



US00D774987S

(12) **United States Design Patent** (10) **Patent No.:** **US D774,987 S**  
**Miles** (45) **Date of Patent:** **\*\* Dec. 27, 2016**

(54) **BICYCLE SPROCKET**

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(73) Assignee: **TIEN HSIN INDUSTRIES CO., LTD.**, Taichung (TW)

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

(21) Appl. No.: **29/522,617**

(22) Filed: **Apr. 1, 2015**

(51) **LOC (10) Cl.** ..... **12-11**

(52) **U.S. Cl.**  
USPC ..... **D12/123**

(58) **Field of Classification Search**  
USPC .... D12/111, 122-127; 474/77, 80, 116, 118,  
474/152, 155-158, 160-164, 202;  
280/288.4, 280/304.3, 304.4; 74/594.2  
CPC ..... F16H 7/06; F16H 55/30; F16H 55/303;  
B62M 9/105  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D246,097 S *	10/1977	McGregor, Sr.	.....	D12/123
D397,966 S *	9/1998	Chang	.....	D12/123
D435,492 S *	12/2000	Shy	.....	D12/123
D478,849 S *	8/2003	Griffin	.....	D12/123
D599,255 S *	9/2009	Wickliffe	.....	D12/123
D599,716 S *	9/2009	Wickliffe	.....	D12/123
D599,717 S *	9/2009	Wickliffe	.....	D12/123
D599,718 S *	9/2009	Wickliffe	.....	D12/123
D599,719 S *	9/2009	Wickliffe	.....	D12/123
7,686,721 B2 *	3/2010	Tabe	.....	B62M 9/105 474/116

D715,699 S *	10/2014	Reiter	.....	D12/123
D716,191 S *	10/2014	Reiter	.....	D12/123
D728,432 S *	5/2015	Lin	.....	D12/123
9,086,138 B1 *	7/2015	Emura	.....	B62M 9/105

(Continued)

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(57) **CLAIM**

I claim the ornamental design for a bicycle sprocket, as shown and described herein.

**DESCRIPTION**

FIG. 1 is a perspective view of a bicycle sprocket, showing my new design;

FIG. 2 is a front view thereof;

FIG. 3 is a rear view thereof;

FIG. 4 is an enlarged view of part A as shown in FIG. 2;

FIG. 5 is a top plain view of the enlarged part A;

FIG. 6 is an enlarged view of part B as shown in FIG. 2;

FIG. 7 is an enlarged view of part C as shown in FIG. 3;

FIG. 8 is an enlarged view of part D as shown in FIG. 3;

FIG. 9 is a right view of enlarged part E as shown in FIG. 4;

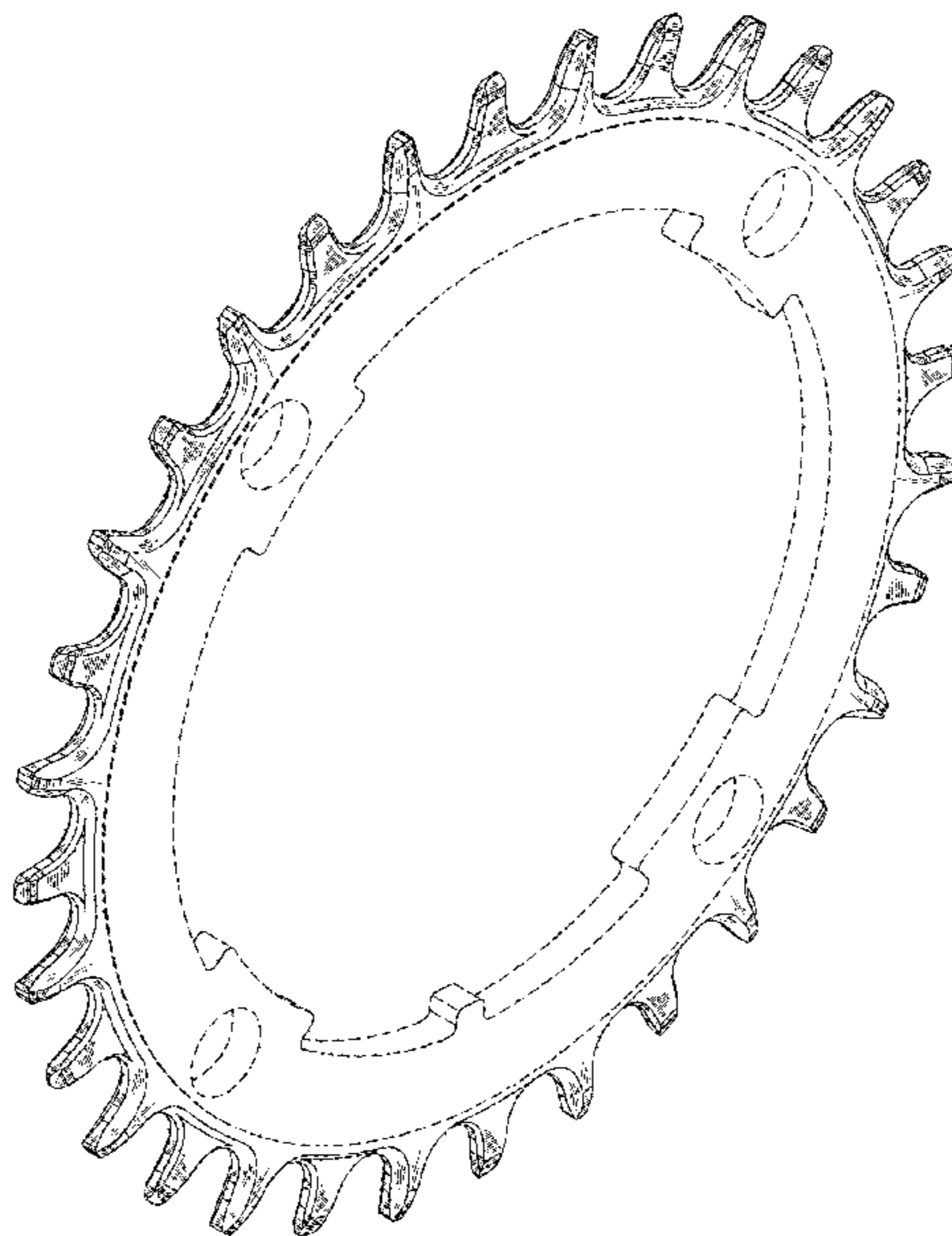
FIG. 10 is a left view of enlarged part E as shown in FIG. 4;

FIG. 11 is a right view of enlarged part F as shown in FIG. 9; and,

FIG. 12 is a left view of enlarged part F as shown in FIG. 9.

The broken lines showing features of the bicycle sprocket are provided for the purposes of illustrating portions of the article that form no part of the claimed design. Furthermore, the annotated broken line bubbles in FIGS. 2, 3, 4, 5, and 6 are provided to indicate the areas of enlargement of which are illustrated in other views.

**1 Claim, 8 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

2013/0072334 A1\* 3/2013 Braedt ..... F16H 7/06  
474/156  
2013/0139642 A1\* 6/2013 Reiter ..... B62M 9/105  
74/594.2  
2013/0184110 A1\* 7/2013 Reiter ..... F16H 55/303  
474/152

\* cited by examiner

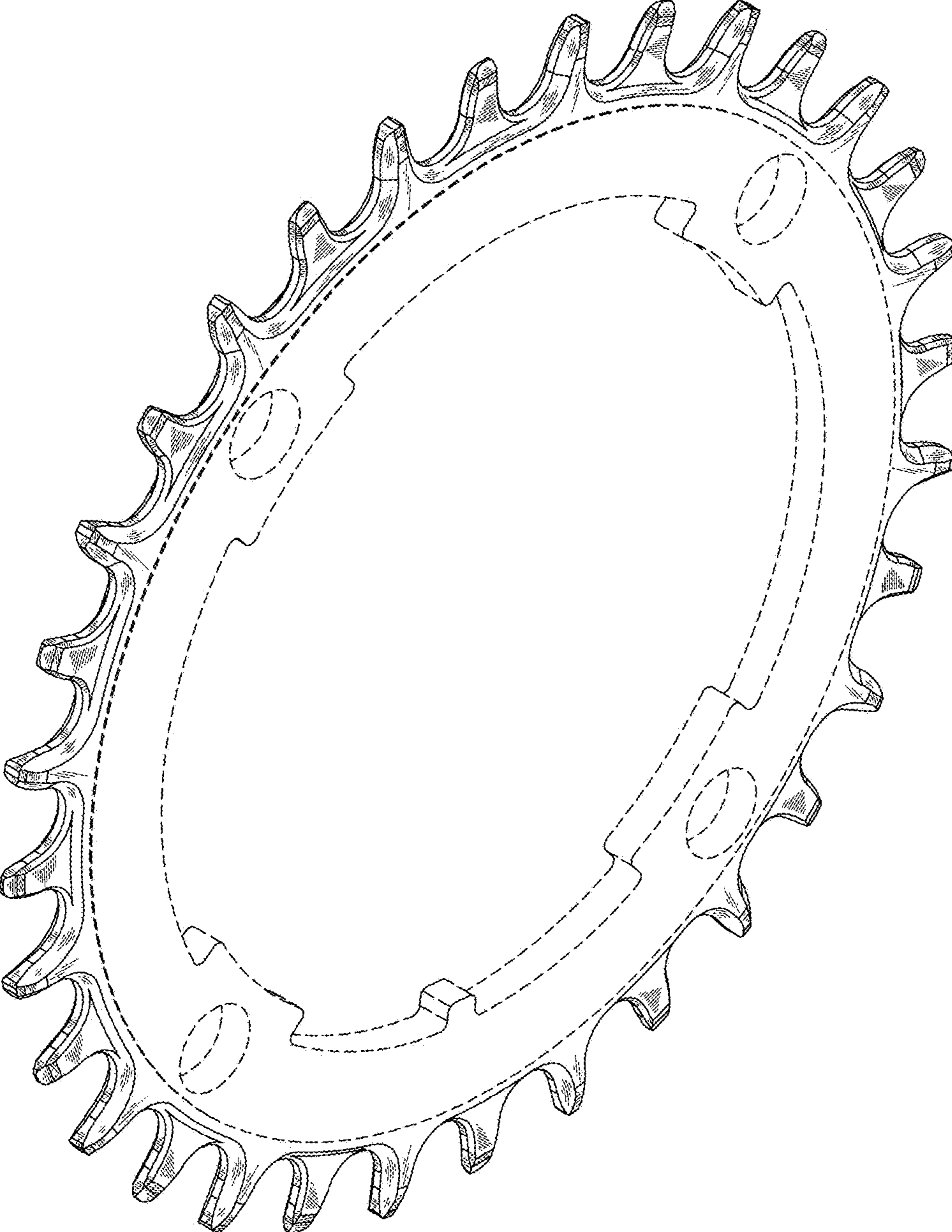


Fig. 1

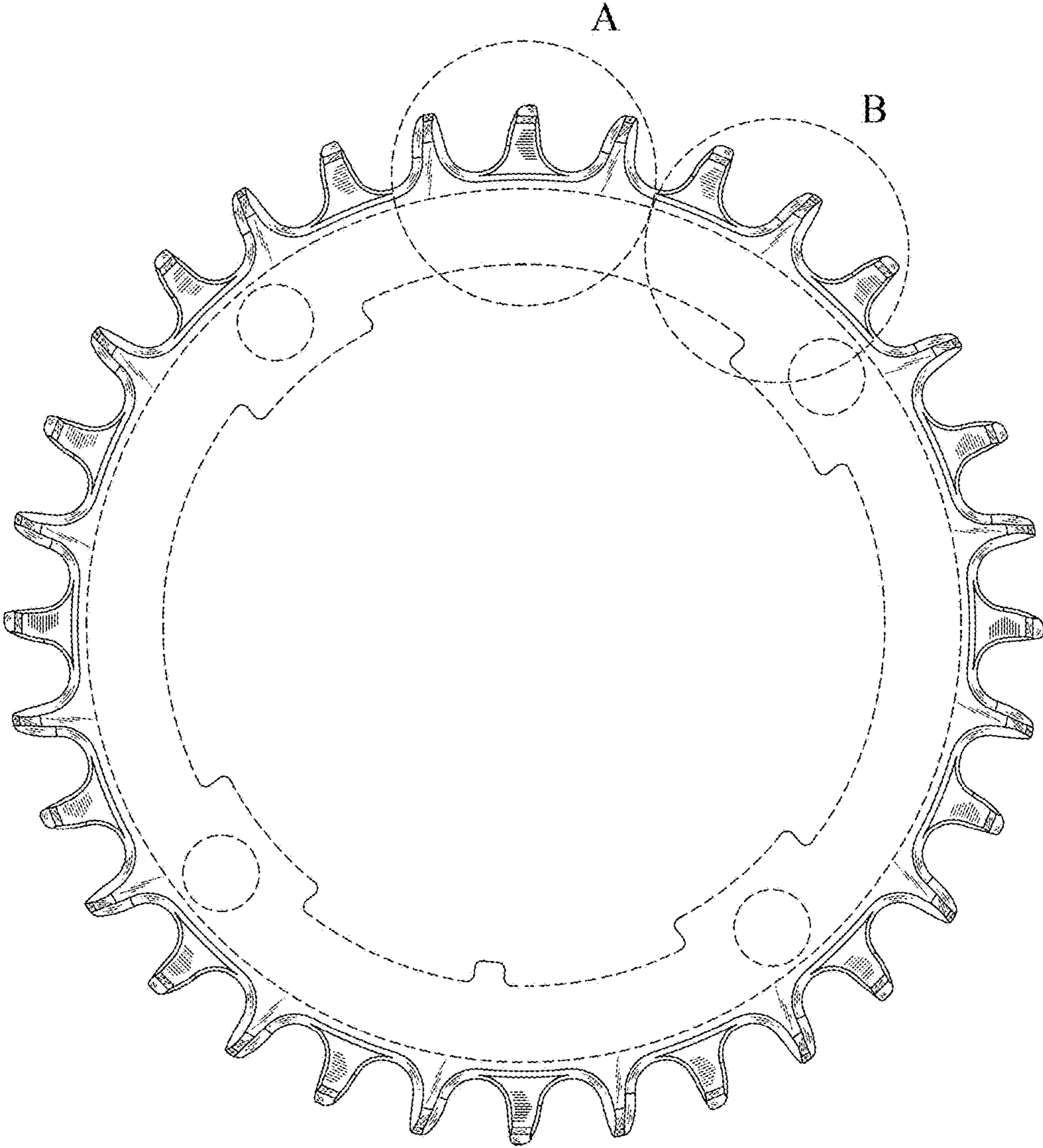


Fig. 2



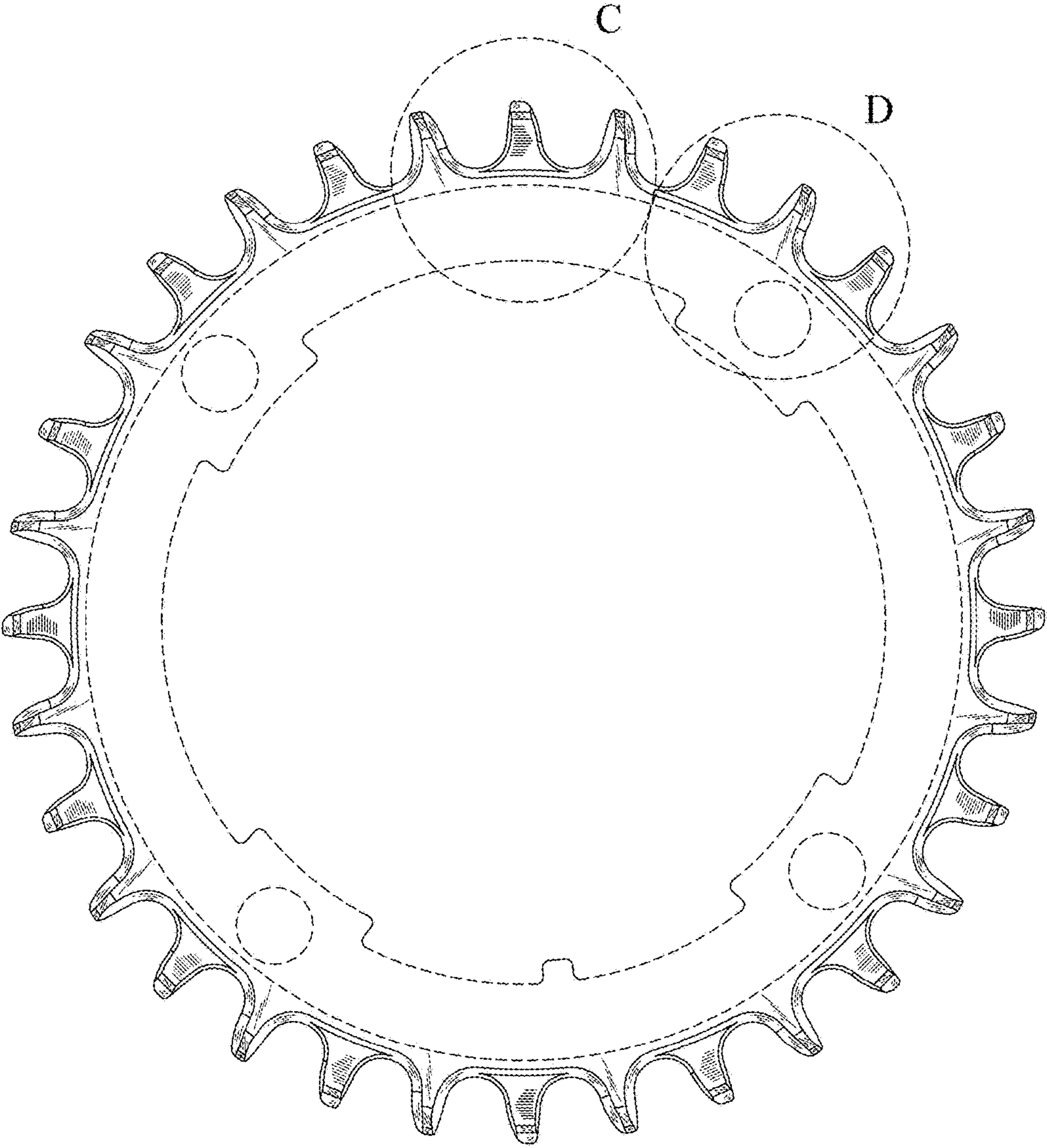


Fig. 3

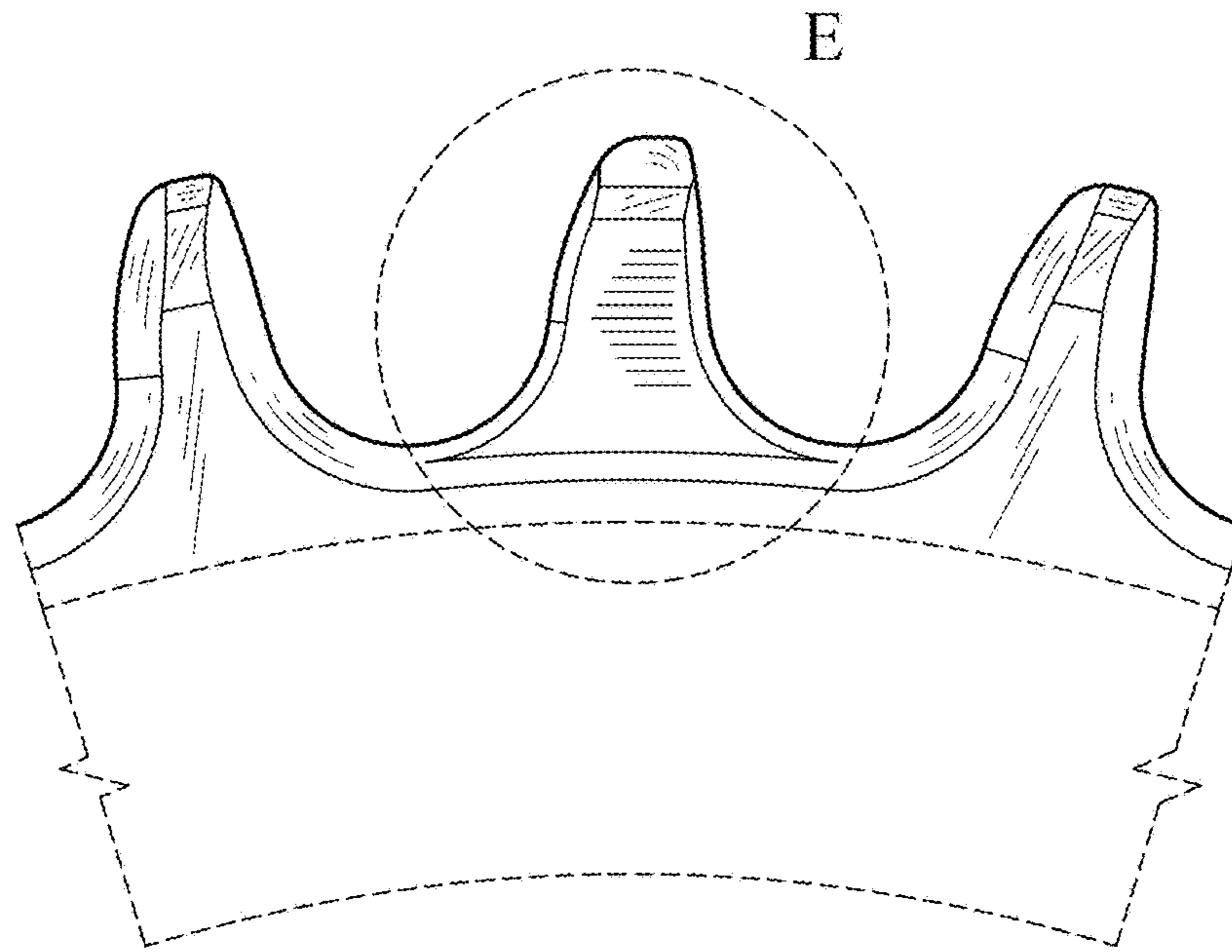


Fig. 4

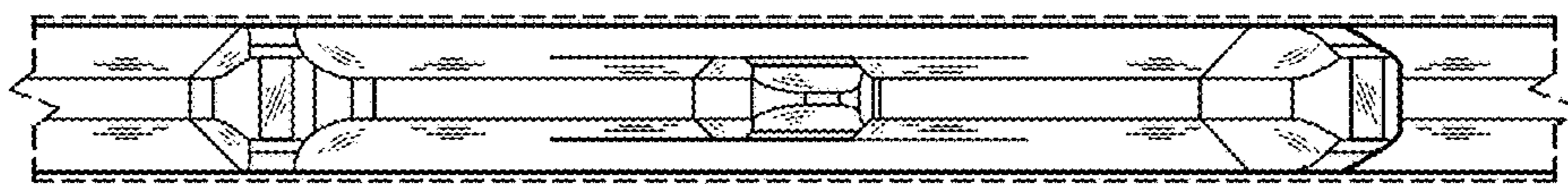


Fig. 5

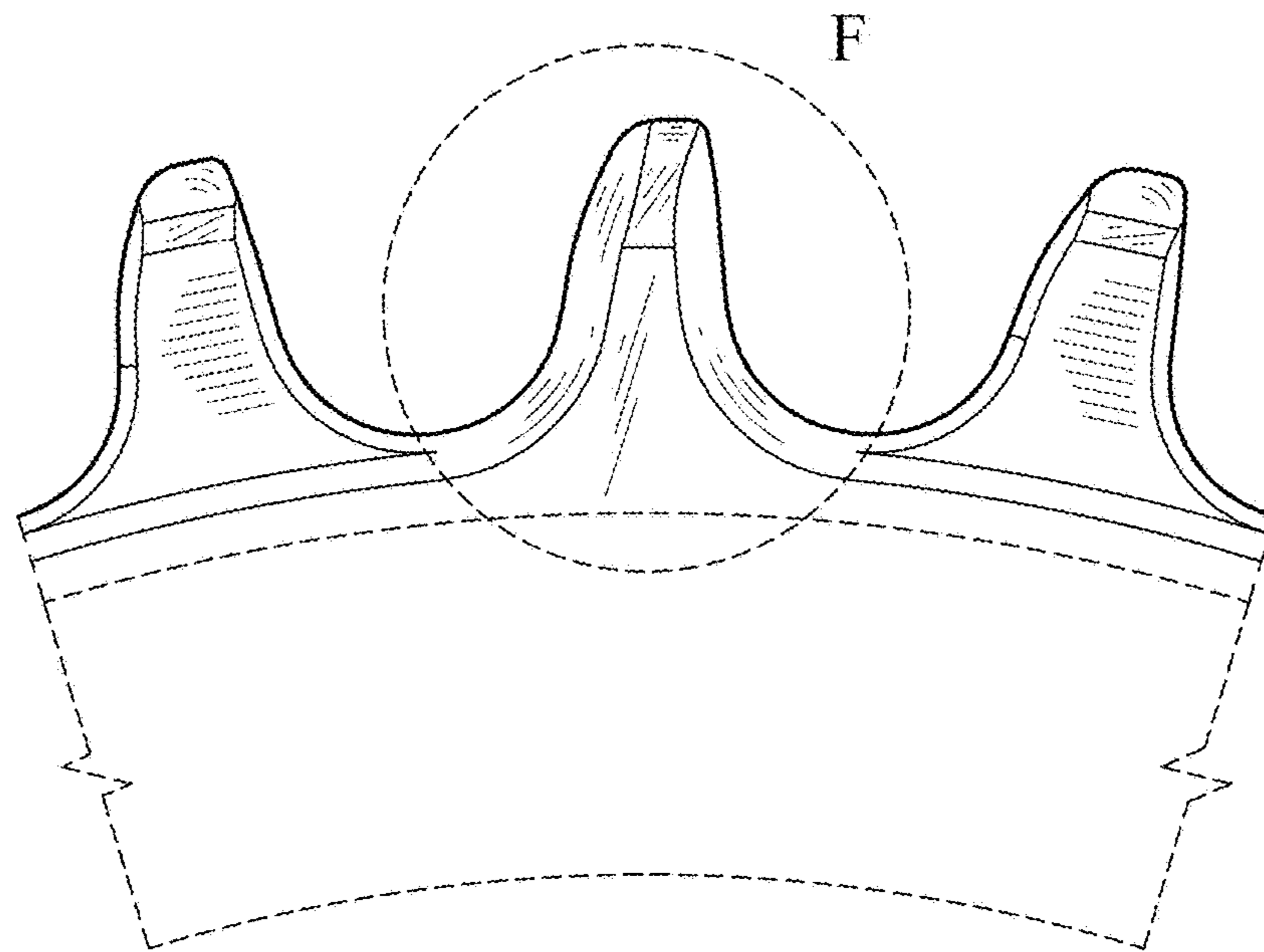


Fig. 6

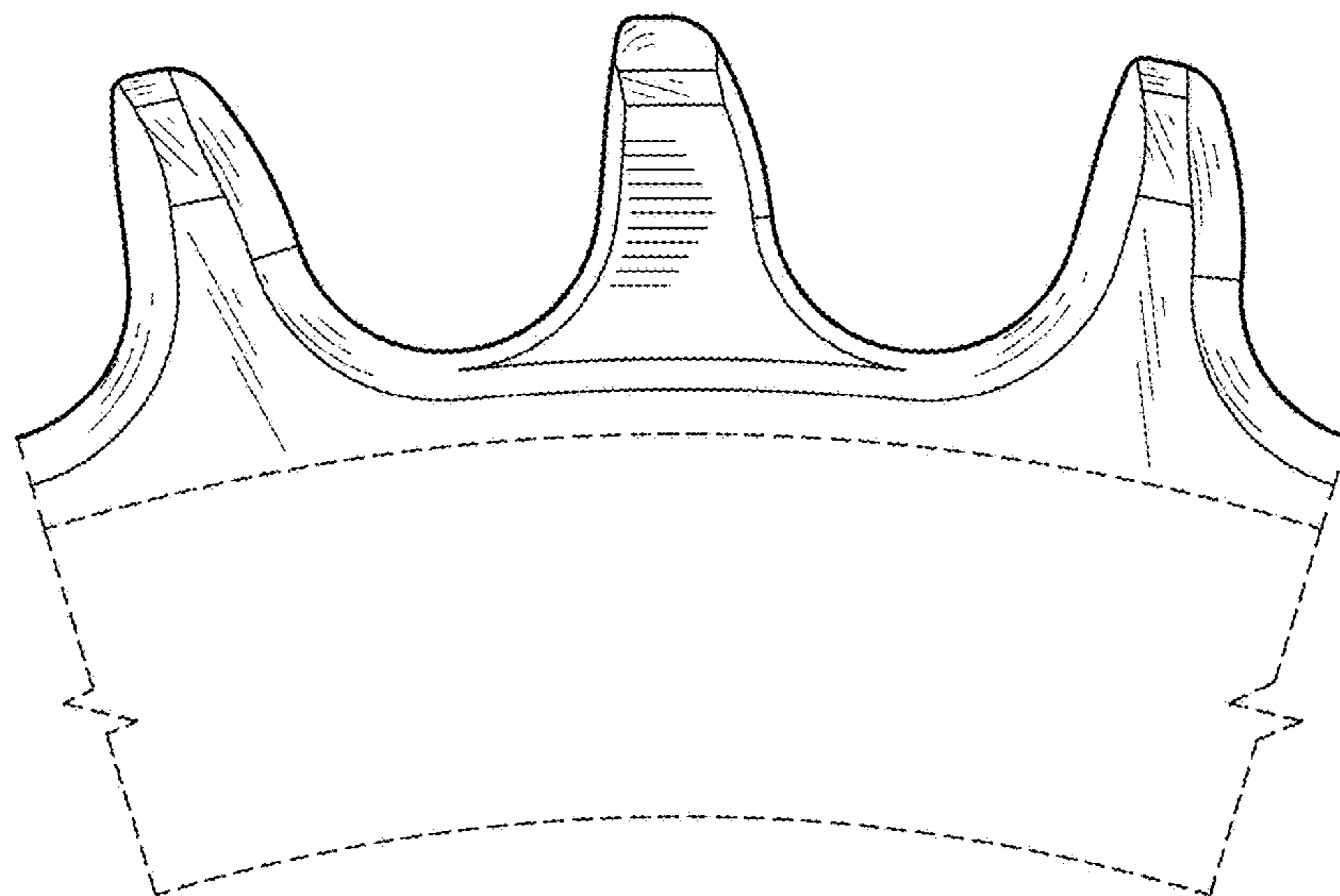


Fig. 7

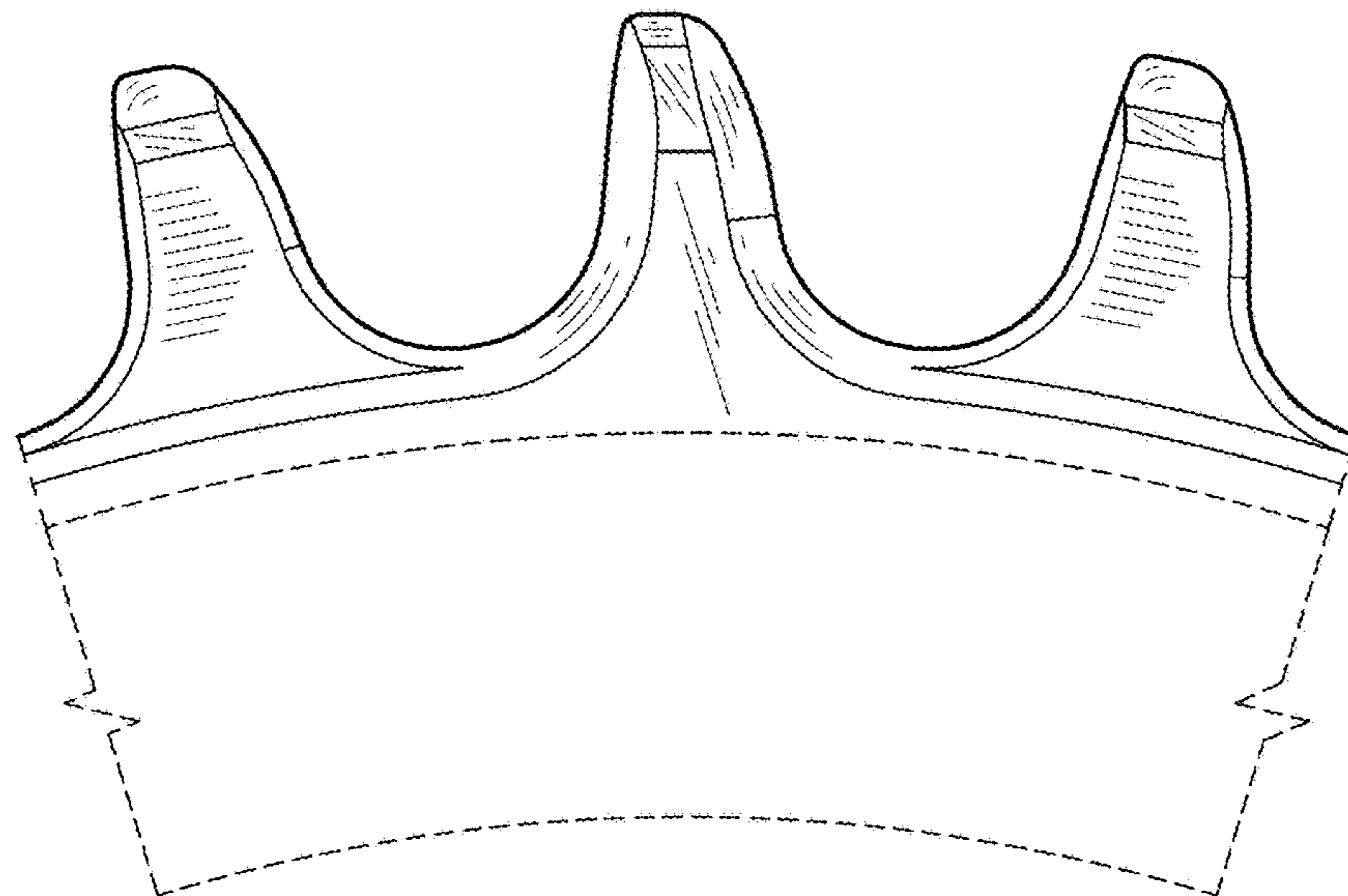


Fig. 8



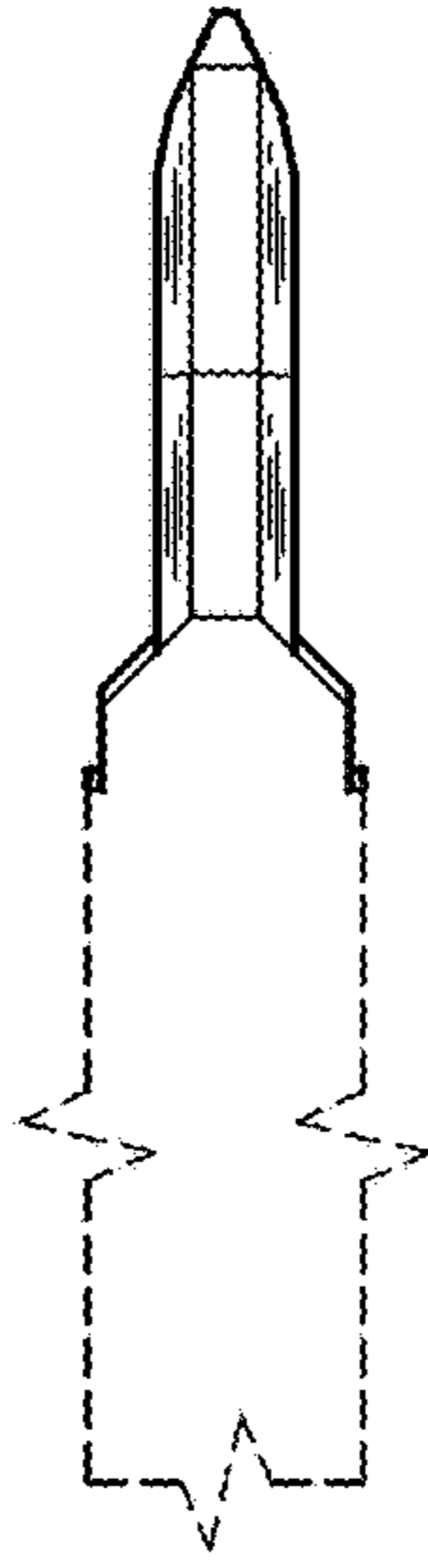


Fig. 9

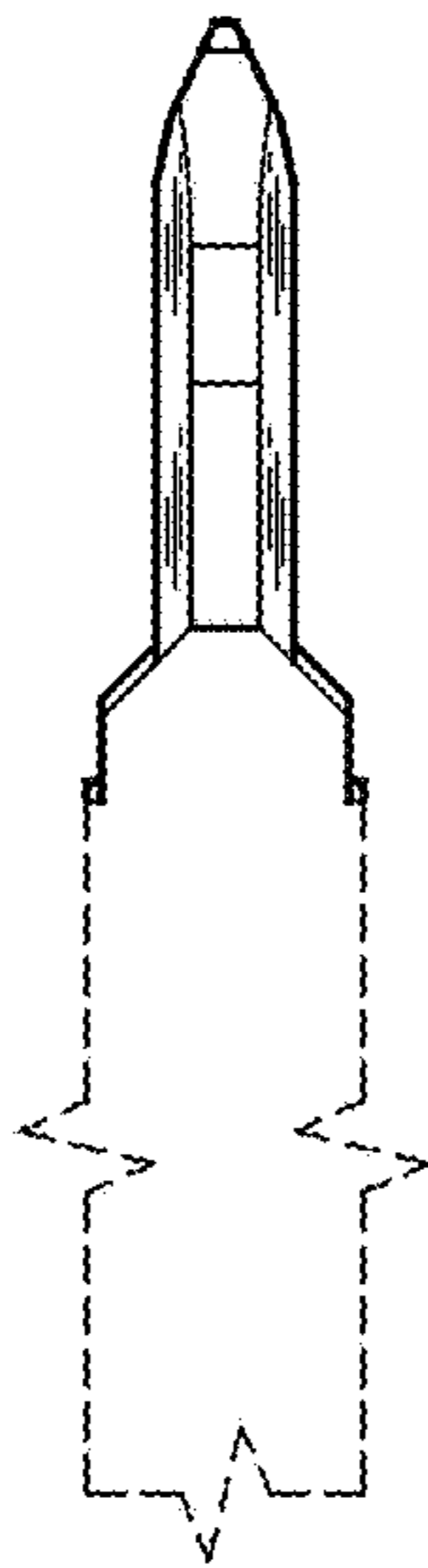


Fig. 10

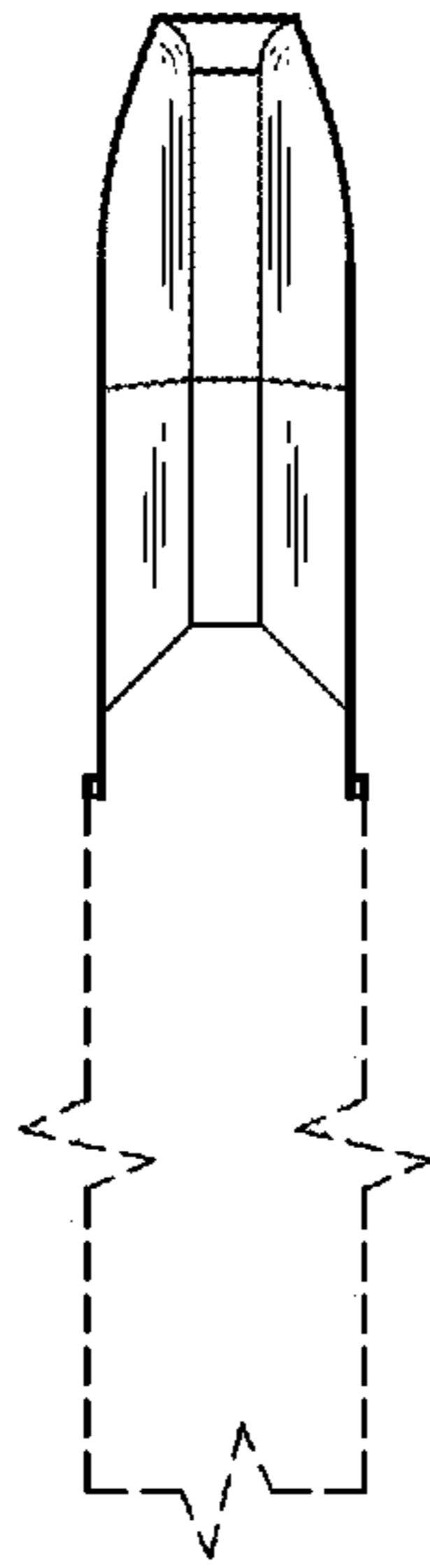


Fig. 11

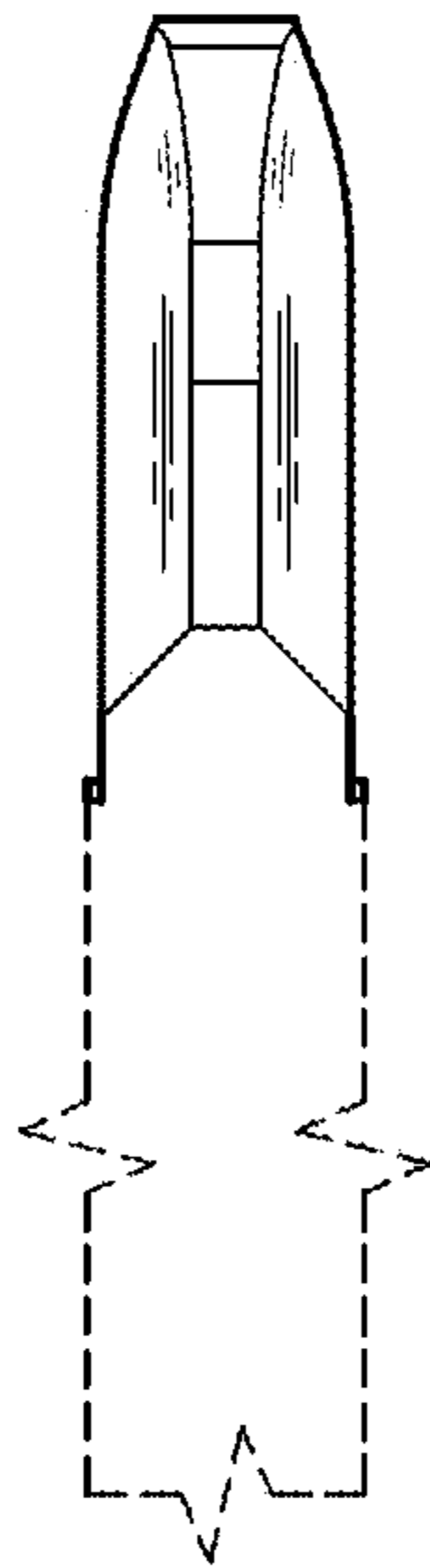


Fig. 12