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(12) **United States Design Patent** (10) **Patent No.:** **US D875,688 S**  
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- (54) **DIFFERENTIAL SIGNAL TERMINAL WITH AN OPENING**
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- (51) **LOC (12) Cl.** ..... **13-03**
- (52) **U.S. Cl.**  
USPC ..... **D13/154**
- (58) **Field of Classification Search**  
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D13/149, 151, 154, 173, 184, 199  
CPC ..... H01R 4/66; H01R 12/00; H01R 12/72;  
H01R 13/11; H01R 13/20; H01R 13/112;  
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See application file for complete search history.

(56) **References Cited**  
U.S. PATENT DOCUMENTS

- 5,702,257 A \* 12/1997 Millhimes ..... H01R 43/20  
439/79
- 6,123,586 A \* 9/2000 MacDougall ..... H01R 13/506  
439/701
- 6,224,432 B1 \* 5/2001 Billman ..... H01R 13/112  
439/856

- 6,375,478 B1 \* 4/2002 Kikuchi ..... H01R 12/727  
439/595
- D501,558 S \* 2/2005 Chastain ..... D24/187
- D504,665 S \* 5/2005 Lai ..... D13/154
- D516,524 S \* 3/2006 Su ..... D13/154
- 7,789,708 B2 \* 9/2010 Laurx ..... H01R 13/514  
439/108
- 7,824,187 B1 \* 11/2010 Yi ..... H01R 13/514  
439/65
- D665,361 S \* 8/2012 Koyama ..... D13/154
- D731,983 S \* 6/2015 Teranishi ..... D13/154
- 9,331,407 B2 \* 5/2016 Laurx ..... H01R 13/6587
- 9,787,029 B1 \* 10/2017 Chen ..... H01R 13/28
- 9,825,392 B1 \* 11/2017 Chen ..... H01R 12/737
- 9,843,119 B1 \* 12/2017 Chen ..... H01R 13/112
- 9,893,471 B1 \* 2/2018 Chen ..... H01R 12/737
- 10,186,810 B2 \* 1/2019 Morgan ..... H01R 13/6587
- D852,756 S \* 7/2019 Huang ..... D13/154
- D853,335 S \* 7/2019 Huang ..... D13/154
- 2009/0311908 A1 \* 12/2009 Fogg ..... H01R 13/6587  
439/607.05

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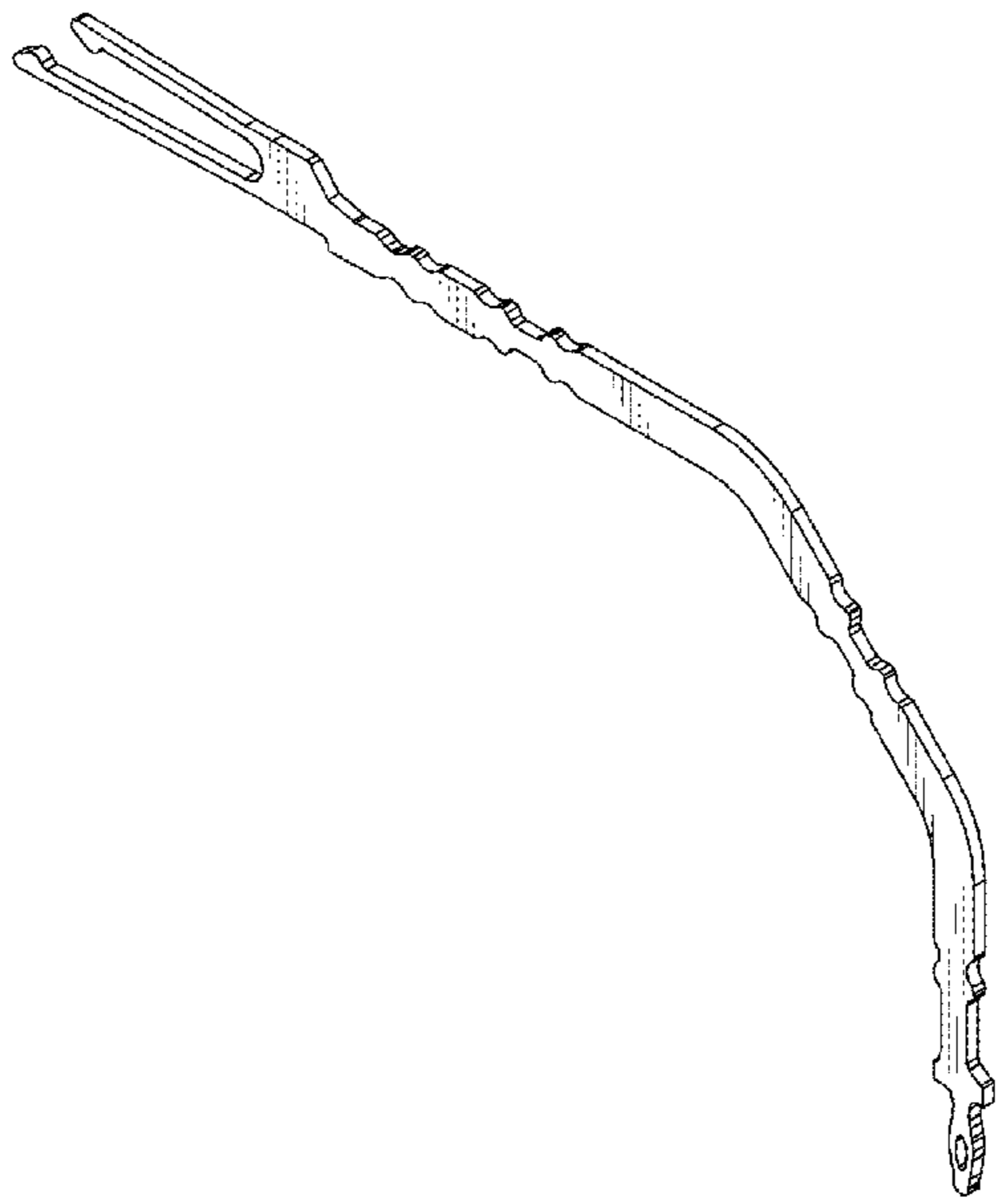
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(57) **CLAIM**  
The ornamental design for a differential signal terminal with an opening, as shown and described.

**DESCRIPTION**

FIG. 1 is a front, top, and right side perspective view of a differential signal terminal with an opening, which shows my new design;  
FIG. 2 is a front view thereof;  
FIG. 3 is a back 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.

**1 Claim, 5 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

2010/0015822 A1\* 1/2010 Morgan ..... H01R 13/514  
439/83  
2015/0303618 A1\* 10/2015 Lee ..... H01R 13/506  
439/607.05  
2016/0181713 A1\* 6/2016 Pelozza ..... H01R 12/724  
439/630  
2019/0207336 A1\* 7/2019 Chen ..... H01R 13/631  
2019/0207337 A1\* 7/2019 Chen ..... H01R 13/20

\* cited by examiner

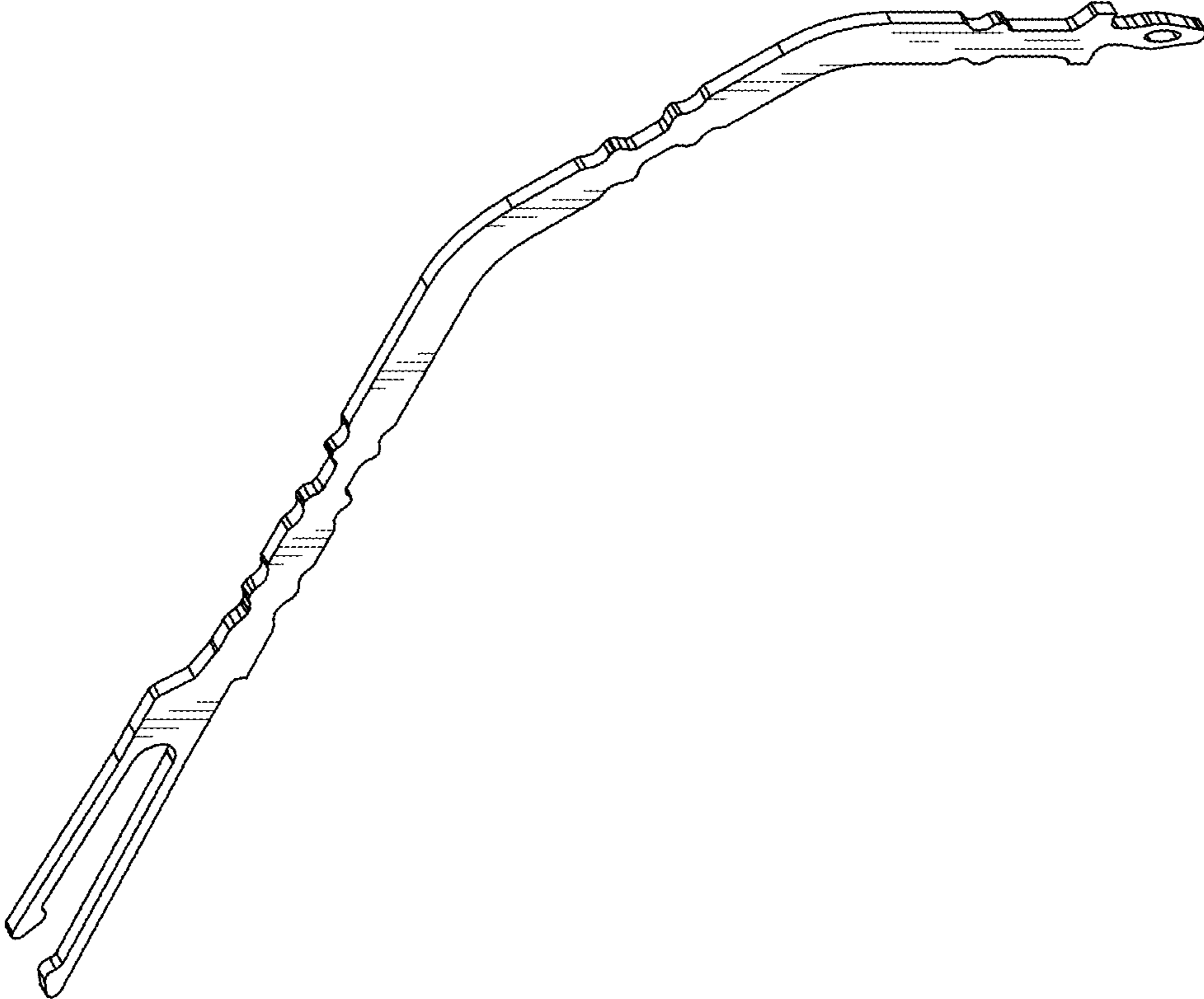


FIG. 1

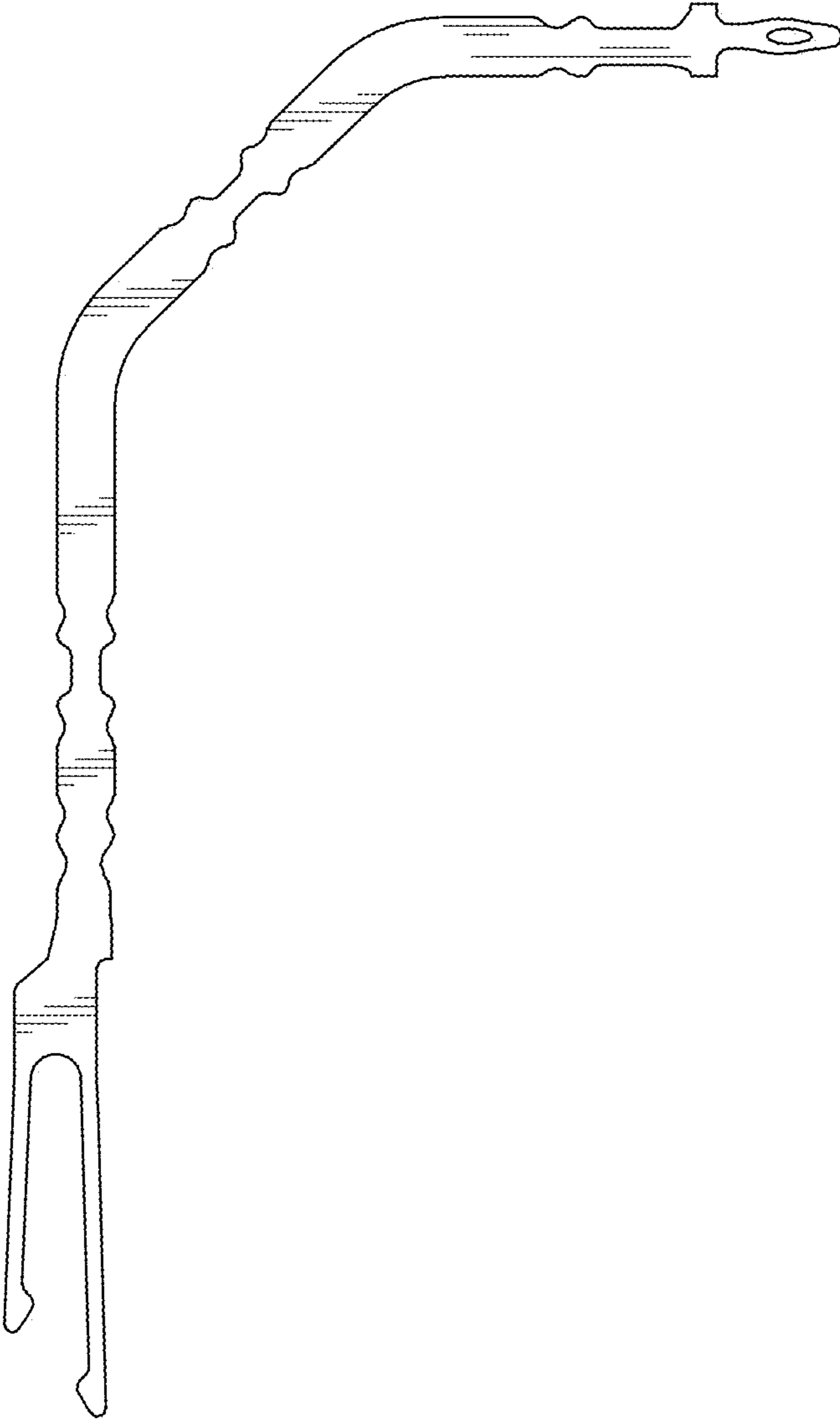


FIG. 2

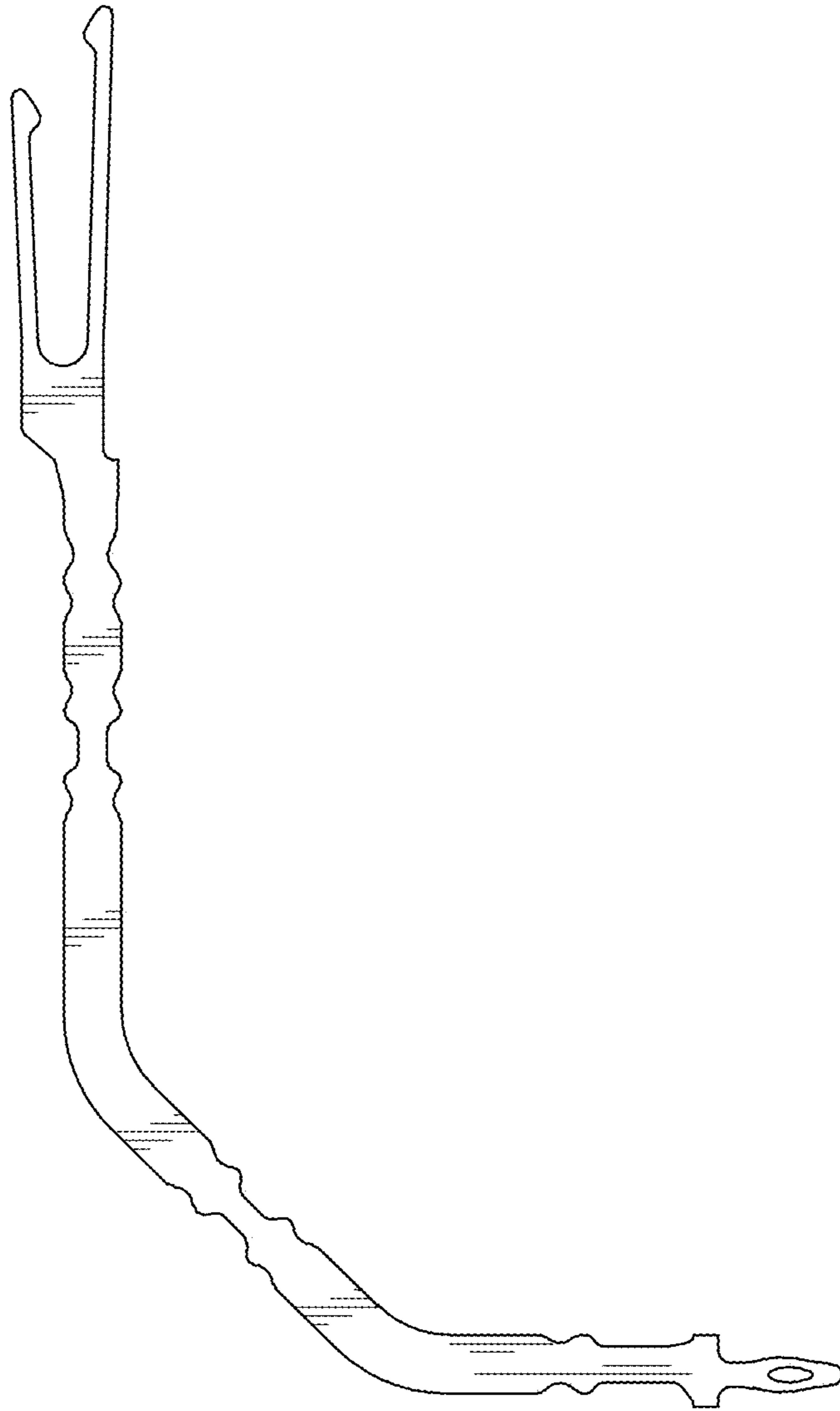


FIG. 3

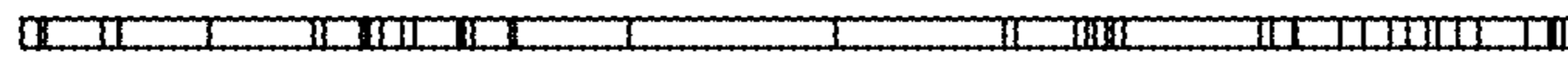


FIG. 5

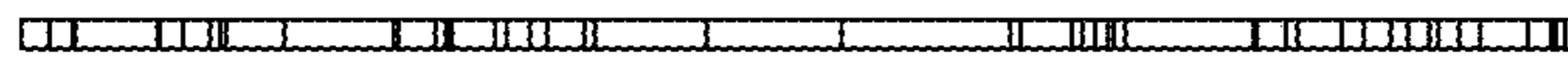


FIG. 4



FIG. 6



FIG. 7