



US00D336509S

# United States Patent [19]

[11] Patent Number: **Des. 336,509**

Safford et al.

[45] Date of Patent: **\*\* Jun. 15, 1993**

[54] **PLATE VALVE SPRING**

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[73] Assignee: **Cooper Industries, Inc., Houston,**  
Tex.

[\*\*] Term: **14 Years**

[21] Appl. No.: **460,720**

[22] Filed: **Jan. 4, 1990**

[52] U.S. Cl. .... **D23/249**

[58] Field of Search ..... **D23/233-237,**  
**D23/244-249; 137/516.13-516.27; 251/368**

3,875,962 4/1975 Bauer ..... 137/516.21  
 4,495,964 1/1985 Bennitt ..... 137/516.15 X  
 4,627,464 12/1986 Hartshorn ..... 137/516.21 X  
 4,854,341 8/1989 Bauer ..... 137/516.21 X  
 4,889,156 12/1989 Woollatt et al. .... 137/516.21 X  
 4,913,187 4/1990 Wollatt et al. .... 137/516.21 X  
 5,036,880 8/1991 Safford et al. .... 137/516.21

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### [57] CLAIM

The ornamental design for a plate valve spring, as shown and described.

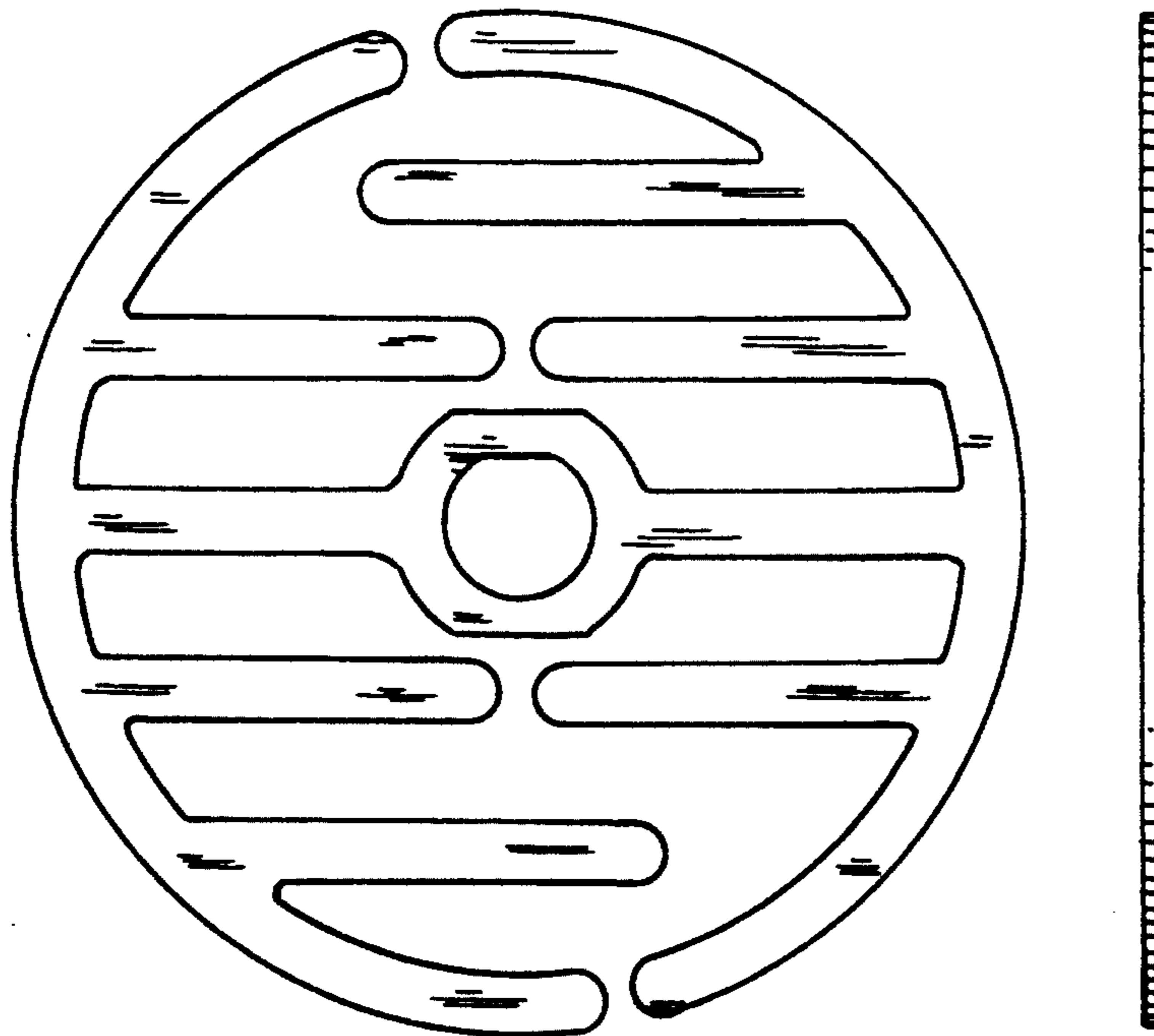
### DESCRIPTION

FIG. 1 is a top plan view of a plate valve spring showing our new design;  
 FIG. 2 is a left side elevational view thereof;  
 FIG. 3 is a right side elevational view thereof;  
 FIG. 4 is a rear elevational view thereof;  
 FIG. 5 is a front elevational view thereof; and,  
 FIG. 6 is a bottom plan view thereof.

[56] **References Cited**

**U.S. PATENT DOCUMENTS**

D. 217,666	5/1970	Self .....	D23/249
2,090,486	8/1937	Richardson .....	137/516.21
3,123,095	3/1964	Kohler .....	137/516.23
3,428,082	2/1969	Kohler .....	137/516.23



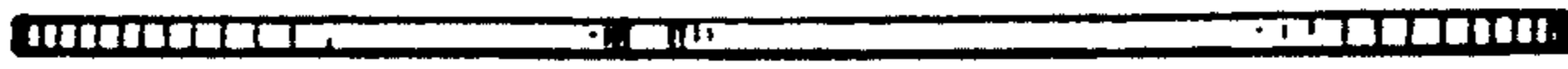


FIG.4



FIG.2

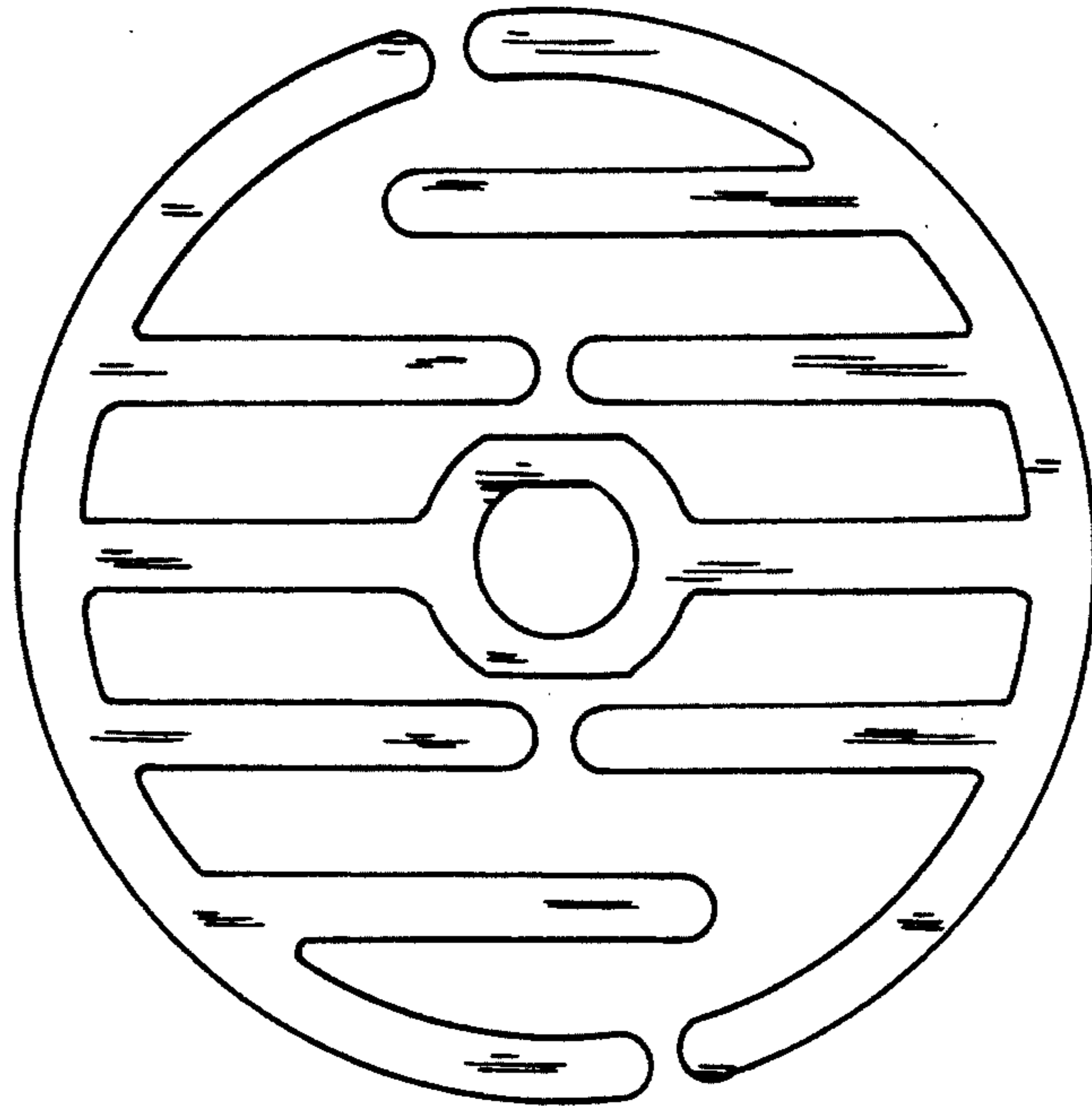


FIG.1



FIG.3

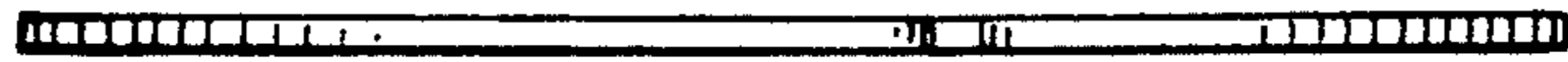


FIG.5

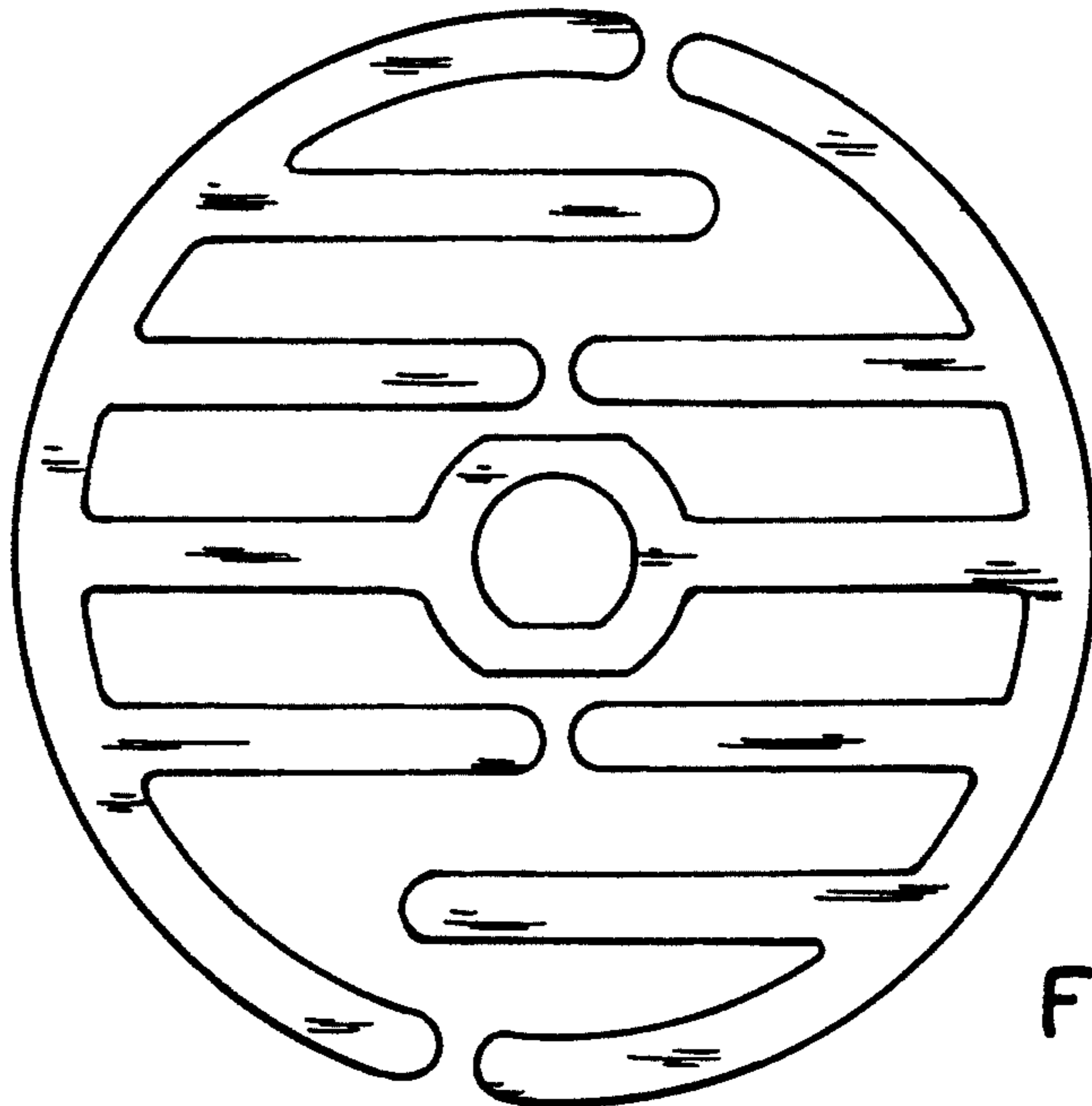


FIG.6