



US00D960740S

(12) **United States Design Patent** (10) **Patent No.:** **US D960,740 S**
Akiyama et al. (45) **Date of Patent:** **** Aug. 16, 2022**

(54) **MICRO FLOW CHANNEL CHIP**

(56) **References Cited**

(71) Applicant: **SONY CORPORATION**, Tokyo (JP)

U.S. PATENT DOCUMENTS

(72) Inventors: **Yuji Akiyama**, Tokyo (JP); **Shoji Akiyama**, Kanagawa (JP); **Gakuji Hashimoto**, Kanagawa (JP); **Hiroto Kasai**, Tokyo (JP); **Masaya Kakuta**, Tokyo (JP); **Takeshi Yamasaki**, Kanagawa (JP); **Tatsumi Ito**, Kanagawa (JP); **Masataka Shinoda**, Kanagawa (JP)

4,732,479 A 3/1988 Tanaka
5,370,842 A 12/1994 Miyazaki et al.

(Continued)

FOREIGN PATENT DOCUMENTS

JP D1269428 S 4/2006
JP 2010-54492 A 3/2010
JP D1383781 S 3/2010

(73) Assignee: **SONY CORPORATION**, Tokyo (JP)

Primary Examiner — Antoine Duval Davis

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

(74) *Attorney, Agent, or Firm* — Michael Best and Friedrich LLP

(21) Appl. No.: **29/715,140**

(57) **CLAIM**

The ornamental design for a micro flow channel chip, as shown and described.

(22) Filed: **Nov. 27, 2019**

DESCRIPTION

Related U.S. Application Data

(63) Continuation of application No. 29/612,907, filed on Aug. 4, 2017, now Pat. No. Des. 869,308, which is a (Continued)

(51) **LOC (13) Cl.** **10-04**

(52) **U.S. Cl.**

USPC **D10/103**; D10/81; D10/94; D24/216

(58) **Field of Classification Search**

USPC D10/81, 94, 103; D24/107, 169, 186, D24/216, 217, 219, 222–226, 227, 231, D24/232

CPC .. B01F 5/0647; B01F 5/0655; B01F 13/0059; B01F 3/0446; B01F 13/0062; B01L 3/5027–3/50279; B01L 2200/027; B01L 2300/0829; B01L 2300/0861–2300/0883; B01J 19/0093; F04B 19/006; B05B 7/0475; B05B 7/061; B05B 7/065; B05B 7/066; B05B 7/0884

See application file for complete search history.

FIG. 1 is a top plan view of a micro flow channel chip showing our new design, a bottom plan view thereof being a mirror image;

FIG. 2 is a front elevational view thereof, a rear elevational view being a mirror image;

FIG. 3 is a right side elevational view thereof, a left side elevational view being a mirror image;

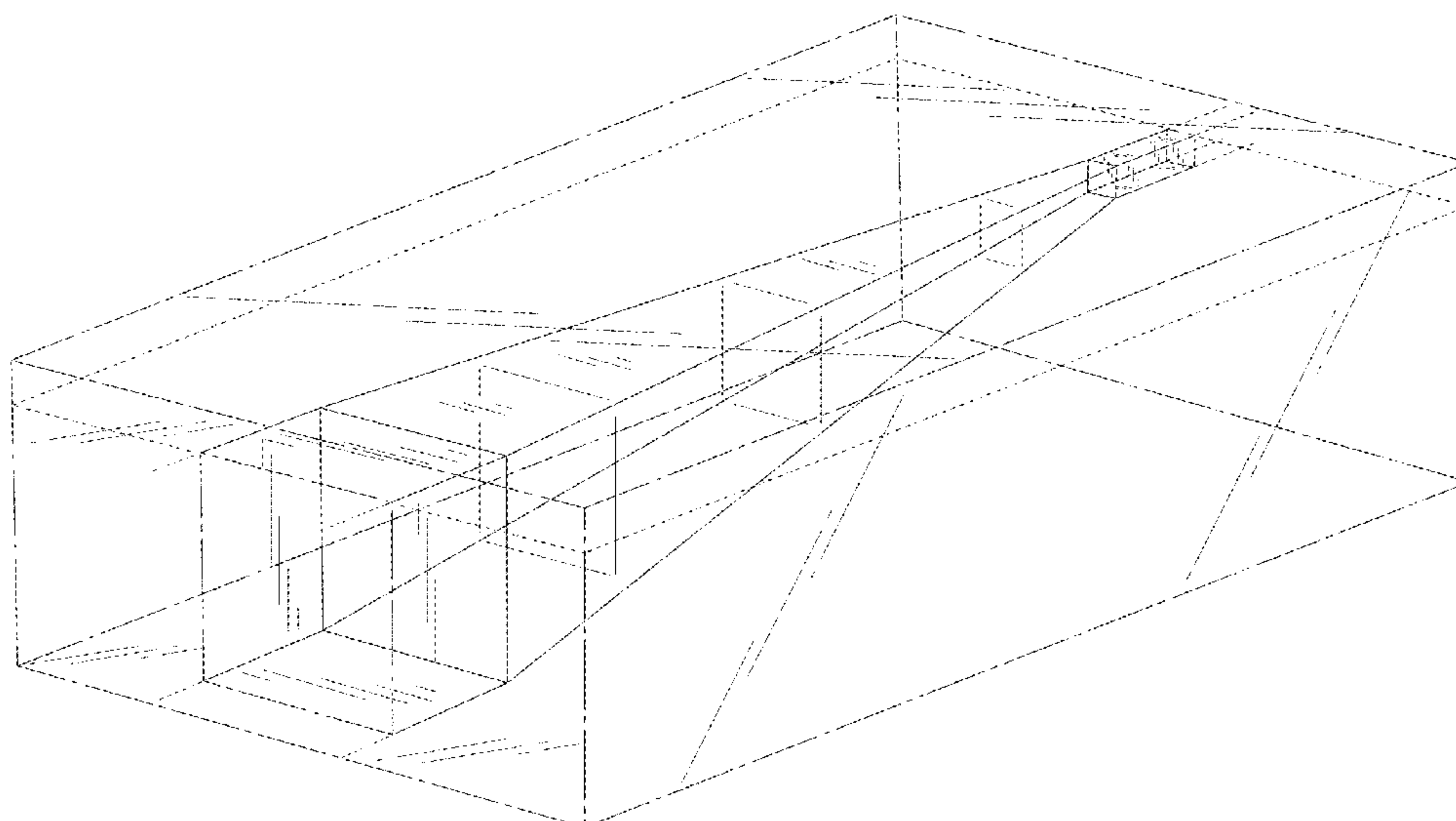
FIG. 4 is a partially enlarged front, top, left perspective view thereof;

FIG. 5 is a partially enlarged top plan view thereof, a partially enlarged bottom plan view thereof being a mirror image; and,

FIG. 6 is a partially enlarged front elevational view thereof, a partially enlarged rear elevational view thereof being a mirror image.

The broken lines illustrating the portions of the micro flow channel chip form no part of the claimed invention. The dot-dash broken lines defining the boundaries of the claimed design form no part of the claimed design.

1 Claim, 4 Drawing Sheets



Related U.S. Application Data

continuation of application No. 29/561,992, filed on Apr. 21, 2016, now Pat. No. Des. 795,724, which is a continuation of application No. 29/484,307, filed on Mar. 7, 2014, now Pat. No. Des. 757,580, and a continuation of application No. 29/440,326, filed on Dec. 20, 2012, now Pat. No. Des. 907,242, and a continuation of application No. 29/421,304, filed on Jun. 29, 2012, now Pat. No. Des. 704,580, and a continuation of application No. 29/371,203, filed on Nov. 24, 2010, now Pat. No. Des. 673,287, and a continuation of application No. 29/371,150, filed on Oct. 29, 2010, now Pat. No. Des. 673,286.

(56) References Cited

U.S. PATENT DOCUMENTS

D375,799 S 11/1996 Leiva et al.
6,210,986 B1 4/2001 Arnold
6,561,208 B1 5/2003 O'Connor
6,773,567 B1 8/2004 Wolk
7,708,949 B2 5/2010 Stone et al.
7,740,804 B2 6/2010 Samsoondar
7,757,568 B2 7/2010 Shiraki
D636,891 S 4/2011 Nicholls et al.
D636,892 S 4/2011 Nicholls et al.

D636,893 S 4/2011 Nicholls et al.
8,101,137 B2 1/2012 Polwart et al.
8,158,082 B2 4/2012 Imran
D673,286 S 12/2012 Shinoda
D673,287 S 12/2012 Akiyama et al.
D770,315 S 11/2016 Katsumoto
D928,344 S * 8/2021 Takeuchi D24/233
D932,051 S * 9/2021 Masuda D24/225
2005/0118062 A1 6/2005 Otake
2005/0161326 A1 7/2005 Morita
2005/0183496 A1 8/2005 Baek
2006/0034728 A1 2/2006 Kloepper
2006/0147343 A1 7/2006 Teramoto
2006/0228254 A1 10/2006 Kusaka et al.
2008/0026369 A1 1/2008 Dual et al.
2008/0072895 A1 3/2008 Ganon-Calvo
2009/0114285 A1 5/2009 Hashimoto et al.
2009/0148348 A1 6/2009 Pettigrew et al.
2010/0258211 A1 10/2010 Burns
2010/0317094 A1 12/2010 Ricco et al.
2011/0045577 A1 2/2011 Bruzewicz
2011/0076735 A1 3/2011 Jovanovich et al.
2011/0151578 A1 6/2011 Abate
2011/0235030 A1 9/2011 Champseix et al.
2012/0276543 A1 11/2012 Quake et al.
2013/0070243 A1 3/2013 Goehde
2013/0090287 A1 4/2013 Alessi et al.
2014/0290786 A1 * 10/2014 Ito B01F 13/0059
138/177

* cited by examiner

FIG.1

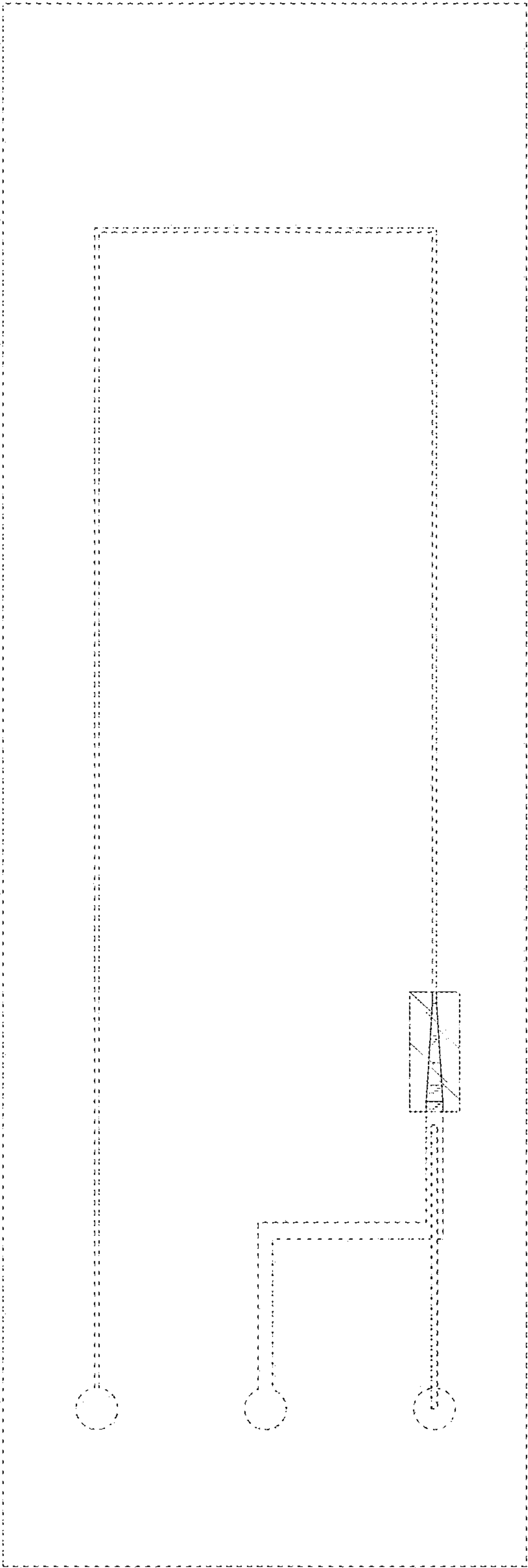


FIG.2

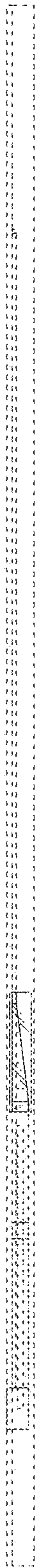


FIG.3

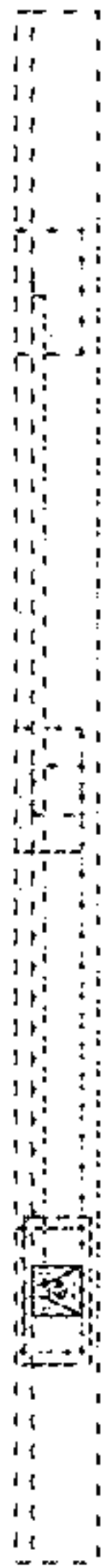


FIG.4

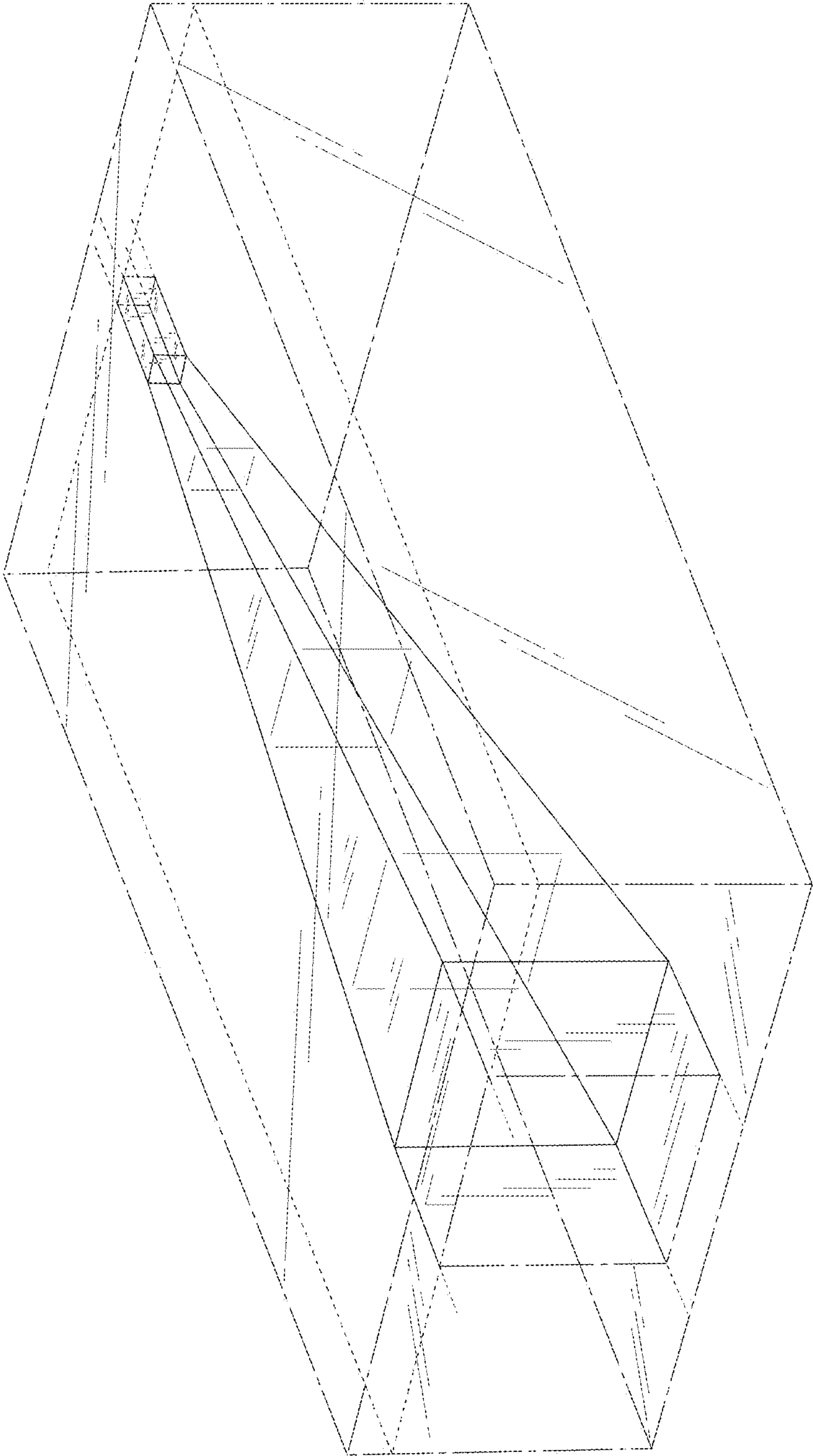


FIG.5

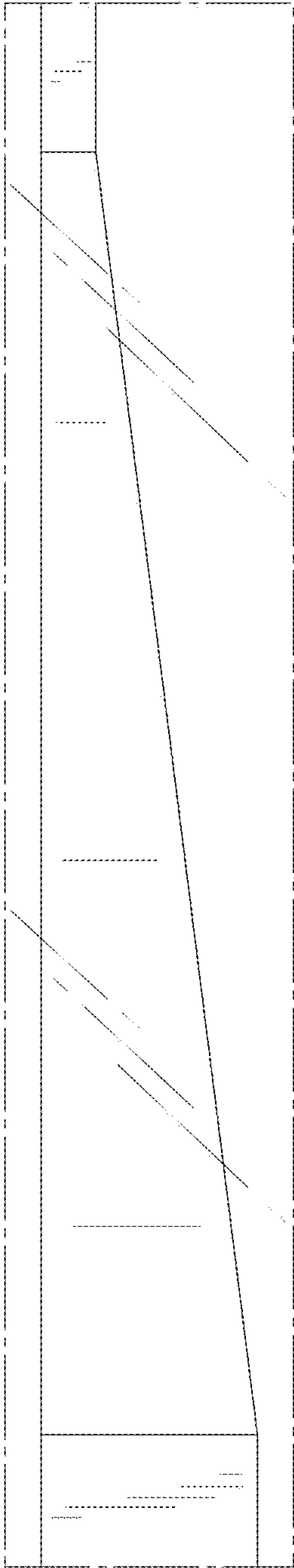
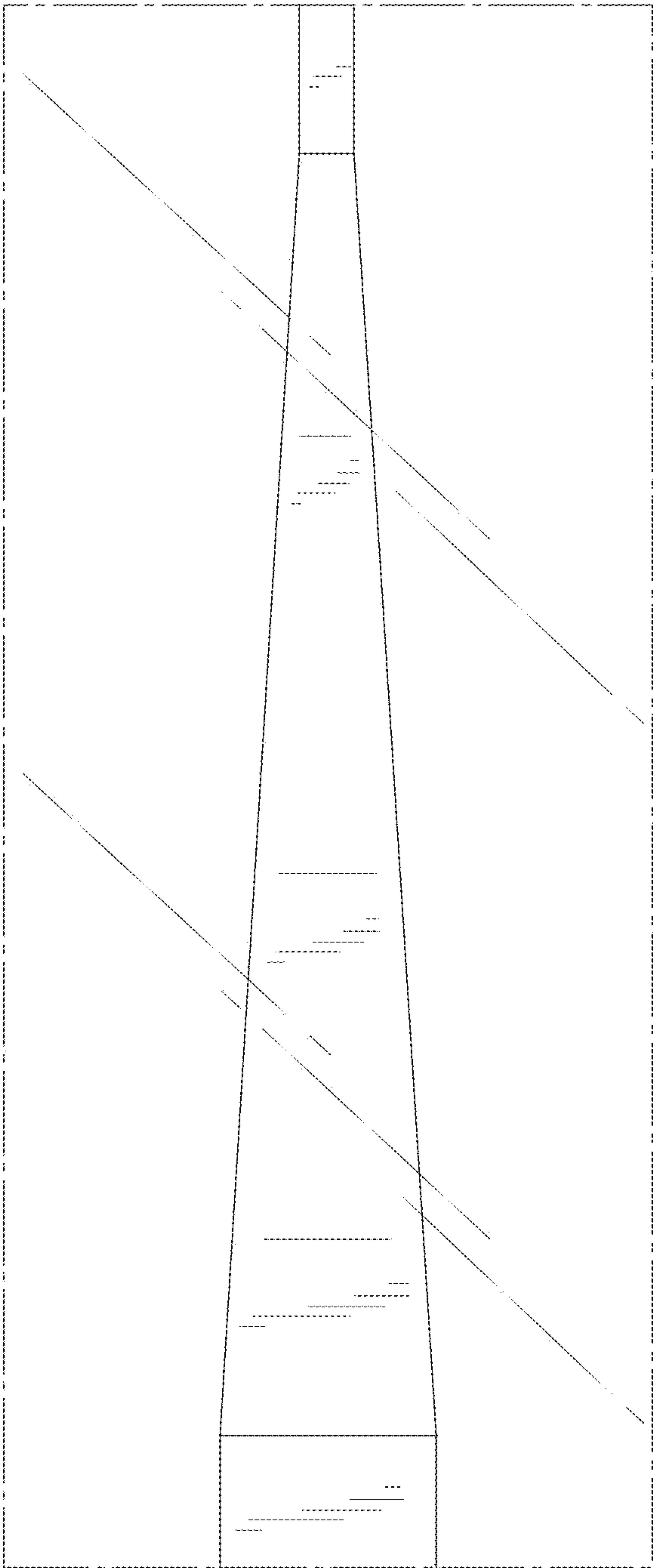


FIG.6



UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : D960,740 S
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DATED : August 16, 2022
INVENTOR(S) : Yuji Akiyama et al.

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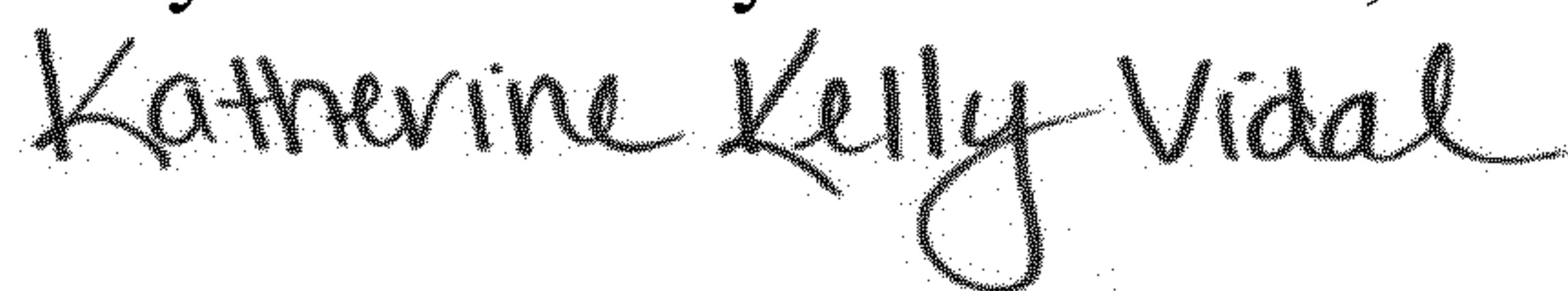
It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the Title Page

Item [30], FOREIGN APPLICATION PRIORITY DATA insert:

--April 29, 2010 (JP)	 D2010-010817
April 29, 2010 (JP)	 D2010-010818
April 29, 2010 (JP)	 D2010-010819
April 29, 2010 (JP)	 D2010-010820
April 29, 2010 (JP)	 D2010-010821
April 29, 2010 (JP)	 D2010-010822
April 29, 2010 (JP)	 D2010-010823
April 29, 2010 (JP)	 D2010-010824
April 29, 2010 (JP)	 D2010-010825
April 29, 2010 (JP)	 D2010-010826
July 28, 2010 (JP)	 D2010-018425
July 28, 2010 (JP)	 D2010-018426
July 28, 2010 (JP)	 D2010-018427
March 8, 2012 (JP)	 D2012-005307
March 8, 2012 (JP)	 D2012-005308
March 8, 2012 (JP)	 D2012-005309
March 8, 2012 (JP)	 D2012-005310--

Signed and Sealed this
Twenty-seventh Day of December, 2022



Katherine Kelly Vidal
Director of the United States Patent and Trademark Office