



US00D714371S

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

(10) **Patent No.:** **US D714,371 S**
(45) **Date of Patent:** **** Sep. 30, 2014**

(54) **WAFER PADDLE**

FOREIGN PATENT DOCUMENTS

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JP 02-039526 2/1990
JP 06018178 3/1994

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OTHER PUBLICATIONS

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(**) Term: **14 Years**

(Continued)

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Primary Examiner — Patricia Palasik

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(57) **CLAIM**

The ornamental design for a wafer paddle, as shown and described.

Related U.S. Application Data

DESCRIPTION

(62) Division of application No. 29/407,171, filed on Nov. 23, 2011.

(51) **LOC (10) Cl.** **15-09**

(52) **U.S. Cl.**
USPC **D15/138**

(58) **Field of Classification Search**
USPC D15/138, 199
See application file for complete search history.

FIG. 1 depicts a front perspective view of a first embodiment of a wafer paddle.

FIG. 2 depicts a close-up view labeled in FIG. 1.

FIG. 3 depicts a close-up view labeled in FIG. 1.

FIG. 4 depicts a left elevation view of the wafer paddle of FIG. 1.

FIG. 5 depicts a close-up view labeled in FIG. 4.

FIG. 6 depicts a right elevation view of the wafer paddle of FIG. 1.

FIG. 7 depicts a close-up view labeled in FIG. 6.

FIG. 8 depicts a top plan view of the wafer paddle of FIG. 1.

FIG. 9 depicts a bottom plan view of the wafer paddle of FIG. 1.

FIG. 10 depicts a rear elevation view of the wafer paddle of FIG. 1; and,

FIG. 11 depicts a front elevation view of the wafer paddle of FIG. 1.

The broken lines in the drawings illustrate environmental structure on the article and form no part of the claimed design.

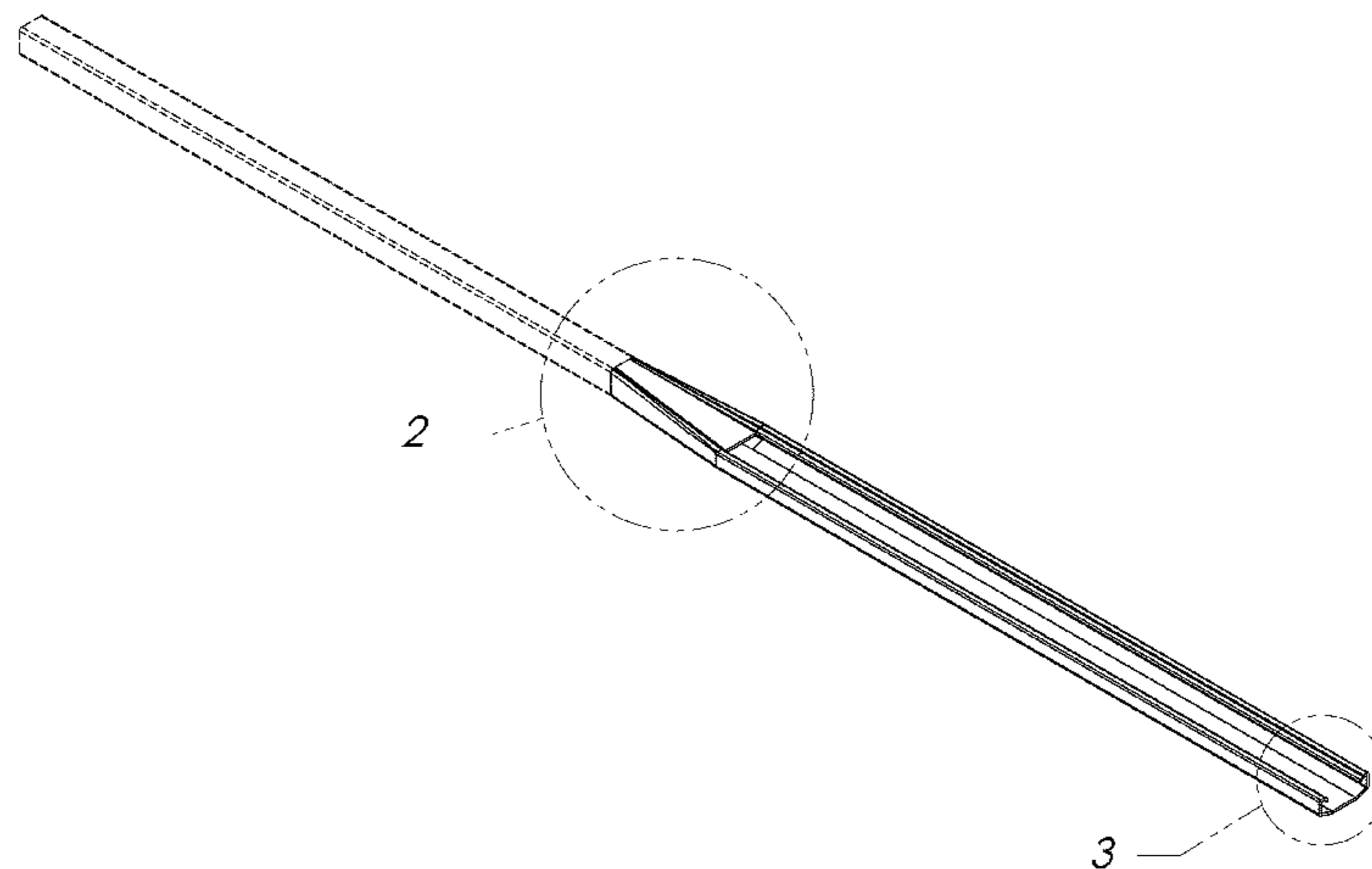
(56) **References Cited**

U.S. PATENT DOCUMENTS

3,678,893	A	7/1972	Bell
3,951,587	A	4/1976	Alliegro et al.
4,218,214	A	8/1980	Nelson
4,355,974	A	10/1982	Lee
4,440,538	A	4/1984	Bowers
4,459,104	A	7/1984	Wollmann
4,471,716	A	9/1984	Milliren
4,516,897	A	5/1985	Snider et al.
4,523,885	A	6/1985	Bayne et al.
4,543,059	A	9/1985	Whang et al.

(Continued)

1 Claim, 7 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

4,566,839 A 1/1986 Butler
 4,624,638 A 11/1986 Sarkozy
 4,671,726 A 6/1987 Thuen
 4,676,008 A 6/1987 Armstrong
 4,687,097 A 8/1987 Mortensen
 4,721,424 A * 1/1988 Aldridge et al. 414/182
 4,744,712 A 5/1988 Mitchell
 4,761,134 A 8/1988 Foster
 4,767,251 A 8/1988 Whang
 4,888,994 A 12/1989 Nakamaki et al.
 4,911,638 A 3/1990 Bayne et al.
 4,943,234 A 7/1990 Sohlbrand
 RE33,341 E 9/1990 Lee et al.
 4,954,079 A 9/1990 Yamaga
 4,976,610 A 12/1990 Yates
 4,979,897 A 12/1990 Yates
 4,998,879 A 3/1991 Foster et al.
 5,033,406 A 7/1991 Lee
 5,050,534 A 9/1991 Yates
 5,208,961 A 5/1993 Lajoie
 5,225,375 A 7/1993 Aite et al.
 5,283,089 A 2/1994 Bates
 5,354,198 A 10/1994 Yates
 5,443,649 A 8/1995 Sibley
 5,476,176 A 12/1995 Gregerson et al.
 5,505,577 A 4/1996 Nishi
 5,520,205 A 5/1996 Guldi et al.
 5,538,230 A 7/1996 Sibley
 5,618,349 A 4/1997 Yuuki
 5,765,982 A 6/1998 Martin et al.

5,776,391 A 7/1998 Sibley
 5,820,367 A 10/1998 Osawa
 5,857,576 A 1/1999 Kim
 5,878,889 A 3/1999 Koyanagi
 5,882,807 A 3/1999 Funato et al.
 6,095,806 A 8/2000 Suzuki et al.
 6,199,564 B1 3/2001 Yokomizo
 6,318,389 B1 11/2001 Schmidt et al.
 6,601,592 B1 8/2003 Chen
 6,631,934 B1 10/2003 Buckley
 6,716,027 B2 4/2004 Kim et al.
 6,811,040 B2 11/2004 Payne
 7,501,370 B2 3/2009 Narendar et al.
 7,762,208 B2 7/2010 Juergensen et al.
 2005/0148455 A1 7/2005 Narendar et al.
 2007/0238062 A1 10/2007 Asari et al.
 2009/0159897 A1 6/2009 Narendar et al.

OTHER PUBLICATIONS

International Preliminary Report on Patentability for App. PCT/US09/34667, issued Sep. 30, 2009 (2500.2.62PCT).
 Translation of Notice of Preliminary Rejection for Korean App. 10-2010-7018859, issued Jan. 20, 2012 (2500.2.62KR).
 Translation of Office Action for Taiwanese App. 098105542, issued Jan. 24, 2013 (2500.2.62TW).
 Chinese Office Action with translation for CN App. 200980104800.5, issued Jul. 15, 2011 (2500.2.62CN).
 Final Office Action, issued in U.S. Appl. No. 12/389,741, dated Apr. 24, 2014 (2500.2.62).
 Non-Final Office Action dated Oct. 17, 2013, issued in U.S. Appl. No. 12/389,741 (File 2500.2.62).

* cited by examiner

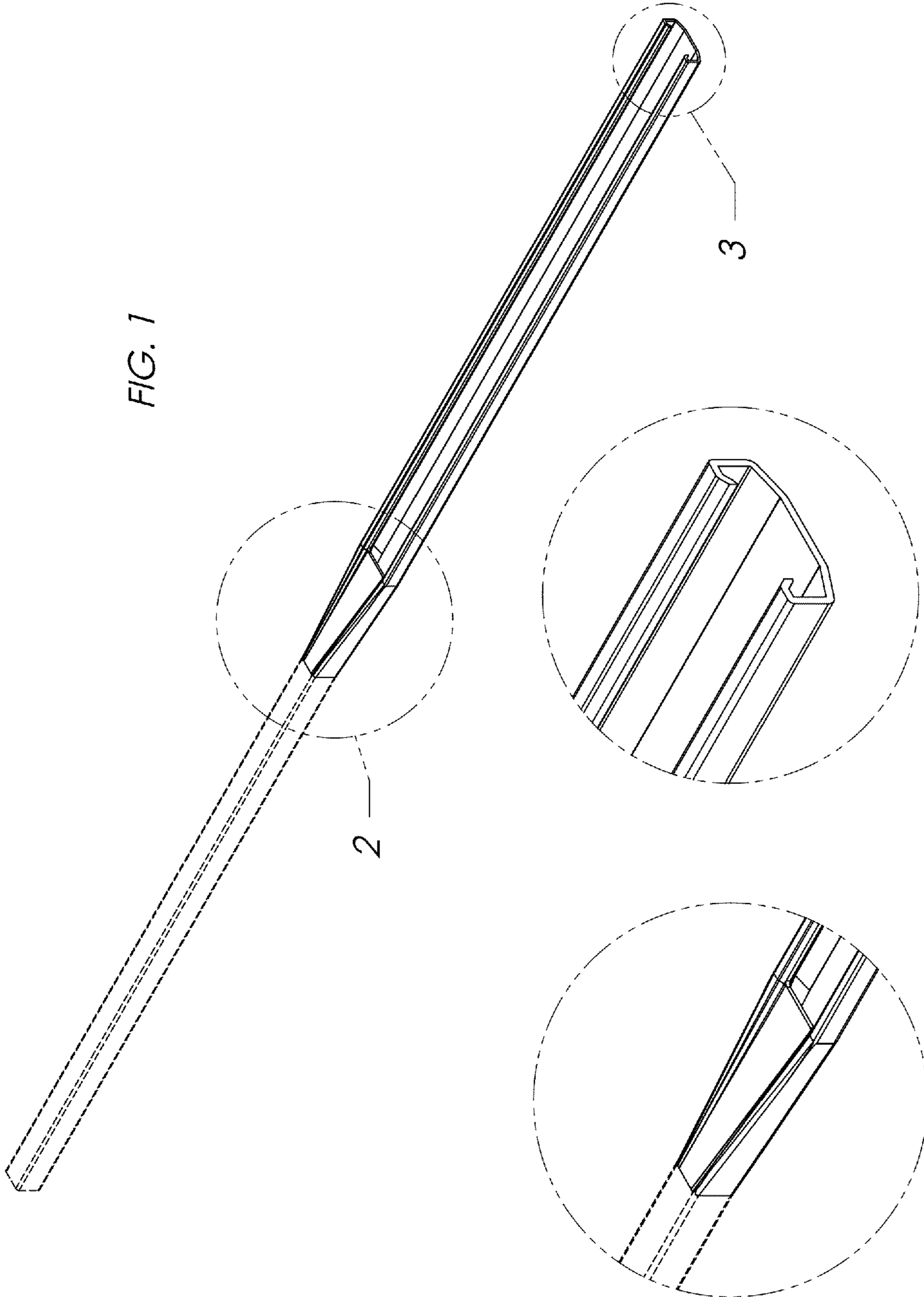


FIG. 1

FIG. 3

FIG. 2

FIG. 4

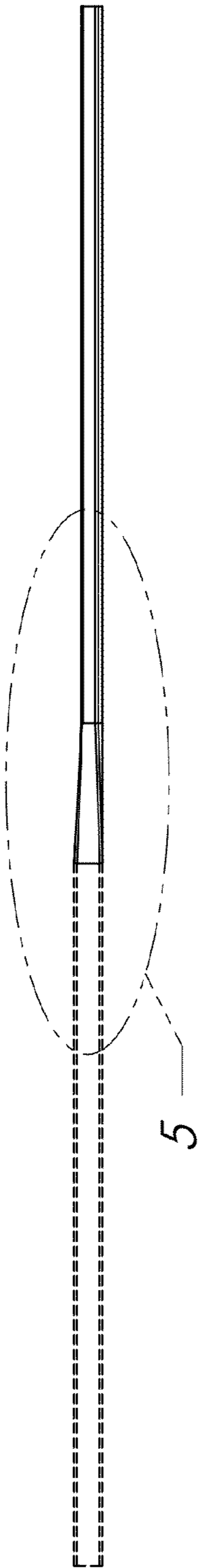


FIG. 5

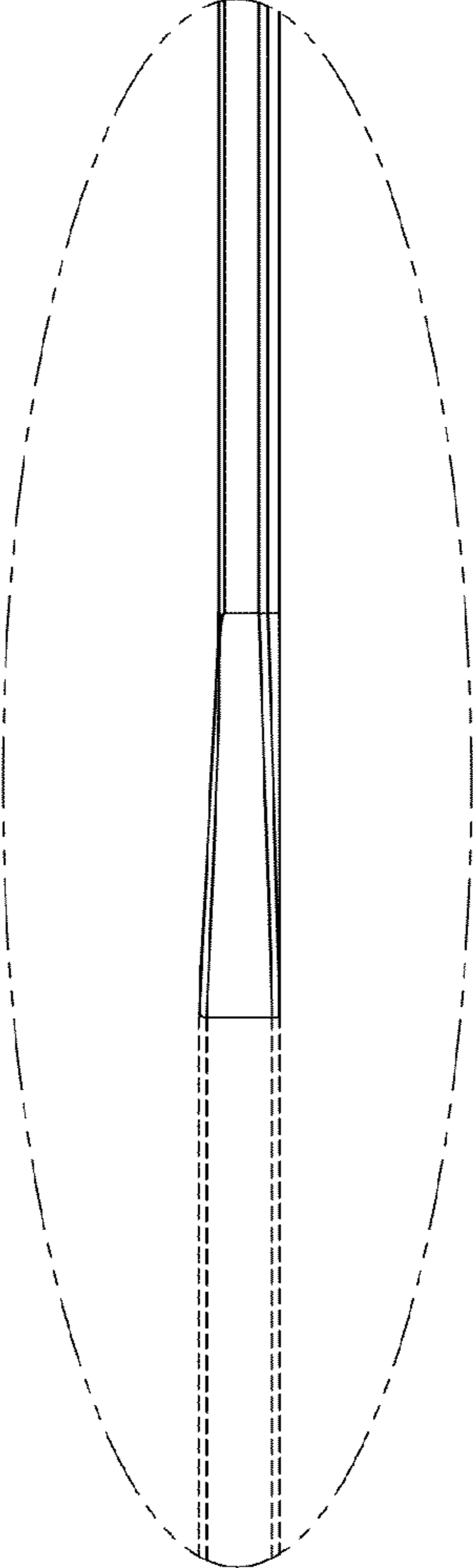


FIG. 6

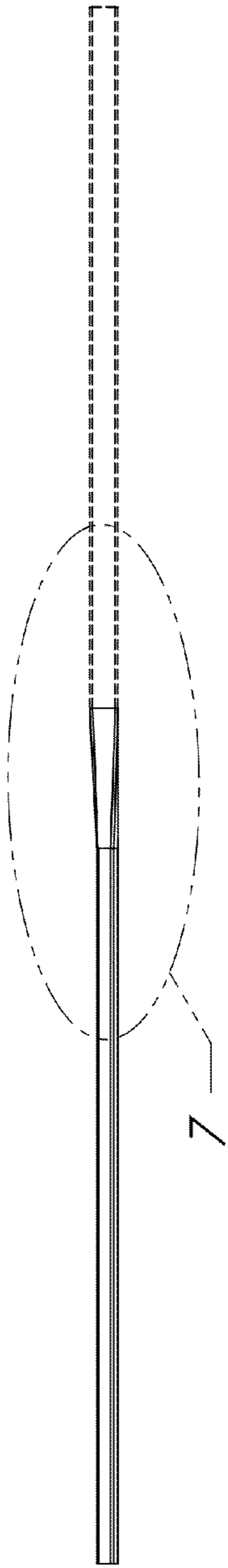


FIG. 7

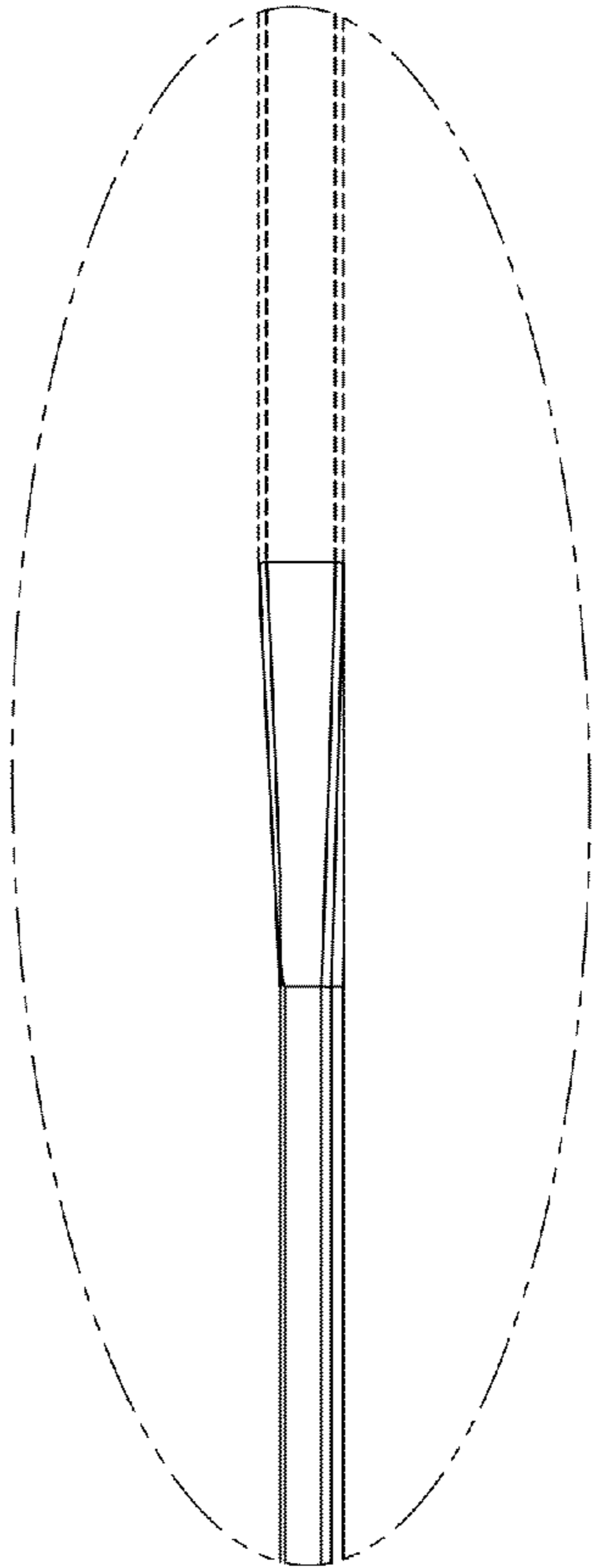




FIG. 8



FIG. 9

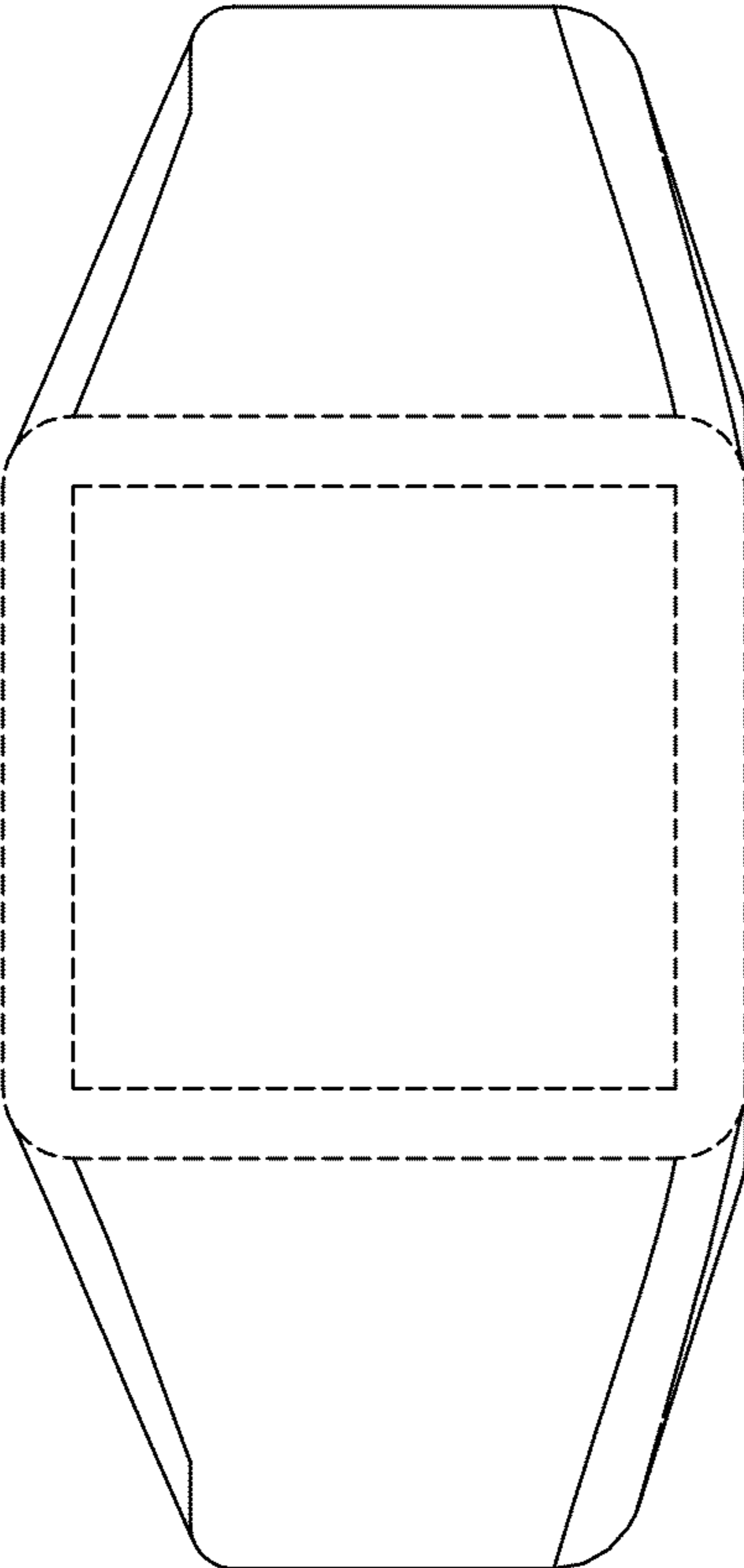


FIG. 10

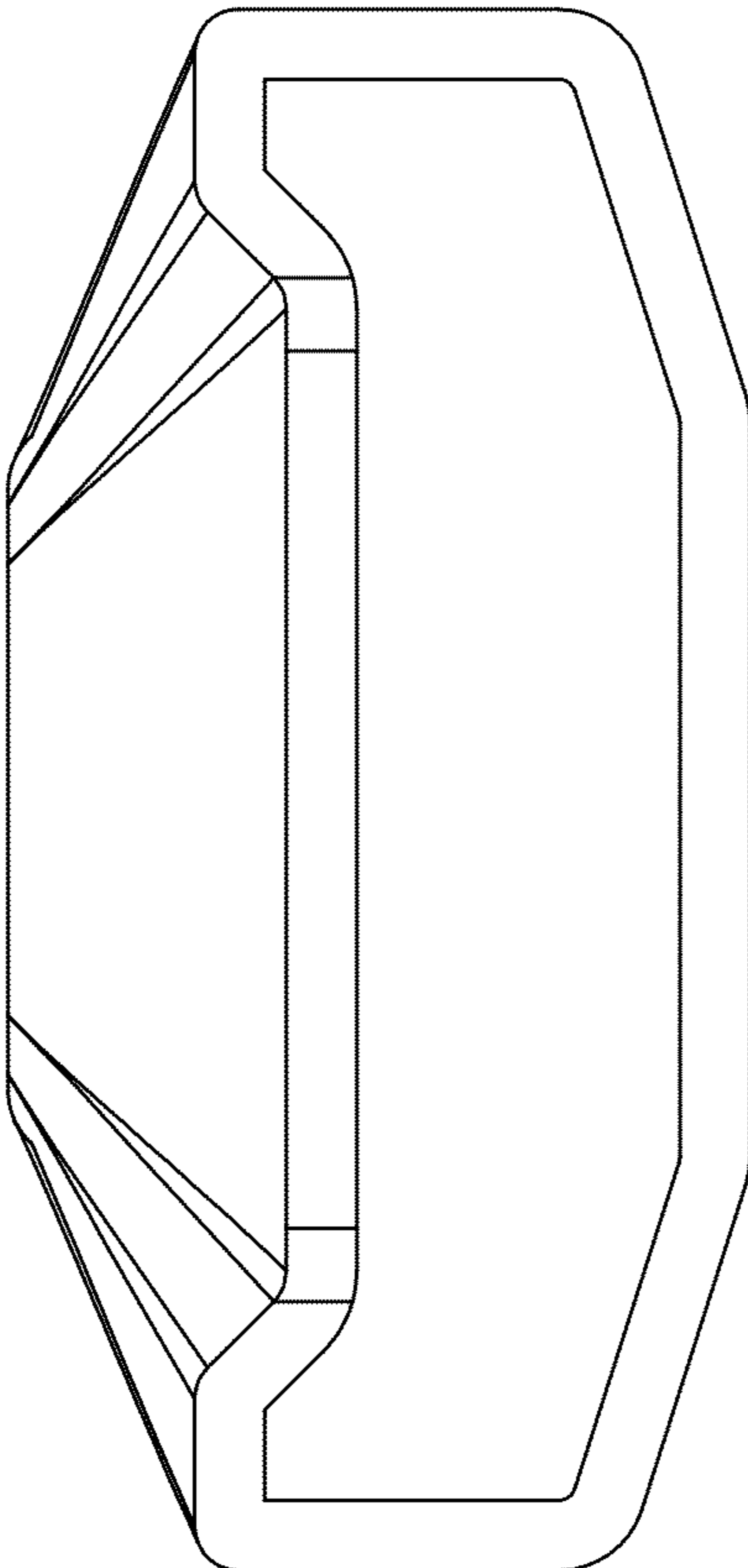


FIG. 11