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(12) United States Design Patent
Ohsawa et al.

(10) **Patent No.:** **US D585,394 S**

(45) **Date of Patent:** ** **Jan. 27, 2009**

(54) **GROOVE FORMED AROUND A SEMICONDUCTOR DEVICE ON A CIRCUIT BOARD**

(75) Inventors: **Tetsuya Ohsawa**, Osaka (JP); **Emiko Tani**, Osaka (JP)

(73) Assignee: **Nitto Denko Corporation**, Osaka (JP)

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

(21) Appl. No.: **29/306,335**

(22) Filed: **Apr. 7, 2008**

Related U.S. Application Data

(62) Division of application No. 29/240,252, filed on Oct. 11, 2005, now Pat. No. Des. 568,836.

(30) **Foreign Application Priority Data**

Apr. 13, 2005	(JP)	2005-010971
Apr. 13, 2005	(JP)	2005-010989

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

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

(58) **Field of Classification Search** D13/182; 174/250, 251, 253, 254, 255, 256, 265, 260, 174/261; 361/760, 748, 720; 336/200

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D319,629	S *	9/1991	Hasegawa et al.	D13/182
5,420,558	A *	5/1995	Ito et al.	336/200
5,467,252	A *	11/1995	Nomi et al.	361/760
5,777,277	A *	7/1998	Inagawa	174/265
5,969,590	A *	10/1999	Gutierrez	336/200
6,114,937	A *	9/2000	Burghartz et al.	336/200
6,121,552	A *	9/2000	Brosnihan et al.	174/253
6,486,412	B2 *	11/2002	Kato	174/260
7,126,452	B2 *	10/2006	Teshima et al.	336/200
D568,836	S *	5/2008	Ohsawa et al.	D13/182
2006/0266545	A1 *	11/2006	Takeuchi et al.	174/251
2007/0188287	A1 *	8/2007	Lien et al.	336/200
2007/0205856	A1 *	9/2007	Matsunaga et al.	336/200

* cited by examiner

Primary Examiner—Selina Sikder

(74) *Attorney, Agent, or Firm*—Osha • Liang LLP

(57) CLAIM

The ornamental design for a groove formed around a semiconductor device on a circuit board, as shown and described.

DESCRIPTION

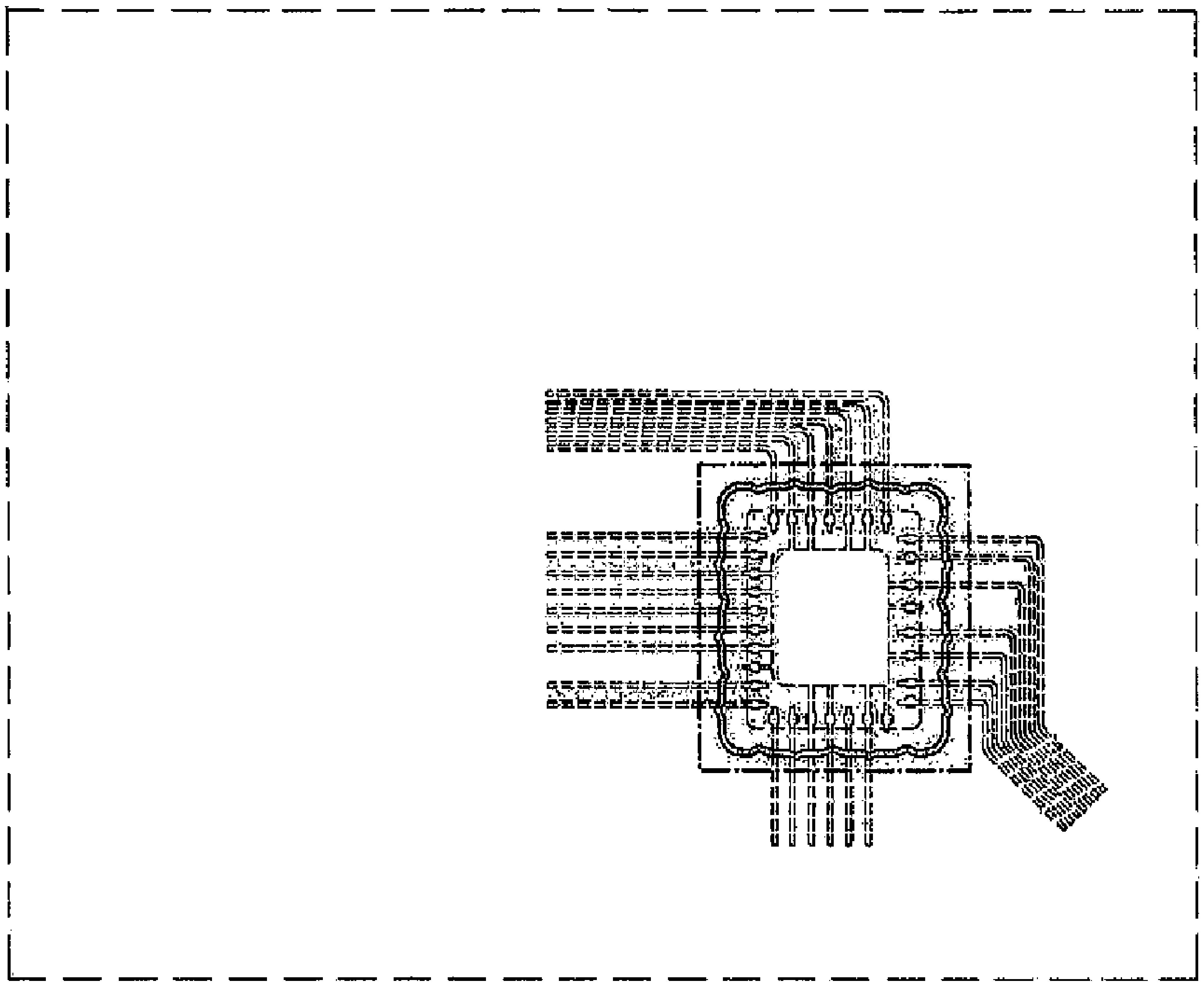
FIG. **1** is a plan view of the groove formed around a semiconductor device on a circuit board showing our new design;

FIG. **2** shows an enlarged view of a claimed portion as identified by the area boxed by the dash-dot-dash line in FIG. **1**; and,

FIG. **3** shows an enlarged sectional view along the line **3**—**3** in FIG. **2**.

The broken lines represent unclaimed subject matter.

1 Claim, 3 Drawing Sheets



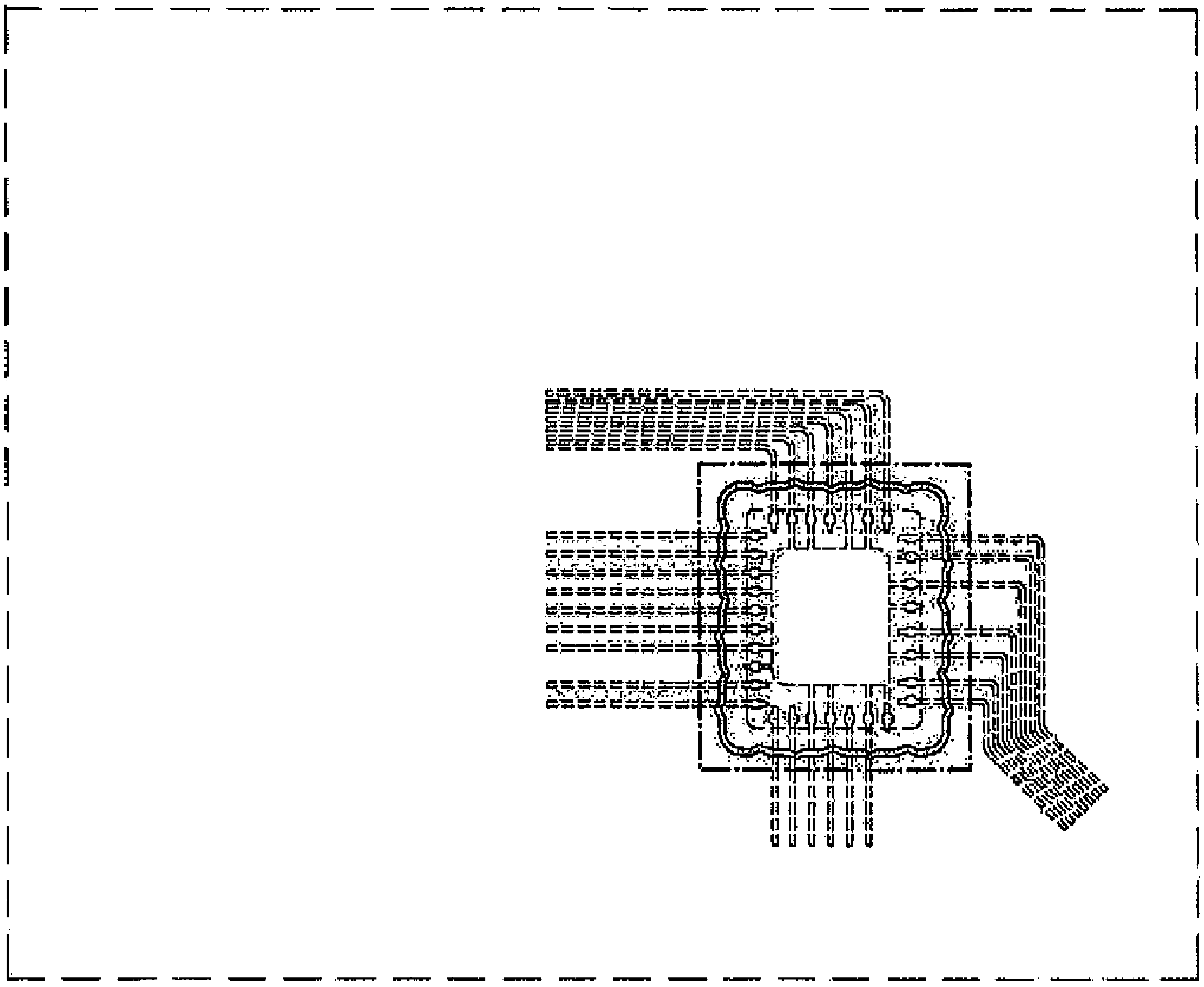


Figure 1

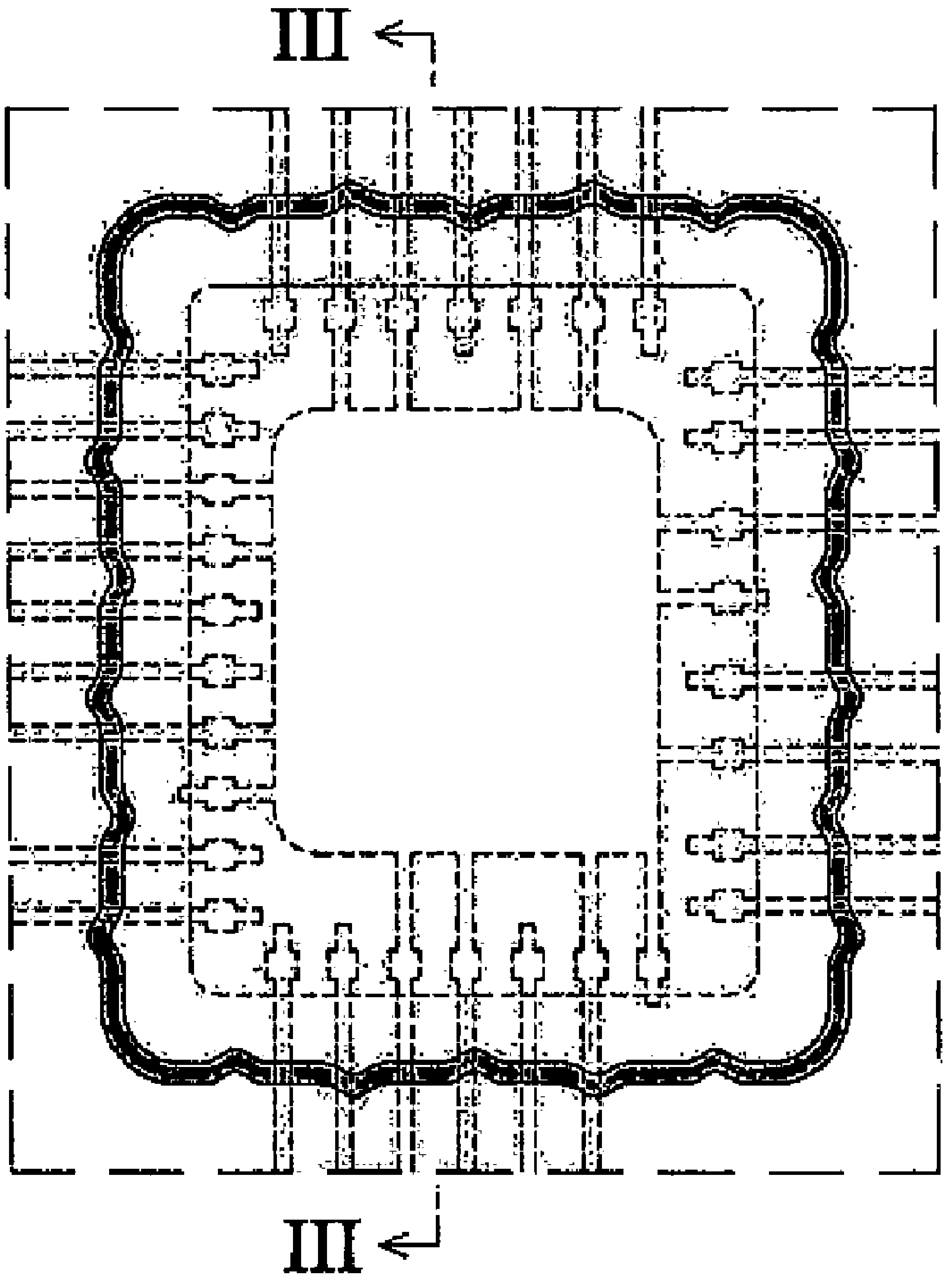


Figure 2

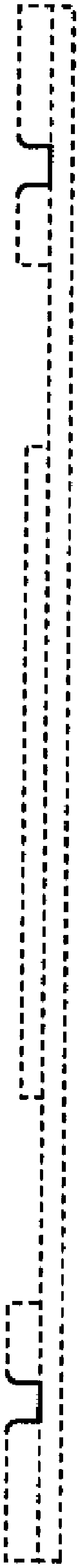


FIG. 3

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : Des. 585,394 S
APPLICATION NO. : 29/306335
DATED : January 27, 2009
INVENTOR(S) : Ohsawa et al.

Page 1 of 5

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

The title page showing the illustrative figure should be deleted to be replaced with the attached title page.

The drawing sheets, consisting of Figs. 1-3, should be deleted to be replaced with the drawing sheets, consisting of Figs. 1-3, as shown on the attached pages.

Signed and Sealed this

Twenty-third Day of June, 2009

John Doll

JOHN DOLL
Acting Director of the United States Patent and Trademark Office

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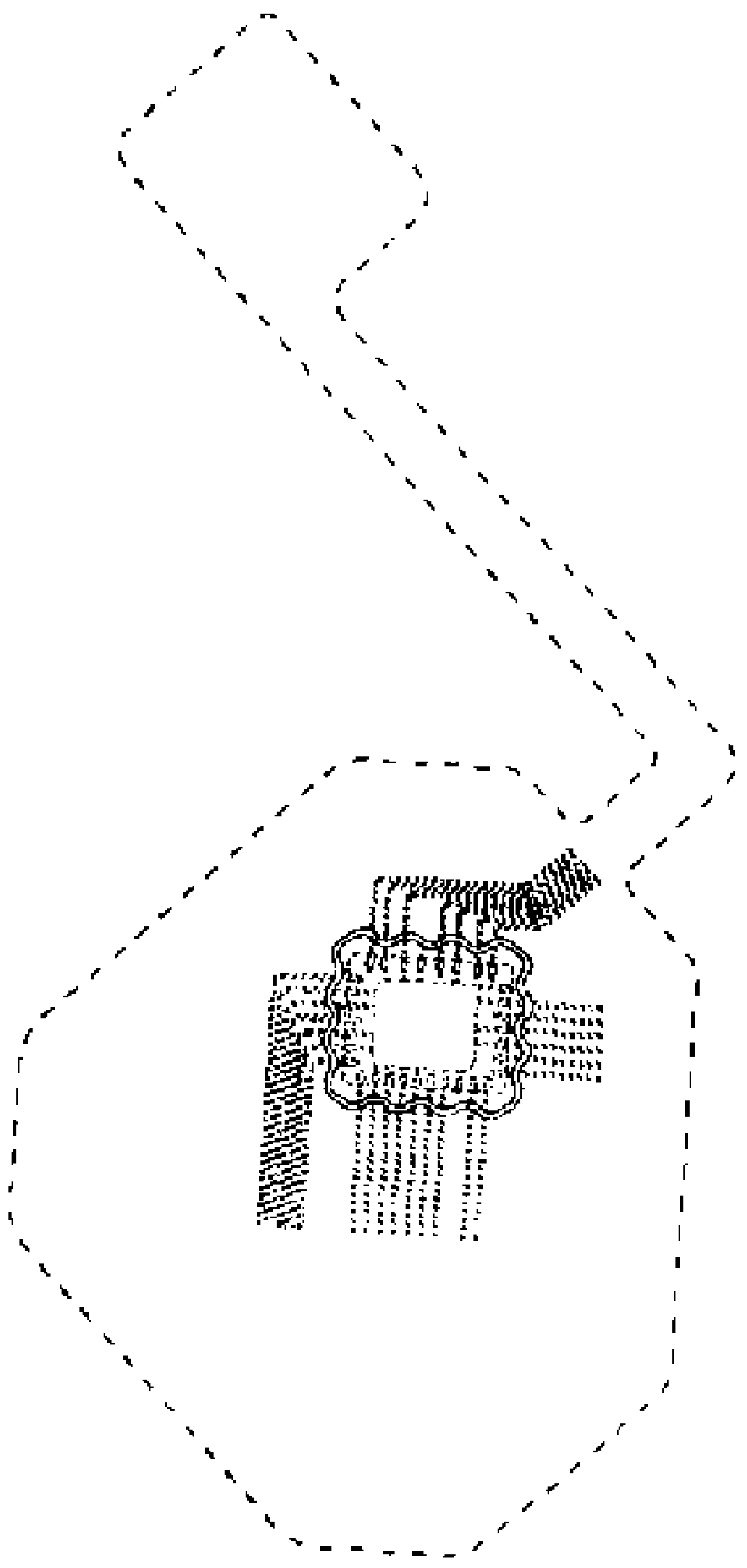

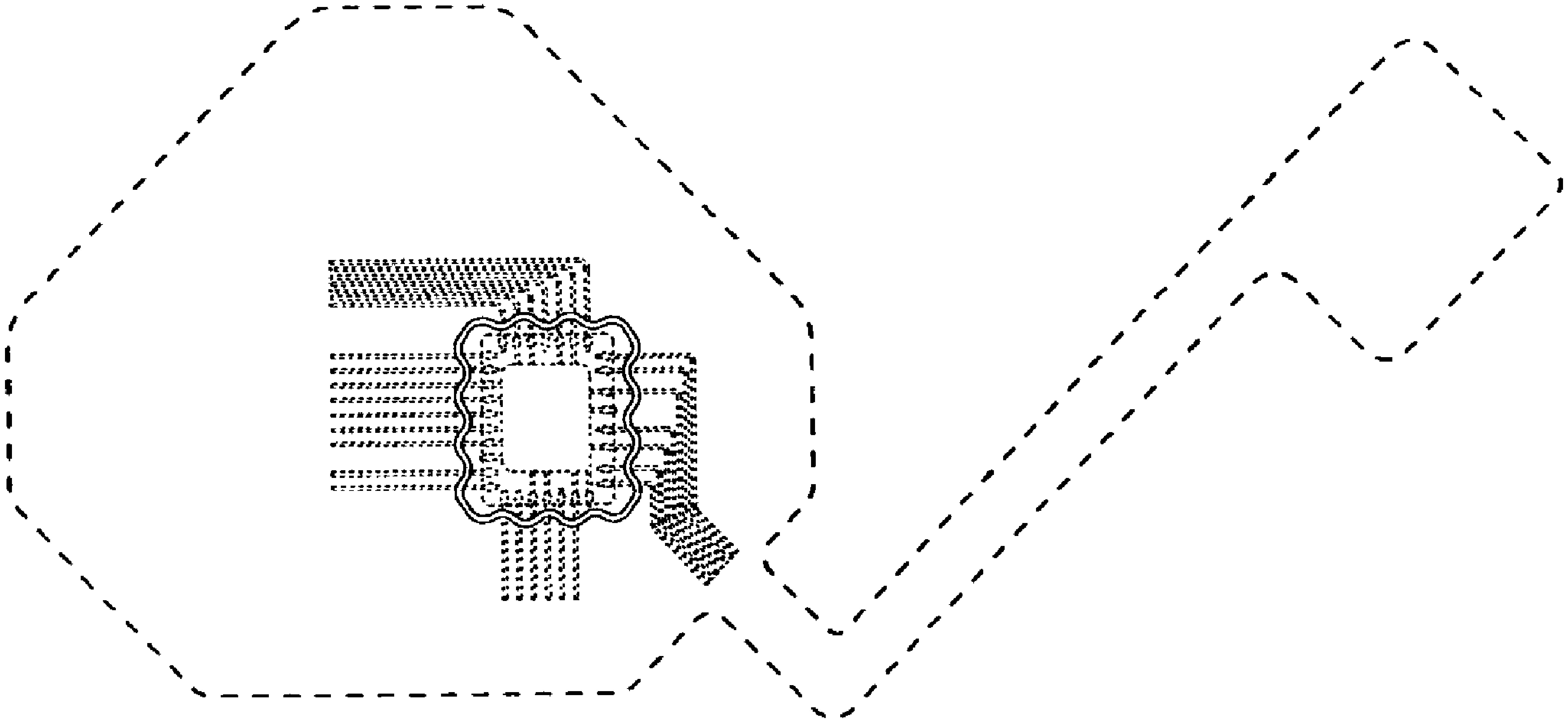

FIG. 1

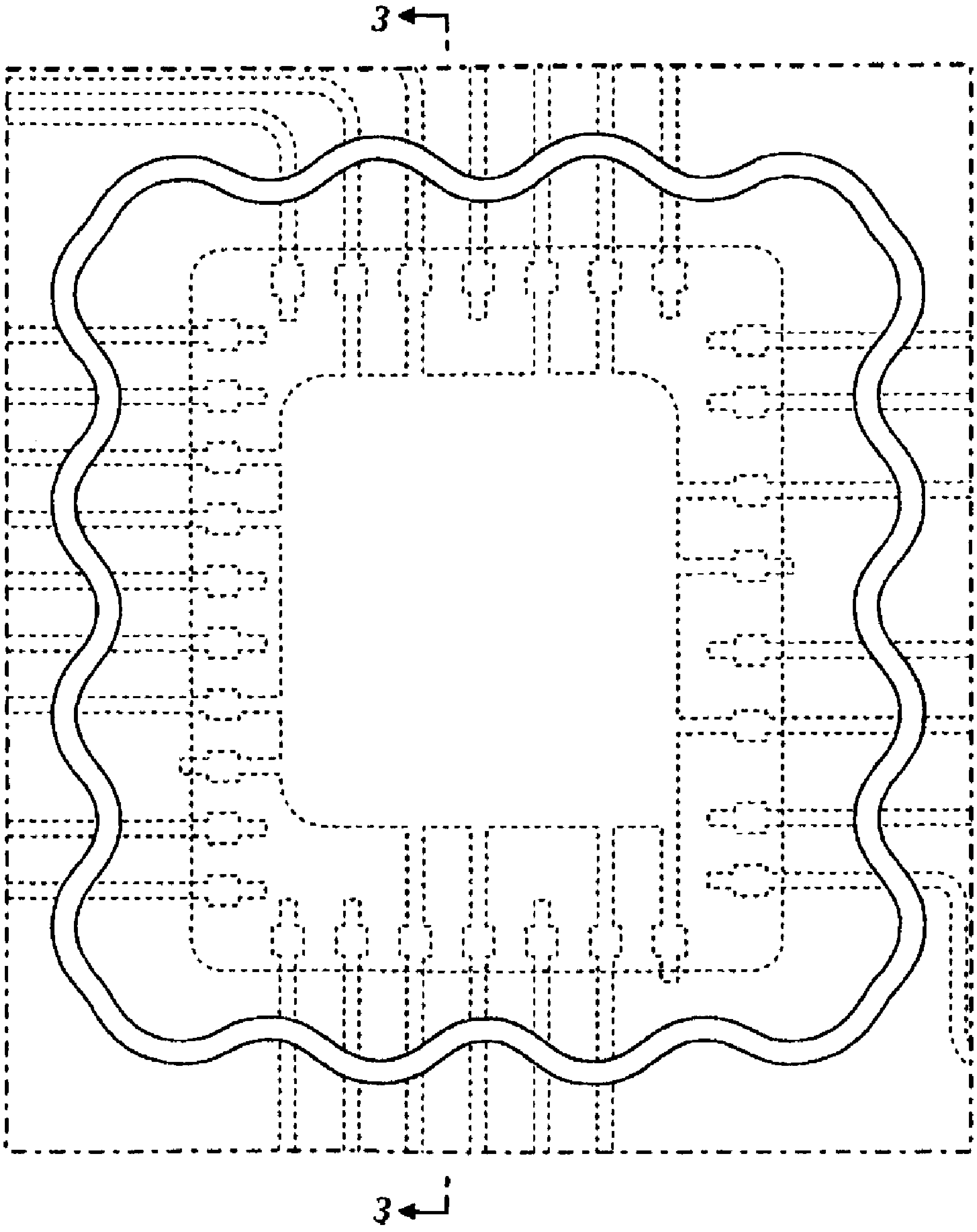

FIG. 2

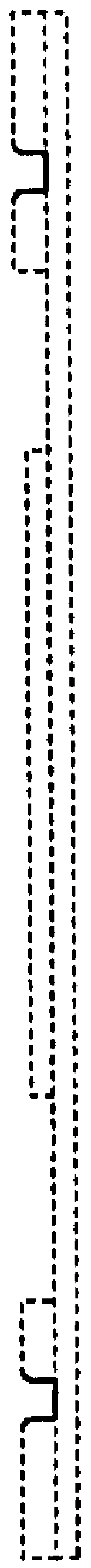

FIG. 3