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

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(54) **DENTAL TOOL WITH TRANSPONDER**

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(52) **U.S. Cl.**  
USPC ..... **D14/230**

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CPC .. H01Q 1/24; H01Q 1/22; H01Q 1/38; H01Q  
9/28; H01Q 1/12  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

3,130,368	A *	4/1964	Hoover	.....	G01R 29/0878 343/703
4,368,472	A *	1/1983	Gandhi	.....	H01Q 1/24 343/718
4,605,845	A *	8/1986	Takeda	.....	G06K 19/0672 235/382
H646	H *	6/1989	Tsui	.....	343/700 MS
D491,557	S *	6/2004	Iwai	.....	D14/230
D502,464	S *	3/2005	Iwai	.....	D14/230
D515,076	S *	2/2006	Kusanagi	.....	D14/230
D531,995	S *	11/2006	Shinkawa	.....	D14/230
D645,029	S *	9/2011	Yakubo	.....	D14/230
D689,474	S *	9/2013	Yang	.....	D14/230
9,225,056	B2 *	12/2015	Pope	.....	H01Q 1/24
D753,096	S *	4/2016	Li	.....	D14/230
D788,746	S *	6/2017	Matsuoka	.....	D14/230

10,020,566	B2 *	7/2018	Baek	.....	H01Q 1/3275
10,020,580	B2 *	7/2018	Rizzo	.....	H01Q 1/243
D831,009	S *	10/2018	Horn	.....	D14/230

(Continued)

**FOREIGN PATENT DOCUMENTS**

CN	302849654	*	6/2014
CN	303190459	*	4/2015

(Continued)

**OTHER PUBLICATIONS**

Texas Instrument Tagit transponder, PDF date Nov. 2015, <http://www.ti.com/lit/ds/symlink/rf37s114.pdf>, site visited Sep. 28, 2019.\*

(Continued)

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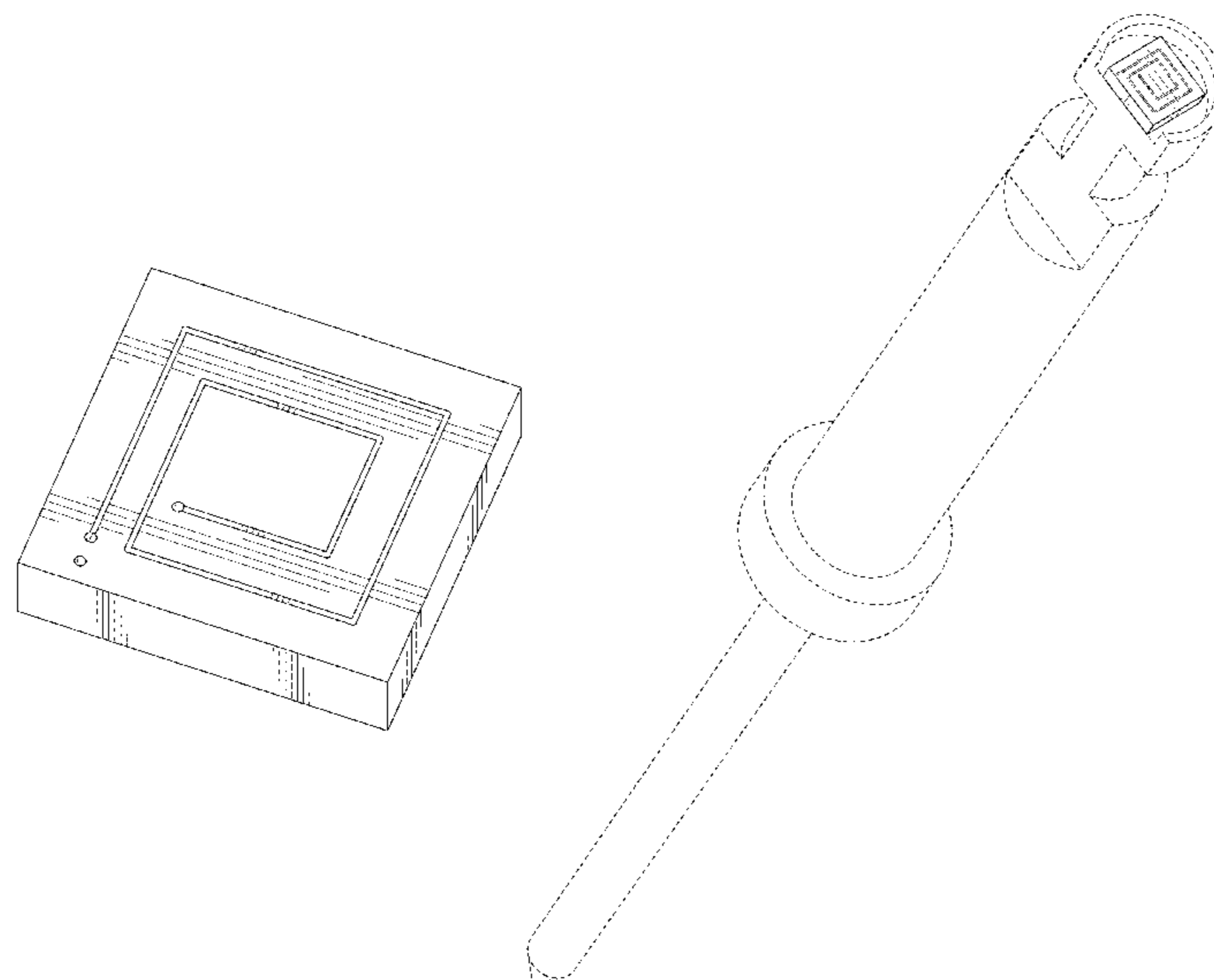
(57) **CLAIM**

The ornamental design for a dental tool with transponder, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view our design for a dental tool with transponder;  
FIG. 2 is a top view thereof;  
FIG. 3 is a bottom view thereof;  
FIG. 4 is a left side view thereof;  
FIG. 5 is a right side view thereof;  
FIG. 6 is a front view thereof;  
FIG. 7 is a back view thereof; and,  
FIG. 8 is a perspective view for dental tool with transponder, in a state of use.  
The broken lines in the figures depict portions of the dental tool with transponder that form no part of the claimed design.

**1 Claim, 8 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

10,128,203 B2 \* 11/2018 Chen ..... H01L 23/66  
 10,270,157 B2 \* 4/2019 Sung ..... H01Q 1/243  
 D850,424 S \* 6/2019 Kang ..... D14/230  
 10,374,301 B2 \* 8/2019 Horikawa ..... H04B 5/0081  
 D879,294 S \* 3/2020 Sarig ..... D24/152  
 D882,087 S \* 4/2020 Sarig ..... D24/152  
 2001/0014377 A1 \* 8/2001 Babb ..... B60C 23/0493  
 428/40.1  
 2001/0020897 A1 \* 9/2001 Takatori ..... G06K 19/0704  
 340/572.7  
 2003/0132892 A1 \* 7/2003 Yde-Andersen ... G08B 13/2414  
 343/895  
 2004/0005418 A1 \* 1/2004 Schmid ..... B32B 15/20  
 428/34.1  
 2004/0032376 A1 \* 2/2004 Ikramov ..... H01Q 1/36  
 343/895  
 2005/0024290 A1 \* 2/2005 Aisenbrey ..... B29C 45/0013  
 343/873  
 2006/0176624 A1 \* 8/2006 Kuroda ..... H01L 23/48  
 361/38

2008/0001825 A1 \* 1/2008 Kurokawa ..... G06K 19/07749  
 343/700 MS  
 2016/0087332 A1 \* 3/2016 Pope ..... H01Q 1/24  
 343/702  
 2018/0092710 A1 4/2018 Bosisio

FOREIGN PATENT DOCUMENTS

EM 004020287-0046 \* 7/2017  
 EP 1531750 A1 5/2005  
 EP 2233103 A2 9/2010  
 EP 2525199 A1 11/2012

OTHER PUBLICATIONS

Dentsply Sirona Launches Azento™: Single Tooth Replacement in One Box, publish dte 2018, <https://idataresearch.com/dentsply-sirona-launches-azento-single-tooth-replacemnt-in-one-...> site visited Sep. 21, 2019.\*  
 International Search Report; PCT/US2019/028229; May 29, 2019 (completed); dated Jun. 12, 2019.  
 Written Opinion of the International Searching Authority; PCT/US2019/028229; May 29, 2019 (completed); dated Jun. 12, 2019.

\* cited by examiner

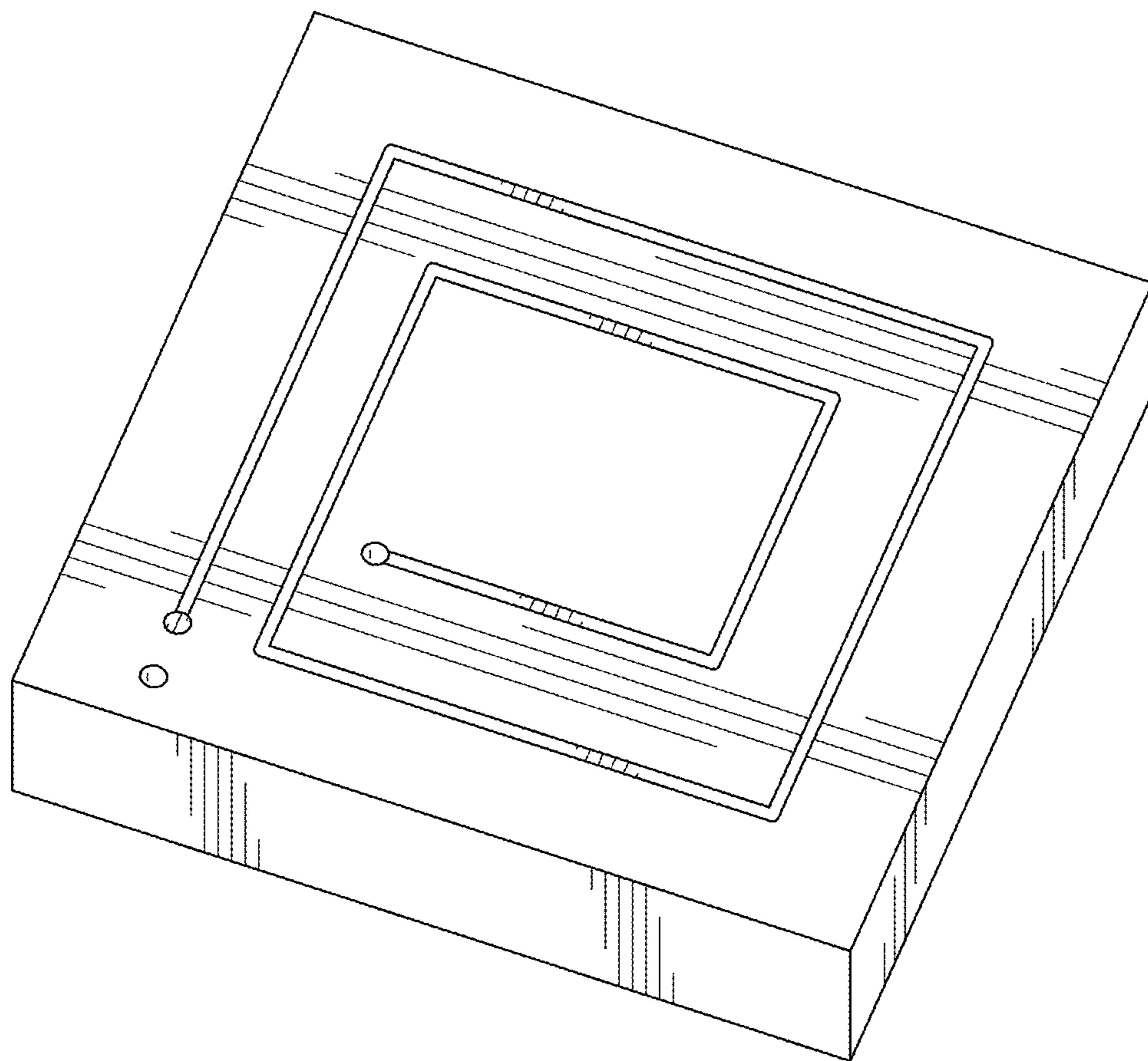


FIG. 1

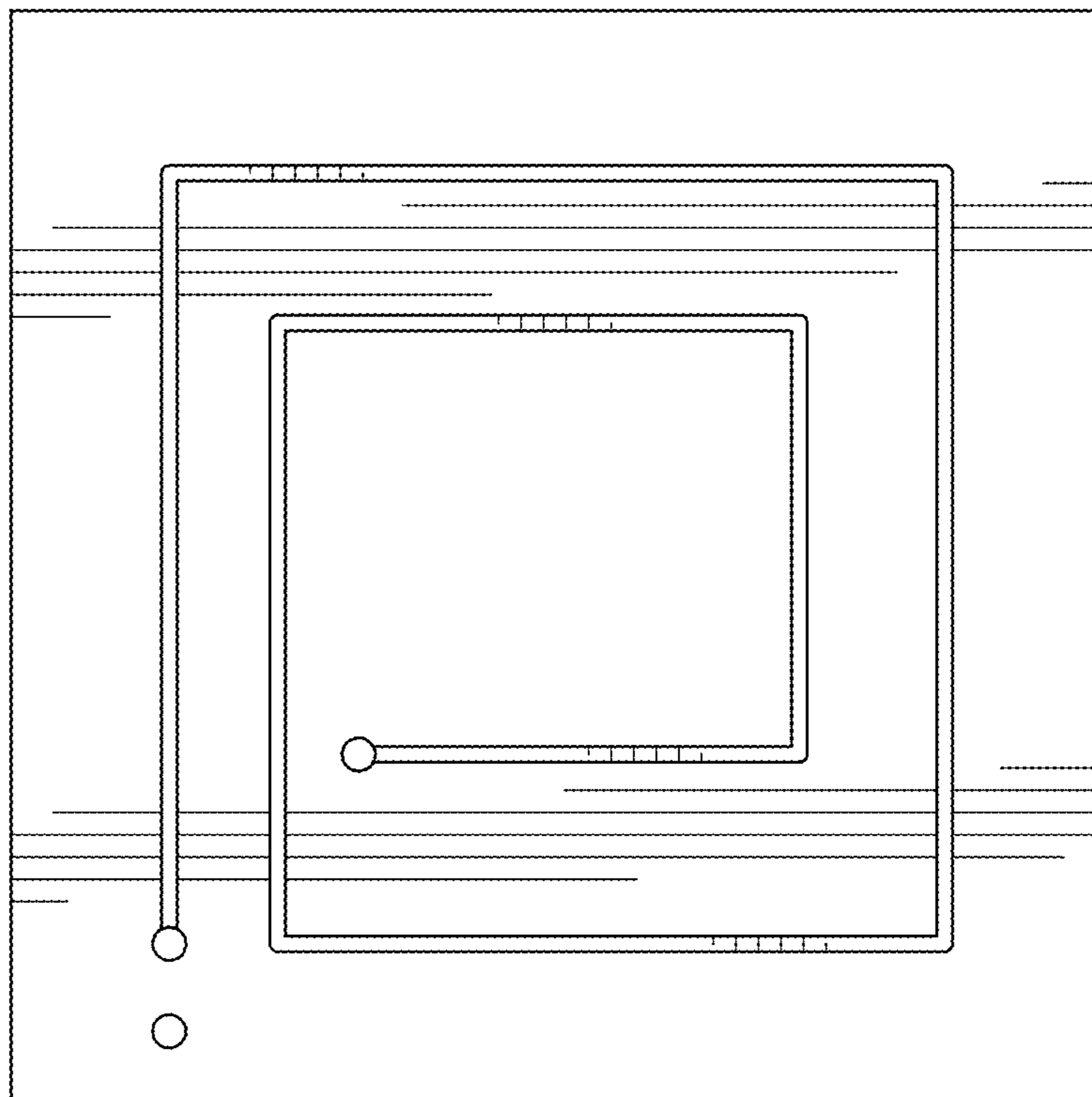


FIG. 2

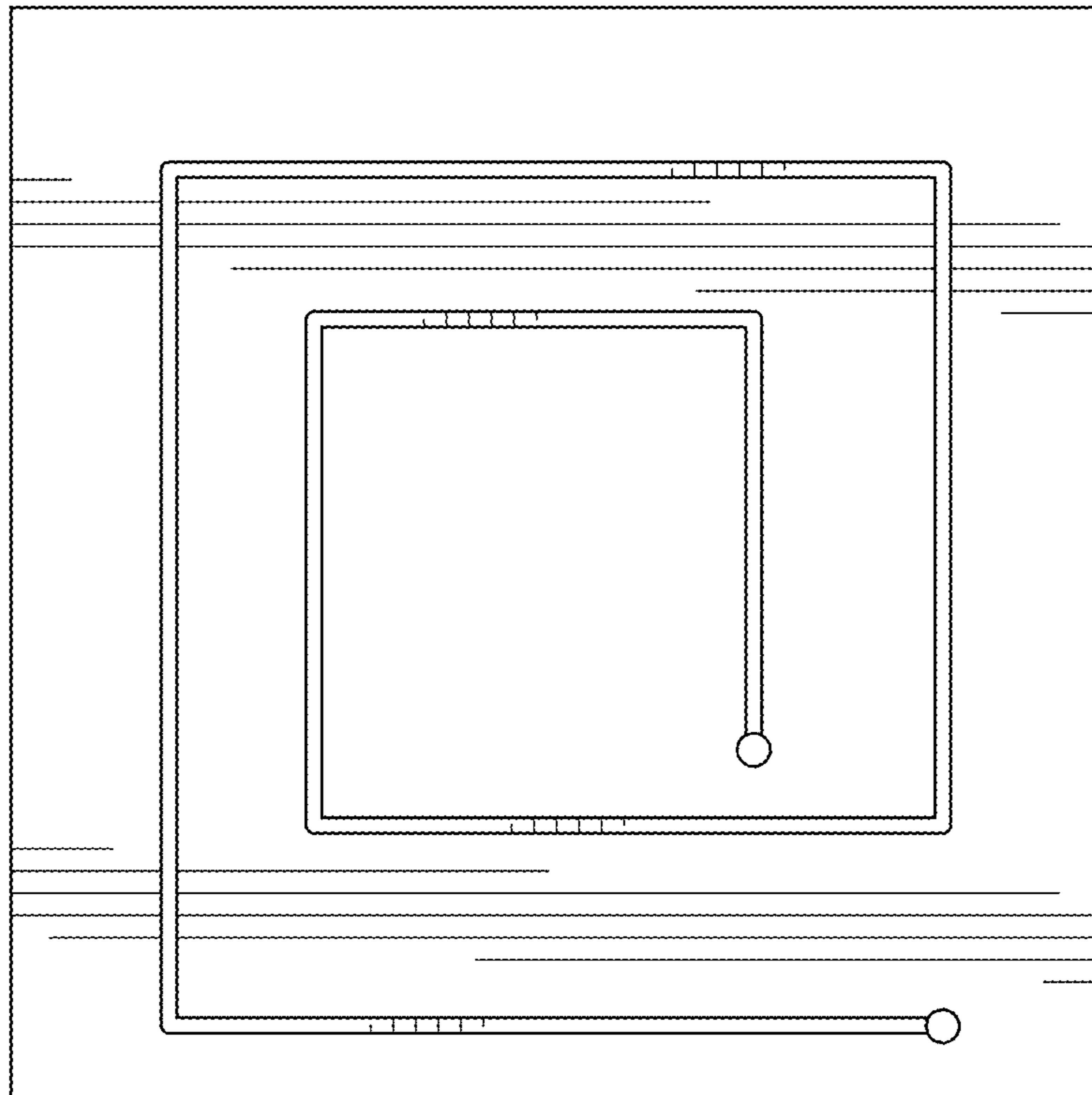


FIG. 3



FIG. 4

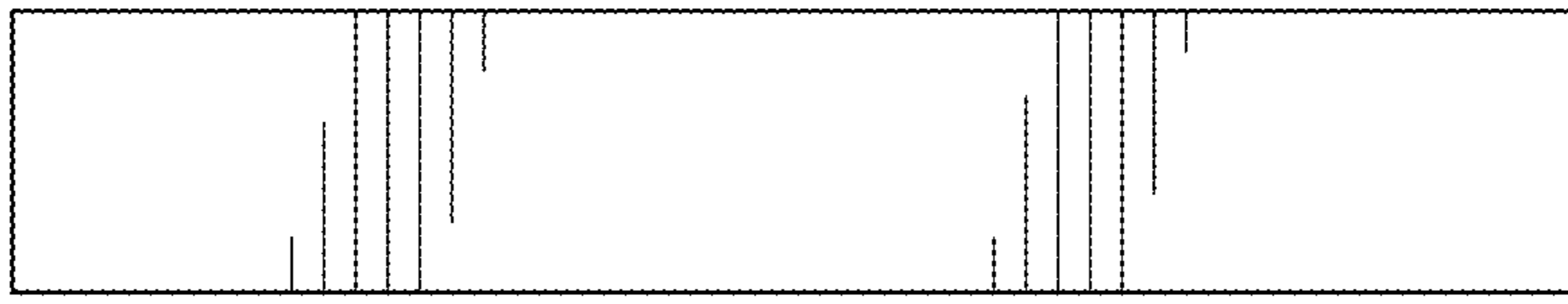


FIG. 5



FIG. 6



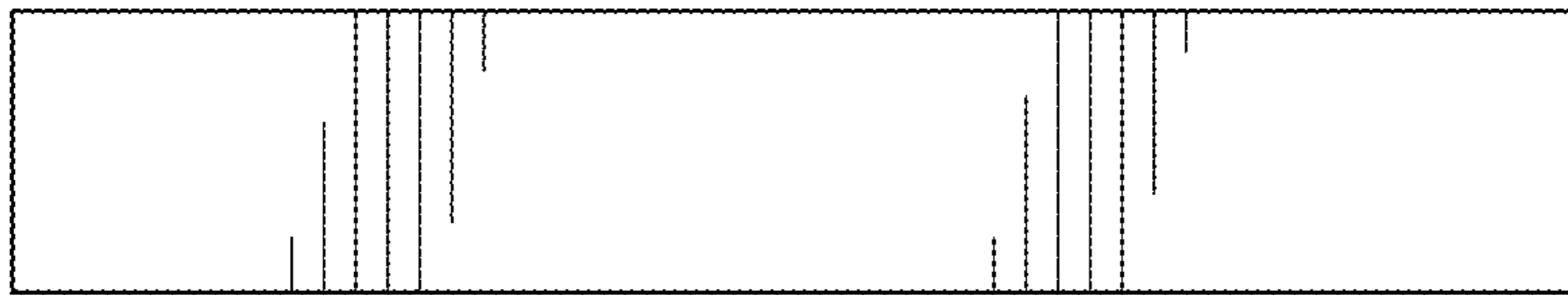


FIG. 7

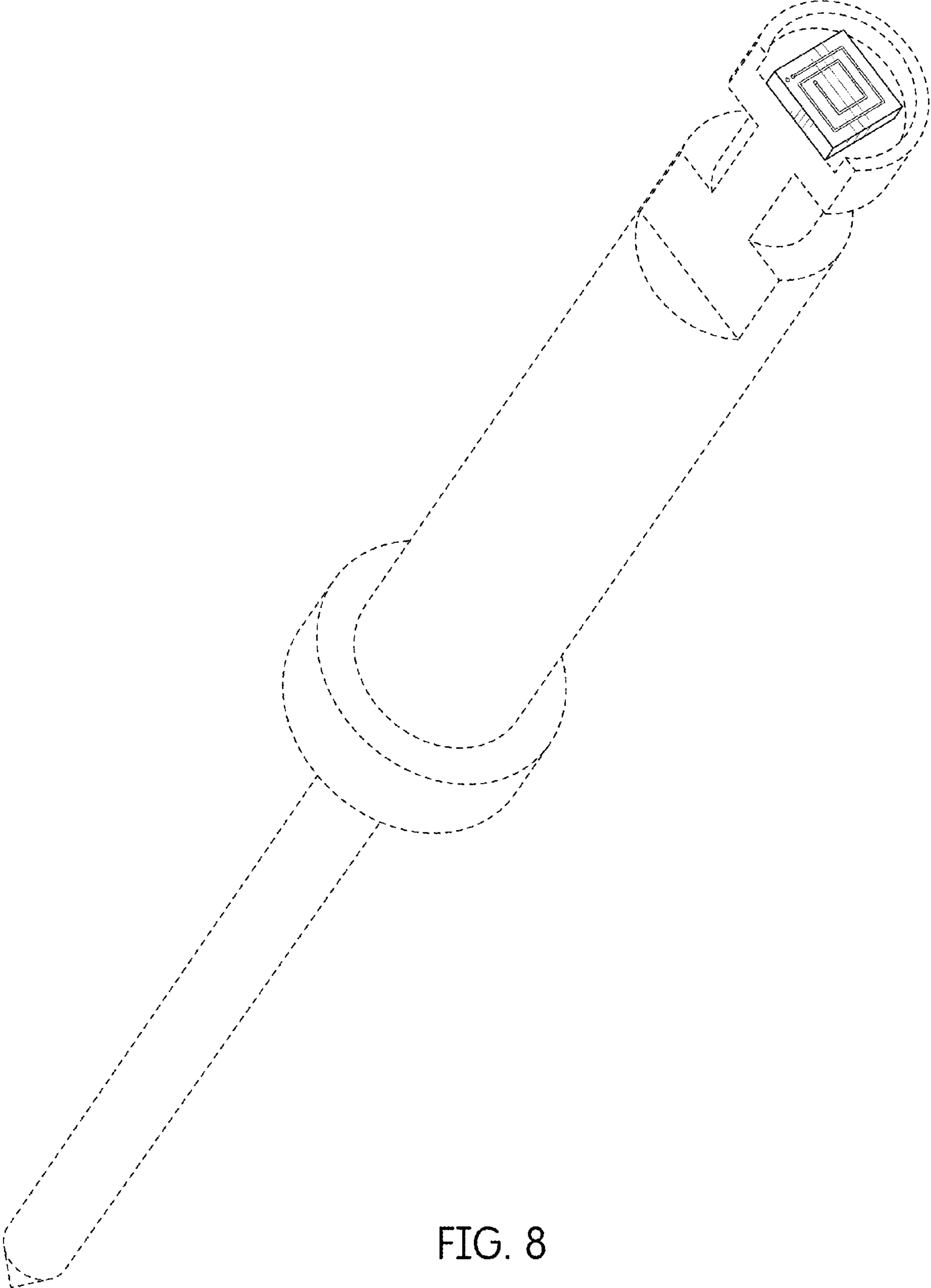


FIG. 8