



US00D800282S

(12) **United States Design Patent**
Hanson et al.

(10) **Patent No.:** **US D800,282 S**

(45) **Date of Patent:** **** Oct. 17, 2017**

- (54) **HEAT EXCHANGER FIN**
- (71) Applicant: **Lennox Industries Inc.**, Richardson, TX (US)
- (72) Inventors: **Oved Wayne Hanson**, Carrollton, TX (US); **Kirankumar Annarao Muley**, Maharashtra (IN); **Jonathan David Douglas**, Lewisville, TX (US)
- (73) Assignee: **Lennox Industries Inc.**, Richardson, TX (US)
- (**) Term: **15 Years**
- (21) Appl. No.: **29/556,895**
- (22) Filed: **Mar. 3, 2016**
- (51) **LOC (10) Cl.** **23-03**
- (52) **U.S. Cl.**
USPC **D23/323**
- (58) **Field of Classification Search**
USPC D23/386, 330, 323, 324, 335-339, 341, D23/354, 499; D13/179
CPC F28F 9/0131; F28F 1/0475; F28F 1/10; F28F 1/126; F28F 1/325; F28F 1/18; F28F 1/28; F28F 9/262; F23D 14/06
See application file for complete search history.

- (56) **References Cited**
U.S. PATENT DOCUMENTS
D224,310 S * 7/1972 Clarkin D23/386
4,434,844 A 3/1984 Sakitani et al.
4,469,167 A 9/1984 Itoh et al.
4,580,624 A 4/1986 Ishida et al.
4,614,230 A 9/1986 Sakuma et al.
4,691,768 A 9/1987 Obosu
4,723,599 A 2/1988 Hanson
4,923,002 A 5/1990 Haussmann
D317,500 S * 6/1991 Ueda D23/386
5,042,576 A 8/1991 Broadbent

5,168,923 A	12/1992	Sacks	
5,509,469 A	4/1996	Obosu	
5,660,230 A *	8/1997	Obosu	F28F 1/325 165/151
5,722,485 A	3/1998	Love et al.	
5,927,392 A *	7/1999	Youn	F28F 1/325 165/151
6,786,274 B2 *	9/2004	Bemisderfer	F28F 1/325 165/151
D700,689 S *	3/2014	Obosu	D23/323
2004/0177948 A1 *	9/2004	Cho	B21D 53/085 165/150
2007/0169921 A1 *	7/2007	Abrahamian	F28F 1/325 165/151

(Continued)

Primary Examiner — Sheryl Lane
Assistant Examiner — Calvin E Vansant
(74) *Attorney, Agent, or Firm* — Hubbard Johnston, PLLC

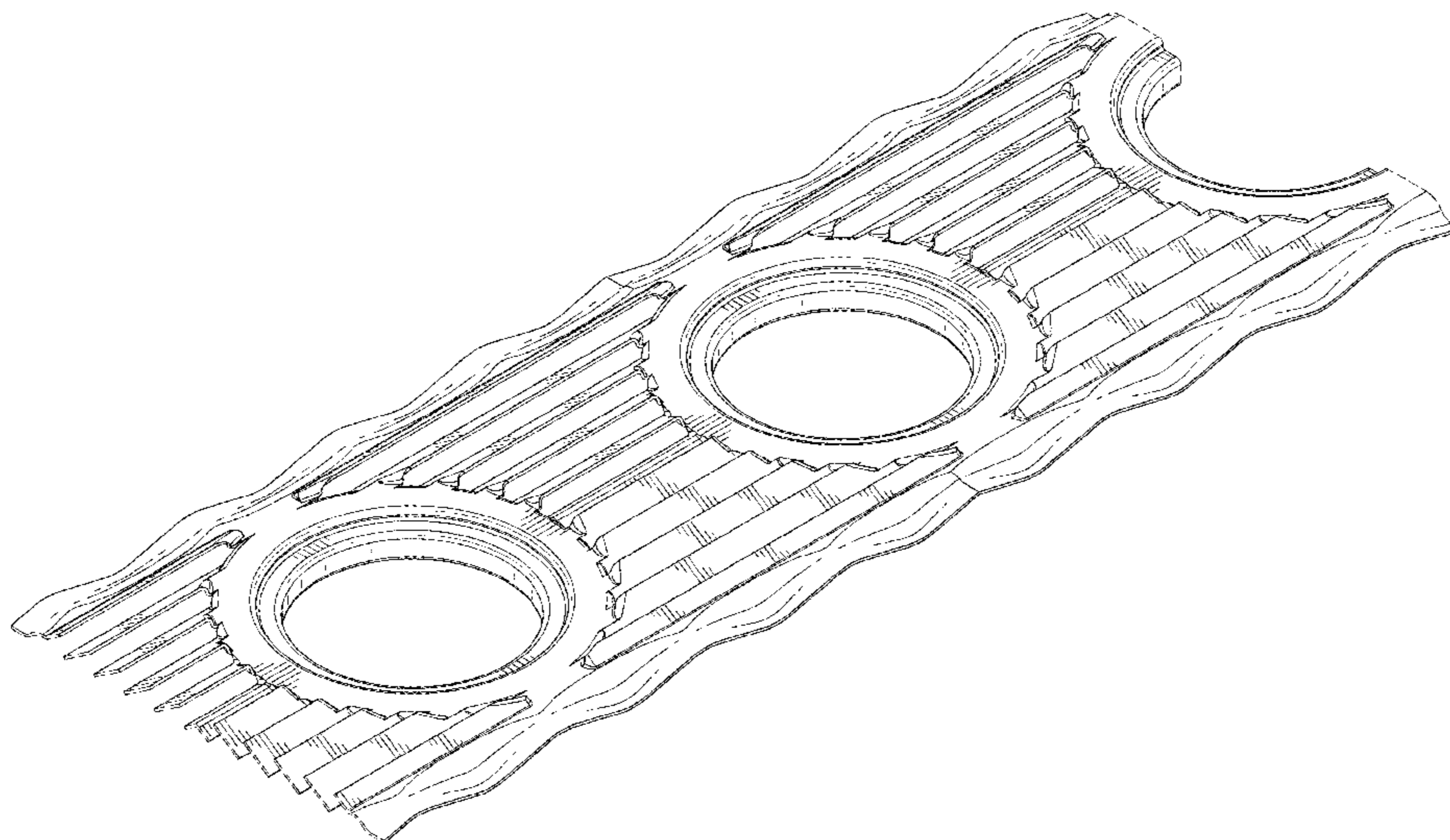
(57) **CLAIM**

The ornamental design for a “heat exchanger fin,” as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of the heat exchanger fin shown as a section because the pattern repeats; FIG. 2 is a left end view of the heat exchanger fin of FIG. 1; FIG. 3 is a right end view of the heat exchanger fin of FIG. 1; FIG. 4 is a front side view of the heat exchanger fin of FIG. 1; FIG. 5 is a backside view of the heat exchanger fin of FIG. 1; FIG. 6 is a top view of the heat exchanger fin of FIG. 1; and, FIG. 7 is a bottom view of the heat exchanger fin of FIG. 1. The broken lines depict boundaries of the heat exchanger fin and form no part of the claim.

1 Claim, 4 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2009/0308585 A1* 12/2009 Chen F28D 1/0475
165/185
2012/0103587 A1* 5/2012 Park F24F 1/18
165/181

* cited by examiner

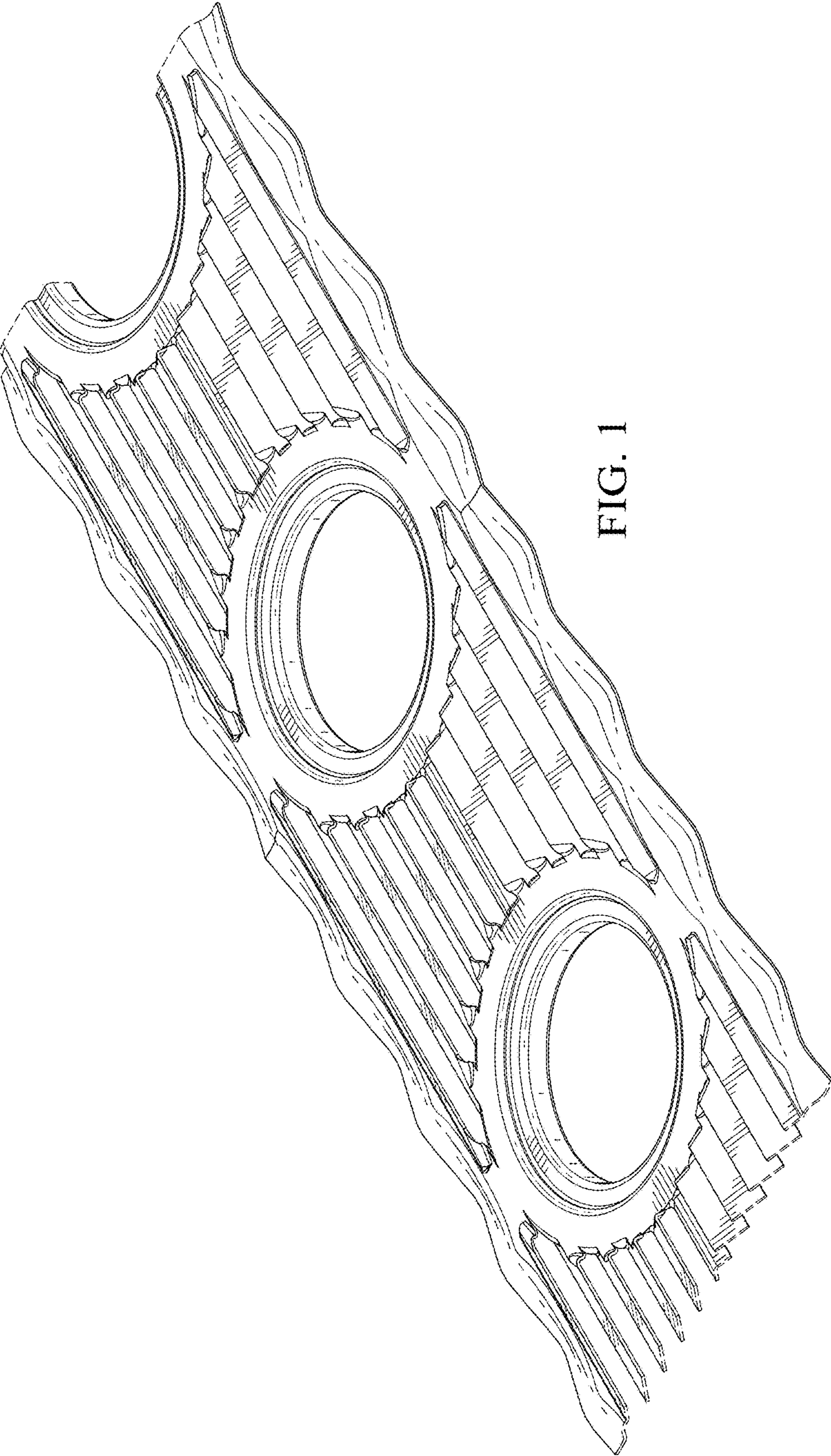


FIG. 1

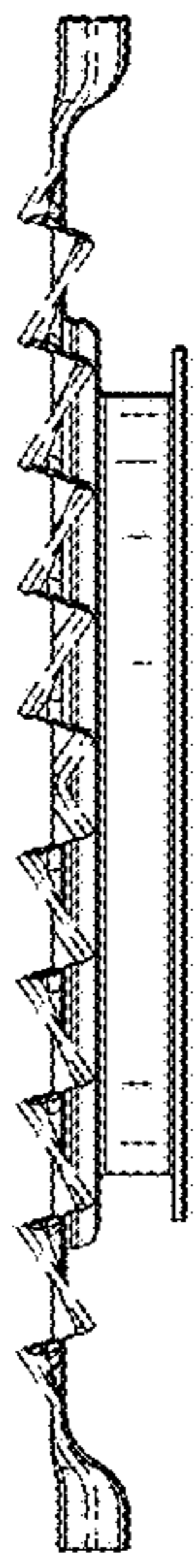


FIG. 2

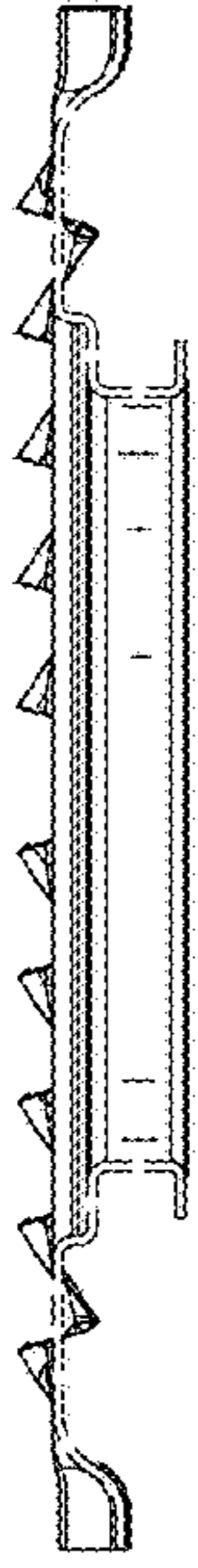


FIG. 3

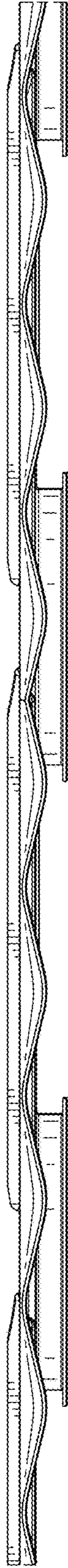


FIG. 4

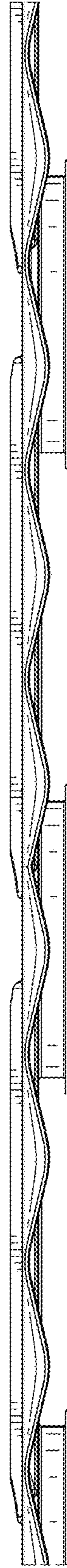


FIG. 5

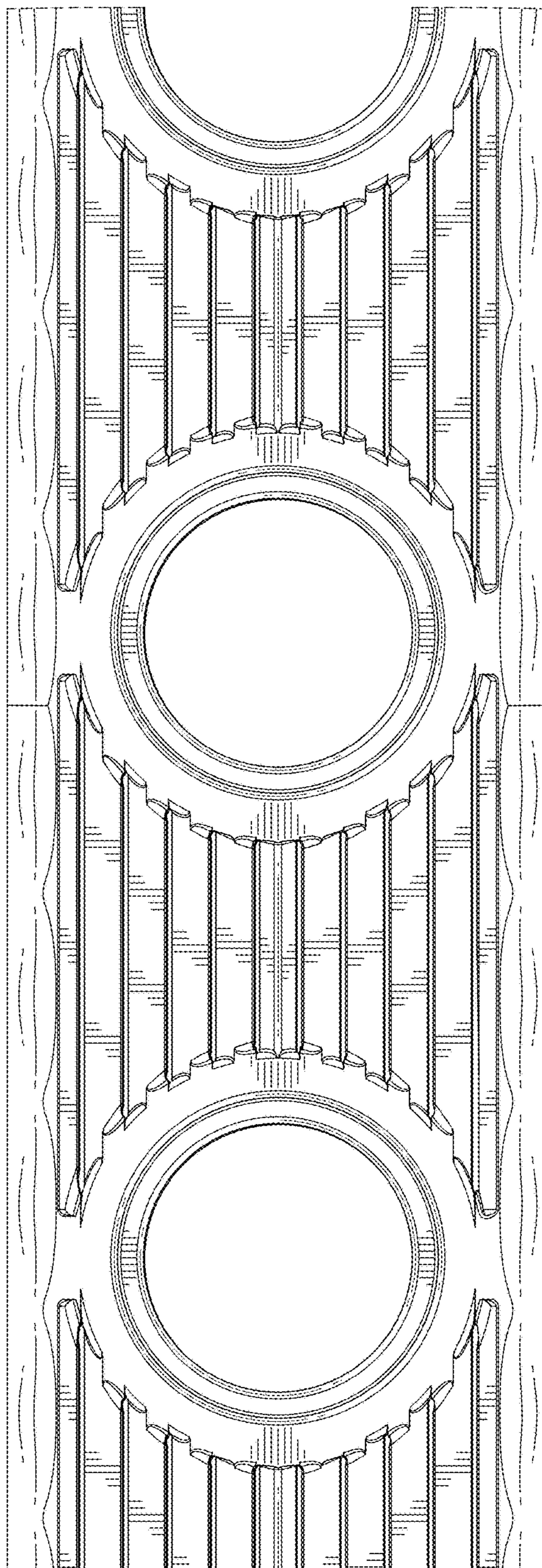


FIG. 6

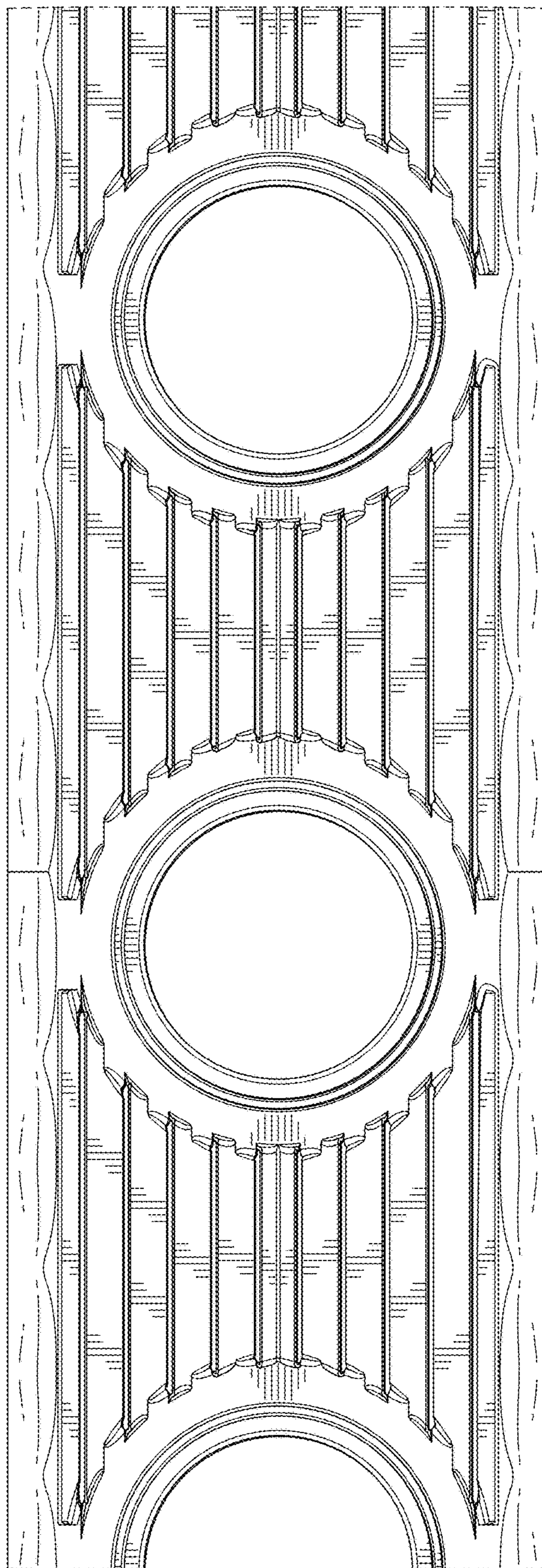


FIG. 7