

US00D867589S

(12) **United States Design Patent** (10) **Patent No.:** **US D867,589 S**  
**Dai** (45) **Date of Patent:** **\*\* Nov. 19, 2019**

- (54) **STEERABLE STRUCTURE FOR ENDOSCOPE**
- (71) Applicant: **PIONEER MEDICAL INSTRUMENT CO., LTD.**, New Taipei (TW)
- (72) Inventor: **Chun-Yi Dai**, New Taipei (TW)
- (73) Assignee: **PIONEER MEDICAL INSTRUMENT CO., LTD.**, New Taipei (TW)
- (\*\*) Term: **15 Years**
- (21) Appl. No.: **29/598,254**
- (22) Filed: **Mar. 23, 2017**
- (51) **LOC (12) Cl.** ..... **24-02**
- (52) **U.S. Cl.**  
USPC ..... **D24/138**
- (58) **Field of Classification Search**  
USPC ..... D24/108, 117, 118, 133, 135, 137, 138, D24/141, 222; 600/108, 114, 153, 549, 600/131, 145-147, 132  
CPC ..... A61B 18/1445; A61B 18/02; A61B 18/14; A61B 2018/147; A61B 1/00; A61B 1/0676; A61B 1/00052  
See application file for complete search history.

- (56) **References Cited**  
U.S. PATENT DOCUMENTS  
4,198,959 A \* 4/1980 Otani ..... A61B 1/00098 600/106  
4,807,593 A \* 2/1989 Ito ..... A61B 1/00154 600/104  
D748,370 S \* 2/2016 Johnson ..... D2/605  
D757,262 S \* 5/2016 Barki ..... D24/138  
D764,054 S \* 8/2016 Frock ..... D24/133  
10,029,079 B2 \* 7/2018 Alexander ..... A61B 1/00016  
2006/0015009 A1 \* 1/2006 Jaffe ..... A61B 1/0008 600/114

- 2006/0015010 A1 \* 1/2006 Jaffe ..... A61B 1/0008 600/114
  - 2007/0043259 A1 \* 2/2007 Jaffe ..... A61B 1/0008 600/114
  - 2009/0204183 A1 \* 8/2009 Kreidler ..... A61N 1/05 607/72
  - 2009/0312606 A1 \* 12/2009 Dayton ..... A61B 1/00071 600/146
  - 2010/0076433 A1 \* 3/2010 Taylor ..... A61B 18/1445 606/52
  - 2014/0221750 A1 \* 8/2014 Weitzner ..... A61B 1/00073 600/114
  - 2016/0038719 A1 \* 2/2016 Asmus ..... A61B 17/3207 600/585
  - 2016/0235274 A1 \* 8/2016 Graham ..... A61B 1/0011
  - 2017/0086652 A1 \* 3/2017 Nakade ..... G02B 23/24
  - 2017/0143189 A1 \* 5/2017 Frey ..... A61B 1/00135
- (Continued)

*Primary Examiner* — Ian Simmons  
*Assistant Examiner* — Yolanda Robinson  
 (74) *Attorney, Agent, or Firm* — Fei-hung Yang

(57) **CLAIM**

The ornamental design for a steerable structure for endoscope, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of a steerable structure for endoscope showing our new design; FIG. 2 is a front elevational view thereof; FIG. 3 is a rear elevational view thereof; FIG. 4 is a left side view thereof; FIG. 5 is a right side view thereof; FIG. 6 is a top plan view thereof; and FIG. 7 is a bottom plan view thereof; and, FIG. 8 is another perspective view thereof. The break included along the length of the steerable structure for endoscope as seen in FIGS. 1-5 of the drawing disclosure is for ease of illustration.

**1 Claim, 5 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

2017/0224192 A1\* 8/2017 Seto ..... A61B 1/00  
2017/0251910 A1\* 9/2017 Surti ..... A61B 1/00098  
2017/0311780 A1\* 11/2017 Weitzner ..... A61B 1/00073  
2017/0319047 A1\* 11/2017 Poulsen ..... A61B 1/0008  
2018/0008125 A1\* 1/2018 Pistor ..... A61B 1/0055  
2018/0325357 A1\* 11/2018 Boulais ..... A61B 1/00103  
2018/0368664 A1\* 12/2018 Nagda ..... A61B 1/00133  
2019/0059700 A1\* 2/2019 Matsuda ..... A61B 1/0052  
2019/0060612 A1\* 2/2019 Besselink ..... A61M 25/0053  
2019/0069878 A1\* 3/2019 Irie ..... A61B 1/0057  
2019/0082935 A1\* 3/2019 Kitanaka ..... A61B 1/0055

\* cited by examiner

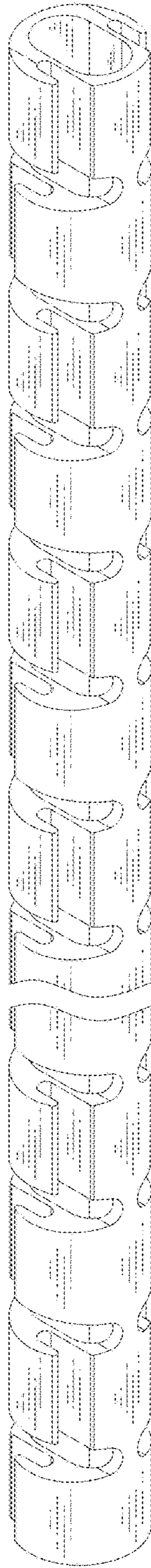


Fig. 1

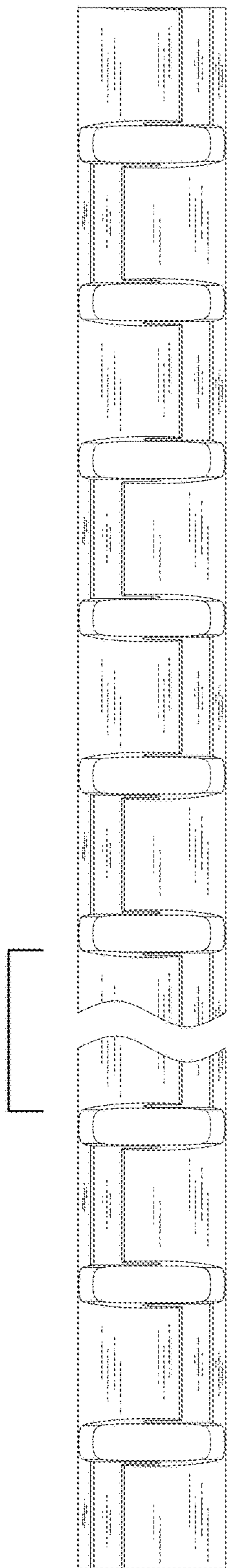


Fig. 2

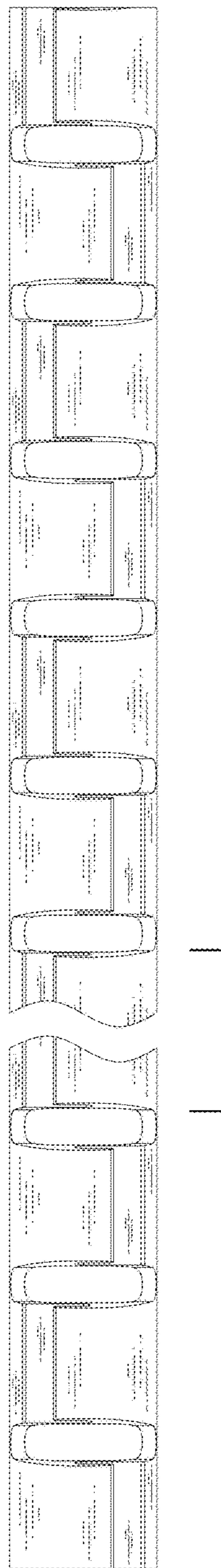


Fig. 3

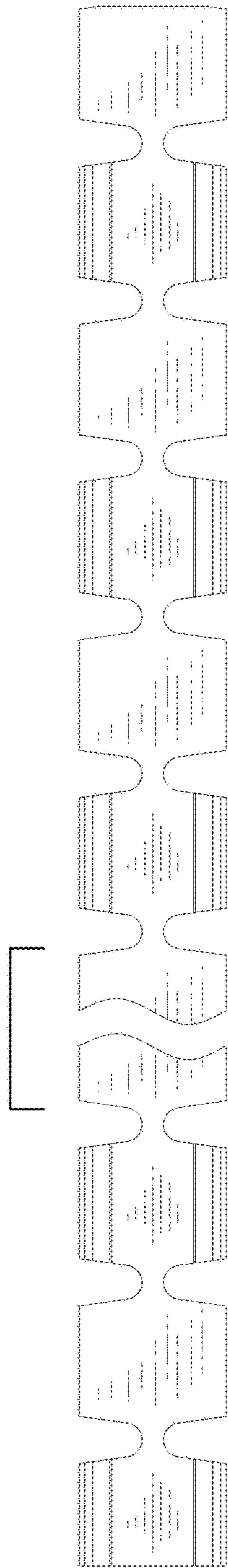


Fig. 4

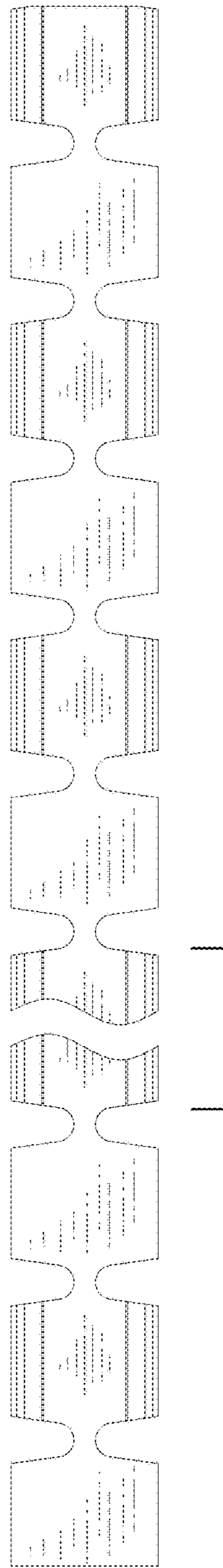


Fig. 5

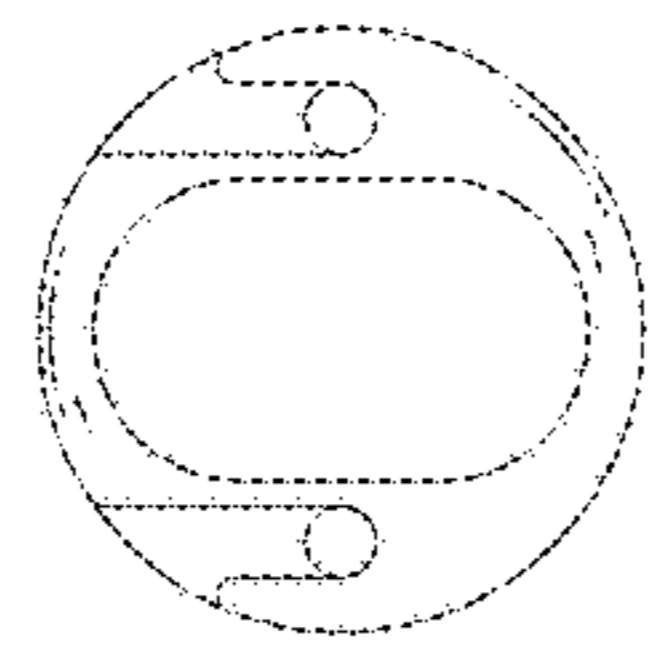


Fig. 6

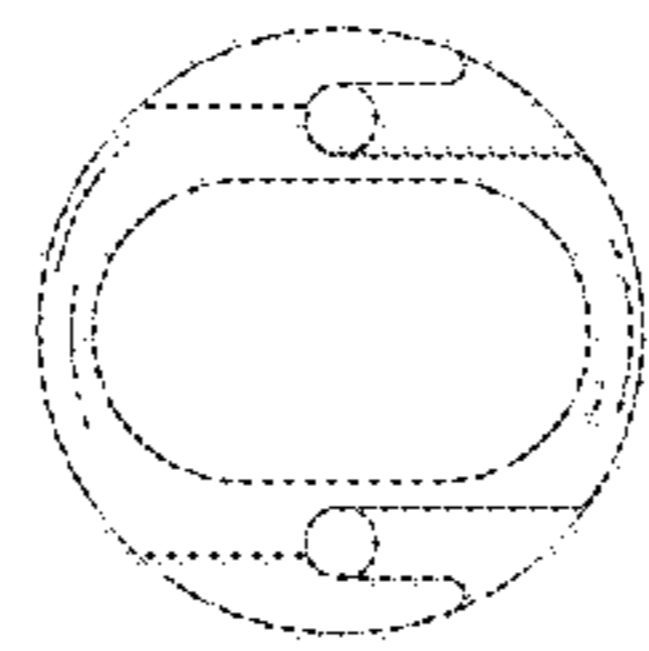


Fig. 7

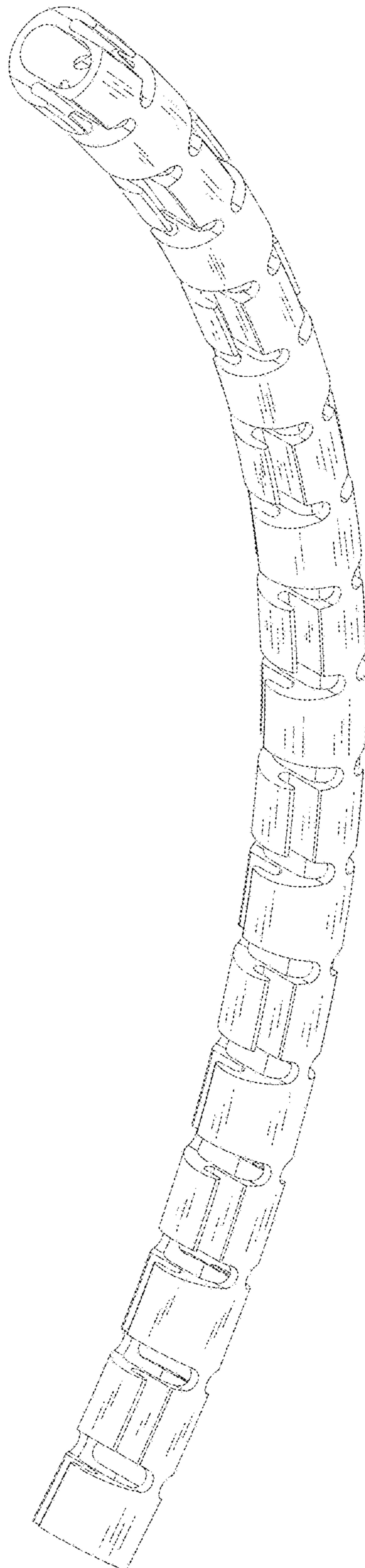


Fig. 8