



US00D823910S

(12) **United States Design Patent** (10) **Patent No.:** **US D823,910 S**  
**Monden** (45) **Date of Patent:** **\*\* Jul. 24, 2018**

(54) **GEAR CUTTING TOOL**

B23C 5/2427; B23C 2200/0422; B23C 2200/08; B23C 2200/086; B23C 2200/123

(71) Applicant: **Mitsubishi Heavy Industries Machine Tool Co., Ltd.**, Ritto-shi, Shiga (JP)

See application file for complete search history.

(72) Inventor: **Tetsuji Monden**, Ritto (JP)

(56) **References Cited**

(73) Assignee: **mitsubishi heavy industries machine tool co., ltd.**, Shiga (JP)

U.S. PATENT DOCUMENTS

(\*\*) Term: **15 Years**

(21) Appl. No.: **29/601,364**

2,126,178	A *	8/1938	Drummond .....	B23F 21/28 407/27
2,380,208	A *	7/1945	Ashton .....	B23F 19/06 409/33
D519,533	S *	4/2006	Frey .....	D15/139
D525,995	S *	8/2006	Bjork .....	D15/139
D758,463	S *	6/2016	Kikuchi .....	D15/139
D760,826	S *	7/2016	Nakamura .....	D15/139
D774,575	S *	12/2016	Nakamura .....	D15/139
D781,941	S *	3/2017	Nakamura .....	D15/139
D803,285	S *	11/2017	O'Barr .....	D15/139
D808,450	S *	1/2018	Woodroof .....	D15/139

(Continued)

(22) Filed: **Apr. 21, 2017**

(30) **Foreign Application Priority Data**

Oct. 25, 2016 (JP) ..... 2016-023155

(51) **LOC (11) Cl.** ..... **15-03**

(52) **U.S. Cl.**  
USPC ..... **D15/139**

(58) **Field of Classification Search**  
USPC ..... D15/131, 138, 139, 140  
CPC ..... B23C 2200/0411; B23C 2200/0416; B23C 2200/0433; B23C 2200/164; B23C 2200/361; B23C 2210/0457; B23C 5/006; B23C 2200/168; B23C 2210/163; B23C 2226/125; B23C 5/10; B23C 2200/081; B23C 2200/087; B23C 2200/161; B23C 2200/206; B23C 2210/02; B23C 2210/03; B23C 2210/166; B23C 2210/50; B23C 2226/315; B23C 5/2208; B23C 5/2472; B23C 2200/0477; B23C 2200/0483; B23C 2200/083; B23C 2200/121; B23C 2200/362; B23C 2210/0428; B23C 2210/0435; B23C 2210/16; B23C 2220/36; B23C 2220/44; B23C 2240/08; B23C 2250/12; B23C 2270/06; B23C 5/2204; B23C 5/2213; B23C 5/2247;

*Primary Examiner* — Ian Simmons

*Assistant Examiner* — Khawaja Anwar

(74) *Attorney, Agent, or Firm* — Birch, Stewart, Kolasch & Birch, LLP

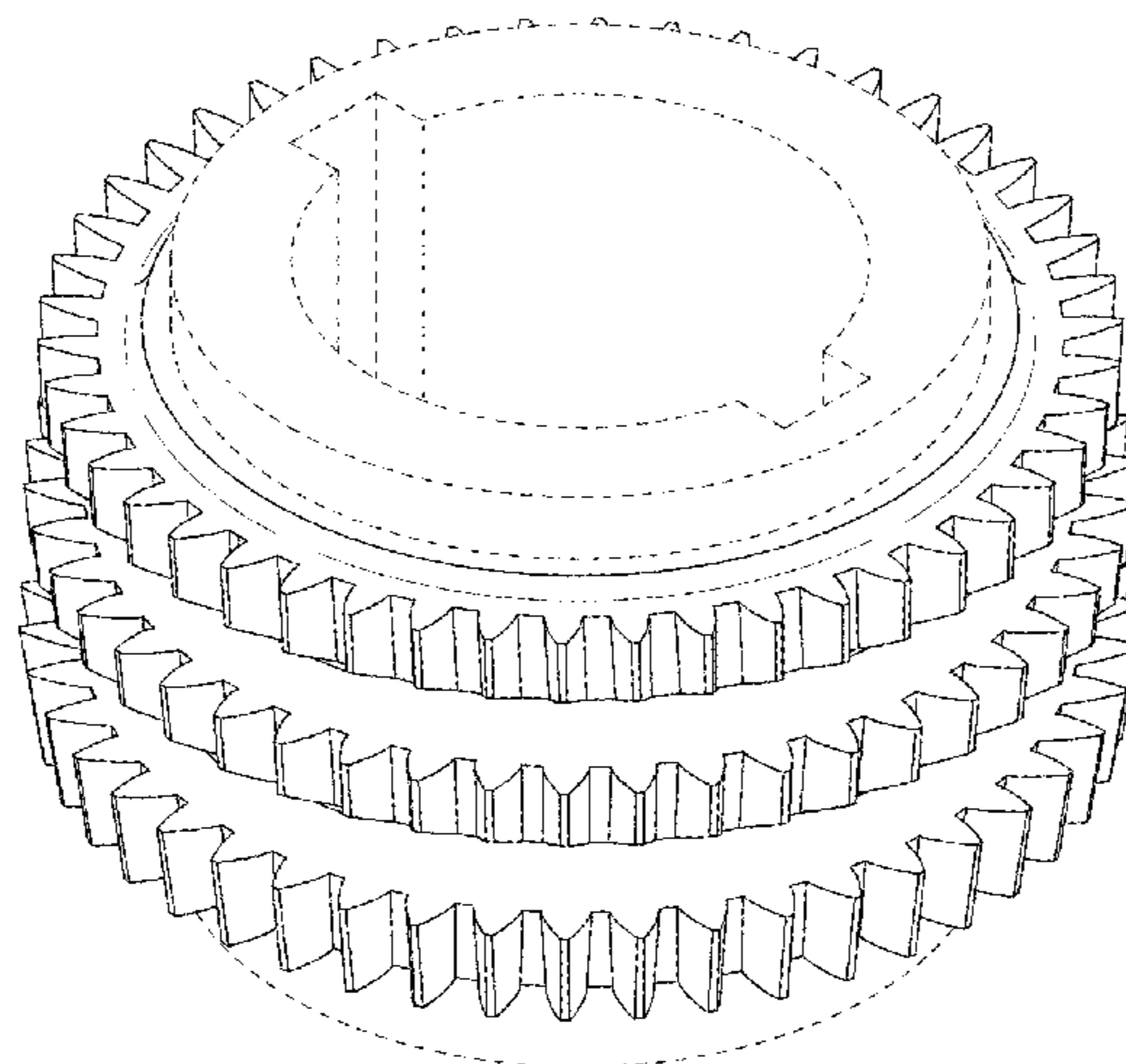
(57) **CLAIM**

The ornamental design for a gear cutting tool, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of a gear cutting tool.  
FIG. 2 is a front elevation view thereof. A rear elevation view is identical to the front elevation view.  
FIG. 3 is a right side elevation view thereof. A left side elevation view is identical to the right side elevation view.  
FIG. 4 is a top plan view thereof; and,  
FIG. 5 is a bottom plan view thereof.  
The broken lines shown in the drawings illustrate portions of the gear cutting tool that form no part of the claimed design.

**1 Claim, 5 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

2002/0081161 A1\* 6/2002 Yamada ..... B23F 21/16  
407/20  
2013/0091970 A1\* 4/2013 O-oka ..... F16H 55/08  
74/458  
2014/0140781 A1\* 5/2014 Sjo ..... B23F 21/146  
408/8

\* cited by examiner

FIG. 1

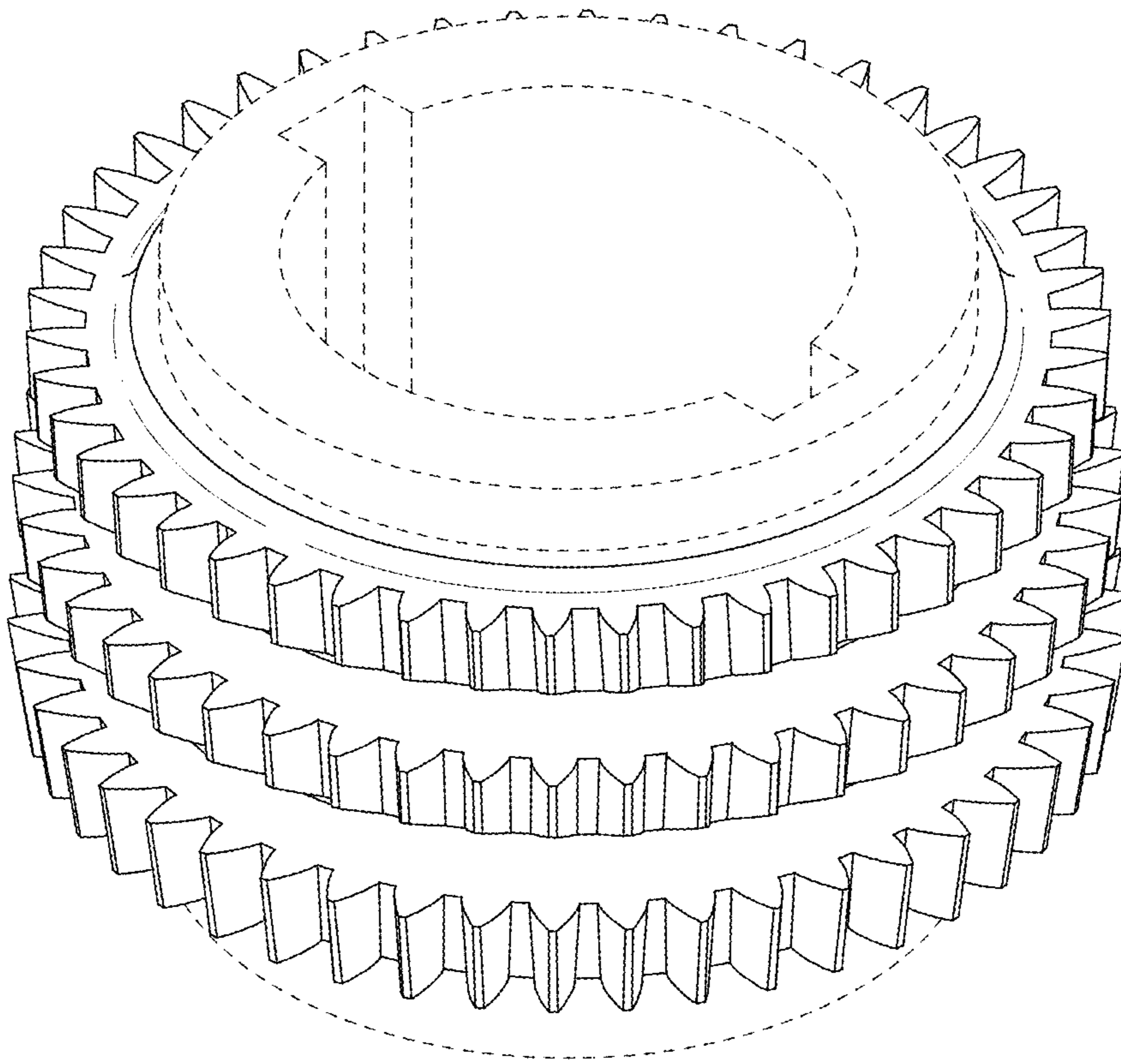


FIG. 2

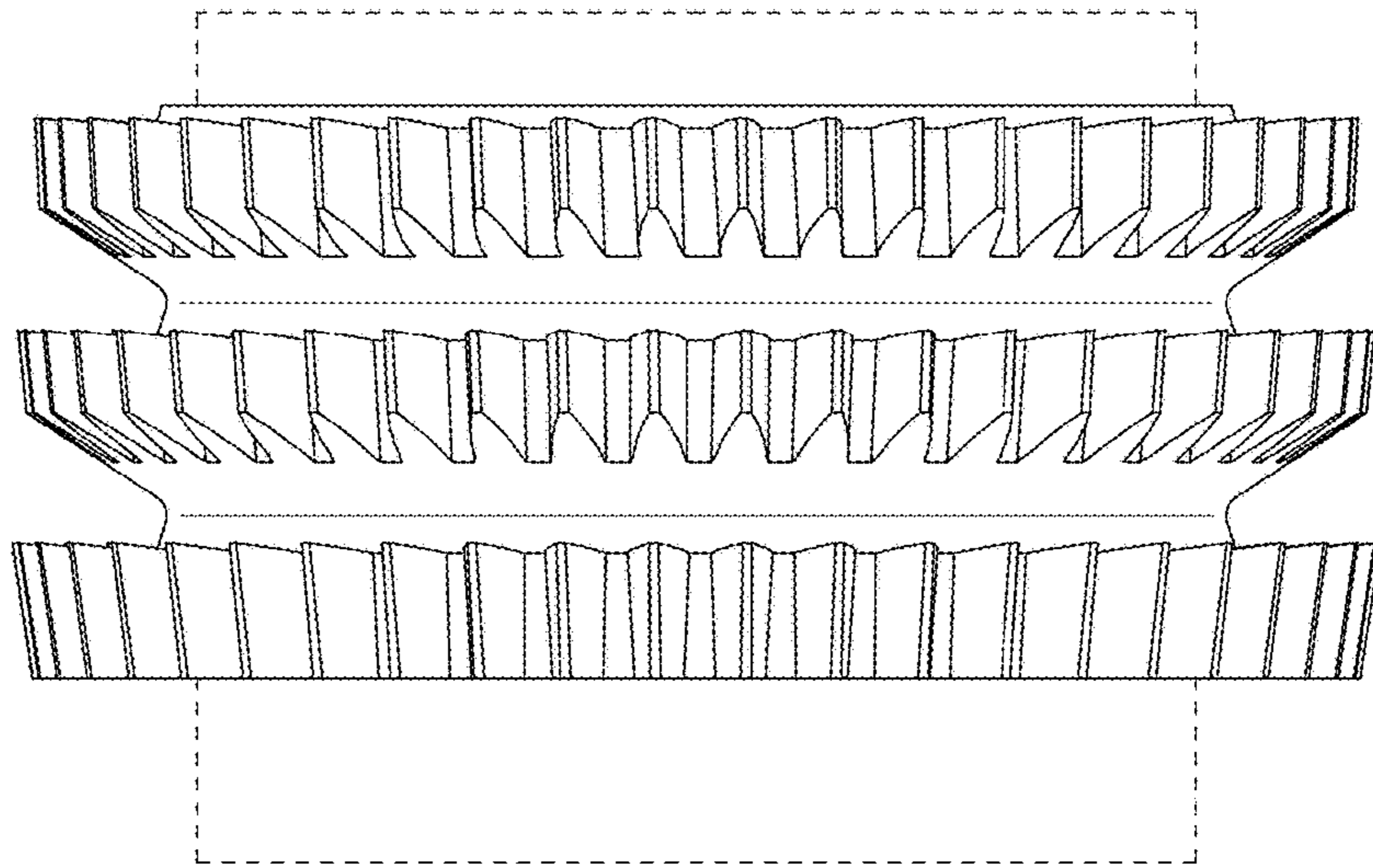


FIG. 3

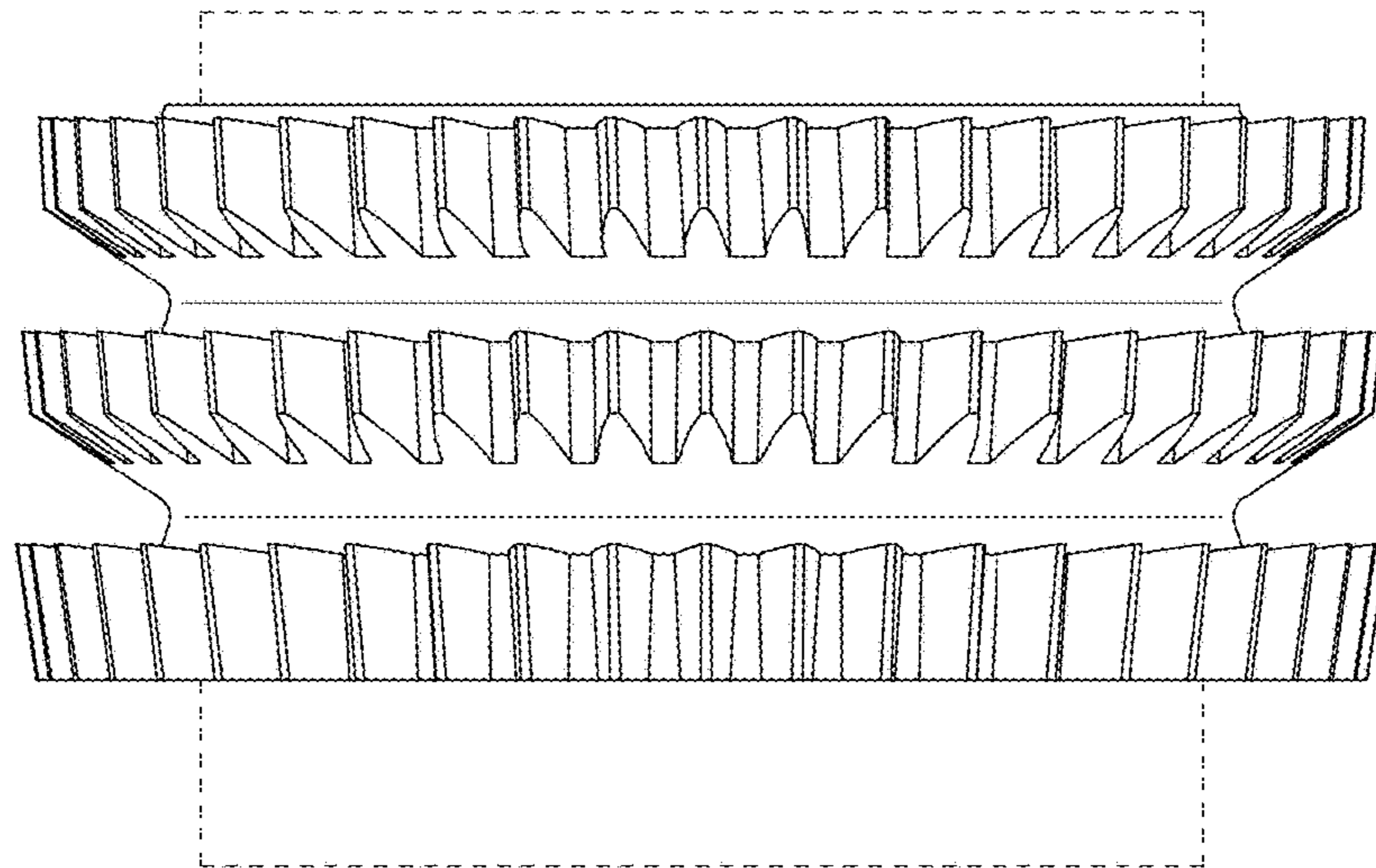


FIG. 4

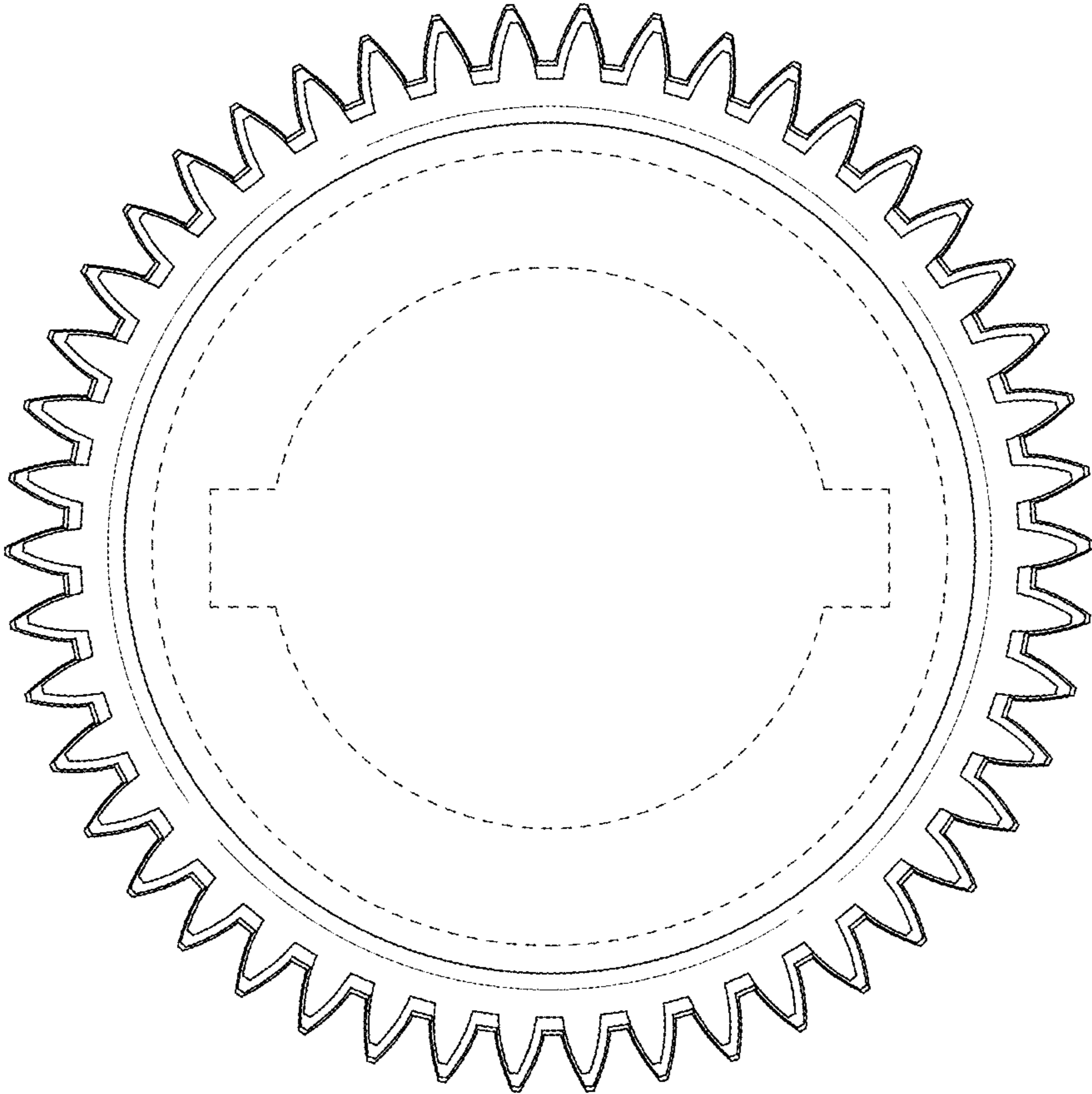


FIG. 5

