



US00D770404S

(12) **United States Design Patent** (10) **Patent No.:** **US D770,404 S**
McCauley et al. (45) **Date of Patent:** **** Nov. 1, 2016**

(54) **RESONATOR COIL**
(71) Applicant: **WiTricity Corporation**, Watertown, MA (US)
(72) Inventors: **Alexander Patrick McCauley**, Sunnyvale, CA (US); **Xi Xiang Yeng**, Cambridge, MA (US)
(73) Assignee: **WiTricity Corporation**, Watertown, MA (US)
(**) Term: **15 Years**
(21) Appl. No.: **29/535,252**
(22) Filed: **Aug. 5, 2015**
(51) **LOC (10) Cl.** **13-03**
(52) **U.S. Cl.**
USPC **D13/182**
(58) **Field of Classification Search**
USPC D13/101, 107, 110, 117, 118, 121, 154, D13/173, 184, 199; D14/230; D15/138, 199
CPC H01F 5/00; H01F 5/03; H01F 5/04; H01F 5/06; H01F 6/00; H01F 6/06; H01F 27/42; H01F 37/00; H02J 7/00; H02J 7/02; H04Q 5/22; G08B 13/14; G06K 19/07
See application file for complete search history.

8,106,539 B2 1/2012 Schatz et al.
8,115,448 B2 2/2012 John
8,304,935 B2 11/2012 Karalis et al.
8,324,759 B2 12/2012 Karalis et al.
8,400,017 B2 3/2013 Kurs et al.
8,410,636 B2 4/2013 Kurs et al.
8,441,154 B2 5/2013 Karalis et al.
8,461,719 B2 6/2013 Kesler et al.
8,461,720 B2 6/2013 Kurs et al.
8,461,721 B2 6/2013 Karalis et al.
8,461,722 B2 6/2013 Kurs et al.
8,466,583 B2 6/2013 Karalis et al.
8,471,410 B2 6/2013 Karalis et al.
8,476,788 B2 7/2013 Karalis et al.
8,482,158 B2 7/2013 Kurs et al.
8,487,480 B1 7/2013 Kesler et al.
8,497,601 B2 7/2013 Hall et al.
D692,010 S 10/2013 Verghese
8,552,592 B2 10/2013 Schatz et al.
8,569,914 B2 10/2013 Karalis et al.

(Continued)

Primary Examiner — Thomas Johannes
Assistant Examiner — Shawn T Gingrich
(74) *Attorney, Agent, or Firm* — Fish & Richardson P.C.

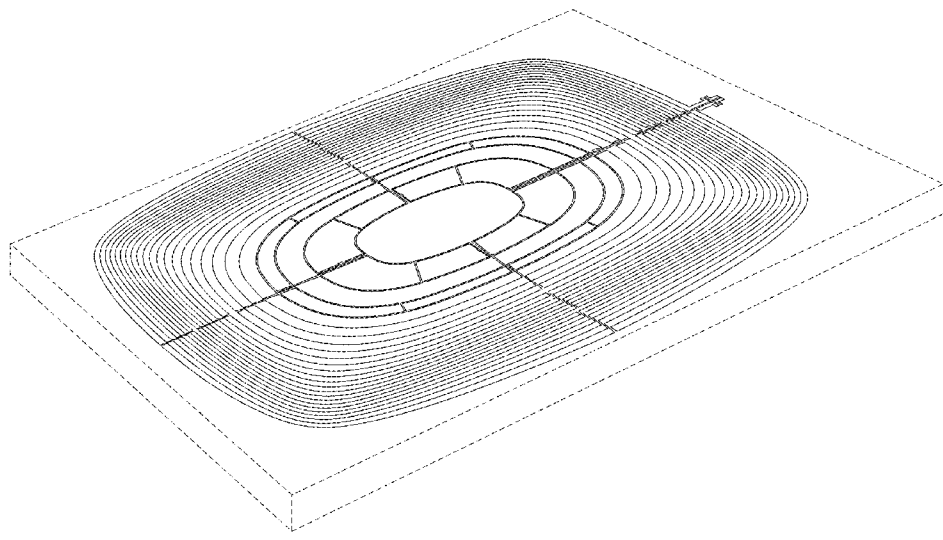
(57) **CLAIM**
The ornamental design for a resonator coil, substantially as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a resonator coil. FIG. 2 and FIG. 3 are, respectively, a top view and a bottom view of the resonator coil. FIG. 4 and FIG. 5 are, respectively, a front view and a back view of the resonator coil; and, FIG. 6 and FIG. 7 are, respectively, a right view and a left view of the resonator coil. The broken lines shown in the drawings represent unclaimed portions of the resonator coil and form no part of the claimed design.

1 Claim, 4 Drawing Sheets

(56) **References Cited**
U.S. PATENT DOCUMENTS
5,447,779 A * 9/1995 Imaichi G08B 13/2414 216/13
D451,893 S * 12/2001 Robson D13/182
D474,472 S * 5/2003 Maekawa D13/182
D487,430 S * 3/2004 Asaka D13/182
D616,389 S * 5/2010 Takahashi D13/182
D636,333 S 4/2011 Kulikowski
D639,755 S * 6/2011 Root D13/182
8,035,255 B2 10/2011 Kurs et al.
D649,126 S * 11/2011 Takahashi D13/182



(56)

References Cited

U.S. PATENT DOCUMENTS

8,587,153 B2	11/2013	Schatz et al.	2012/0235501 A1	9/2012	Kesler et al.	
8,587,155 B2	11/2013	Giler et al.	2012/0235502 A1	9/2012	Kesler et al.	
8,598,743 B2	12/2013	Hall et al.	2012/0235503 A1	9/2012	Kesler et al.	
8,618,696 B2	12/2013	Kurs et al.	2012/0235504 A1	9/2012	Kesler et al.	
D697,477 S	1/2014	Jonas, III	2012/0235566 A1	9/2012	Karalis et al.	
8,629,578 B2	1/2014	Kurs et al.	2012/0242159 A1	9/2012	Lou et al.	
8,643,326 B2	2/2014	Campanella et al.	2012/0248886 A1	10/2012	Kesler et al.	
8,667,452 B2	3/2014	Verghese et al.	2012/0248887 A1	10/2012	Kesler et al.	
8,669,676 B2	3/2014	Karalis et al.	2012/0248888 A1	10/2012	Kesler et al.	
8,686,598 B2	4/2014	Schatz et al.	2012/0248981 A1	10/2012	Karalis et al.	
8,692,410 B2	4/2014	Schatz et al.	2012/0256494 A1	10/2012	Kesler et al.	
8,692,412 B2	4/2014	Fiorello et al.	2012/0313449 A1	12/2012	Kurs et al.	
D705,745 S	5/2014	Kurs et al.	2012/0313742 A1	12/2012	Kurs et al.	
8,716,903 B2	5/2014	Kurs et al.	2013/0007949 A1	1/2013	Kurs et al.	
8,723,366 B2	5/2014	Fiorello et al.	2013/0020878 A1	1/2013	Karalis et al.	
8,729,737 B2	5/2014	Schatz et al.	2013/0033118 A1	2/2013	Karalis et al.	
D709,855 S	7/2014	Jonas	2013/0038402 A1	2/2013	Karalis et al.	
8,772,973 B2	7/2014	Kurs	2013/0057364 A1	3/2013	Kesler et al.	
8,805,530 B2	8/2014	John	2013/0062966 A1	3/2013	Verghese et al.	
8,847,548 B2	9/2014	Kesler et al.	2013/0069441 A1	3/2013	Verghese et al.	
8,875,086 B2	10/2014	Verghese et al.	2013/0069753 A1	3/2013	Kurs et al.	
8,901,778 B2	12/2014	Kesler et al.	2013/0099587 A1	4/2013	Lou et al.	
8,901,779 B2	12/2014	Kesler et al.	2013/0154383 A1	6/2013	Kasturi et al.	
8,907,531 B2	12/2014	Hall et al.	2013/0175874 A1	7/2013	Lou et al.	
8,912,687 B2	12/2014	Kesler et al.	2013/0200721 A1	8/2013	Kurs et al.	
8,922,066 B2	12/2014	Kesler et al.	2013/0221744 A1	8/2013	Hall et al.	
8,928,276 B2	1/2015	Kesler et al.	2013/0278073 A1	10/2013	Kurs et al.	
8,933,594 B2	1/2015	Kurs et al.	2013/0278074 A1	10/2013	Kurs et al.	
8,937,408 B2	1/2015	Ganem et al.	2013/0278075 A1	10/2013	Kurs et al.	
D722,048 S	2/2015	Kurs et al.	2013/0307349 A1	11/2013	Hall et al.	
8,946,938 B2	2/2015	Kesler et al.	2013/0334892 A1	12/2013	Hall et al.	
8,947,186 B2	2/2015	Kurs et al.	2014/0002012 A1	1/2014	McCauley et al.	
8,957,549 B2	2/2015	Kesler et al.	2014/0021798 A1	1/2014	Kesler et al.	
8,963,488 B2	2/2015	Campanella et al.	2014/0035378 A1	2/2014	Kesler et al.	
9,035,499 B2	5/2015	Kesler et al.	2014/0035704 A1	2/2014	Efe et al.	
9,065,423 B2	6/2015	Ganem et al.	2014/0044281 A1	2/2014	Ganem et al.	
D734,731 S	7/2015	Kurs	2014/0044293 A1	2/2014	Ganem et al.	
9,093,853 B2	7/2015	Schatz et al.	2014/0049118 A1	2/2014	Karalis et al.	
9,095,729 B2	8/2015	John	2014/0084703 A1	3/2014	Hall et al.	
2010/0219694 A1	9/2010	Kurs et al.	2014/0084859 A1	3/2014	Hall et al.	
2010/0259110 A1	10/2010	Kurs et al.	2014/0084859 A1	3/2014	Hall et al.	
2010/0277121 A1	11/2010	Hall et al.	2014/0091636 A1	4/2014	Ofstein et al.	
2011/0043049 A1	2/2011	Karalis et al.	2014/0091756 A1	4/2014	Ofstein et al.	
2011/0074346 A1	3/2011	Hall et al.	2014/0103738 A1	4/2014	Campanella et al.	
2011/0095618 A1	4/2011	Schatz et al.	2014/0111019 A1	4/2014	Roy et al.	
2012/0007441 A1	1/2012	John	2014/0111154 A1	4/2014	Roy et al.	
2012/0032522 A1	2/2012	Schatz et al.	2014/0139037 A1	5/2014	John et al.	
2012/0062345 A1	3/2012	Kurs et al.	2014/0142876 A1	5/2014	John et al.	
2012/0086284 A1	4/2012	Capanella et al.	2014/0159652 A1	6/2014	Hall et al.	
2012/0086867 A1	4/2012	Kesler et al.	2014/0175892 A1	6/2014	Jonas et al.	
2012/0091794 A1	4/2012	Campanella et al.	2014/0175898 A1	6/2014	Kurs et al.	
2012/0091795 A1	4/2012	Fiorello et al.	2014/0176279 A1*	6/2014	Yang	H01F 5/04 336/192
2012/0091796 A1	4/2012	Kesler et al.	2014/0225449 A1	8/2014	Kurs et al.	
2012/0091797 A1	4/2012	Kesler et al.	2014/0265555 A1	9/2014	Hall et al.	
2012/0091819 A1	4/2012	Kulikowski et al.	2014/0265617 A1	9/2014	Roy et al.	
2012/0091820 A1	4/2012	Campanella et al.	2014/0312707 A1	10/2014	Fiorello et al.	
2012/0091949 A1	4/2012	Campanella et al.	2014/0327320 A1	11/2014	Muhs et al.	
2012/0112535 A1	5/2012	Karalis et al.	2014/0339910 A1	11/2014	Sealy	
2012/0112536 A1	5/2012	Karalis et al.	2014/0361627 A1	12/2014	Kurs et al.	
2012/0112538 A1	5/2012	Kesler et al.	2015/0008761 A1	1/2015	Kesler et al.	
2012/0112691 A1	5/2012	Kurs et al.	2015/0051750 A1	2/2015	Kurs et al.	
2012/0119569 A1	5/2012	Karalis et al.	2015/0057496 A1	2/2015	Schatz et al.	
2012/0119698 A1	5/2012	Karalis et al.	2015/0061404 A1	3/2015	Lamenza et al.	
2012/0206096 A1	8/2012	John	2015/0069831 A1	3/2015	Kesler et al.	
2012/0223573 A1	9/2012	Schatz et al.	2015/0073768 A1	3/2015	Kurs et al.	
2012/0228952 A1	9/2012	Hall et al.	2015/0080981 A1	3/2015	John	
2012/0228953 A1	9/2012	Kesler et al.	2015/0088129 A1	3/2015	Ganem et al.	
2012/0228954 A1	9/2012	Kesler et al.	2015/0115733 A1	4/2015	Sealy et al.	
2012/0235500 A1	9/2012	Ganem et al.	2015/0123484 A1	5/2015	Kurs et al.	
			2015/0162128 A1*	6/2015	Rosenfeld	H01F 38/14 336/200

* cited by examiner

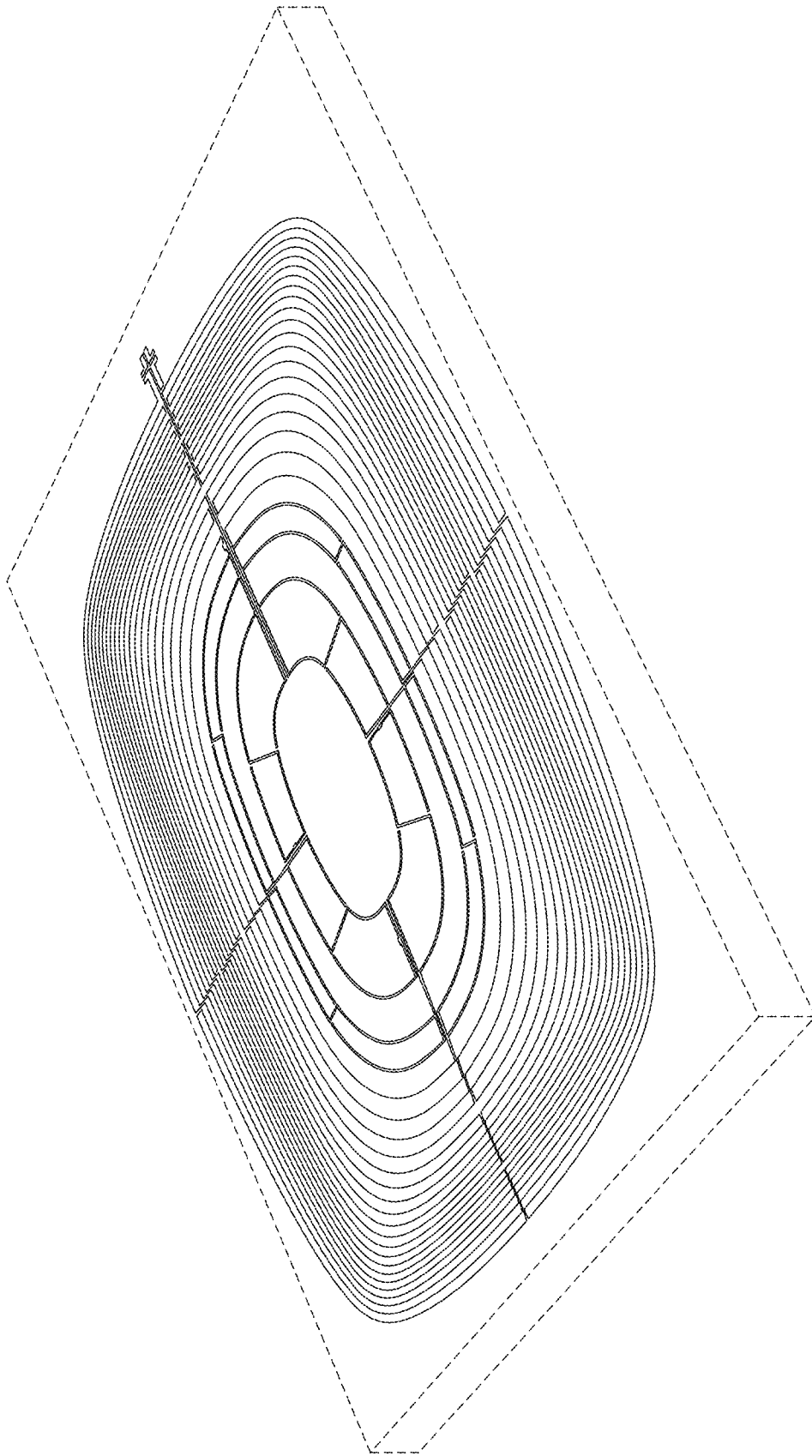


FIG. 1

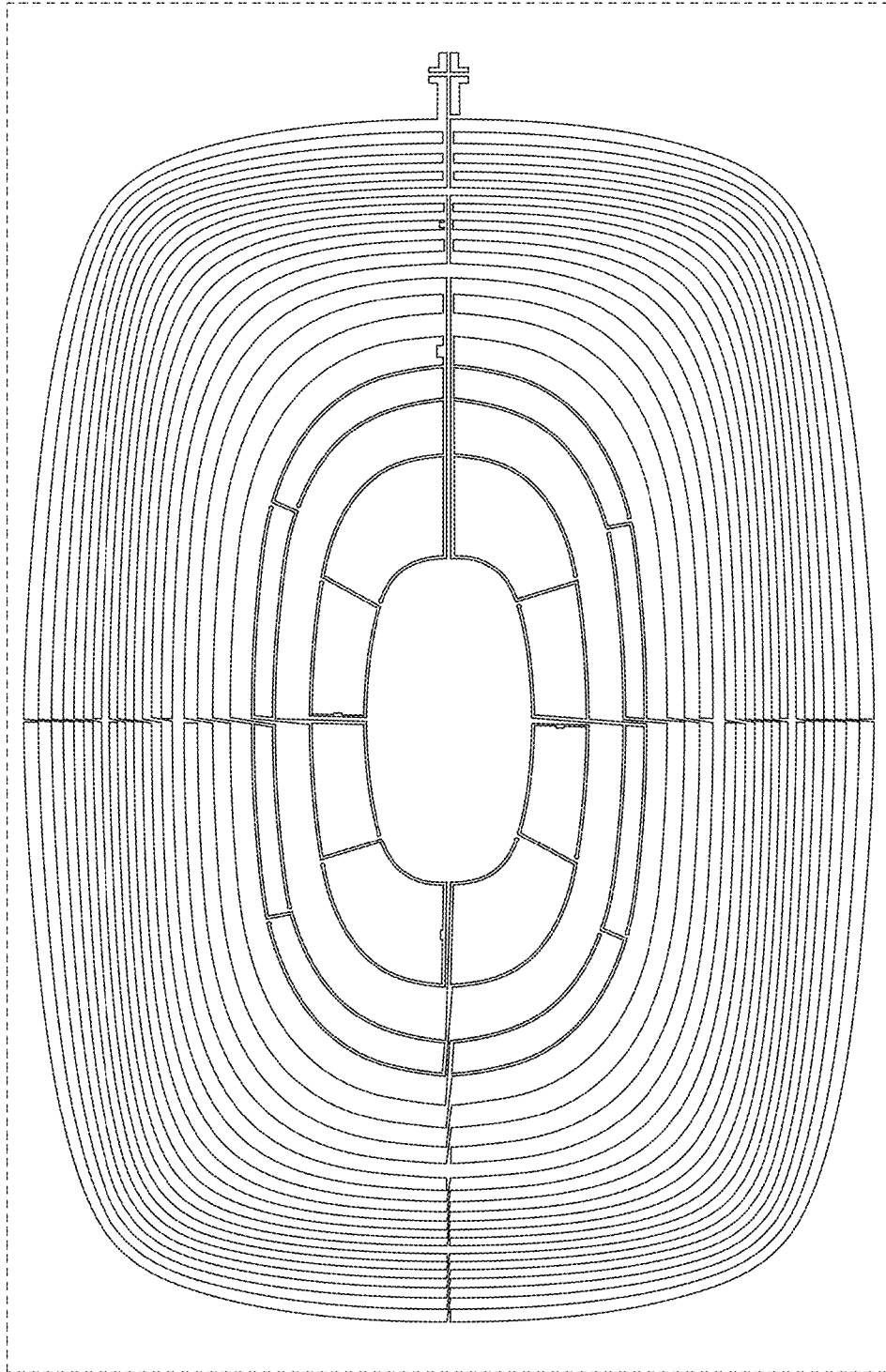


FIG. 2

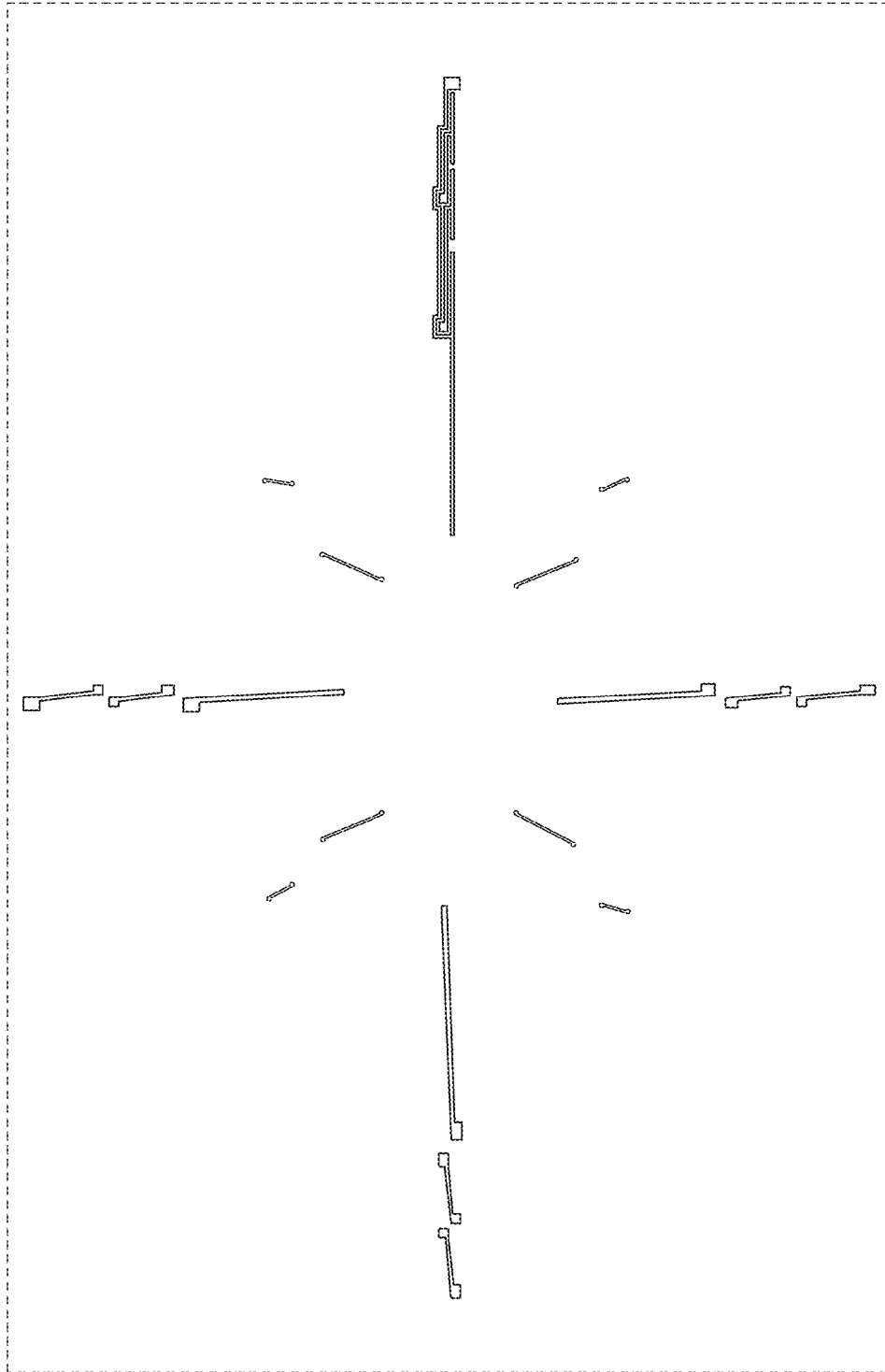


FIG. 3

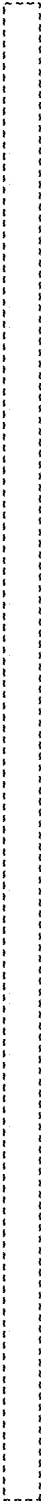


FIG. 4



FIG. 5

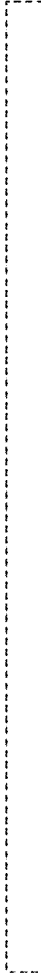


FIG. 6



FIG. 7