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Salvador et al.

(10)

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(45)

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(54) **FILTER**

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5,366,400 A	11/1994	Kucik
5,374,355 A	12/1994	Habiger et al.
5,458,767 A	10/1995	Stone
5,474,676 A	12/1995	Janik et al.
5,484,527 A	1/1996	Janik et al.
5,489,384 A	2/1996	Janik et al.
5,525,225 A	6/1996	Janik et al.
5,538,626 A	7/1996	Baumann
5,548,893 A	8/1996	Koelfgen
5,578,221 A	11/1996	Janik
5,584,987 A	12/1996	Mules
5,660,726 A	8/1997	Dluzik
5,660,729 A	8/1997	Baumann
5,660,771 A	8/1997	Dunfee et al.
5,685,985 A	11/1997	Brown et al.
5,688,396 A	11/1997	Baumann et al.

(Continued)

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

FOREIGN PATENT DOCUMENTS

(21) Appl. No.: **29/376,117**

JP 09 173716 7/1994

(Continued)

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(51) **LOC (9) Cl.** **23-01**

Primary Examiner — Robin V Webster

(52) **U.S. Cl.** **D23/209**

(74) *Attorney, Agent, or Firm* — Miller, Matthias & Hull

(58) **Field of Classification Search** D23/207,
D23/209, 365; 210/499, 497.1, 497.01, 493.1,
210/493.5, 238, 444

(57) **CLAIM**

The ornamental design for a filter, as shown and described.

See application file for complete search history.

DESCRIPTION

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,172,795 A	10/1979	Kurtz et al.
4,298,465 A	11/1981	Druffel et al.
4,502,956 A	3/1985	Wilson et al.
4,906,365 A	3/1990	Baumann et al.
4,948,503 A	8/1990	Baumann et al.
5,035,797 A	7/1991	Janik
5,098,559 A	3/1992	Mack et al.
5,203,994 A	4/1993	Janik
5,300,223 A	4/1994	Wright
5,302,284 A	4/1994	Zeiner et al.
5,312,546 A	5/1994	Janik
5,342,519 A	8/1994	Friedmann et al.

FIG. 1 is a perspective view of our filter showing our new design;

FIG. 2 is a front view of the filter of FIG. 1;

FIG. 3 is a rear view of the filter of FIG. 1;

FIG. 4 is a left side view of the filter of FIG. 1;

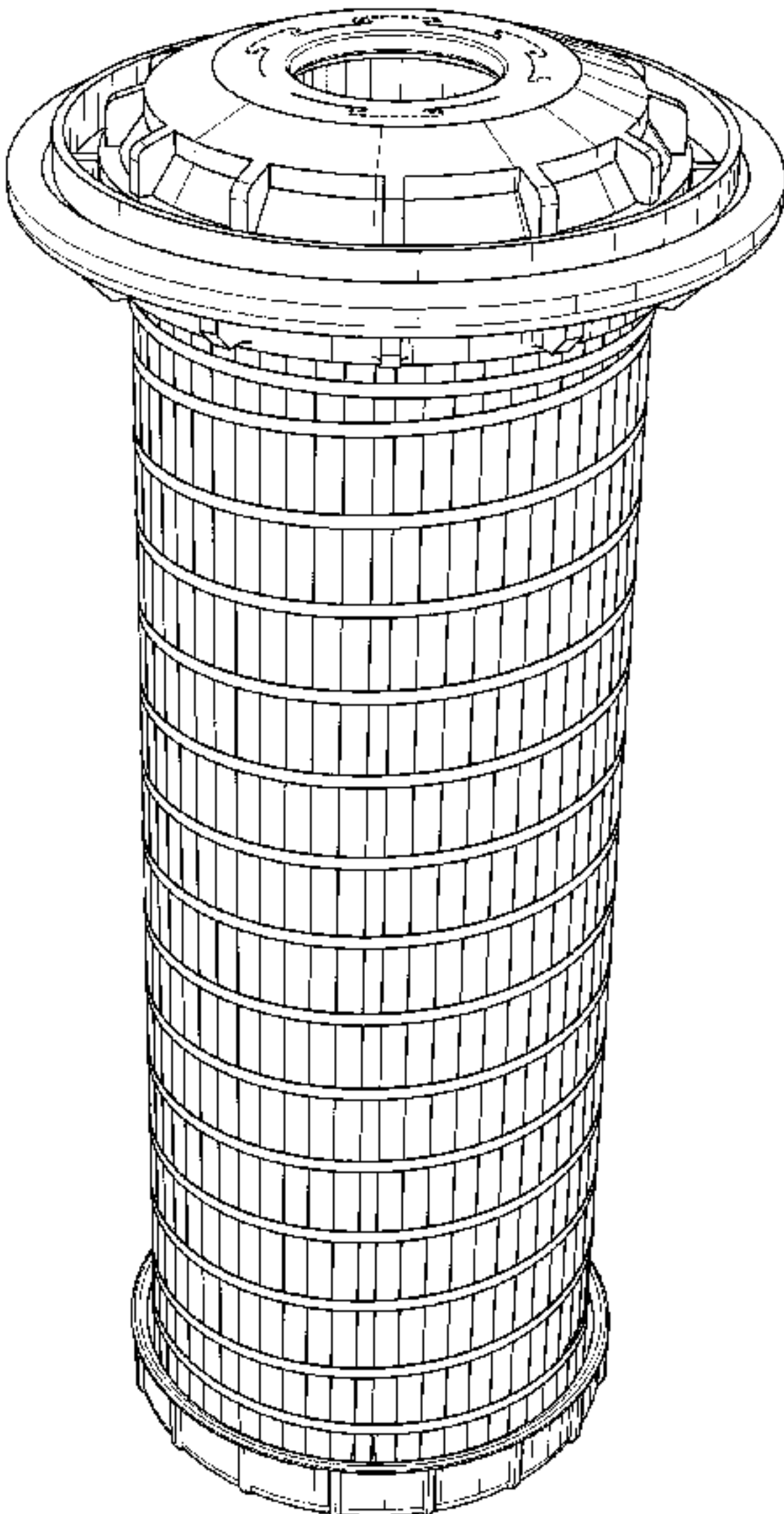
FIG. 5 is a right side view of the filter of FIG. 1;

FIG. 6 is a top view of the filter of FIG. 1; and,

FIG. 7 is a bottom view of the filter of FIG. 1.

The broken lines depicted in the foregoing figures are for purposes of illustration only, and form no part of the claimed design.

1 Claim, 7 Drawing Sheets



U.S. PATENT DOCUMENTS

5,690,765 A * 11/1997 Stoyell et al. 156/69
5,695,633 A 12/1997 Ernst et al.
5,698,098 A 12/1997 Ernst et al.
5,702,602 A 12/1997 Brown et al.
5,718,825 A 2/1998 Greive et al.
5,738,785 A 4/1998 Brown et al.
5,753,116 A 5/1998 Baumann et al.
5,770,054 A 6/1998 Ardes
5,770,065 A 6/1998 Popoff et al.
5,817,232 A 10/1998 Roll et al.
5,858,227 A 1/1999 Stone et al.
5,888,383 A 3/1999 Cox
5,904,844 A 5/1999 Stone
5,922,196 A 7/1999 Baumann
5,922,199 A 7/1999 Hodgkins
5,928,511 A 7/1999 Messner et al.
5,935,481 A 8/1999 Dunfee et al.
5,972,210 A 10/1999 Munkel
D416,308 S * 11/1999 Ward et al. D23/209
6,015,492 A 1/2000 Popoff et al.
6,016,923 A 1/2000 Baumann
6,021,905 A * 2/2000 Frejborg 209/411
6,058,899 A 5/2000 Schetter
6,068,762 A 5/2000 Stone et al.
6,090,283 A 7/2000 Schumann et al.
6,113,781 A 9/2000 Popoff et al.
6,173,859 B1 1/2001 Schumann et al.
6,174,438 B1 1/2001 Hodgkins et al.
6,177,003 B1 1/2001 Jainek et al.
6,224,758 B1 5/2001 Jainek et al.
6,248,236 B1 6/2001 Hodgkins
6,471,070 B2 10/2002 Janik
6,485,637 B2 11/2002 Jainek et al.

D466,969 S * 12/2002 Druga D23/209
6,506,302 B2 1/2003 Janik
D470,216 S * 2/2003 Gustafson et al. D23/209
6,514,404 B1 2/2003 Bauer
6,517,710 B2 2/2003 Hartmann et al.
6,569,326 B1 5/2003 Baumann et al.
D476,058 S * 6/2003 Norton D23/209
6,579,448 B2 6/2003 Dworatzek
6,591,807 B1 7/2003 Ardes
6,605,210 B2 8/2003 Reinhardt
6,607,665 B2 8/2003 Fick et al.
6,610,203 B1 8/2003 Jainek
6,626,299 B1 9/2003 Brown et al.
6,685,829 B1 2/2004 Baumann et al.
6,709,588 B2 3/2004 Pavlin et al.
6,740,234 B1 5/2004 Williams et al.
6,972,092 B1 12/2005 Roll
D524,611 S * 7/2006 Liu et al. D8/1
D544,070 S * 6/2007 Flor et al. D23/209
D560,751 S * 1/2008 Miller D23/209
D571,433 S * 6/2008 Koteskey D23/209
D609,775 S * 2/2010 Zukor D23/209
7,771,595 B2 * 8/2010 Reynolds et al. 210/232
2002/0158006 A1 10/2002 Thomas
2003/0098269 A1 5/2003 Ardes
2003/0226790 A1 12/2003 Brown et al.
2003/0226800 A1 12/2003 Brown et al.
2006/0118476 A1 6/2006 Weindorf et al.
2008/0308481 A1 12/2008 Wieczorek et al.

FOREIGN PATENT DOCUMENTS

WO WO-2008/157597 12/2008

* cited by examiner

FIG. 1

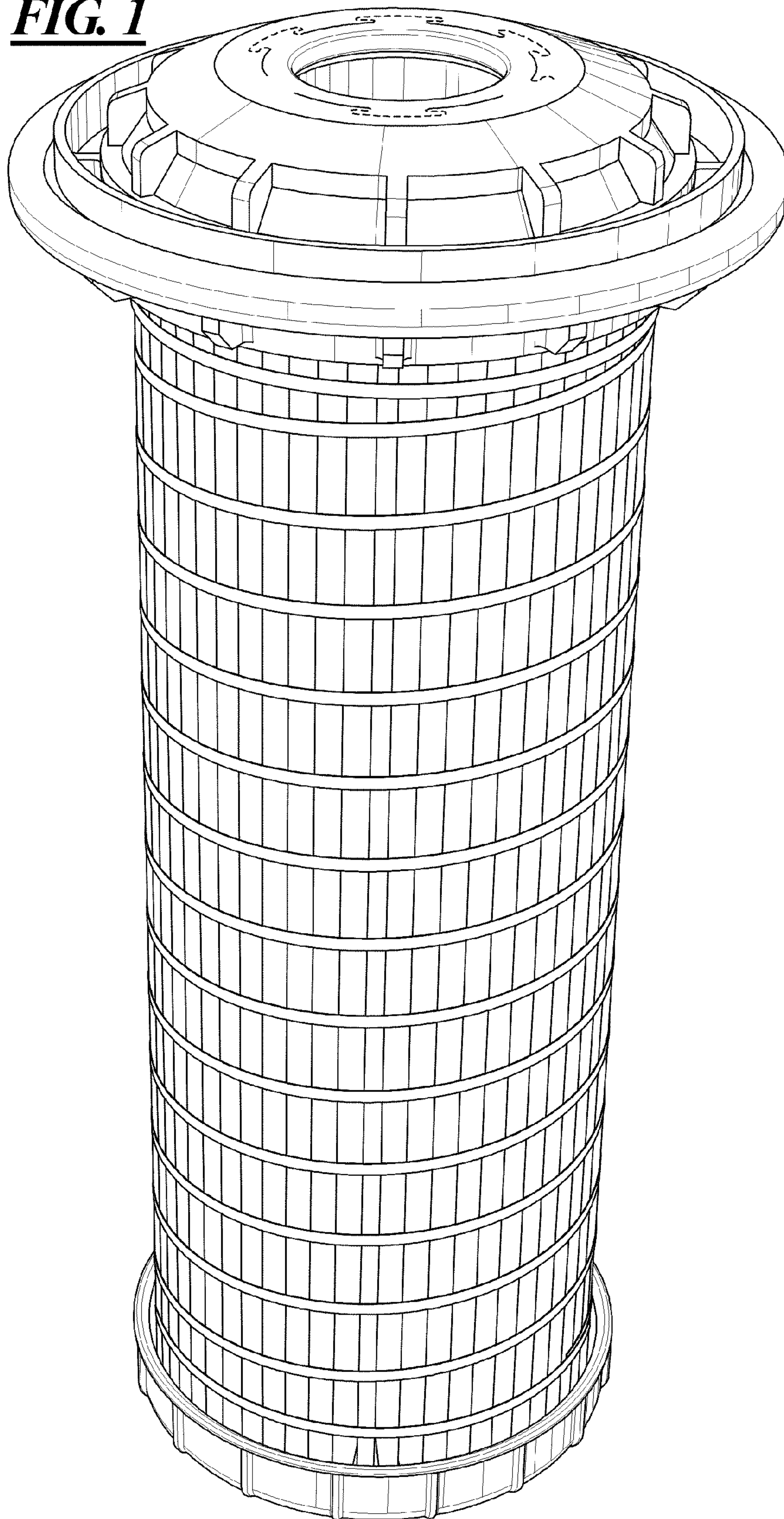


FIG. 2

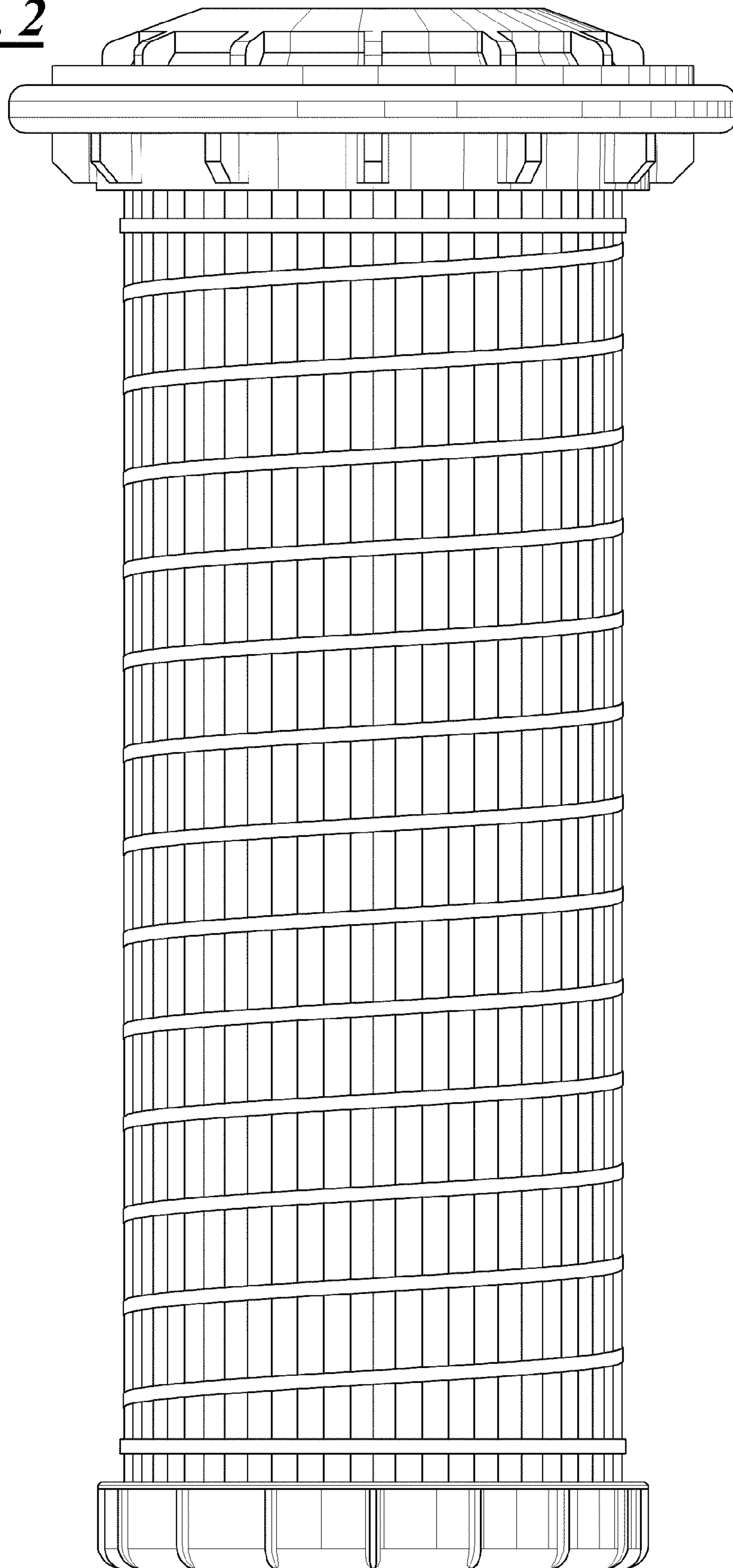


FIG. 3

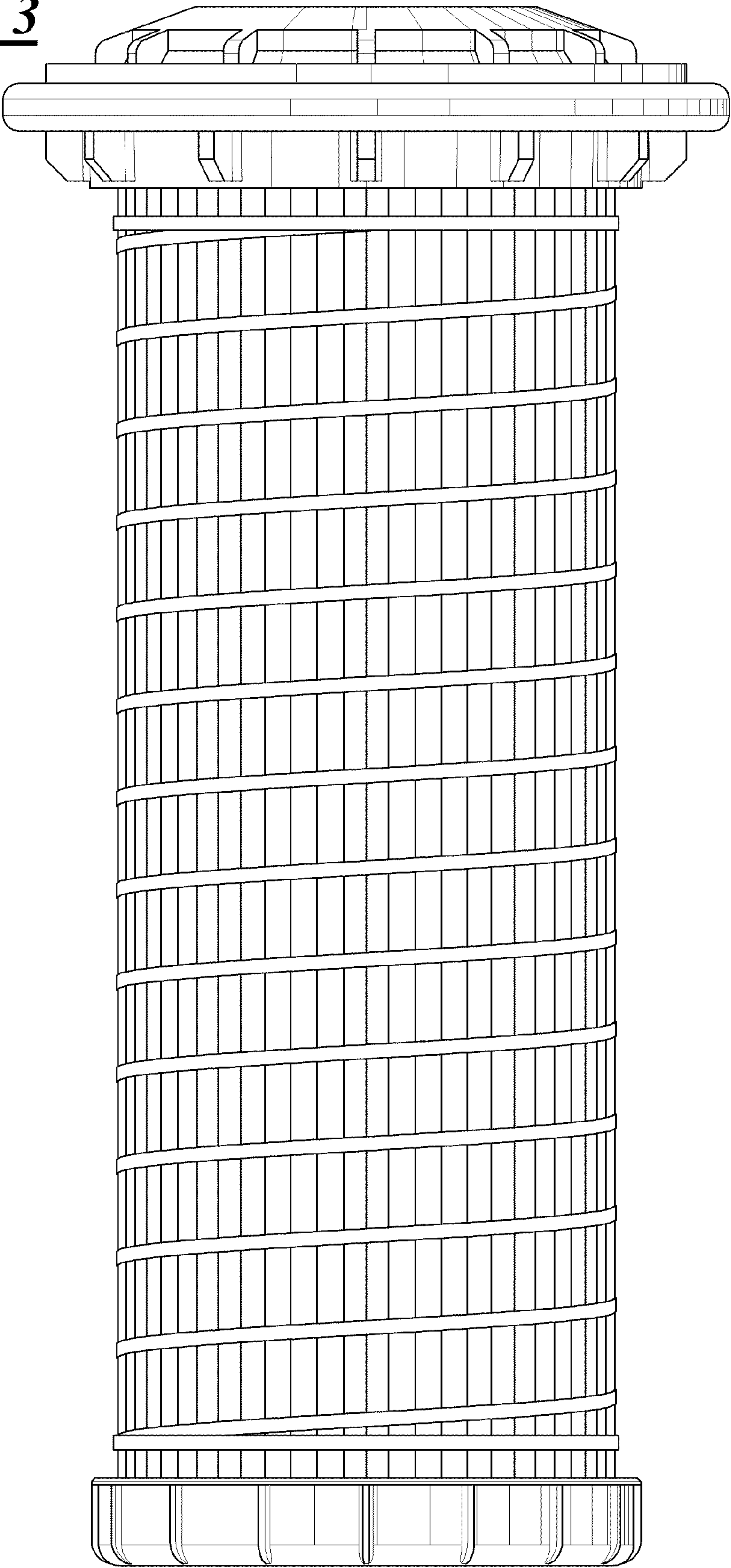


FIG. 4

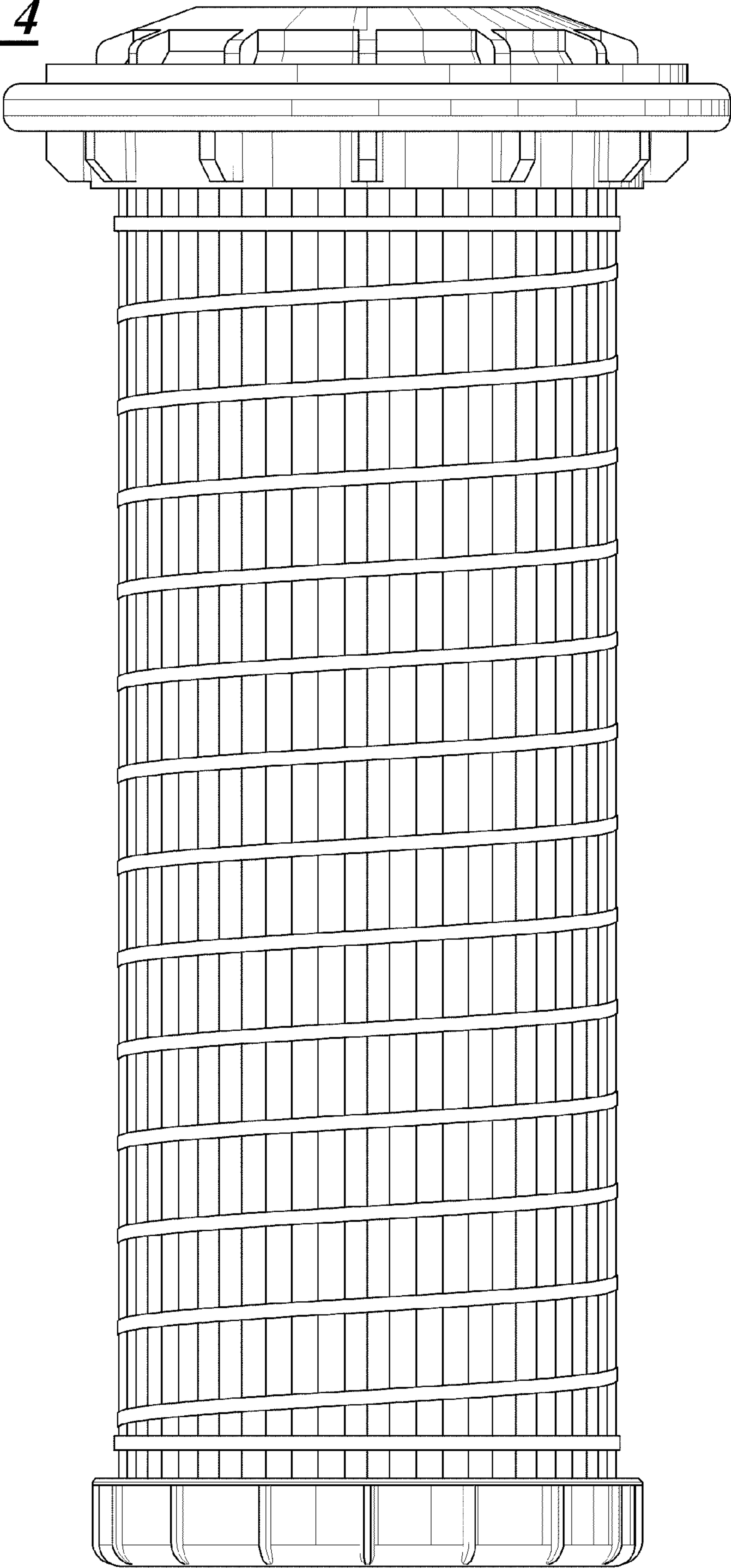


FIG. 5

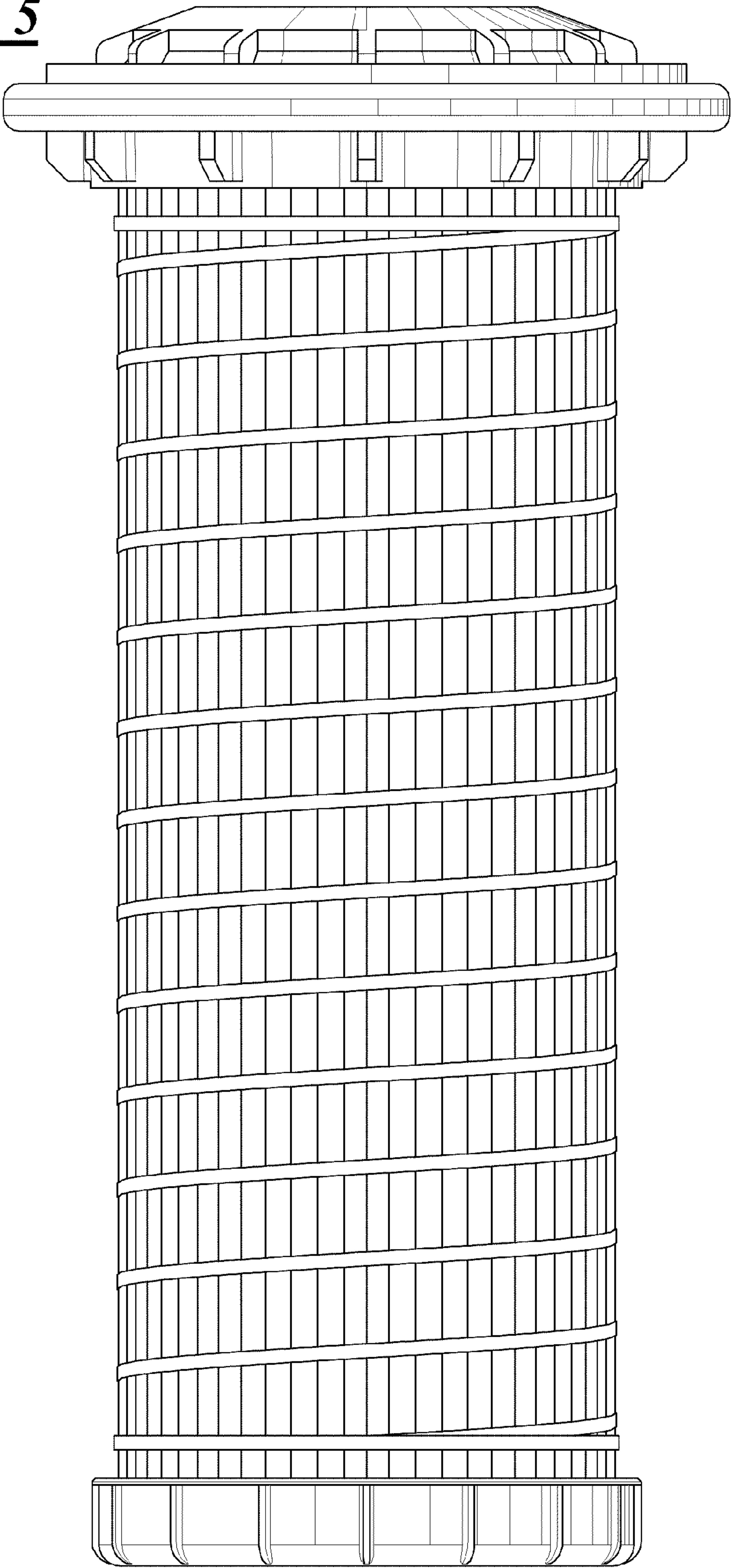


FIG. 6

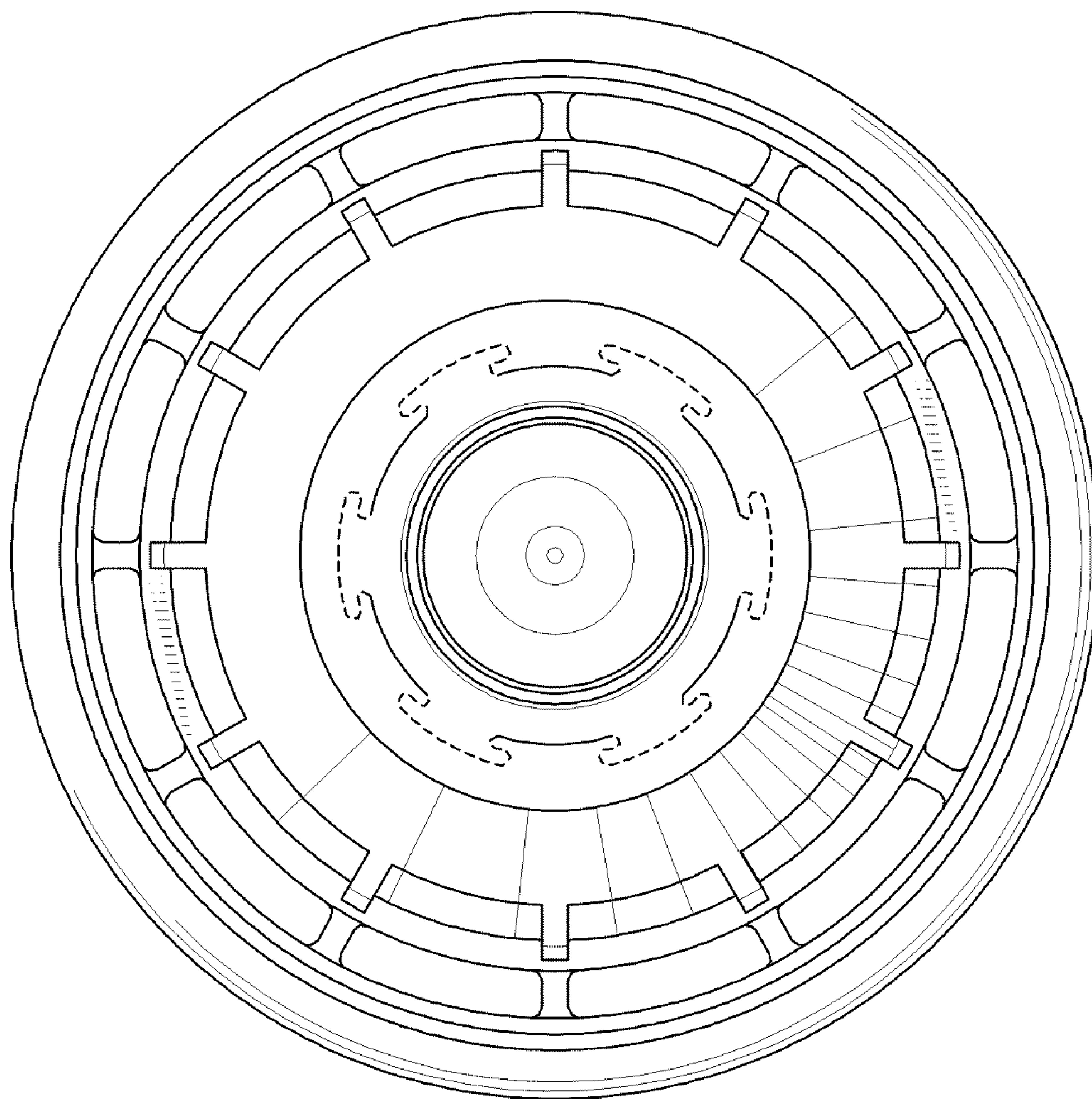


FIG. 7

