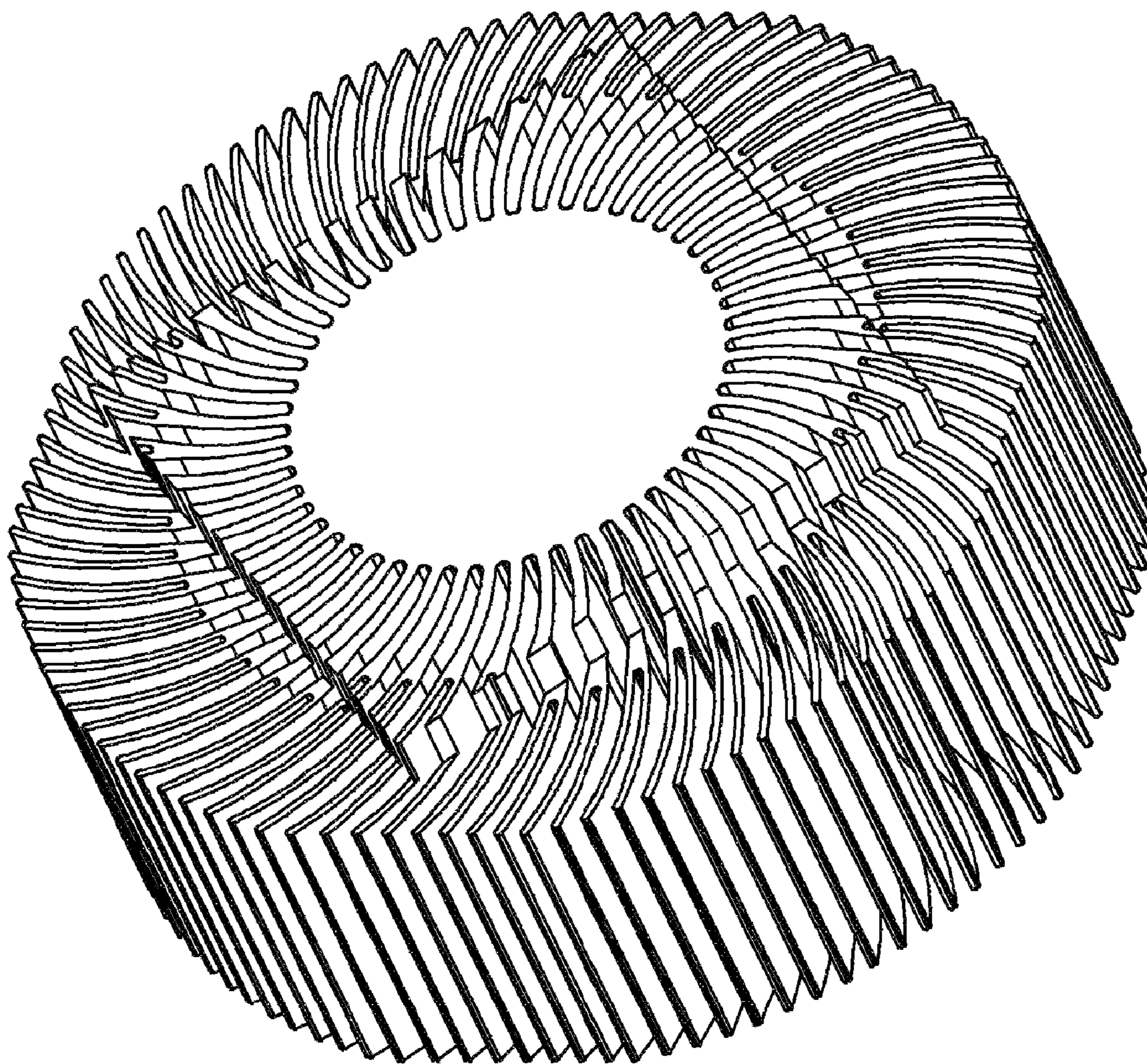


FIG. 36