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(12) **United States Design Patent** (10) **Patent No.:** **US D852,736 S**
Goodman et al. (45) **Date of Patent:** **** Jul. 2, 2019**

- (54) **SUPPORT MEMBER ENDS FOR SOLAR PANEL TRUSS MOUNTING SYSTEMS**
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- (72) Inventors: **Joseph Neal Goodman**, Snowmass, CO (US); **Tristan Farris Al-Haddad**, Clarkson, GA (US)
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- (**) Term: **15 Years**
- (21) Appl. No.: **29/615,474**
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Related U.S. Application Data

- (60) Continuation of application No. 15/069,326, filed on Mar. 14, 2016, now Pat. No. 9,882,524, which is a division of application No. 14/849,835, filed on Sep. 10, 2015, now Pat. No. 9,379,660, which is a division of application No. 14/043,793, filed on Oct. 1, 2013, now Pat. No. 9,163,861.
- (51) **LOC (11) Cl.** **13-02**
- (52) **U.S. Cl.**
USPC **D13/102**
- (58) **Field of Classification Search**
USPC D13/102, 103, 104, 105, 106, 107, 108, D13/109, 118, 119, 120, 184, 199
CPC H01L 31/00; H01L 31/02; H01L 31/042; H01L 31/045; H01L 31/046; H01L 31/048; H01L 31/05; H01L 31/052; H01L 31/0525; H02S 30/00; H02S 20/10; H02S 20/23; H02S 20/30; H02S 40/34; H02S 40/44; F24J 2/52; F03G 6/00
See application file for complete search history.

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

2,911,686 A	11/1959	Wukasch
3,940,771 A	2/1976	Wild
4,007,563 A	2/1977	Nakagawa
4,421,943 A	12/1983	Withjack
4,445,303 A	5/1984	Judkins
5,228,924 A	7/1993	Barker et al.
5,428,936 A	7/1995	Roth
5,890,332 A	4/1999	Skidmore et al.
6,367,205 B2	4/2002	Cornett
7,985,041 B2	7/2011	Lin
8,188,414 B2	5/2012	Linke
8,201,381 B2	6/2012	Heath
8,534,007 B2	9/2013	Almy et al.
8,667,633 B2	3/2014	De La Chevrotiere
8,684,190 B2	4/2014	Abar
8,776,781 B2	7/2014	Meydbray
8,887,470 B2	11/2014	Werner et al.
8,936,164 B2	1/2015	Durney et al.
D739,819 S	9/2015	Hannum

(Continued)

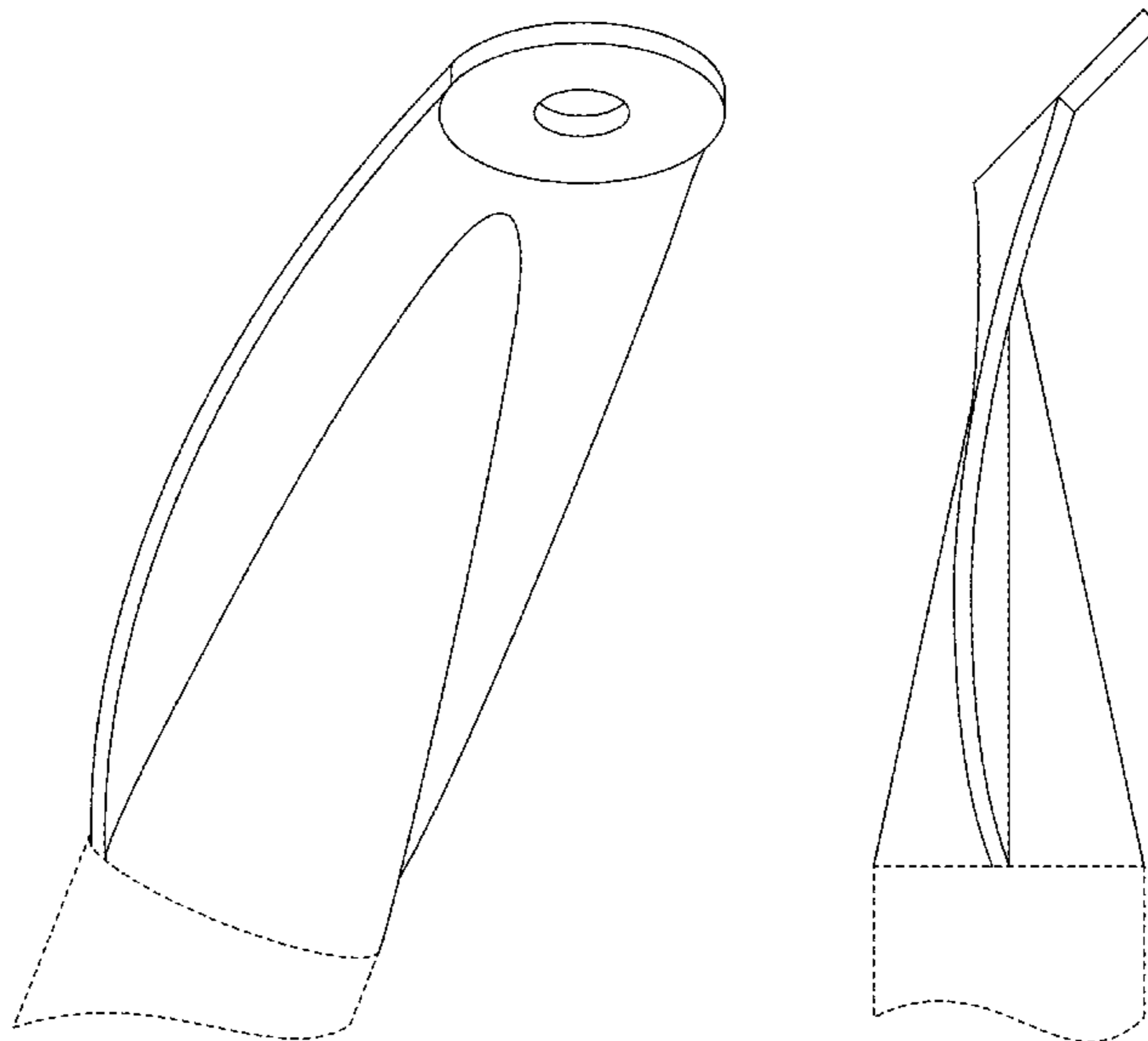
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(57) **CLAIM**
The ornamental design for the supported member ends for solar panel truss mounting systems, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a support member ends for solar panel truss mounting systems, showing our new design;
FIG. 2 is a front elevation view thereof;
FIG. 3 is a back elevation view thereof;
FIG. 4 is a right-side elevation view thereof; and,
FIG. 5 is a left-side view elevation view thereof.

1 Claim, 5 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

9,163,861 B2 *	10/2015	Al-Haddad	.....	H02S 20/30	2012/0091077 A1	4/2012	Zuritis
D743,881 S *	11/2015	Au	.....	D13/102	2012/0131916 A1	5/2012	Reynolds
9,806,470 B2 *	10/2017	Okamoto	.....	H01R 13/68	2012/0145228 A1	6/2012	Miros et al.
9,954,127 B1 *	4/2018	Au	.....	H01L 31/0422	2012/0217209 A1	8/2012	Marcotte et al.
2004/0144055 A1	7/2004	Lewis			2012/0223033 A1	9/2012	Molek
2005/0066609 A1	3/2005	Olah			2012/0267328 A1	10/2012	McPheeters
2005/0086893 A1	4/2005	Moody et al.			2013/0009025 A1	1/2013	Stearns et al.
2006/0032178 A1	2/2006	Jensen			2013/0020267 A1	1/2013	Plaisted et al.
2006/0053726 A1	3/2006	Reynolds et al.			2013/0048583 A1	2/2013	Kruse
2007/0011983 A1	1/2007	Reynolds et al.			2013/0167907 A1	7/2013	Bitarchas et al.
2007/0044415 A1	3/2007	Merrifield et al.			2013/0200016 A1	8/2013	Lewenz et al.
2007/0113511 A1	5/2007	Greiner			2013/0206712 A1	8/2013	Magalhaes et al.
2007/0261355 A1	11/2007	Carlisle et al.			2013/0334152 A1	12/2013	Thurner et al.
2010/0077679 A1	4/2010	Sagayama			2014/0069483 A1	3/2014	Wolter et al.
2010/0132769 A1	6/2010	Potter et al.			2014/0102996 A1	4/2014	Pelman
2010/0237028 A1	9/2010	Cusson			2014/0124018 A1	5/2014	Goodman et al.
2010/0237029 A1	9/2010	Cusson et al.			2014/0224751 A1	8/2014	Sawaki
2011/0024582 A1	2/2011	Gies et al.			2014/0284292 A1	9/2014	Pantel
2011/0174748 A1	7/2011	Civit Vidal			2014/0294493 A1	10/2014	Cavieres et al.
2011/0194900 A1	8/2011	French			2014/0305887 A1	10/2014	Zuritis
2011/0220596 A1	9/2011	Cusson et al.			2014/0332059 A1	11/2014	Shea et al.
2011/0252724 A1	10/2011	Heisler			2015/0027970 A1	1/2015	Werner et al.
2012/0036717 A1	2/2012	Belikoff et al.			2015/0034575 A1	2/2015	Warpup et al.
2012/0061337 A1	3/2012	Seery et al.			2015/0101996 A1	4/2015	Nayar
					2015/0101997 A1	4/2015	Liu et al.
					2015/0109695 A1	4/2015	Blumenthal et al.

* cited by examiner

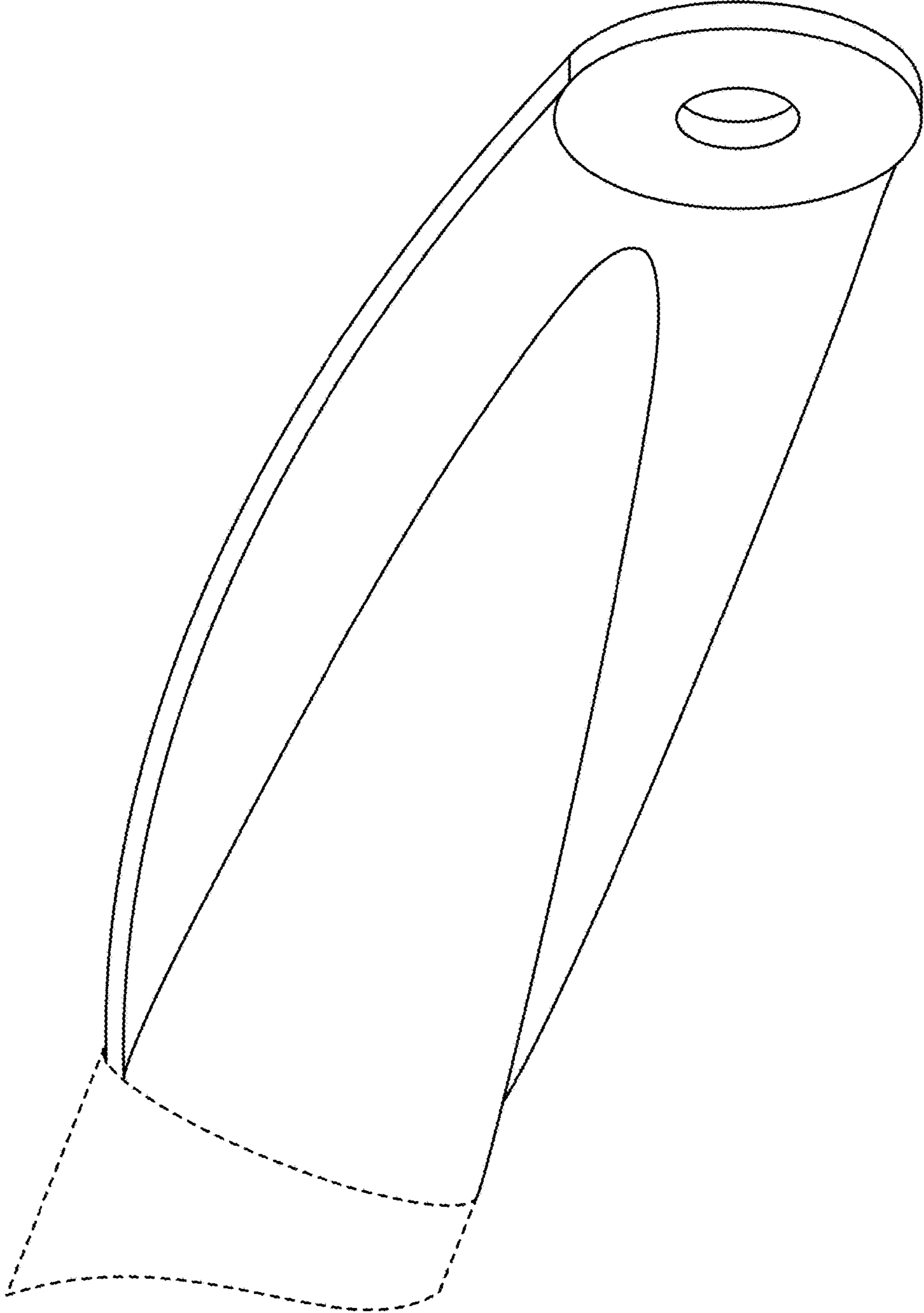


FIG. 1

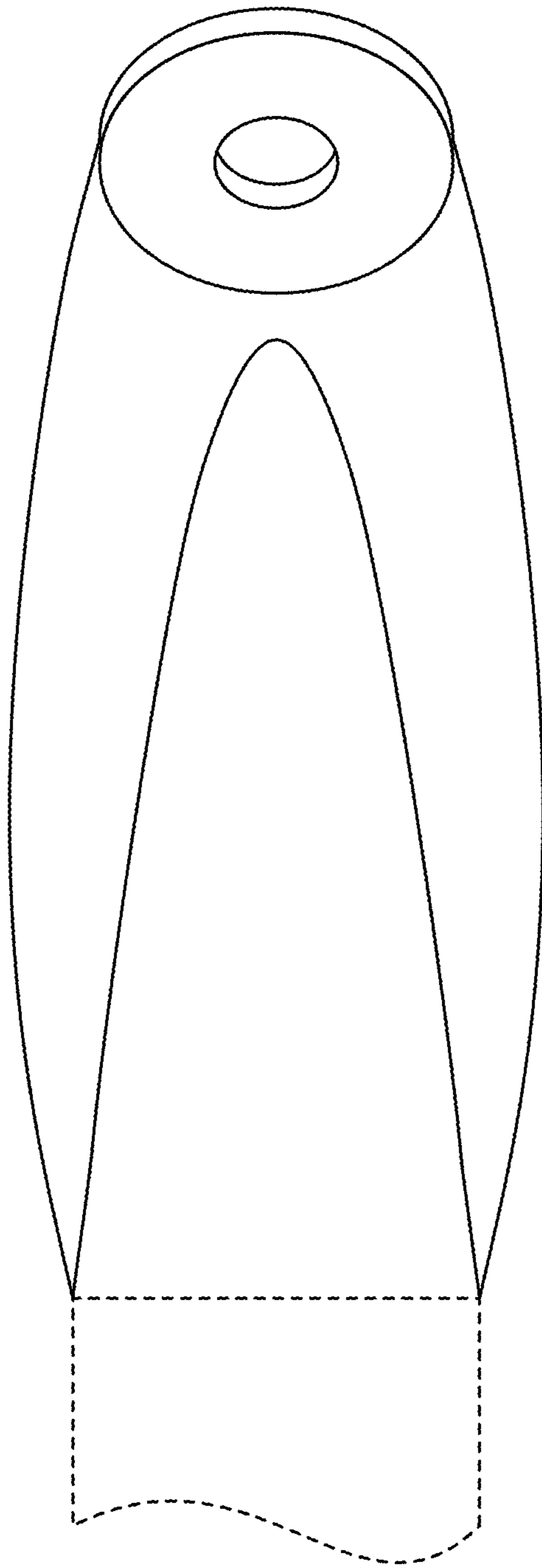


FIG. 2

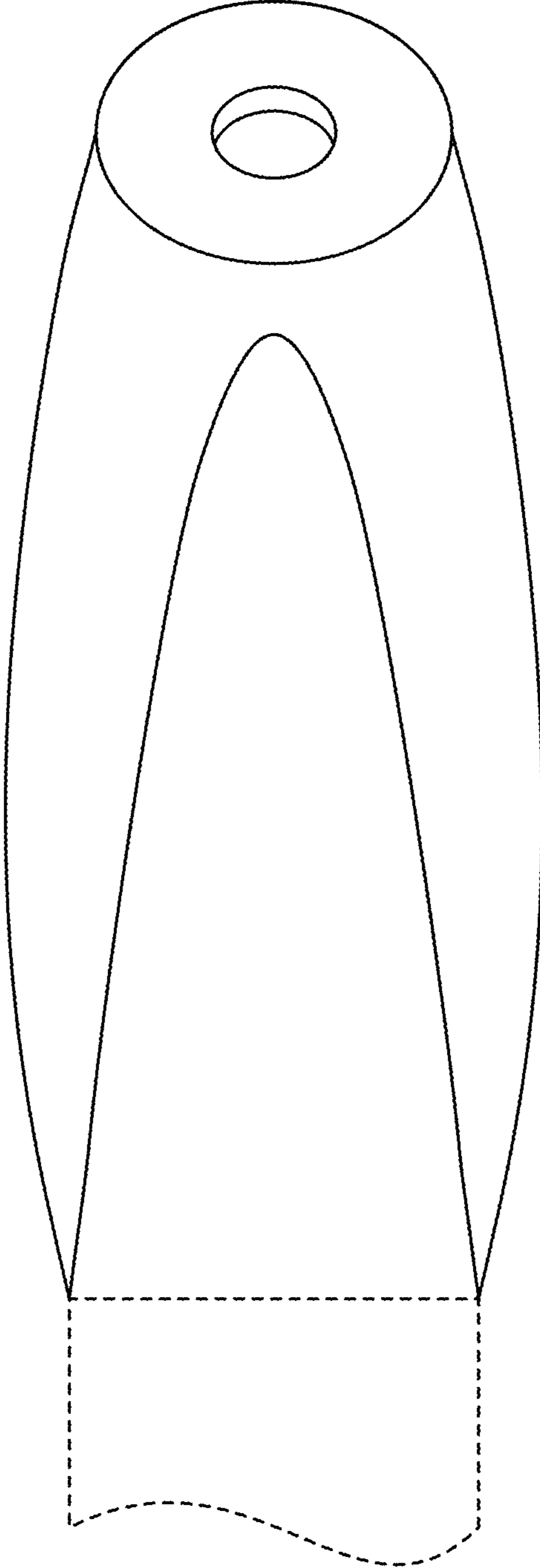


FIG. 3

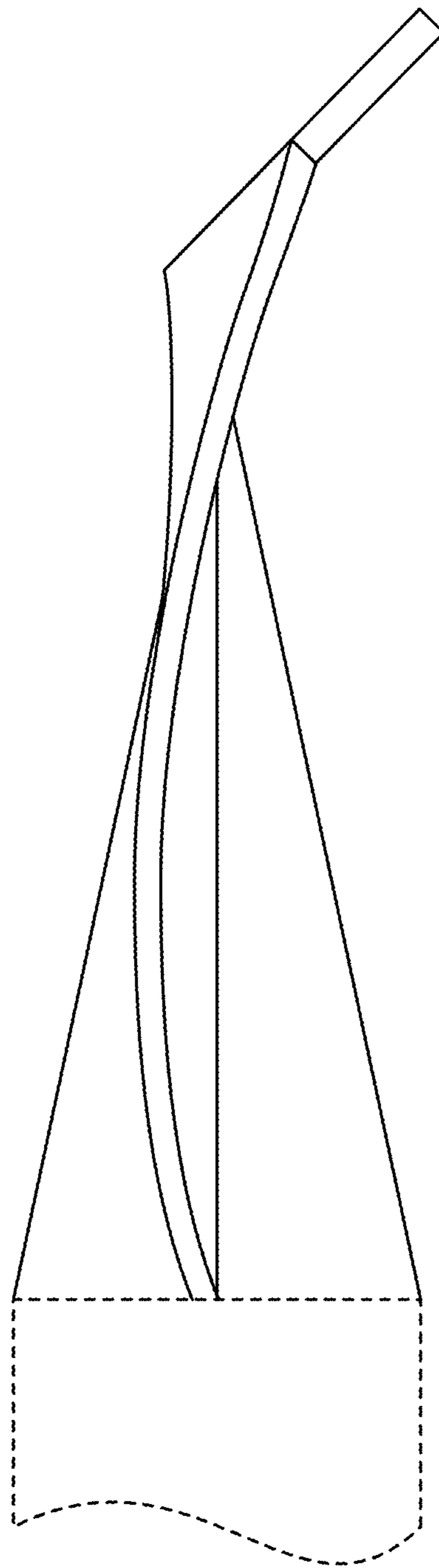


FIG. 4

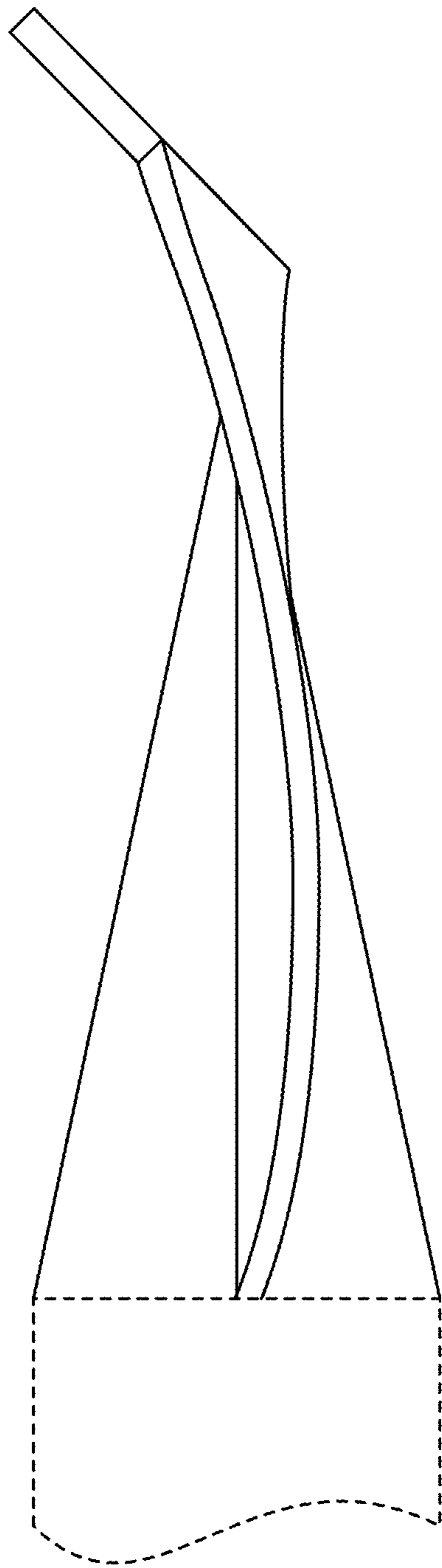


FIG. 5