



US00D891403S

(12) **United States Design Patent**
Emerick

(10) **Patent No.:** **US D891,403 S**
(45) **Date of Patent:** **** Jul. 28, 2020**

(54) **TRI BAND WHIP OMNIDIRECTIONAL ANTENNA**

(71) Applicant: **Pulse Finland OY**, Oulunsalo (FI)

(72) Inventor: **Curtis Emerick**, Vancouver, WA (US)

(73) Assignee: **PULSE FINLAND OY**, Oulunsalo (FI)

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

(21) Appl. No.: **29/677,762**

(22) Filed: **Jan. 23, 2019**

(51) **LOC (12) Cl.** **14-03**

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

(58) **Field of Classification Search**
USPC D14/138, 230–238, 299, 358; D12/42, D12/43
CPC H01Q 7/00; H01Q 13/10; H01Q 9/285; H01Q 19/30; H01Q 19/12; H01Q 1/38; H01Q 1/36; H04B 1/0475; H04B 1/034; H05K 11/00

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

- 3,003,149 A * 10/1961 Grashow H01Q 1/1207
343/715
- 3,789,418 A * 1/1974 Reiber H01Q 1/084
343/872
- D232,844 S * 9/1974 Feit D14/235
- 4,134,120 A * 1/1979 DeLoach H01Q 1/20
343/715
- D255,449 S * 6/1980 Liautaud D14/233
- 4,692,770 A * 9/1987 Kadokura H01Q 1/3258
343/711
- D345,363 S * 3/1994 Watanabe D14/234
- D376,152 S * 12/1996 Tsuji D14/230
- D391,261 S * 2/1998 Harada D14/234

(Continued)

Primary Examiner — John Windmuller
(74) *Attorney, Agent, or Firm* — Gazdzinski & Associates, PC

(57) **CLAIM**

The ornamental design of a tri band whip omnidirectional antenna, as shown or described herein.

DESCRIPTION

FIG. 1 is a perspective view of a first embodiment of a tri band whip omnidirectional antenna, showing our new design;

FIG. 2 is a front side elevation view of the tri band whip omnidirectional antenna of FIG. 1;

FIG. 3 is a back side elevation view of the tri band whip omnidirectional antenna of FIG. 1;

FIG. 4 is a right side elevation view of the tri band whip omnidirectional antenna of FIG. 1;

FIG. 5 is a left side elevation of the tri band whip omnidirectional antenna of FIG. 1;

FIG. 6 is a top plan view of the tri band whip omnidirectional antenna of FIG. 1;

FIG. 7 is a bottom plan view of the tri band whip omnidirectional antenna of FIG. 1;

FIG. 8 is a perspective view of a second embodiment of a tri band whip omnidirectional antenna, showing our new design;

FIG. 9 is a front side elevation view of the tri band whip omnidirectional antenna of FIG. 8;

FIG. 10 is a back side elevation view of the tri band whip omnidirectional antenna of FIG. 8;

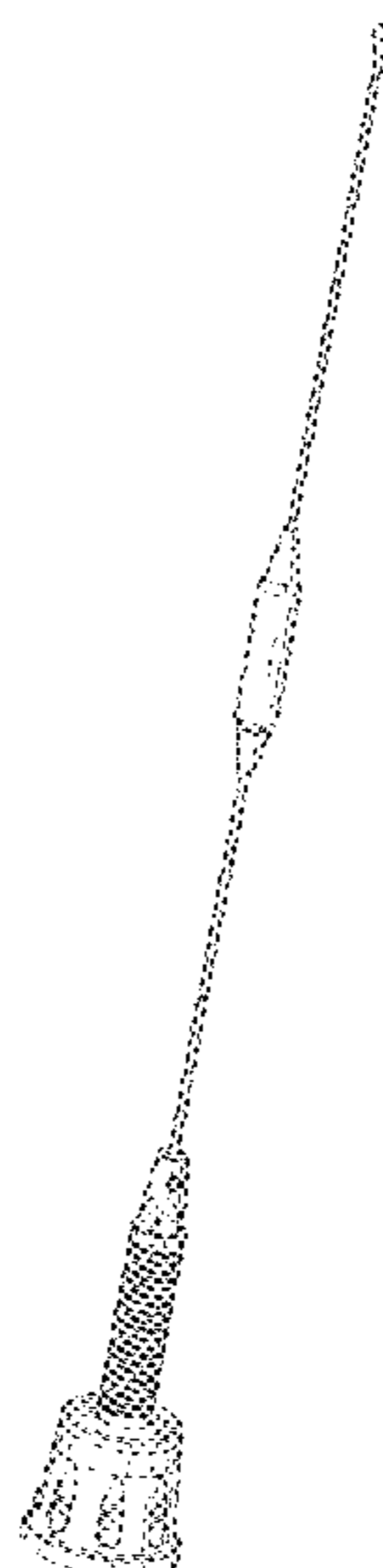
FIG. 11 is a right side elevation view of the tri band whip omnidirectional antenna of FIG. 8;

FIG. 12 is a left side elevation of the tri band whip omnidirectional antenna of FIG. 8;

FIG. 13 is a top plan view of the tri band whip omnidirectional antenna of FIG. 8; and,

FIG. 14 is a bottom plan view of the tri band whip omnidirectional antenna of FIG. 8.

1 Claim, 8 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D442,577 S * 5/2001 Strand D14/230
D457,518 S * 5/2002 Wilson 343/749
D649,140 S * 11/2011 Spatter D14/230

* cited by examiner

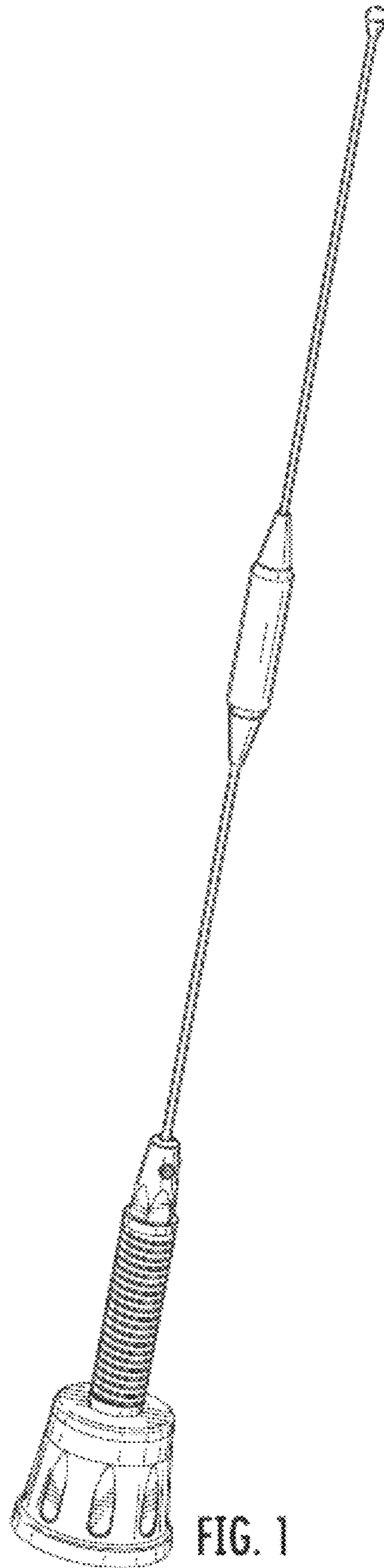


FIG. 1

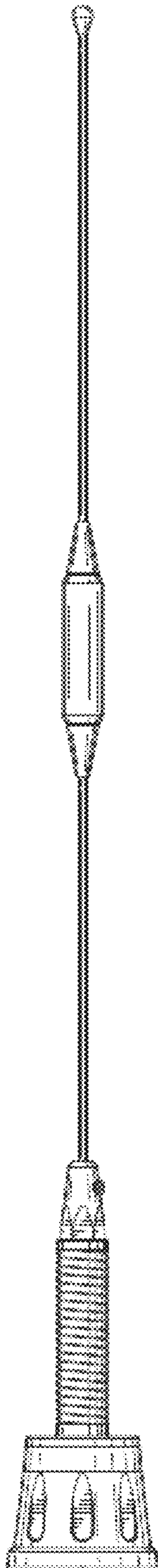


FIG. 2

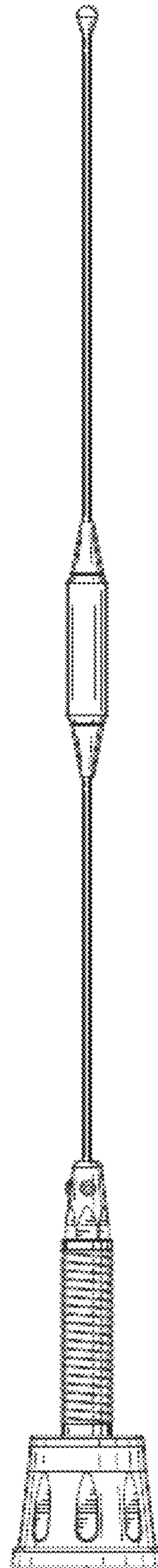


FIG. 3

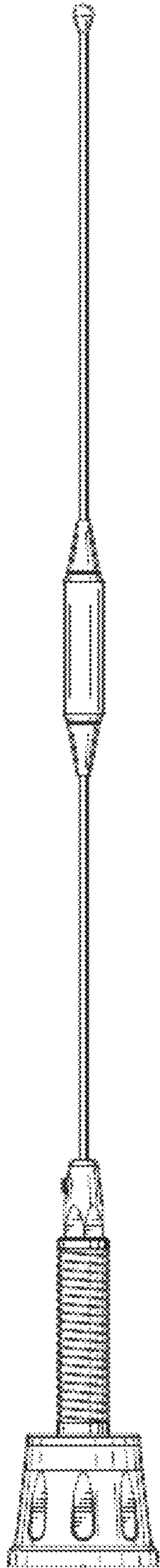


FIG. 4

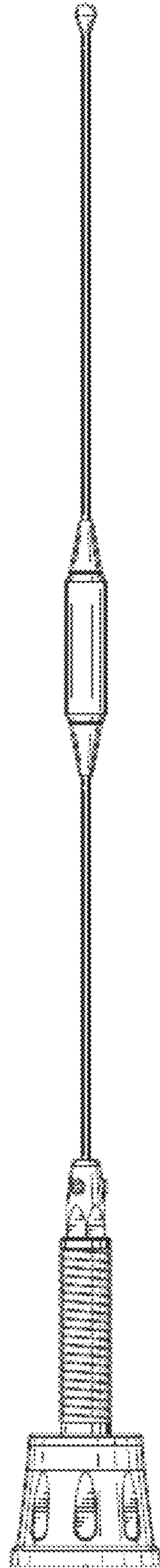


FIG. 5

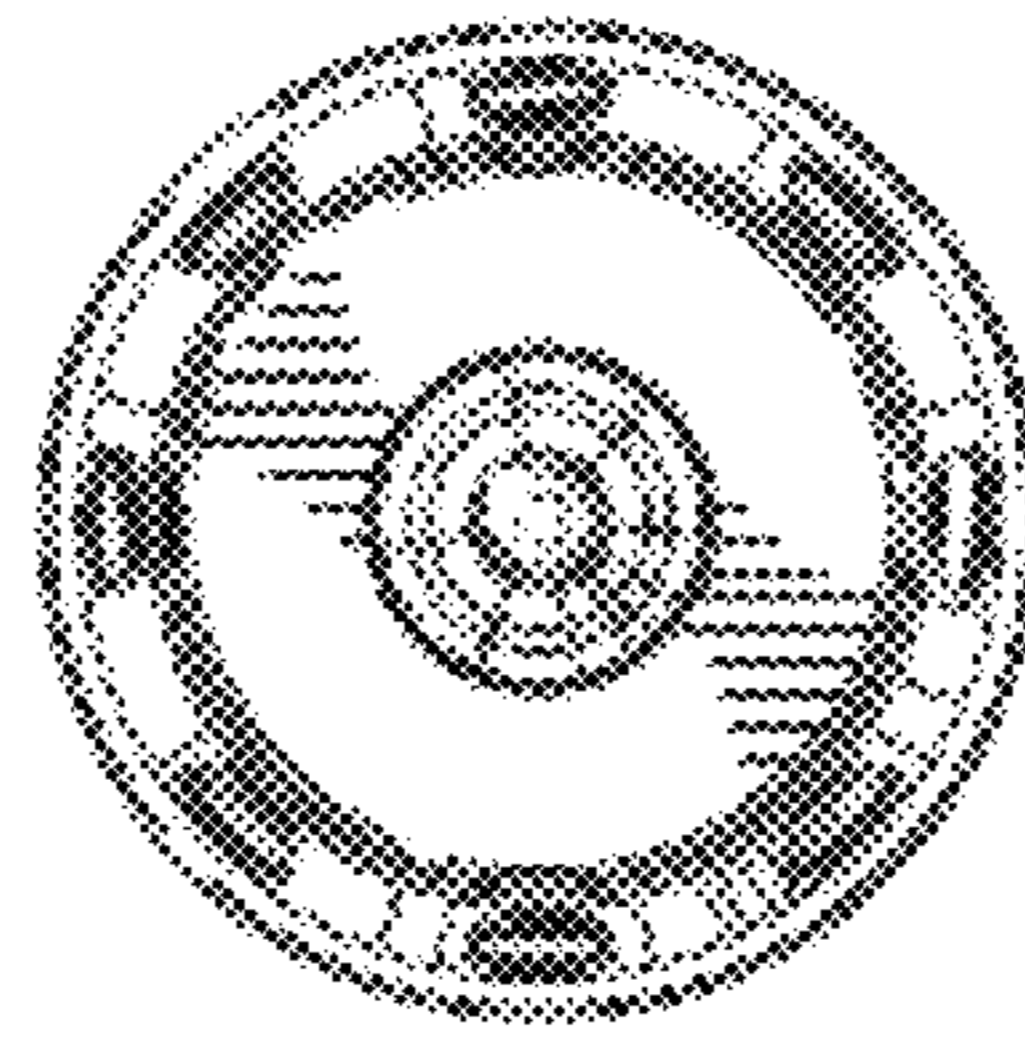


FIG. 6

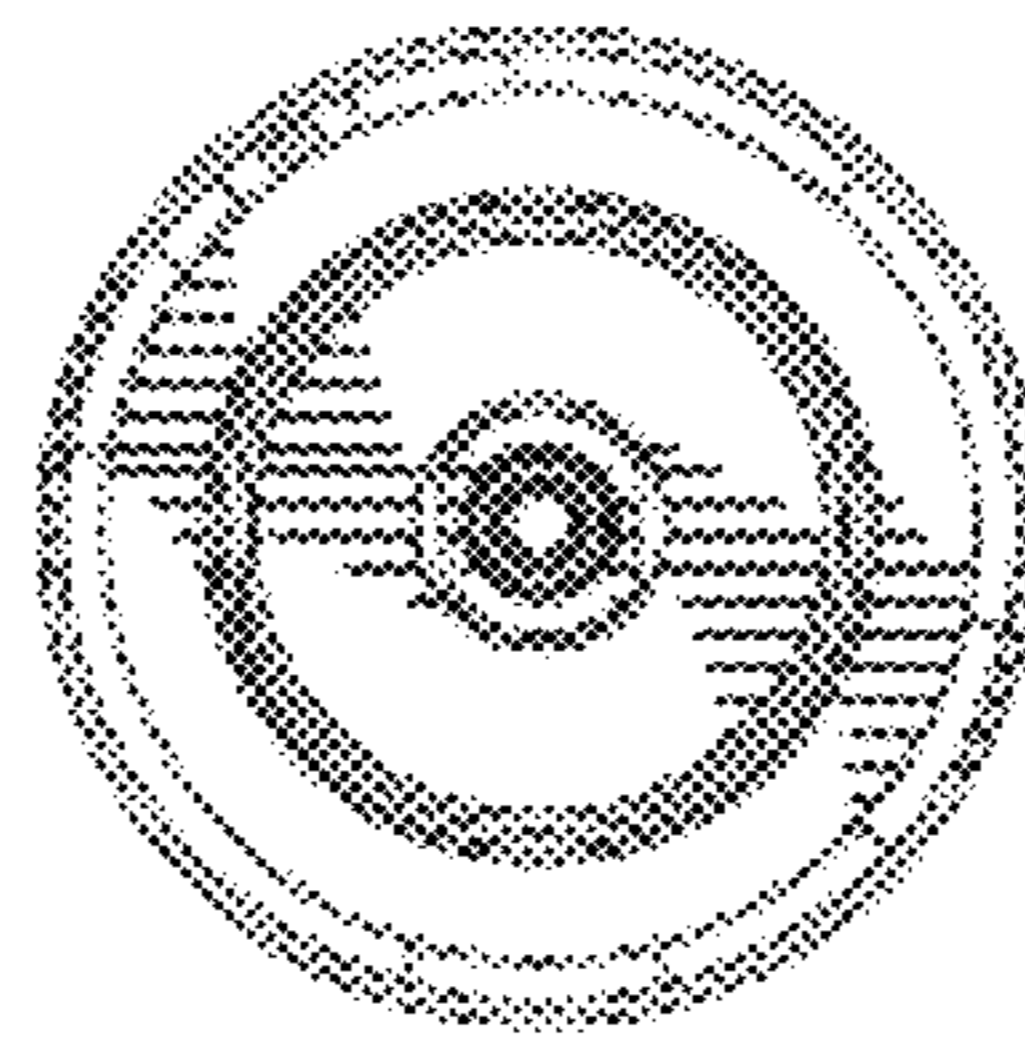


FIG. 7

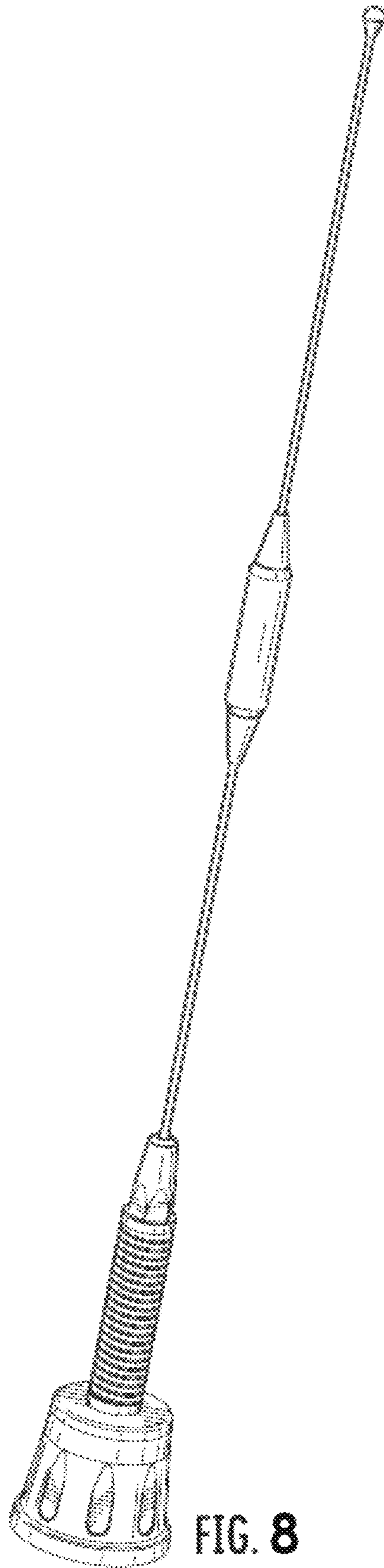


FIG. 8

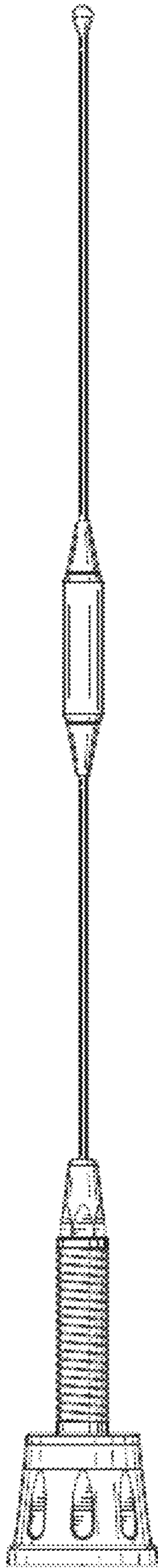


FIG. 9

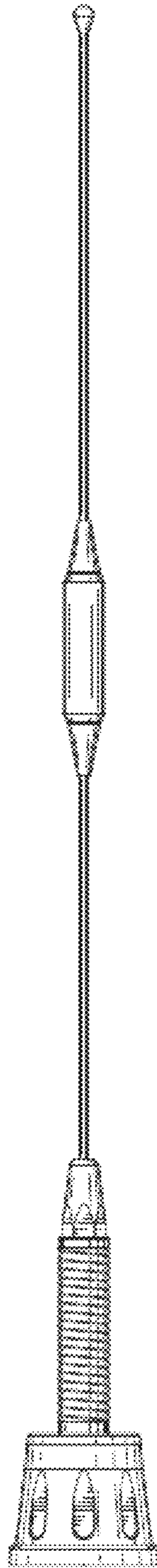


FIG. 10

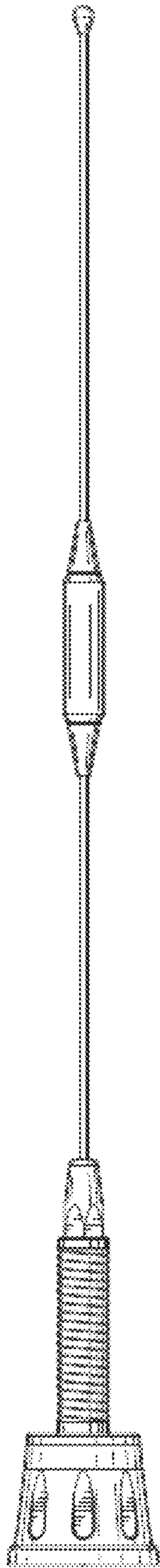


FIG. 11

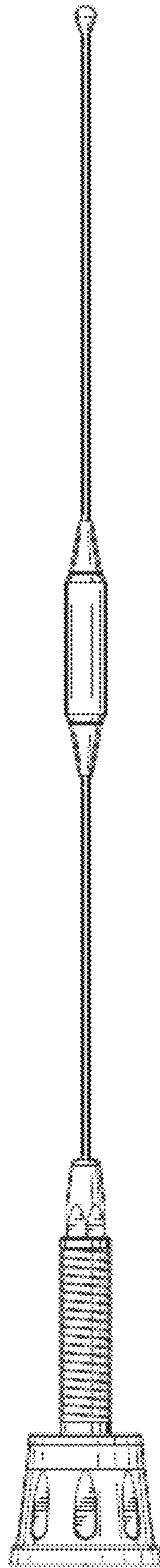


FIG. 12

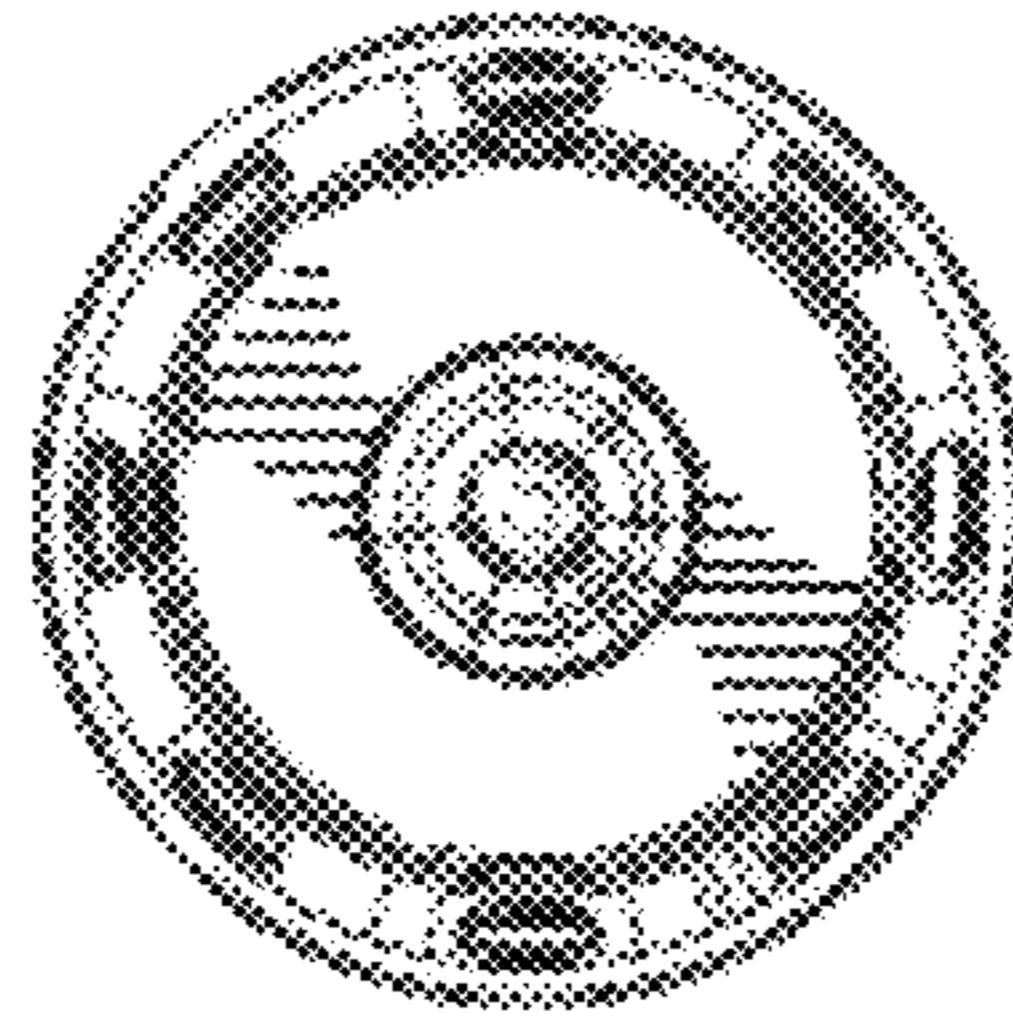


FIG. 13

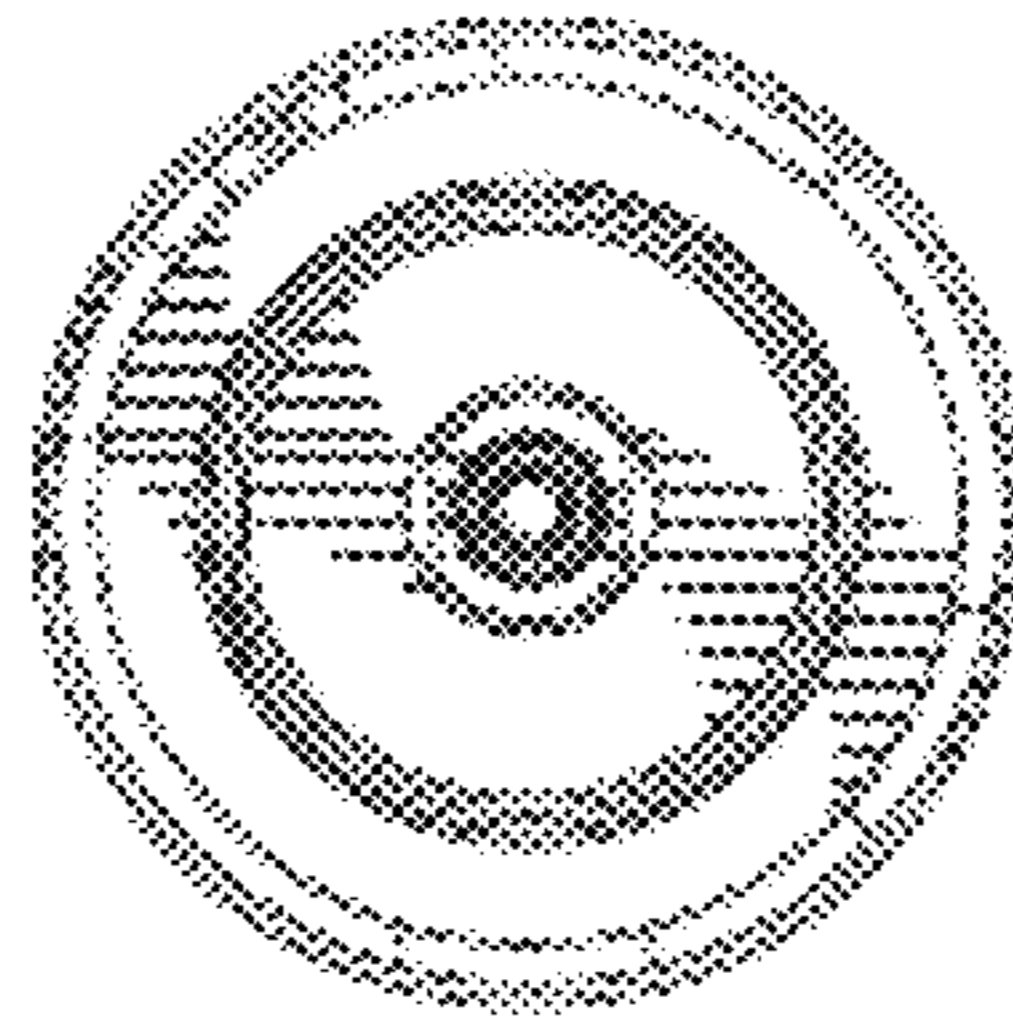


FIG. 14