



US00D770547S

(12) **United States Design Patent** (10) **Patent No.:** **US D770,547 S**  
**Yamamoto et al.** (45) **Date of Patent:** **\*\* Nov. 1, 2016**

- (54) **THRUST ROLLER BEARING** 6,883,968 B2 \* 4/2005 Fugel et al. .... 384/577
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**Hisataka Hasegawa**, Iwata (JP) 7,896,558 B2 \* 3/2011 Obayashi et al. .... 384/623

(73) Assignee: **NTN CORPORATION**, Osaka-shi (JP)

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

(21) Appl. No.: **29/520,086**

(22) Filed: **Mar. 11, 2015**

(30) **Foreign Application Priority Data**

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

(52) **U.S. Cl.**  
USPC ..... **D15/143**

(58) **Field of Classification Search**  
USPC ..... D15/143, 199  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

3,256,585	A *	6/1966	Ripple	.....	29/898.067
3,785,710	A *	1/1974	Alling	.....	384/623
3,913,994	A *	10/1975	Alling et al.	.....	384/623
3,994,546	A *	11/1976	Alling	.....	384/623
4,042,285	A *	8/1977	Dorsch	.....	384/621
4,122,589	A *	10/1978	Grimm et al.	.....	29/898.067
5,255,985	A *	10/1993	Alling	.....	384/575
5,626,426	A *	5/1997	Honda et al.	.....	384/568

\* cited by examiner

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(57) **CLAIM**

The ornamental design for a thrust roller bearing, as shown and described.

**DESCRIPTION**

FIG. 1 is a front view of a thrust roller bearing showing our new design;  
 FIG. 2 is a rear view thereof;  
 FIG. 3 is a top plan view thereof;  
 FIG. 4 is a bottom plan view thereof;  
 FIG. 5 is a right side view thereof;  
 FIG. 6 is a left side view thereof;  
 FIG. 7 is a perspective view thereof;  
 FIG. 8 is an enlarged detail view of a portion thereof as indicated in FIG. 7, showing rollers and protrusions thereof; and,  
 FIG. 9 is an enlarged detail view of a portion thereof as indicated in FIG. 2, showing rollers and protrusions thereof. The dashed broken lines merely show the perimeters of the enlarged detail views and form no part of the claimed design.

**1 Claim, 5 Drawing Sheets**

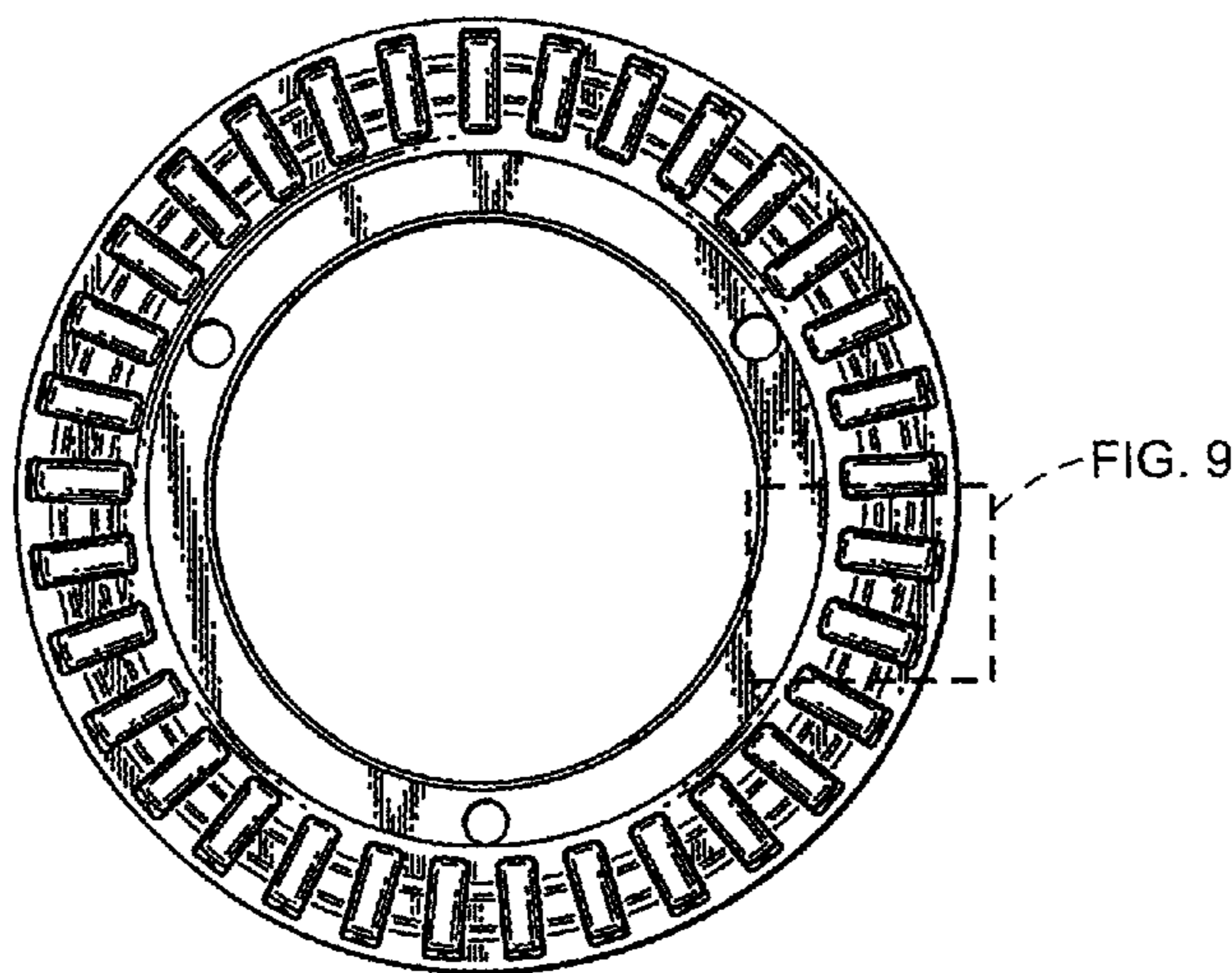


FIG. 1

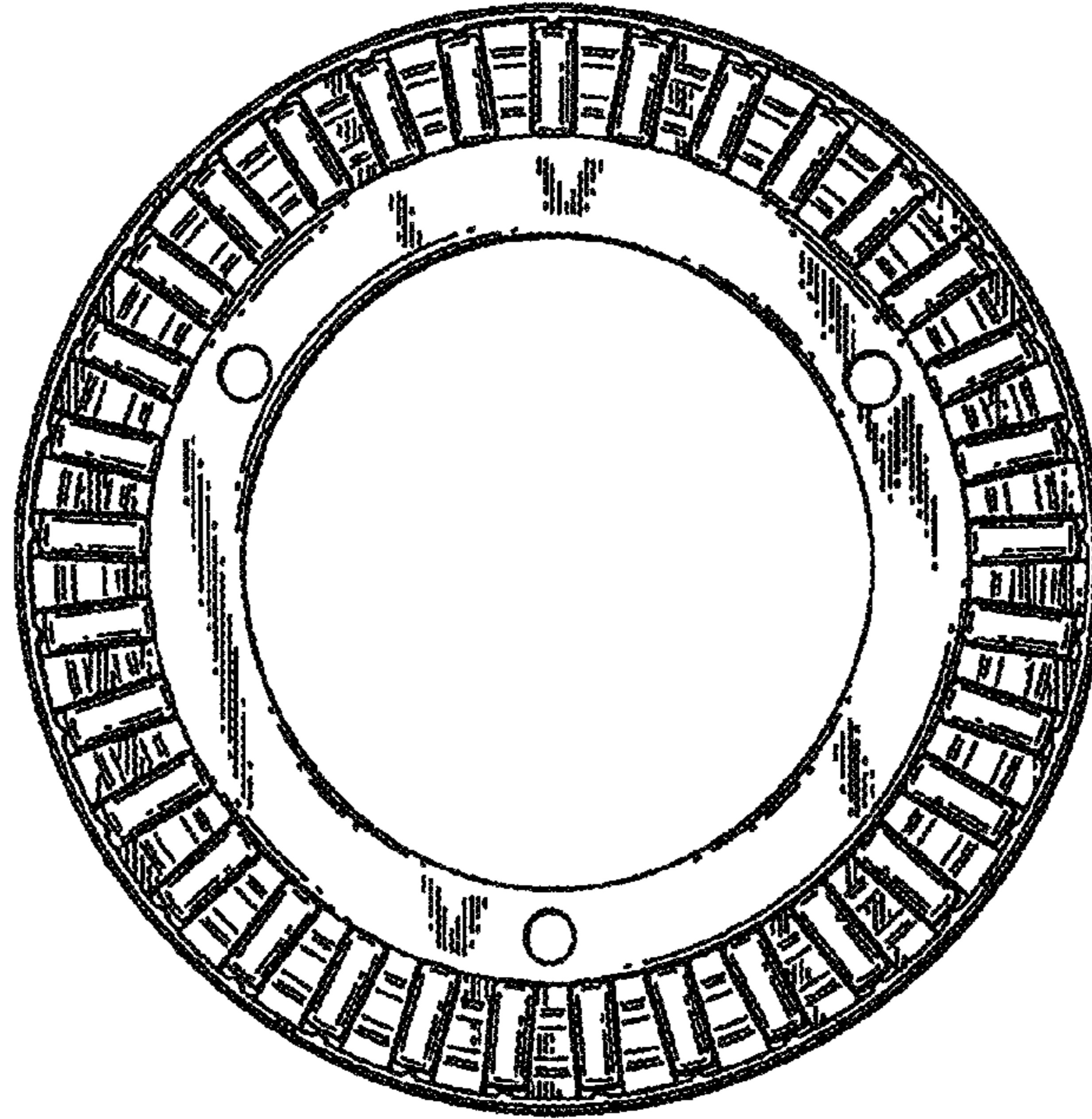


FIG. 2

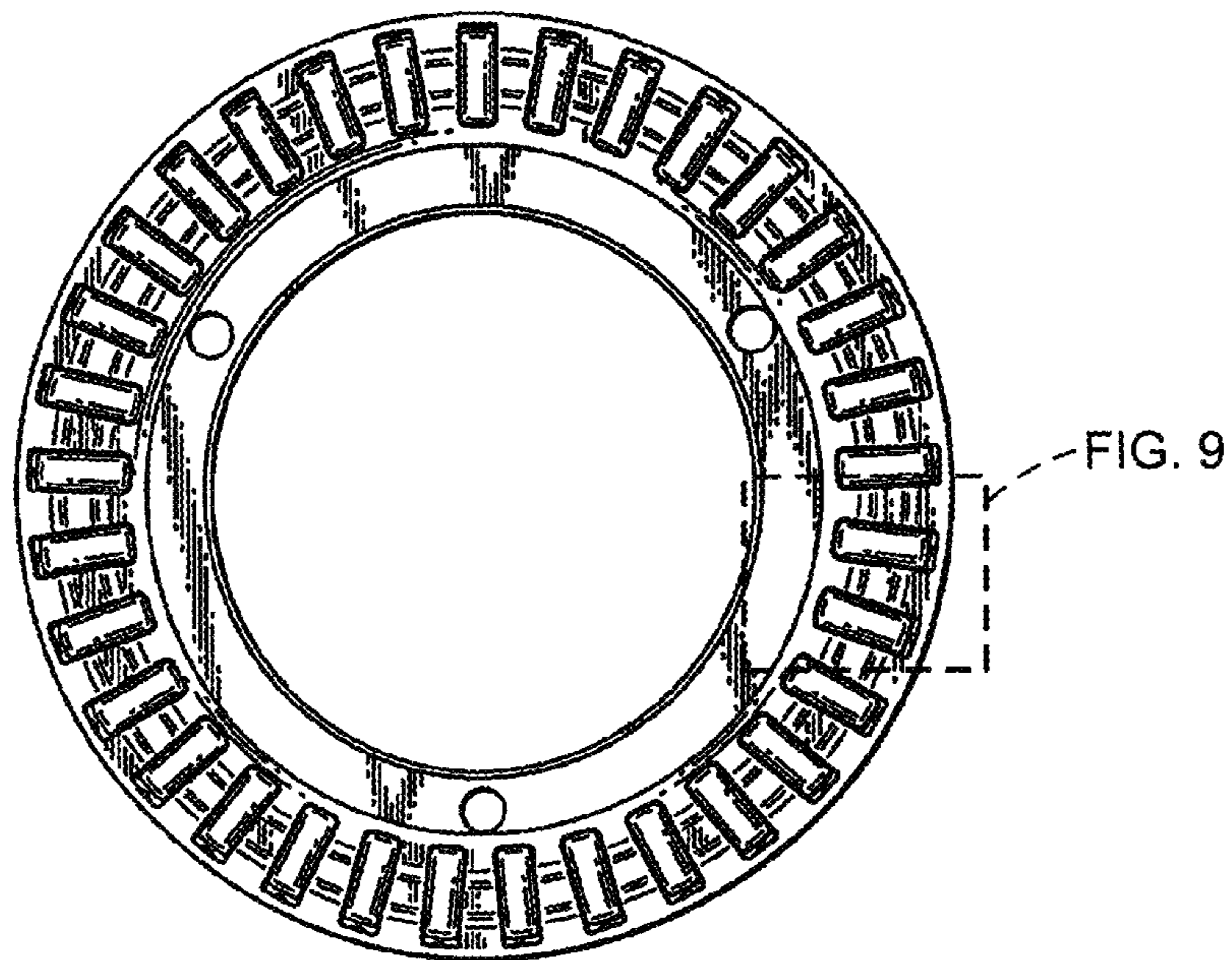


FIG.3



FIG.4



FIG.5



FIG. 6



FIG. 7

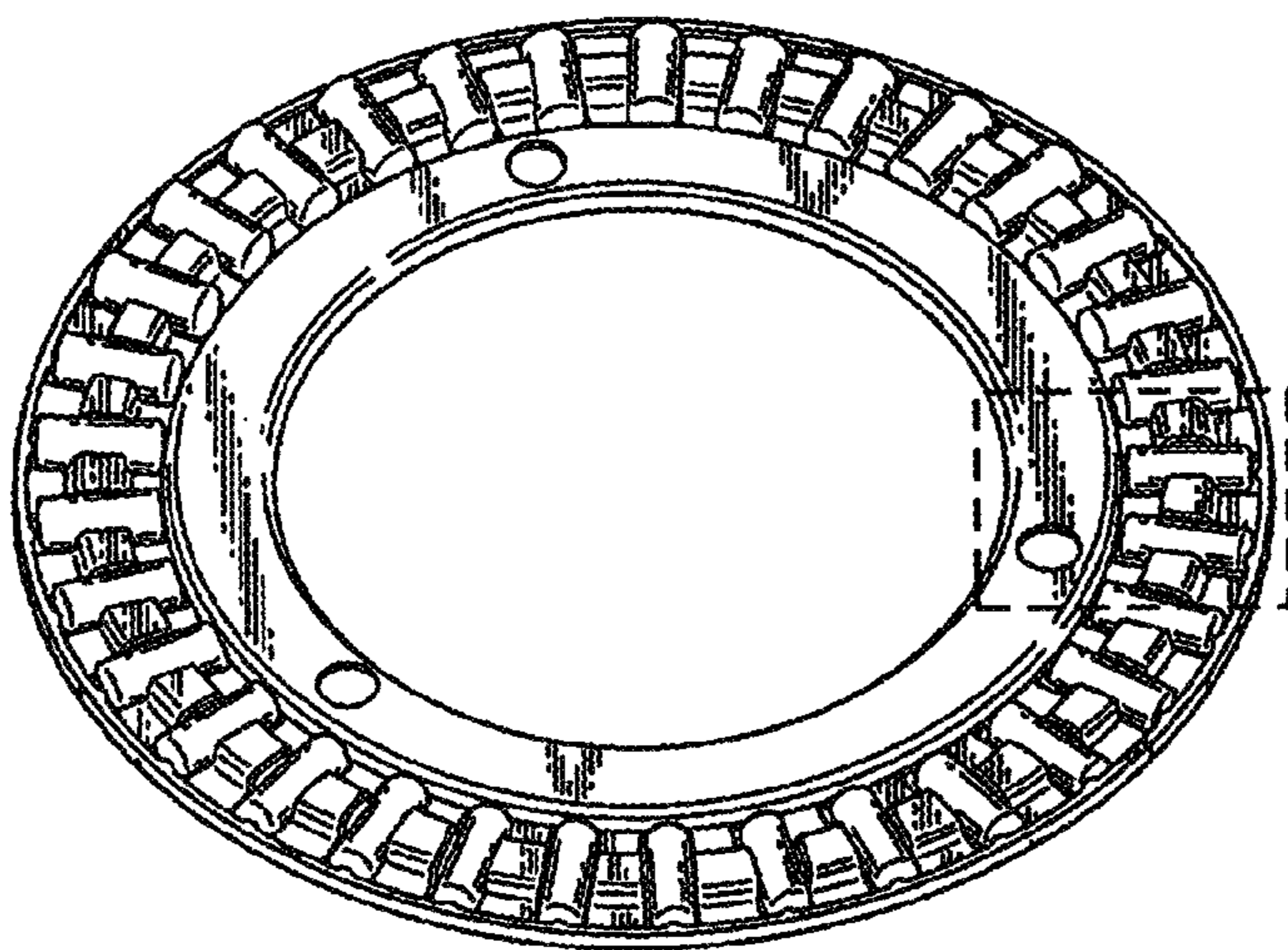


FIG. 8



FIG. 8

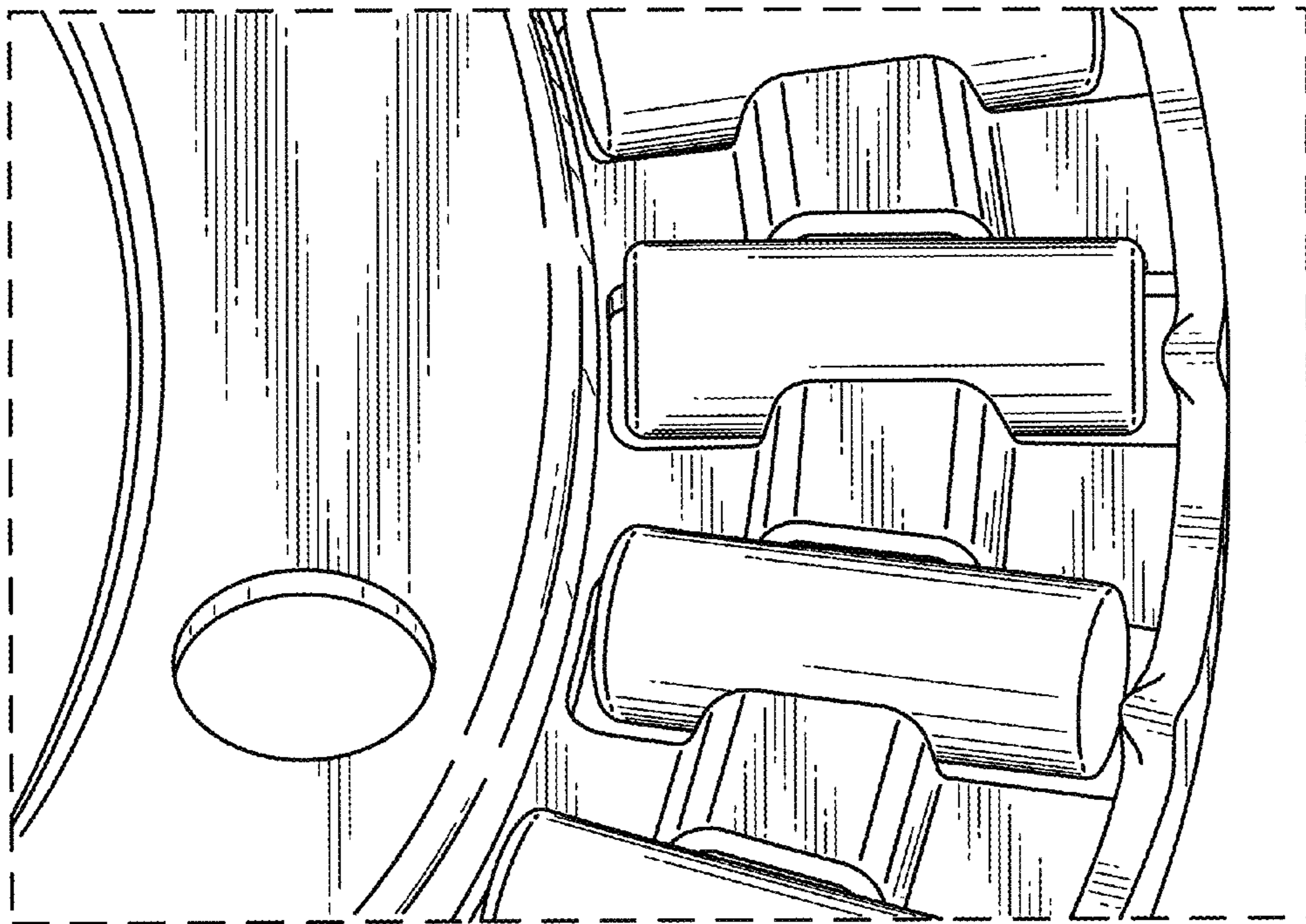


FIG. 9

