US00D798847S

(12) United States Design Patent

Huggins

(10) Patent No.: US D798,847 S
(45) Date of Patent: ** Oct. 3, 2017

(54) **ANTENNA**

(71) Applicant: **The United States of America as represented by the Federal Bureau of Investigation, Department of Justice**, Washington, DC (US)

(72) Inventor: **John Scott Huggins**, Warrenton, VA (US)

(73) Assignee: **The United States of America as represented by the Federal Bureau of Investigation, Dept. of Justice**, Washington, DC (US)

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

(21) Appl. No.: **29/550,780**

(22) Filed: **Jan. 7, 2016**

(51) **LOC (10) Cl.** **14-03**

(52) **U.S. Cl.**
USPC **D14/235**

(58) **Field of Classification Search**
USPC D14/138, 230, 231, 232, 233, 234, 235, D14/236, 237, 238, 238.1, 299, 358; D13/175, 182
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,124,424 A 7/1938 Leeds
2,184,771 A 12/1939 Roosenstein
(Continued)

OTHER PUBLICATIONS

http://www.hamradio.me/interests/j-pole/—Published Aug. 19, 2015.*
(Continued)

Primary Examiner — Manpreet Matharu
Assistant Examiner — Mojtaba Tehrani

(74) *Attorney, Agent, or Firm* — Kristin K. Vidovich

(57) **CLAIM**

The ornamental design for an antenna, as shown and described.

DESCRIPTION

The design described herein was created by an employee of the United States Government and may be manufactured and used by or for the U.S. Government without the payment of any royalties.

FIG. **1** is a top front perspective view of the new design of the antenna.

FIG. **2** is a left side view of the antenna of FIG. **1**.

FIG. **3** is a front view of the antenna of FIG. **1**, the rear view being substantially a mirror image.

FIG. **4** is a right side view of the antenna of FIG. **1**.

FIG. **5** is a top view of the antenna of FIG. **1**.

FIG. **6** is a bottom view of the antenna of FIG. **1**.

FIG. **7** is an offset-section view of the antenna of FIG. **1**, taken in the direction of and along the line of line **7-7** of FIG. **3**.

FIG. **8** is a section view of the antenna of FIG. **1**, taken in the direction of line **8-8** of FIG. **3**.

FIG. **9** is a top-left front perspective view of the antenna of FIG. **1**.

FIG. **10** is a top-right front perspective view of the antenna of FIG. **1**.

FIG. **11** is a bottom-left front perspective view of the antenna of FIG. **1**.

FIG. **12** is a bottom-right front perspective view of the antenna of FIG. **1**.

FIG. **13** is an enlarged detail view of the antenna of FIG. **1** defined by the circular perimeter line **13** of FIG. **12**.

FIG. **14** is a slight-left front perspective view of the antenna of FIG. **1**.

FIG. **15** is an enlarged detail view of the antenna of FIG. **1** defined by the circular perimeter line **15** of FIG. **14**.

FIG. **16** is a slight-right front perspective view of the antenna of FIG. **1**.

FIG. **17** is an enlarged detail view of the antenna of FIG. **1** defined by the circular perimeter line **17** of FIG. **16**.
(Continued)

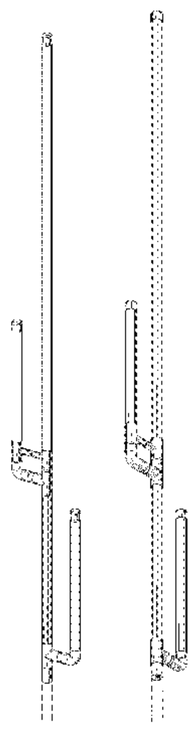


FIG. **18** is a front view of the antenna of FIG. **1** provided to illustrate an example environment; and,
FIG. **19** is a front view of the antenna of FIG. **1** provided to illustrate another example environment.
The broken lines in FIG. **1**, FIG. **2**, FIG. **3**, FIG. **4**, FIG. **9**, FIG. **10**, FIG. **11**, FIG. **12**, FIG. **13**, FIG. **14**, FIG. **16**, FIG. **18**, and FIG. **19** represent the bounds of the antenna design. They are directed to environment and are for illustrative purposes only. The broken lines form no part of the new design.
The antenna is not limited to the scale shown herein.

1 Claim, 10 Drawing Sheets

(58) **Field of Classification Search**
CPC G01R 29/10; G01S 2013/0245; G01S 2013/0254; G01S 2013/0263; G01S 7/4026; G05B 2219/45001; G06K 19/07773; G06K 19/07775; G06K 19/07777; G08B 13/2468; G08B 13/2477; H01Q 1/088
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,201,857	A		5/1940	Dome	
2,239,909	A		4/1941	Buschbeck et al.	
2,297,512	A		9/1942	Von Baeyer et al.	
2,535,298	A		12/1950	Lattin	
3,653,053	A	*	3/1972	St. Vrain	H01Q 5/335 343/745
D241,856	S	*	10/1976	Williams	D14/205
4,021,809	A	*	5/1977	Klancnik	H01Q 1/088 343/715
4,131,895	A		12/1978	Robinson	
4,208,662	A		6/1980	Horn et al.	
4,209,790	A	*	6/1980	Newcomb	H01Q 9/32 343/830
4,259,673	A		3/1981	Guretzky	
4,266,227	A	*	5/1981	Blaese	H01Q 1/084 343/715
4,282,531	A		8/1981	Blaese	
D260,522	S	*	9/1981	Guretzky	D14/234
4,342,037	A		7/1982	Dalby	
4,352,109	A		9/1982	Reynolds et al.	
4,441,108	A		4/1984	Ten Pas	
4,496,952	A	*	1/1985	Newcomb	H01Q 1/10 343/722
D277,483	S	*	2/1985	Newcomb	D14/234
4,509,056	A		4/1985	Ploussios	
D285,444	S	*	9/1986	Newcomb	D14/234
4,644,364	A		2/1987	Parks	
D288,564	S	*	3/1987	Newcomb	D14/234
D364,873	S	*	12/1995	Stephens	D14/230
5,616,043	A	*	4/1997	Liou	H01Q 1/1221 343/715
D383,138	S	*	9/1997	Harada	D14/230
D388,101	S	*	12/1997	Harada	D14/230
D398,612	S	*	9/1998	Juengert	D11/118
6,266,026	B1		7/2001	Stengel, Jr.	
D494,573	S	*	8/2004	Curtis	D14/234
D516,063	S	*	2/2006	Lai	D14/234
7,859,477	B2		12/2010	Birnbaum et al.	
8,593,363	B2		11/2013	McLean et al.	
8,947,313	B2		2/2015	Fong	
2017/0201002	A1	*	7/2017	Huggins	H01Q 1/50

OTHER PUBLICATIONS

https://www.youtube.com/watch?v=Uwbu76mvs2Y—Published May 30, 2015.*
http://www.hamuniverse.com/kk4bcv6meterjpole.html—Retrieved on Jul. 18, 2017.*
Griffith, A., "A 146- and 445-MHz J-Pole Antenna," QST Magazine, Oct. 2000, pp. 50-53.
Richardson, D., "The J-Pole Revisited," CQ Magazine, Mar. 1998, pp. 34-41.
U.S. War Department, "Antennas and Antenna Systems," War Department Technical Manual, TM 11-314, Nov. 1943, pp. 163-164.
Huggins, J., "Have your J-Pole and Ground It Too," Feb. 2015, http://www.hamradio.me/antennas/j-pole-antenna-grounding-have-your-j-pole-and-ground-it-too.html (pdf version of information on webpage submitted with IDS).
Duffy, O., Google Groups Comment, Jul. 2010, https://groups.google.com/forum/#!msg/rec.radio.amateur.antenna/iHX5KmJ2Gdo/Gxx4aH-hp2gJ (pdf version of information on webpage submitted with IDS).

* cited by examiner

FIG. 1

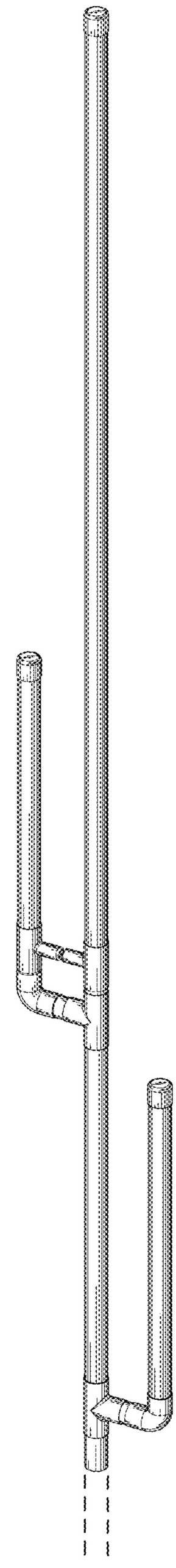


FIG. 2

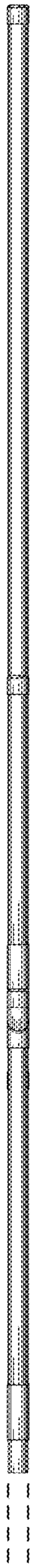


FIG. 3

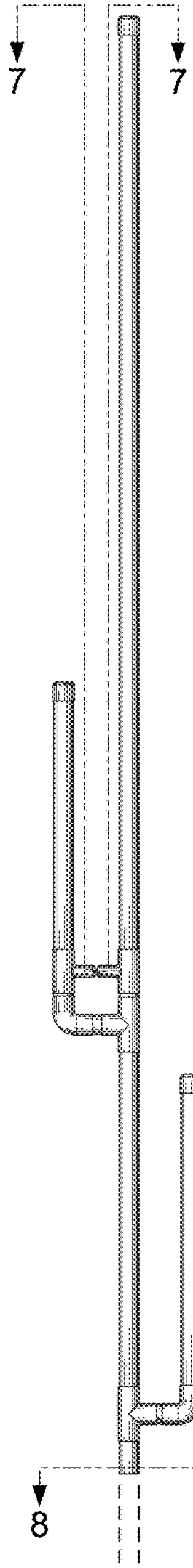


FIG. 4

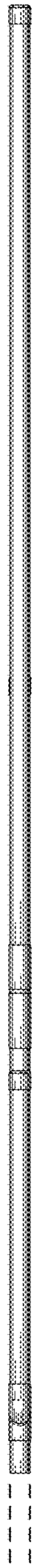


FIG. 5

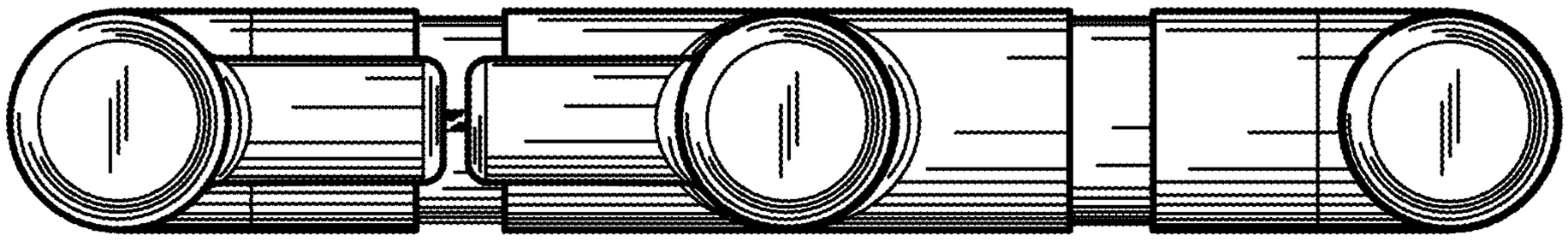


FIG. 6

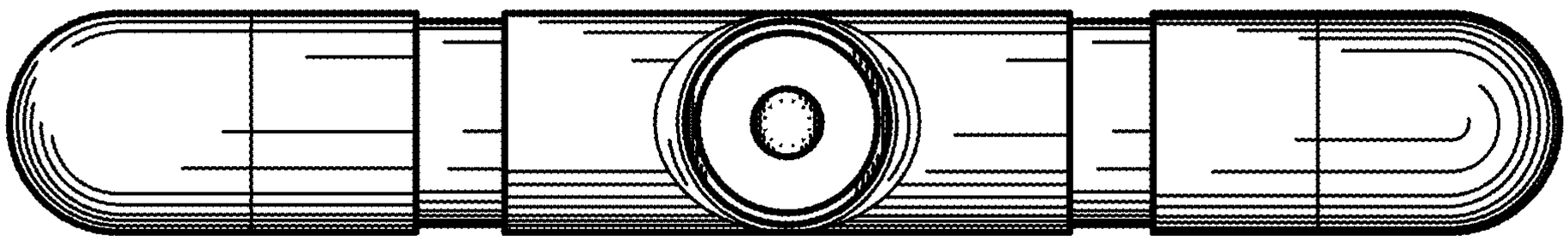


FIG. 7

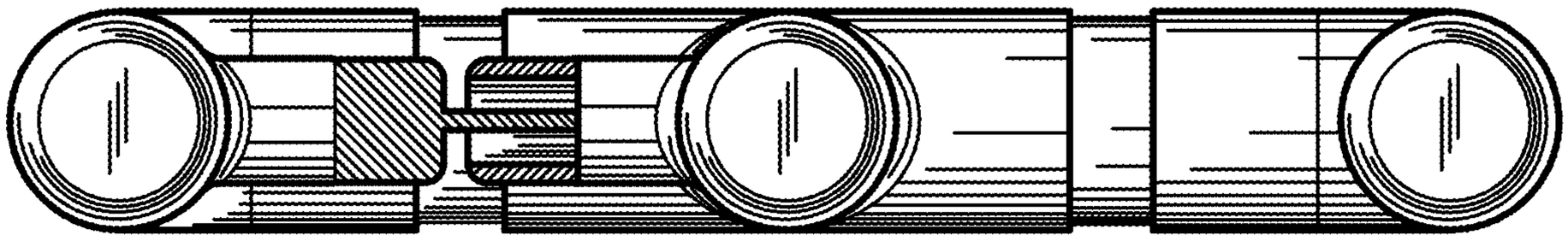
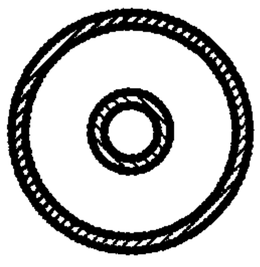


FIG. 8



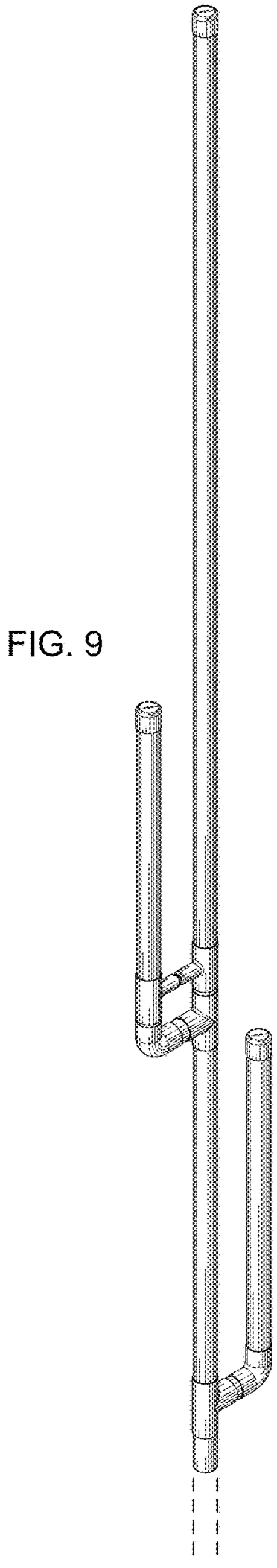


FIG. 9

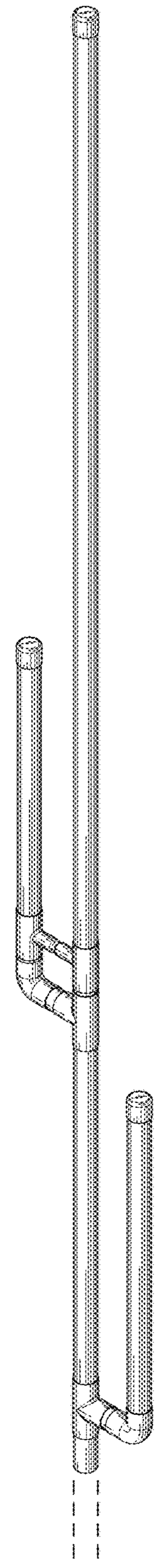


FIG. 10

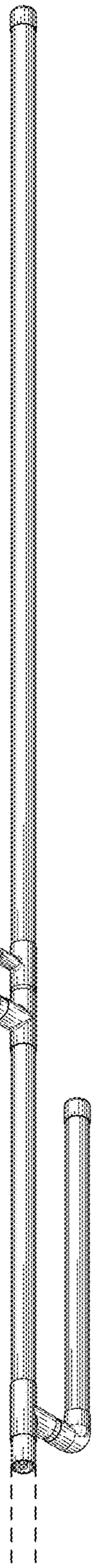


FIG. 11

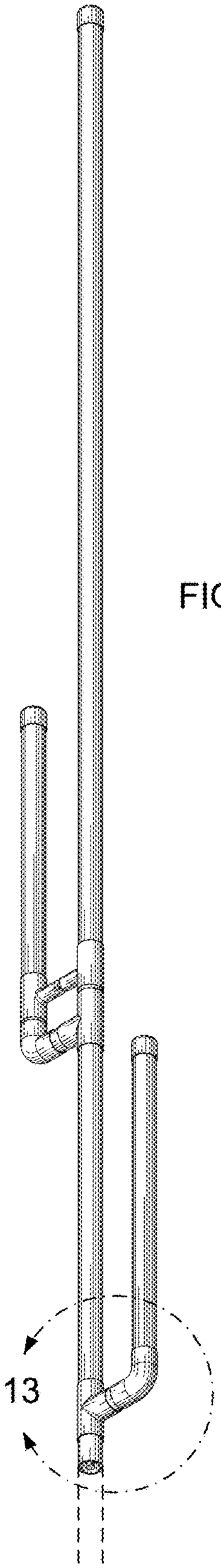


FIG. 12

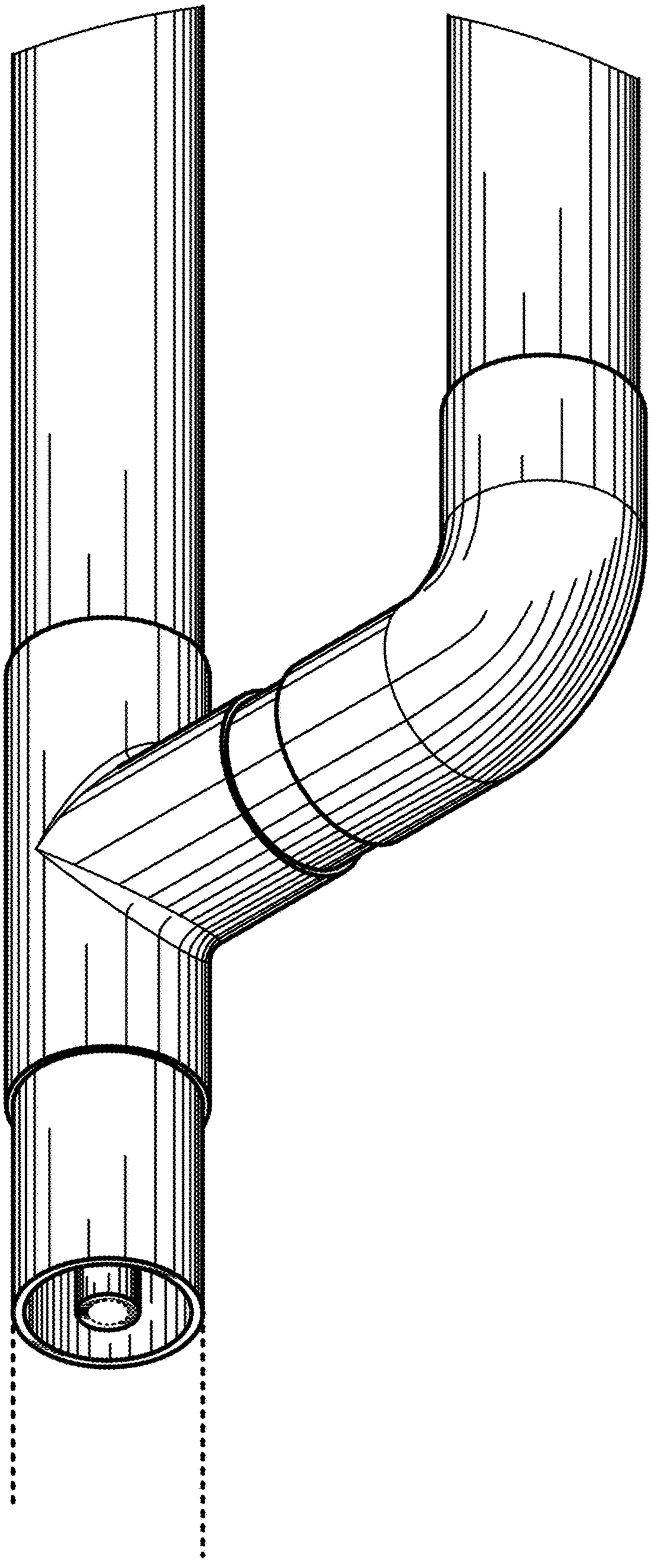


FIG. 13

FIG. 14

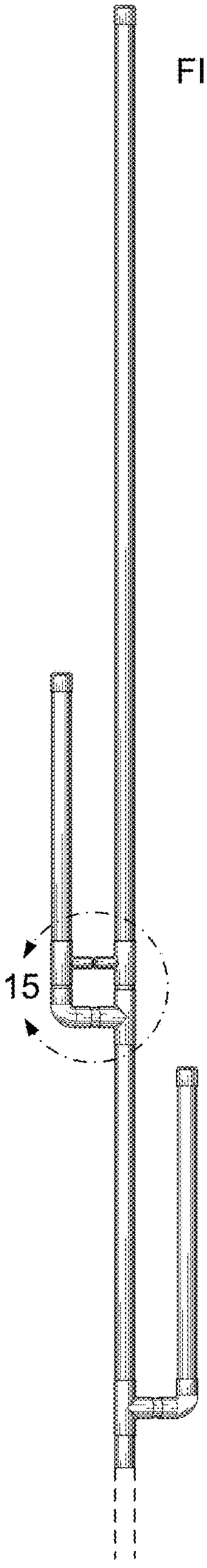


FIG. 15

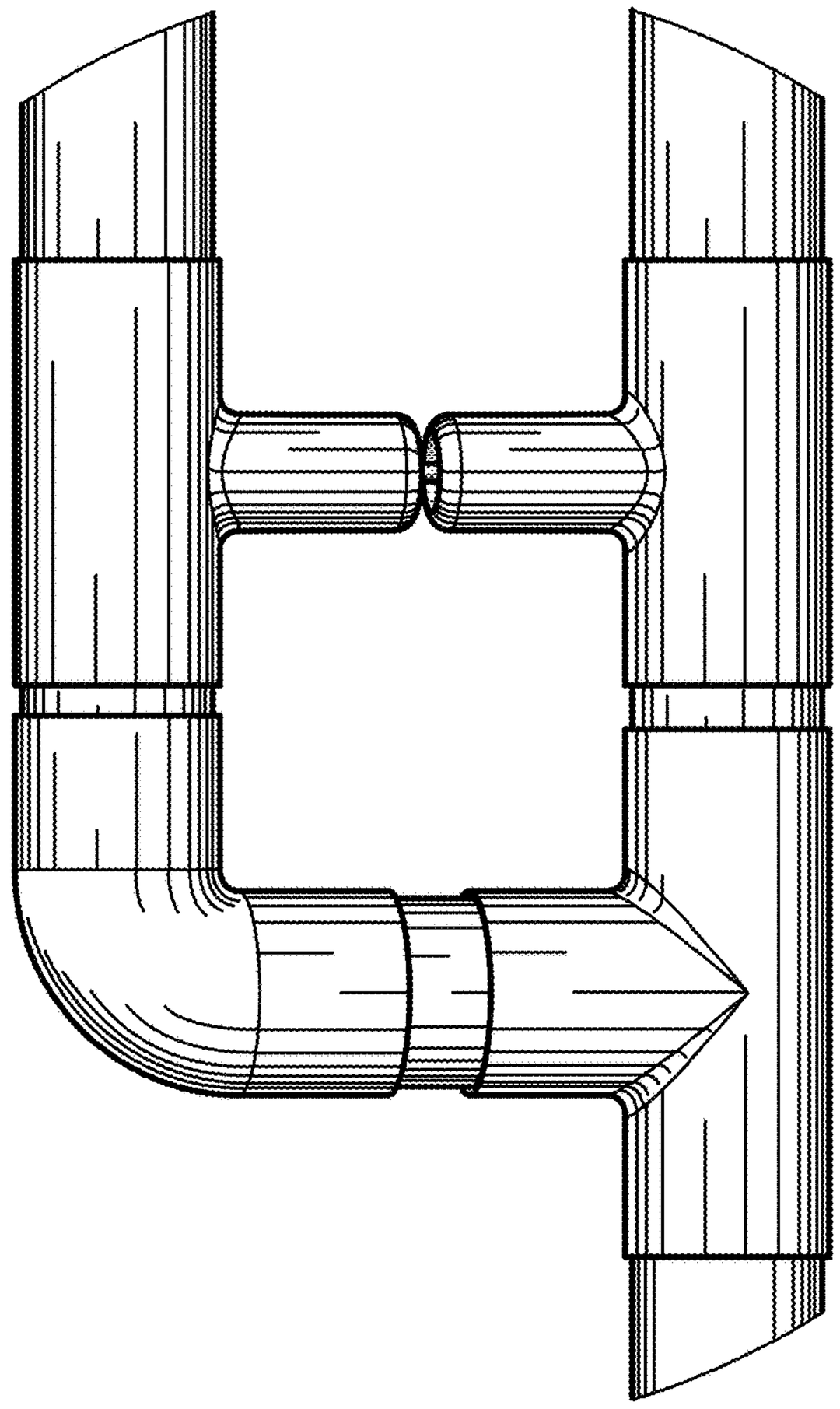


FIG. 16

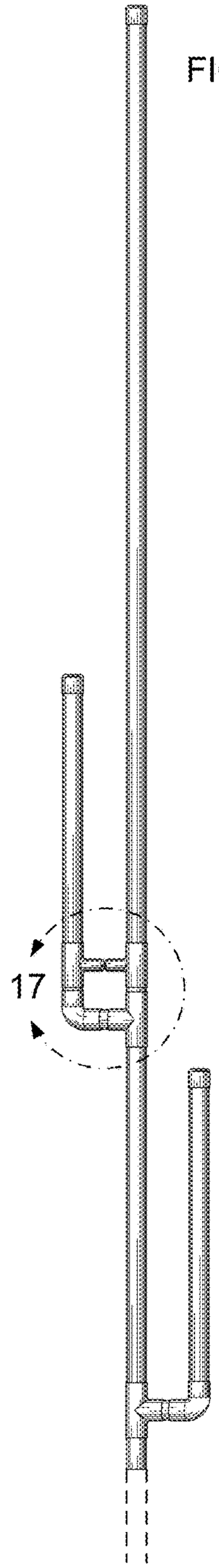


FIG. 17

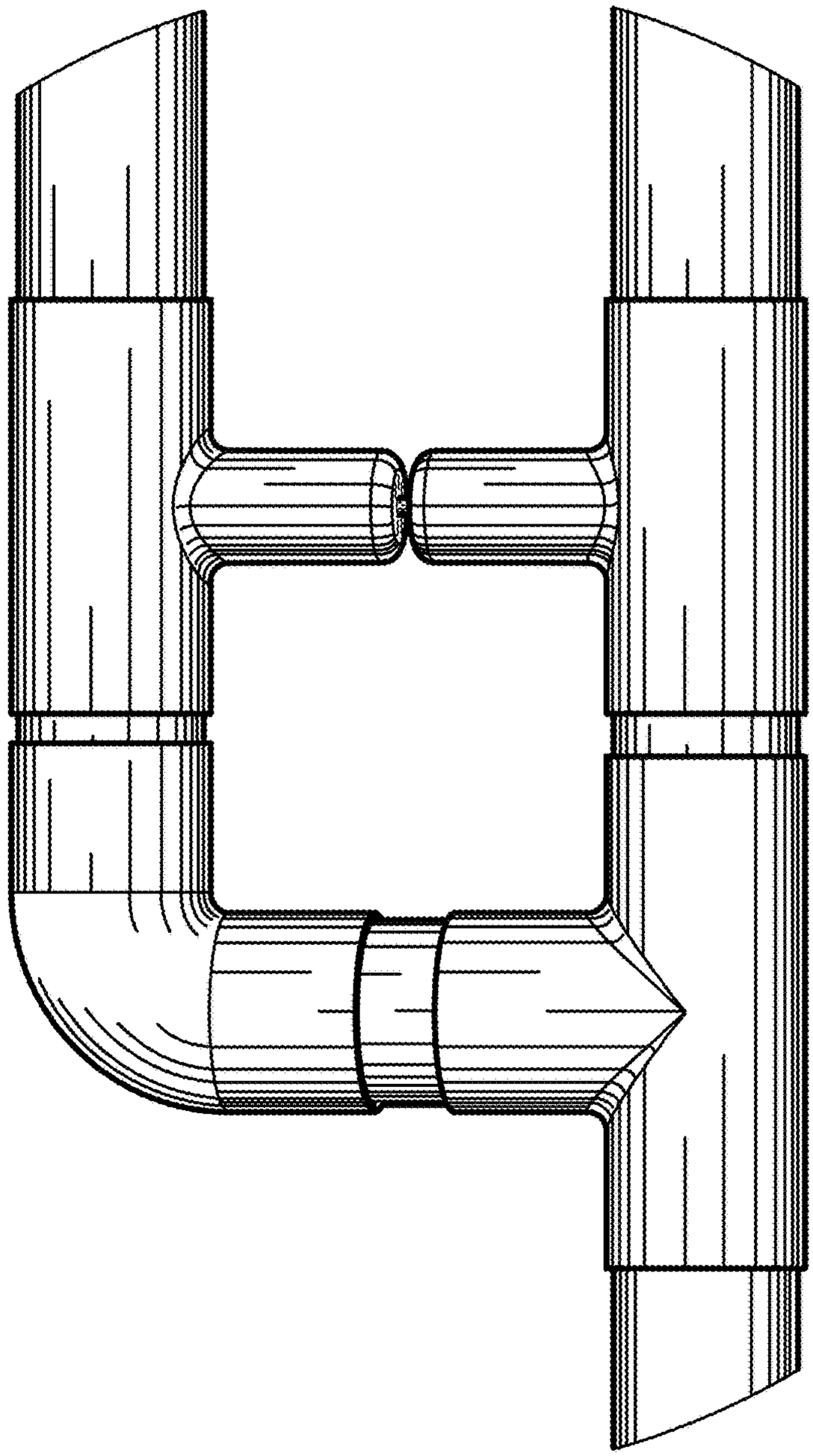


FIG. 18

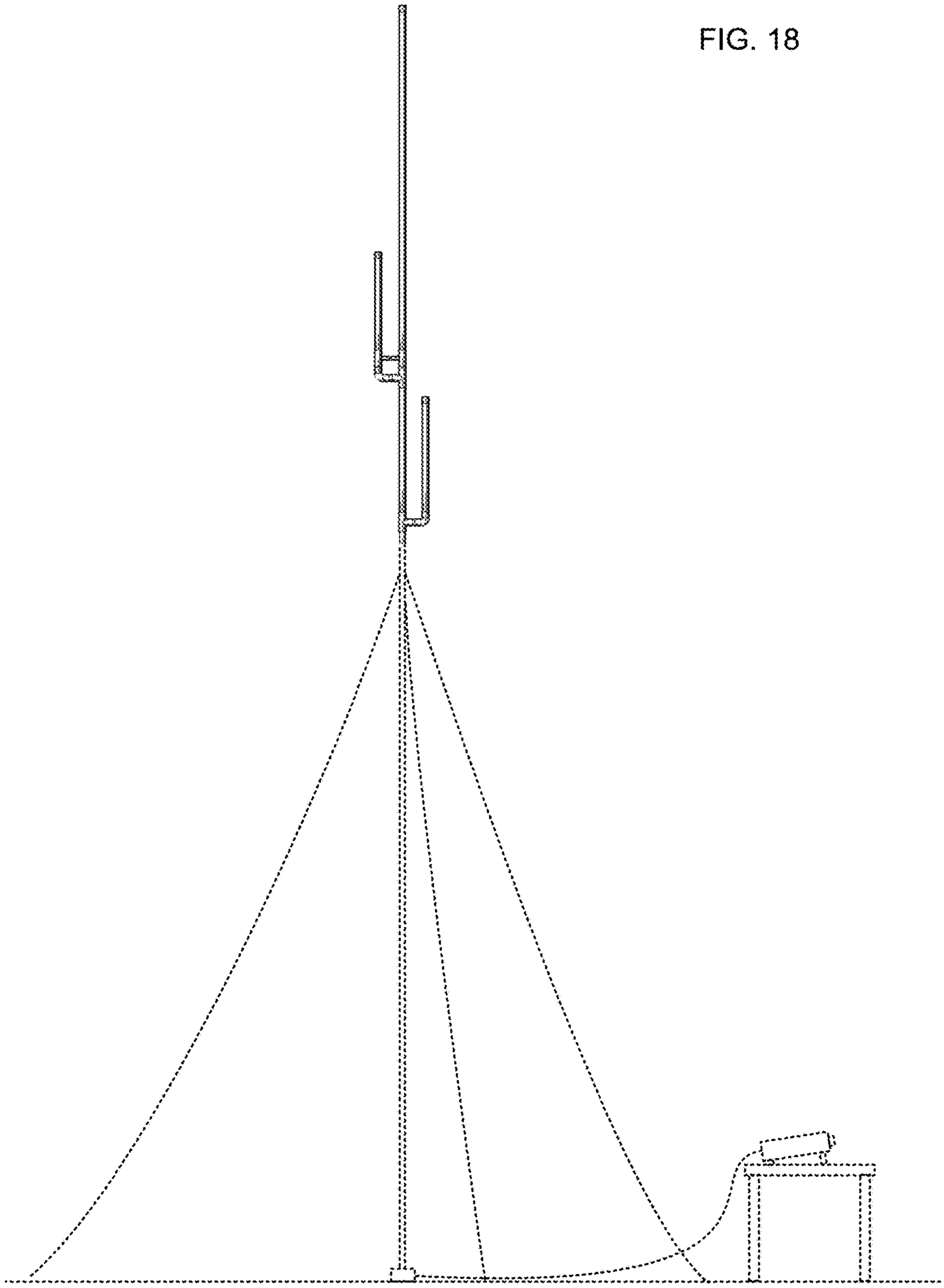


FIG. 19