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

(10) **Patent No.:** **US D943,650 S**
(45) **Date of Patent:** **** Feb. 15, 2022**

- (54) **AUGER DRILL BIT**
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- (72) Inventor: **Xinwei Li**, Suzhou (CN)
- (**) Term: **15 Years**
- (21) Appl. No.: **29/769,426**
- (22) Filed: **Feb. 5, 2021**
- (51) **LOC (13) Cl.** **15-09**
- (52) **U.S. Cl.**
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- (58) **Field of Classification Search**
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CPC B23B 2251/60; B23B 2251/408; B27G
15/00; Y10T 408/901
See application file for complete search history.

- 5,133,269 A * 7/1992 Charneski A01C 5/02
111/116
- 5,358,209 A * 10/1994 Ward E04H 12/2223
248/530
- 5,408,788 A * 4/1995 Hamilton E02D 5/801
405/253
- 5,507,354 A * 4/1996 Harleman E21B 19/087
173/185
- 5,575,122 A * 11/1996 Hamilton E02D 5/801
405/253
- 5,607,261 A * 3/1997 Odom E02D 5/801
405/244
- 5,718,153 A * 2/1998 Borden B67B 7/0405
81/3.33
- 5,794,727 A * 8/1998 Murray E21B 10/44
175/313
- D398,363 S * 9/1998 LoBue D21/840
- 5,820,319 A * 10/1998 Hull B27G 15/00
408/214

(Continued)

FOREIGN PATENT DOCUMENTS

- EP 0856387 A2 * 8/1998 B27G 15/00

Primary Examiner — Patricia A Palasik

(56) **References Cited**

U.S. PATENT DOCUMENTS

- 1,283,246 A * 10/1918 Maloney E02D 5/801
52/157
- 2,504,978 A * 4/1950 Henning E21B 10/44
175/383
- 3,207,242 A * 9/1965 Miller E21B 10/44
175/394
- 4,625,593 A * 12/1986 Schmotzer B27G 15/00
408/211
- D294,584 S * 3/1988 Pedersen D15/89
- 4,746,384 A * 5/1988 Tan B29C 45/14467
156/244.22
- 4,901,800 A * 2/1990 Wilson A01C 5/04
111/116
- 4,976,341 A * 12/1990 Lundell B65G 33/265
198/666
- 4,986,368 A * 1/1991 Underwood A01C 5/02
111/14
- D325,033 S * 3/1992 Witherspoon D15/21
- 5,113,952 A * 5/1992 Niewold E21B 10/44
175/385

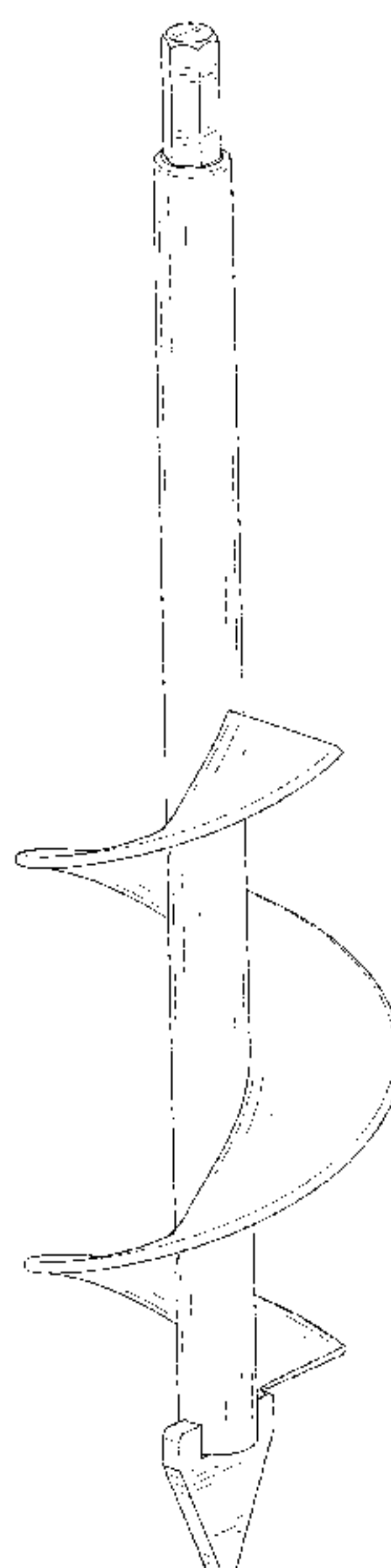
(57) **CLAIM**

The ornamental design for an auger drill bit, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of an auger drill bit showing my new design;
FIG. 2 is another perspective view thereof;
FIG. 3 is a front elevational view thereof;
FIG. 4 is a rear elevational view thereof;
FIG. 5 is a left side elevational view thereof;
FIG. 6 is a right side elevational view thereof;
FIG. 7 is a top plan view thereof; and,
FIG. 8 is a bottom plan view thereof.

1 Claim, 8 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

5,899,319 A * 5/1999 Jarnagin B65G 33/32
198/666
6,024,520 A * 2/2000 Haughton B27G 15/00
408/199
D421,532 S * 3/2000 Koroncai D8/388
6,032,880 A * 3/2000 Verrills E04H 12/2223
248/156
6,168,101 B1 * 1/2001 Xie B02C 18/302
241/260.1
6,296,068 B1 * 10/2001 Frederick A01C 5/04
111/116
6,412,235 B1 * 7/2002 Pylant E02D 5/801
175/323
D475,372 S * 6/2003 Dulkoski D15/21
6,817,810 B2 * 11/2004 Jones E02D 5/523
405/230
6,955,227 B1 * 10/2005 Motosko A01B 1/065
172/25
D518,286 S * 4/2006 Santos D3/17
D546,167 S * 7/2007 Noethe D8/1
D629,431 S * 12/2010 Vincent D15/139
D741,924 S 10/2015 Lee
D798,923 S * 10/2017 Homola D15/139
D854,921 S * 7/2019 Fisher D8/387
D859,483 S * 9/2019 Zimmermann D15/139
10,744,671 B2 * 8/2020 Zimmermann B27G 15/00
D932,834 S * 10/2021 Wollam D7/412
2004/0154814 A1 * 8/2004 Brennan H01R 4/66
174/6
2019/0375028 A1 * 12/2019 Kulig B27G 15/00

* cited by examiner

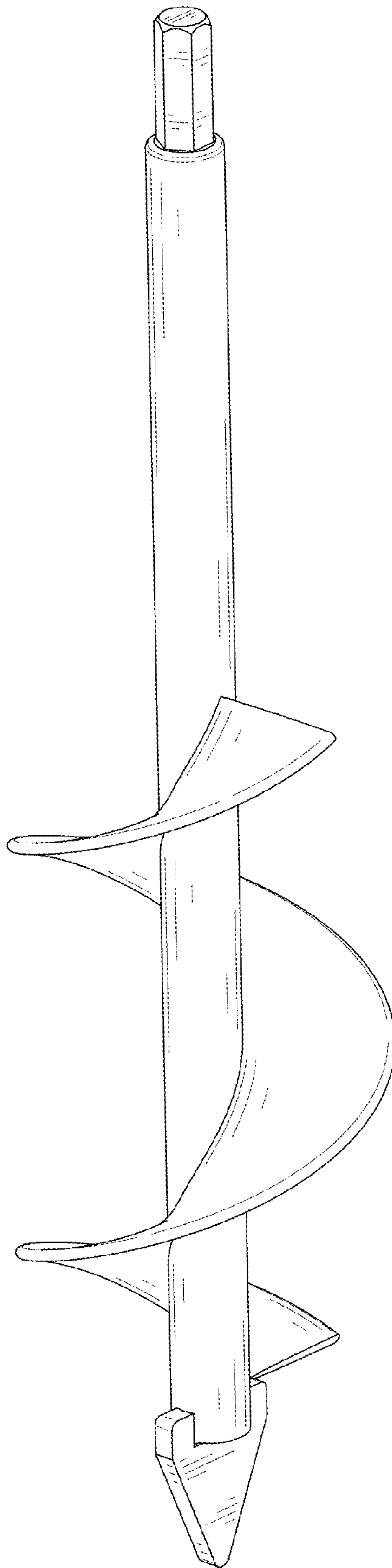


FIG. 1

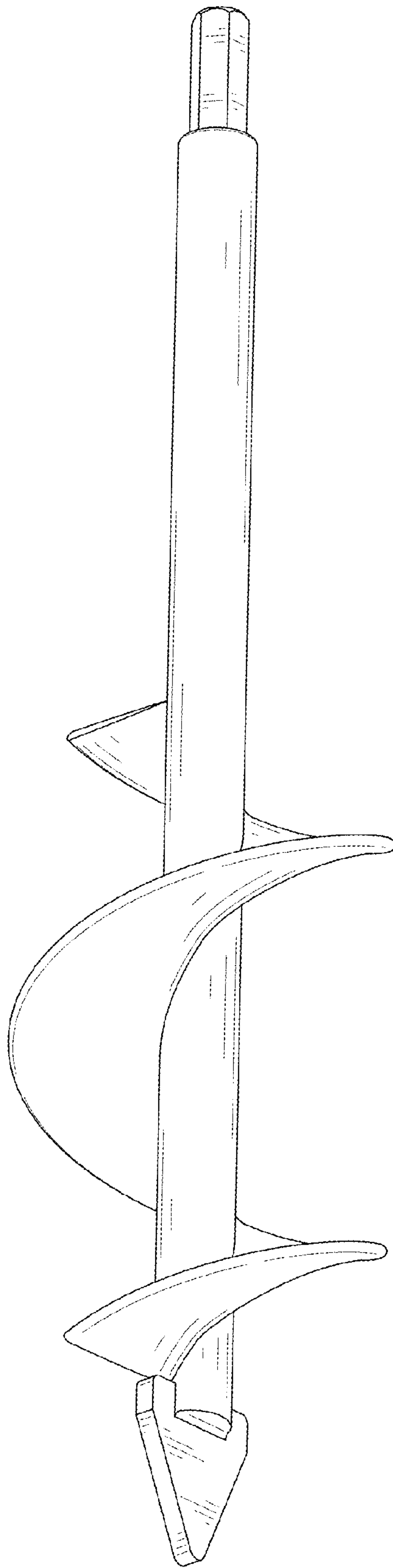


FIG. 2

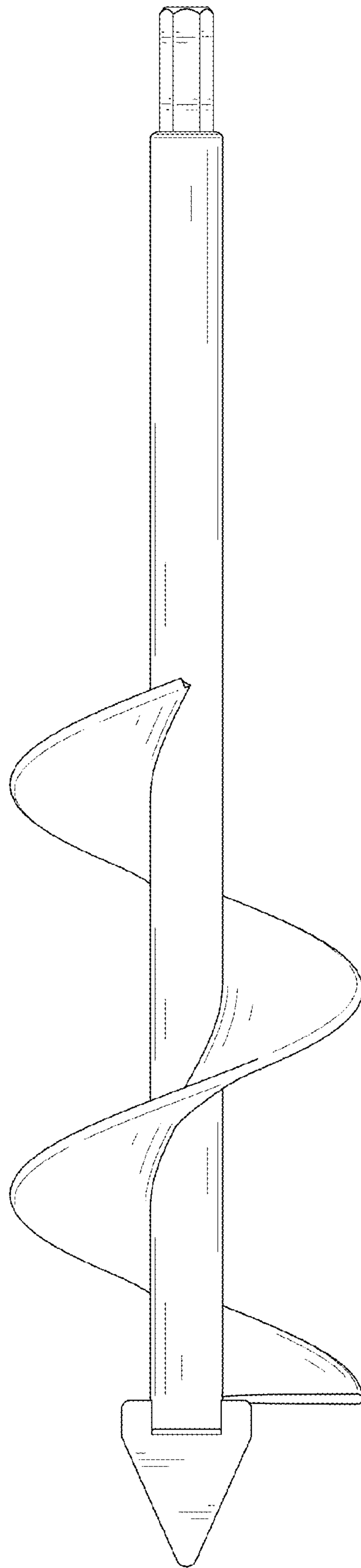


FIG. 3

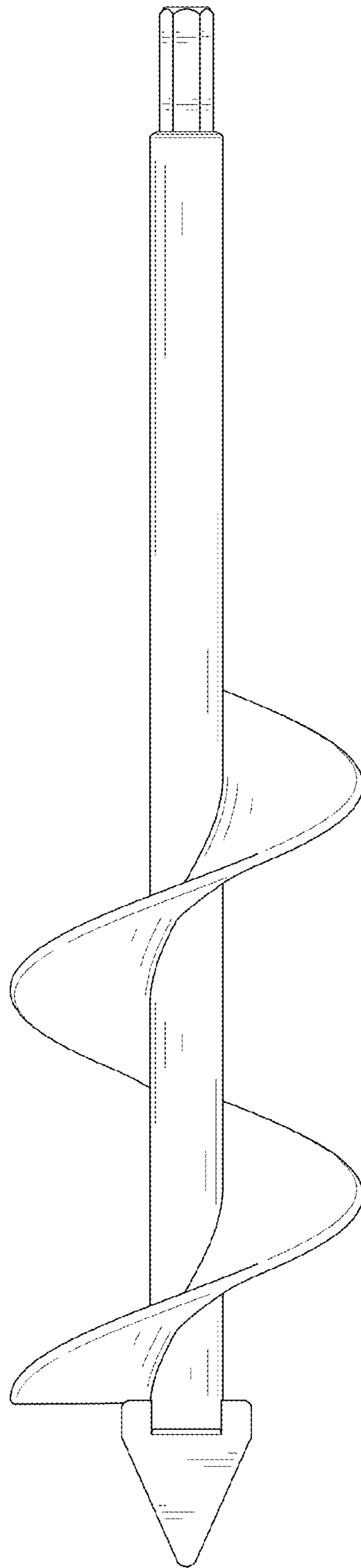


FIG. 4

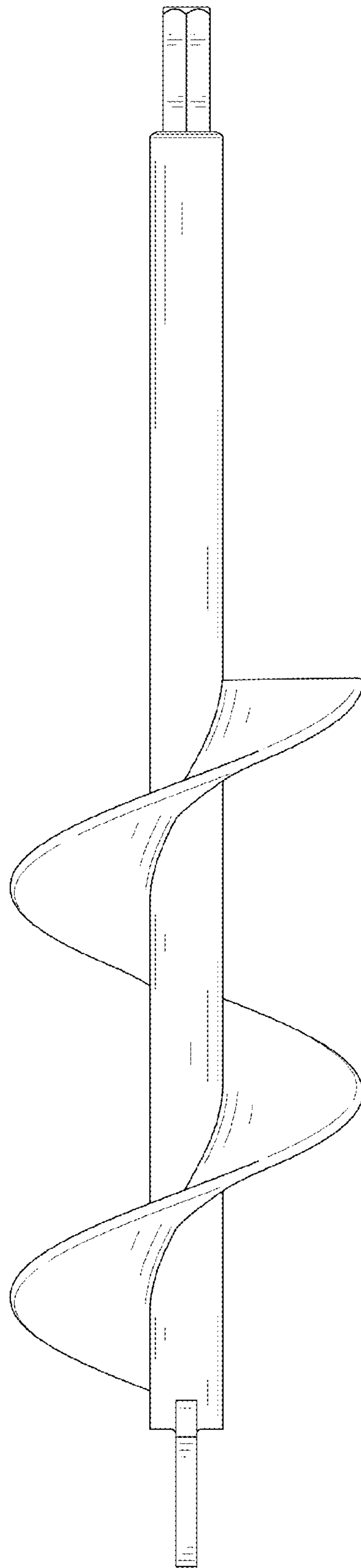


FIG. 5

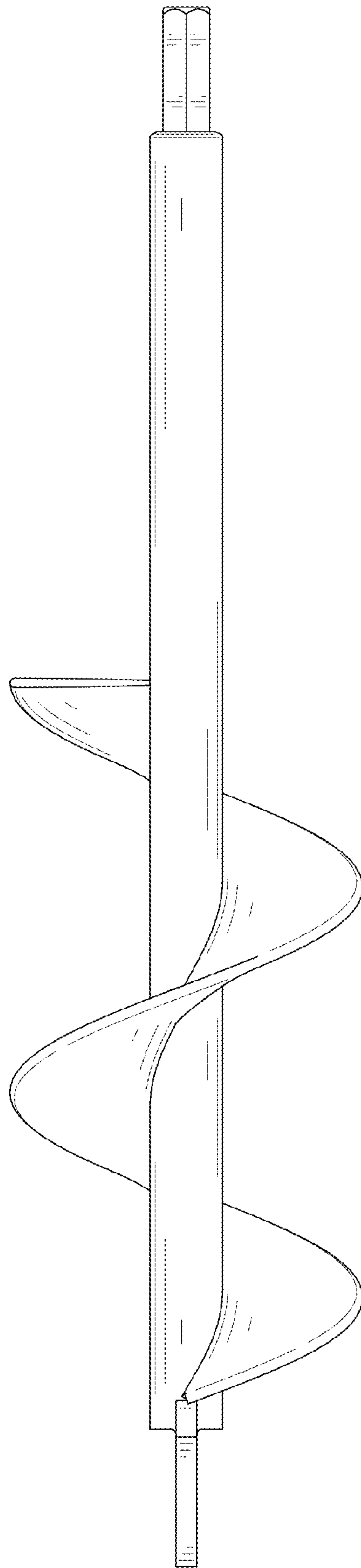


FIG. 6

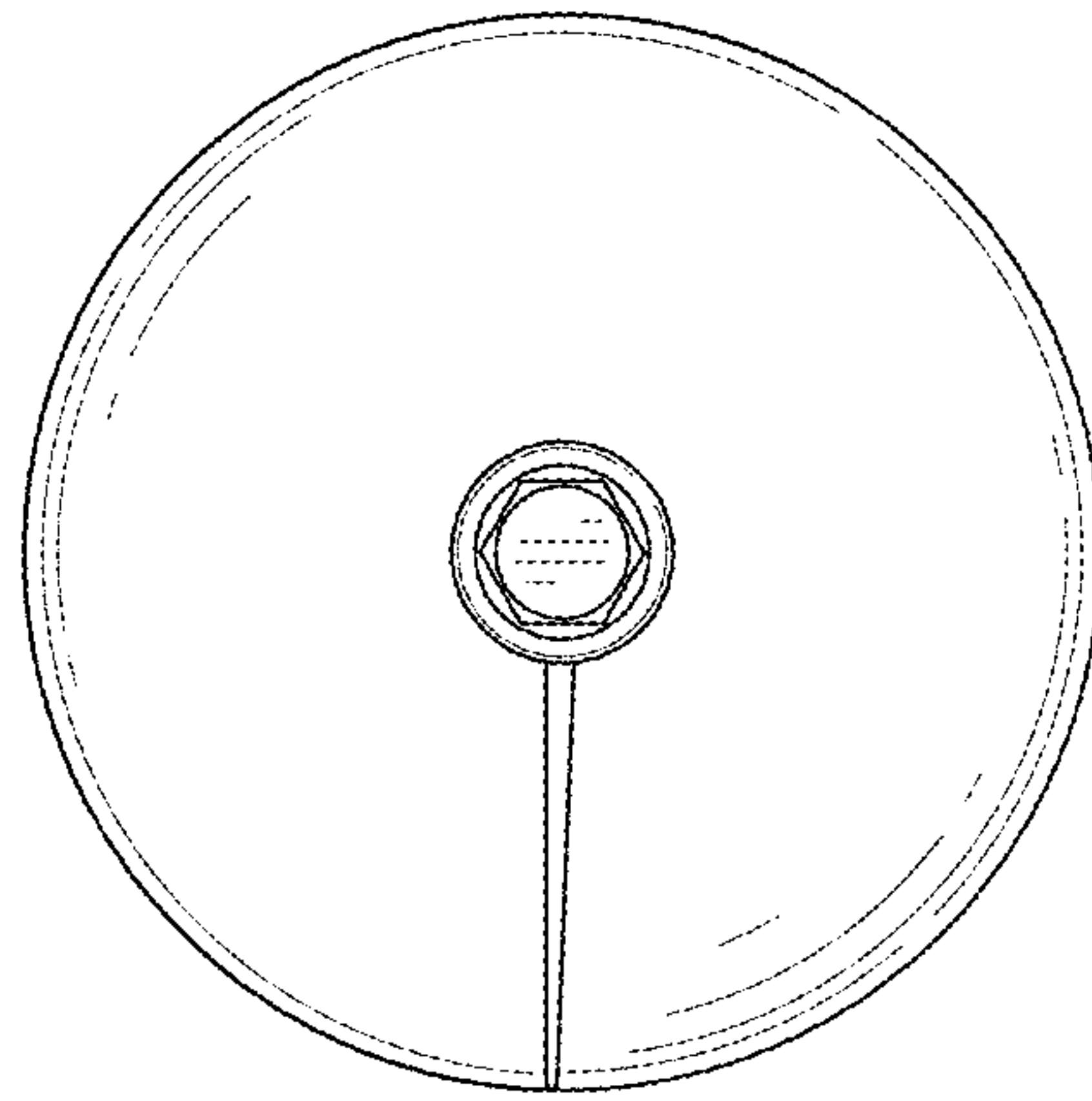


FIG. 7

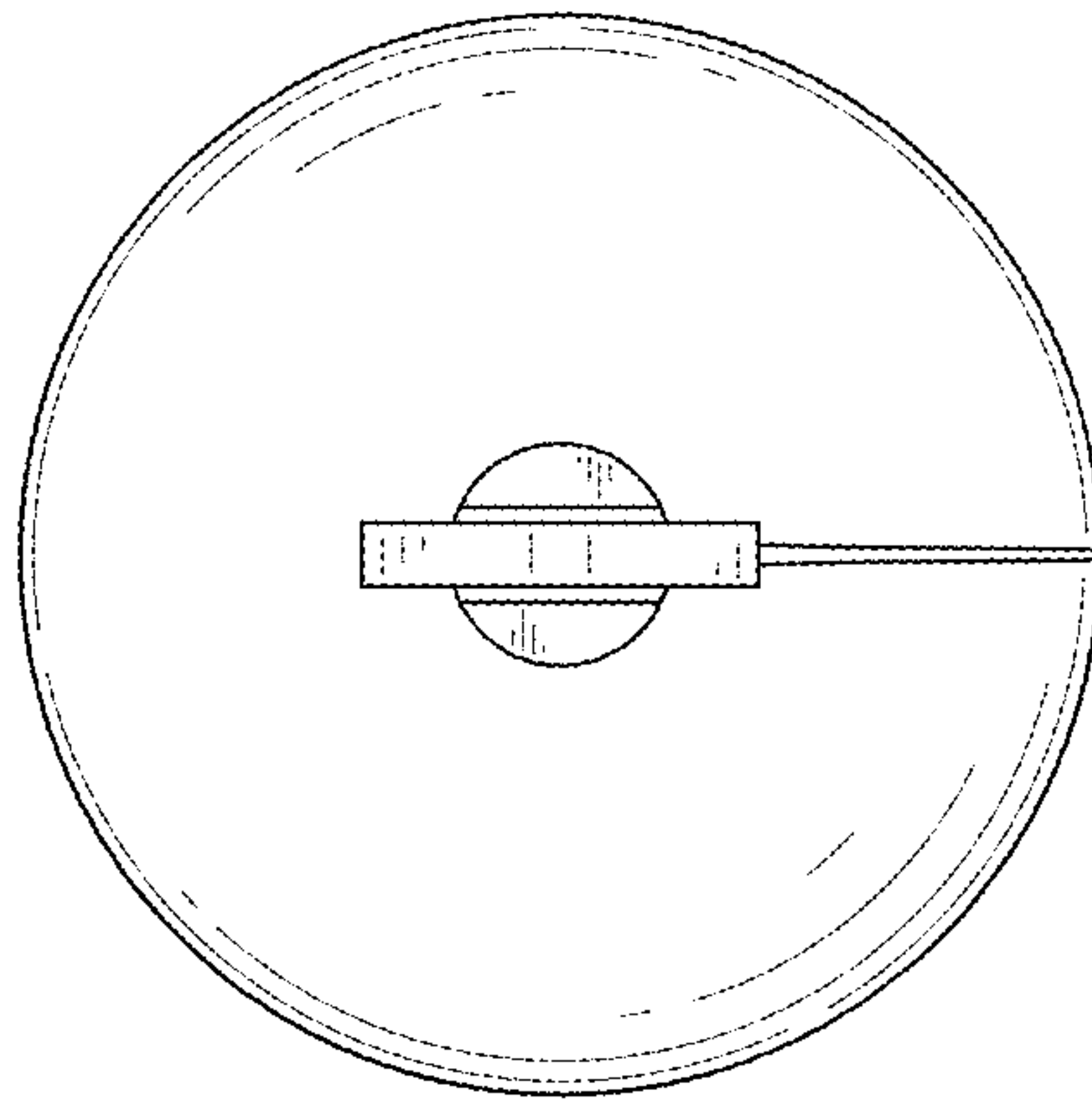


FIG. 8