



US00D855800S

(12) **United States Design Patent** (10) **Patent No.:** **US D855,800 S**
Gabay et al. (45) **Date of Patent:** **** Aug. 6, 2019**

(54) **EXPANDABLE EXOSKELETON FOR A BALLOON CATHETER**

(71) Applicant: **Transit Scientific, LLC**, Salt Lake City, UT (US)

(72) Inventors: **Gregory Gabay**, St. Louis Park, MN (US); **David Butterfield**, Maple Grove, MN (US); **Shawn P. Fojtik**, Park City, UT (US); **David Blossom**, Wellesley, MA (US)

(73) Assignee: **Transit Scientific, LLC**, Salt Lake City, UT (US)

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

(21) Appl. No.: **29/625,044**

(22) Filed: **Nov. 6, 2017**

(51) **LOC (12) Cl.** **24-02**

(52) **U.S. Cl.**
USPC **D24/130**

(58) **Field of Classification Search**
USPC D24/127-131, 112-114, 133, 186;
606/181, 185, 200; 604/264, 523-528,
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,102,417 A * 4/1992 Palmaz A61F 2/91
604/103.05
5,207,644 A * 5/1993 Strecker A61M 39/0208
604/164.01

(Continued)

Primary Examiner — David G Muller

(74) *Attorney, Agent, or Firm* — Durham Jones & Pinegar, P.C., Intellectual Property Law Group

(57) **CLAIM**

The ornamental design for an expandable exoskeleton for a balloon catheter, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of an expandable exoskeleton for a balloon catheter showing our new design, with the expandable exoskeleton in an unexpanded state, the expandable exoskeleton capable of placement over a balloon of a balloon catheter;

FIG. 2 is a first side elevational view of the expandable exoskeleton for a balloon catheter in the unexpanded state; FIG. 3 is a second side elevational view of the expandable exoskeleton for a balloon catheter in the unexpanded state; FIG. 4 is a third side elevational view of the expandable exoskeleton for a balloon catheter in the unexpanded state; FIG. 5 is a fourth side elevational view of the expandable exoskeleton for a balloon catheter in the unexpanded state; FIG. 6 is a distal end view of the expandable exoskeleton for a balloon catheter in the unexpanded state;

FIG. 7 is a proximal end view of the expandable exoskeleton for a balloon catheter in the unexpanded state;

FIG. 8 is first side elevational view showing our new design, with the expandable exoskeleton for a balloon catheter in an expanded state;

FIG. 9 is a second side elevational view of the expandable exoskeleton for a balloon catheter in the expanded state;

FIG. 10 is a third side elevational view of the expandable exoskeleton for a balloon catheter in the expanded state;

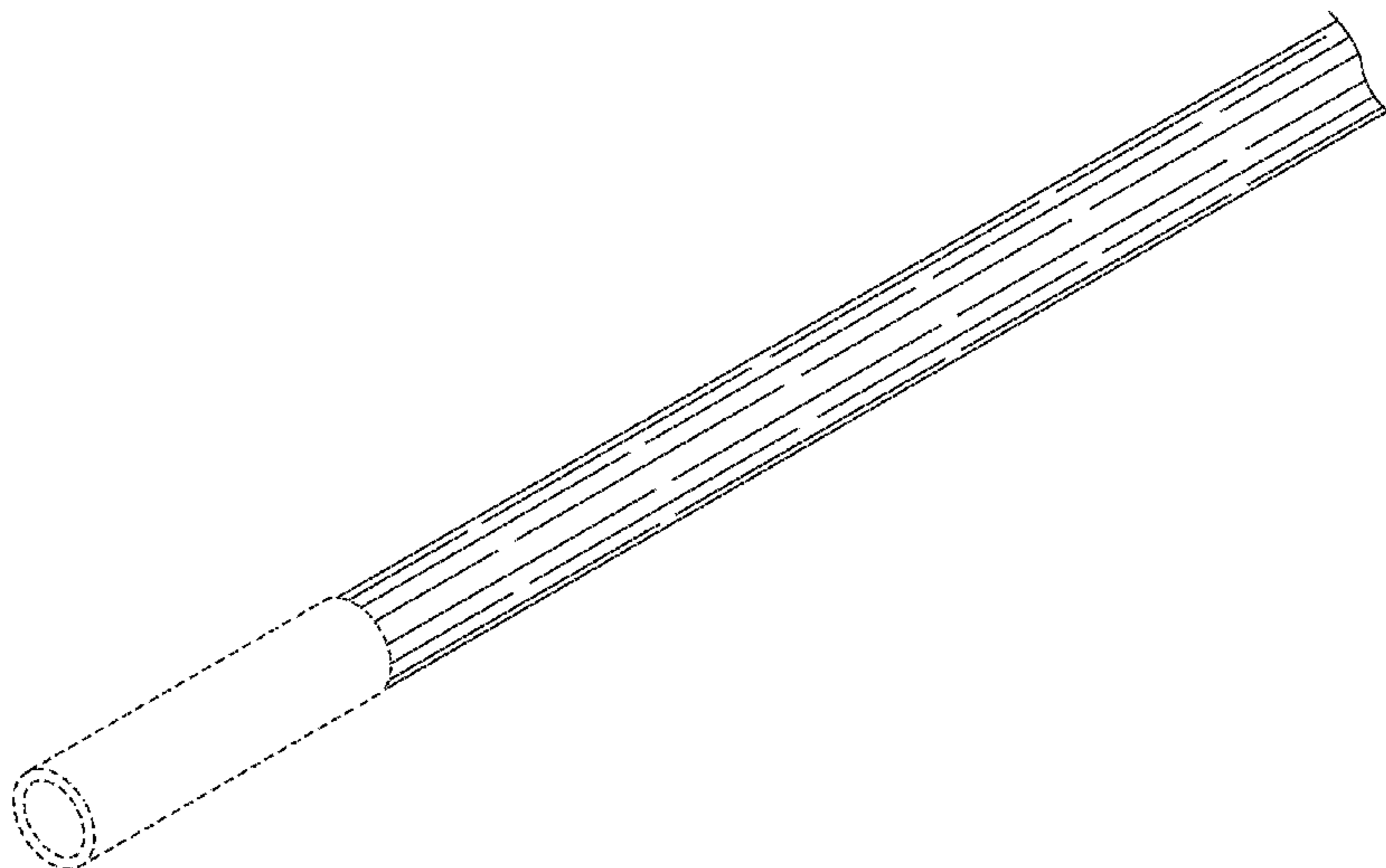
FIG. 11 is a fourth side elevational view of the expandable exoskeleton for a balloon catheter in the expanded state;

FIG. 12 is a distal end view of the expandable exoskeleton for a balloon catheter in the expanded state; and,

FIG. 13 is a proximal end view of the expandable exoskeleton for a balloon catheter in the expanded state.

The broken lines illustrate unclaimed portions and form no part of the claimed design.

1 Claim, 4 Drawing Sheets



US D855,800 S

(58) **Field of Classification Search**

USPC 604/272, 187, 158, 164.01-164.11, 181,
604/184, 227; 600/101, 139, 143;
128/200.24, 207.14, 207.15
CPC A61M 25/00; A61M 39/00; A61M 27/00;
A61M 25/0043; A61M 25/0067; A61M
25/0097; A61M 25/0074; A61F 2/958;
A61F 2/013

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,707,362 A * 1/1998 Yoon A61B 17/3417
604/164.03
5,895,407 A * 4/1999 Jayaraman A61F 2/91
604/104

6,660,021 B1 * 12/2003 Palmer A61B 17/221
606/200
7,097,651 B2 * 8/2006 Harrison A61F 2/01
606/200
7,708,704 B2 * 5/2010 Mitelberg A61M 25/0043
600/585
8,109,962 B2 * 2/2012 Pal A61F 2/013
606/200
8,298,252 B2 * 10/2012 Kroluk A61B 17/221
606/159
8,465,436 B2 * 6/2013 Griswold A61B 5/0031
600/481
8,518,507 B2 * 8/2013 Jimenez A61L 29/126
428/34.5
8,679,057 B2 * 3/2014 Fulton, III A61M 1/367
604/96.01
8,968,380 B2 * 3/2015 Nimgaard A61F 2/95
604/159
2013/0144328 A1 6/2013 Weber et al.

* cited by examiner

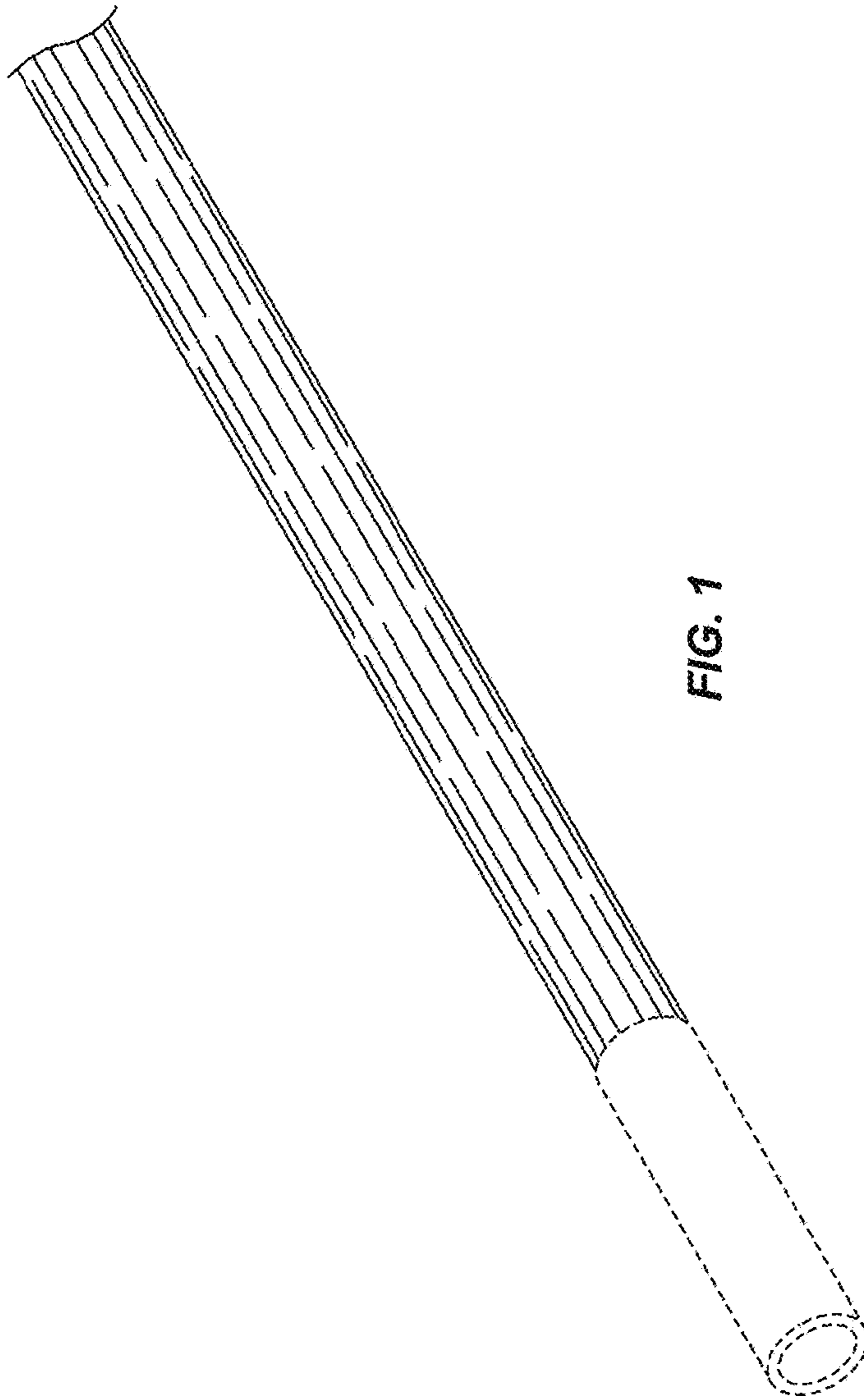


FIG. 1

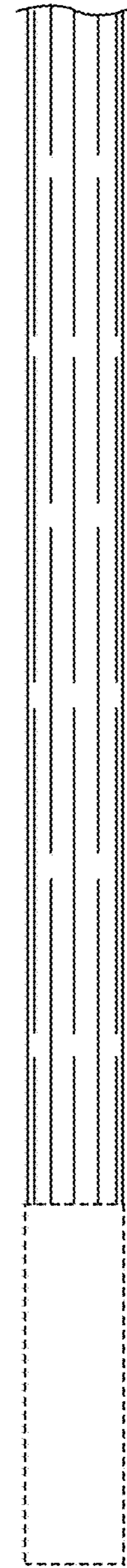


FIG. 2

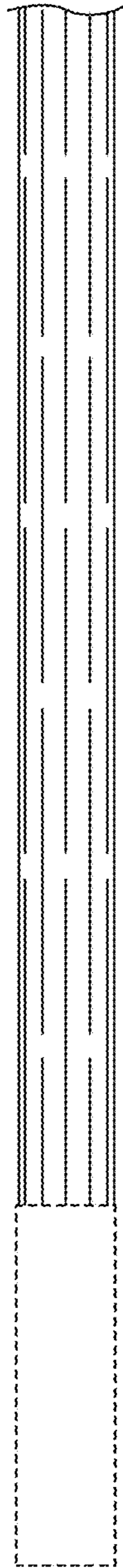


FIG. 3

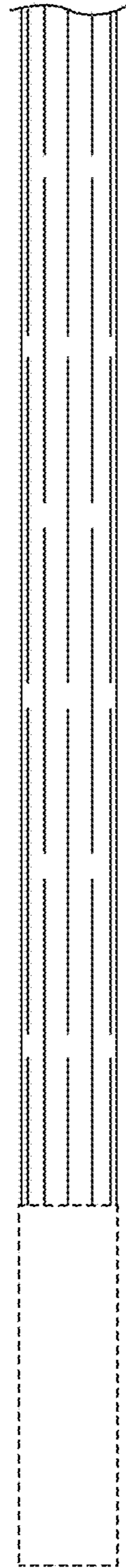


FIG. 4

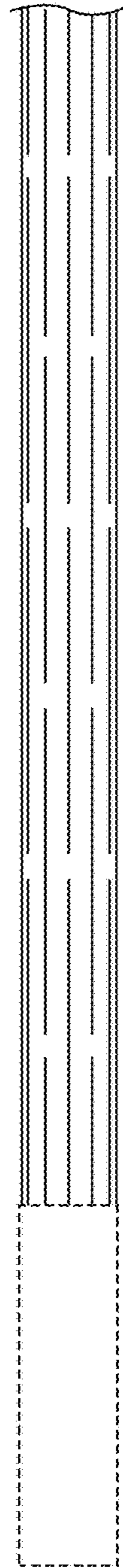


FIG. 5

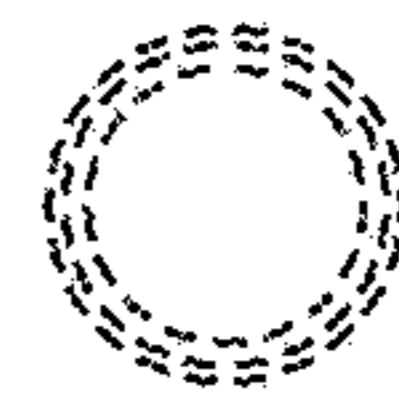


FIG. 6

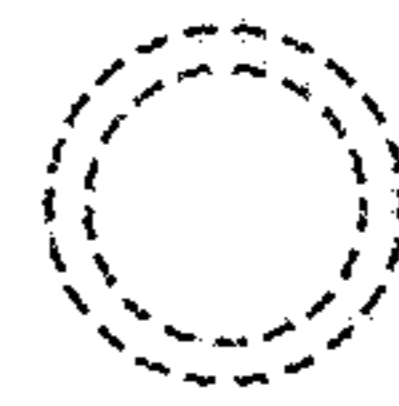


FIG. 7

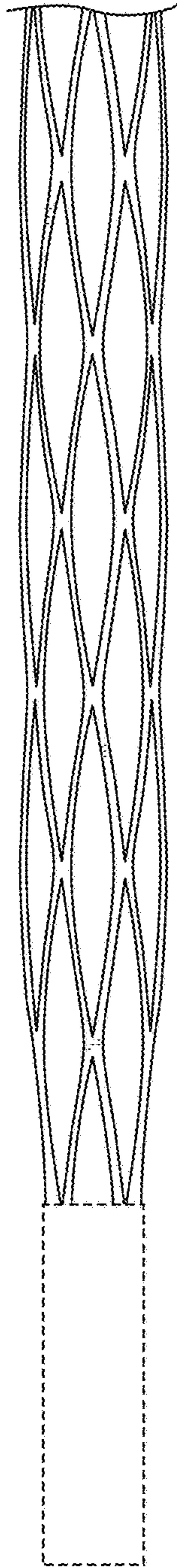


FIG. 8

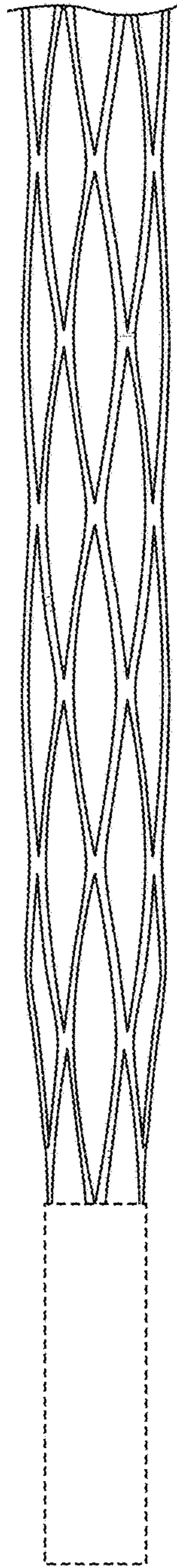


FIG. 9

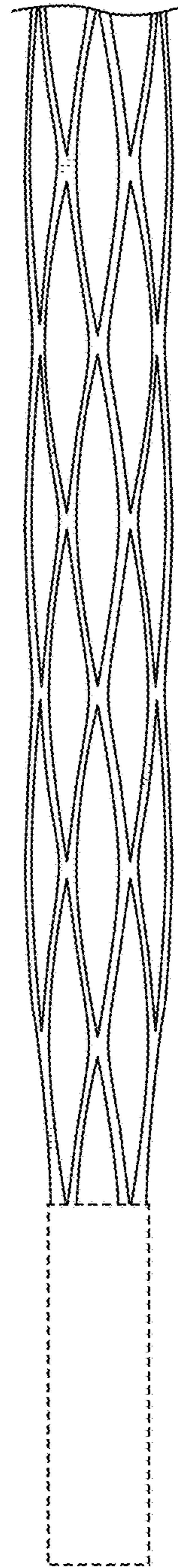


FIG. 10

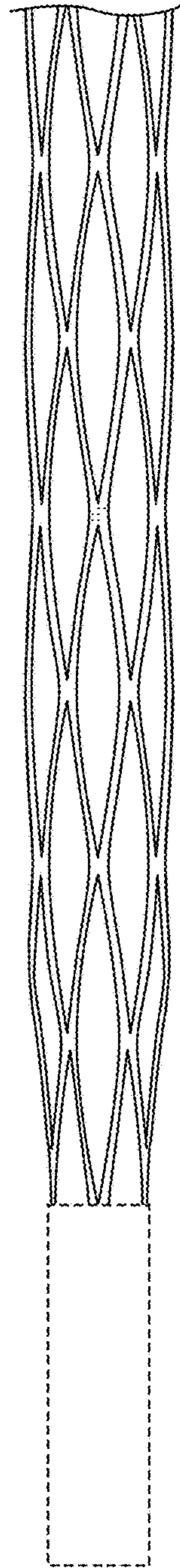


FIG. 11

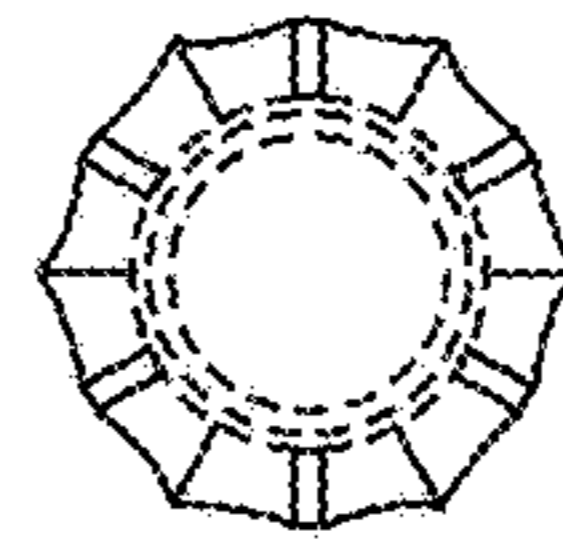


FIG. 12

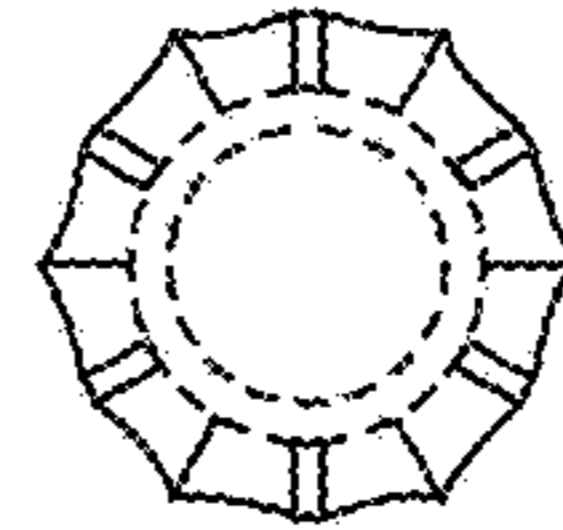


FIG. 13