

US00D973581S

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

(10) **Patent No.:** **US D973,581 S**

(45) **Date of Patent:** **\*\* Dec. 27, 2022**

(54) **SECONDARY BATTERY**

(71) Applicant: **MURATA MANUFACTURING CO., LTD.**, Kyoto-fu (JP)

(72) Inventors: **Taichi Katsumoto**, Nagaokakyo (JP);  
**Yoshiichi Horikoshi**, Nagaokakyo (JP);  
**Masayuki Kageyama**, Nagaokakyo (JP)

(73) Assignee: **Murata Manufacturing Co., Ltd.**, Kyoto (JP)

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

(21) Appl. No.: **29/750,224**

(22) Filed: **Sep. 11, 2020**

(30) **Foreign Application Priority Data**

May 13, 2020 (JP) ..... 2020-009441 D

(51) **LOC (13) Cl.** ..... **13-02**

(52) **U.S. Cl.**  
USPC ..... **D13/103**

(58) **Field of Classification Search**  
USPC ..... D13/102–106, 110, 118–119, 184  
CPC . Y02E 60/10; H01M 2220/30; H01M 50/209;  
H01M 50/213; H01M 50/183; H01M 50/10;  
H01M 50/529; H01M 50/531; H01M 10/0525;  
H01M 10/0436; H01M 10/052; H01M 10/0565;  
H01M 10/30; H01M 10/345; H01M 10/425; H01M 2010/0495;  
B25F 5/02; B25F 5/00; A61B 2017/00734

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D118,597 S \* 1/1940 Knauss ..... D13/103  
5,654,111 A \* 8/1997 Minomiya ..... H01M 10/0436  
429/162

D423,450 S \* 4/2000 Buckle ..... D13/103  
D425,477 S \* 5/2000 Buckle ..... D13/103  
D425,855 S \* 5/2000 Buckle ..... D13/103  
D426,188 S \* 6/2000 Buckle ..... D13/103  
D426,189 S \* 6/2000 Buckle ..... D13/103  
D426,514 S \* 6/2000 Buckle ..... D13/103  
D426,515 S \* 6/2000 Buckle ..... D13/103  
D426,516 S \* 6/2000 Buckle ..... D13/103  
D426,517 S \* 6/2000 Buckle ..... D13/103  
D426,807 S \* 6/2000 Buckle ..... D13/103  
D476,617 S \* 7/2003 Kasahara ..... D13/103  
D476,619 S \* 7/2003 Katsumoto ..... D13/103  
D476,947 S \* 7/2003 Kasahara ..... D13/103  
D477,276 S \* 7/2003 Katsumoto ..... D13/103  
D730,826 S \* 6/2015 Moanack ..... D13/110  
D763,788 S \* 8/2016 Bakker ..... D13/103  
D782,408 S \* 3/2017 Morgan ..... D13/102  
10,573,480 B2 \* 2/2020 Rosios ..... H01M 50/572

(Continued)

*Primary Examiner* — Nathaniel D. Buckner

(74) *Attorney, Agent, or Firm* — K&L Gates LLP

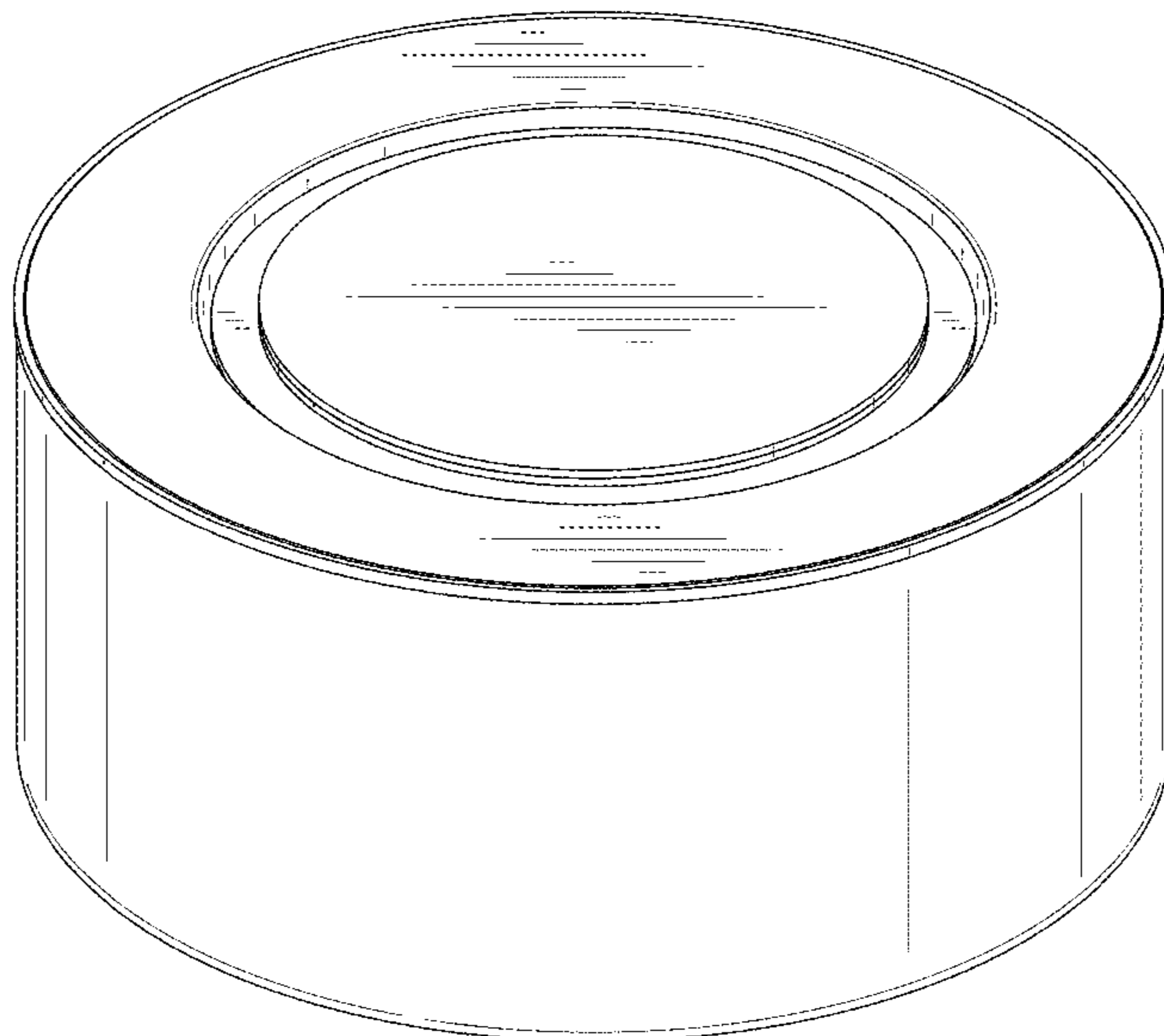
(57) **CLAIM**

The ornamental design for a secondary battery, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of a secondary battery showing our new design;  
FIG. 2 is a front elevational view thereof;  
FIG. 3 is a rear elevational view thereof;  
FIG. 4 is a left-side elevational view thereof;  
FIG. 5 is a right-side elevational view thereof;  
FIG. 6 is a top plan view thereof;  
FIG. 7 is a bottom plan view thereof; and,  
FIG. 8 is an enlarged cross section view thereof, taken along line 8-8 in FIG. 2.  
The broken lines FIG. 8 depict portions of the secondary battery that form no part of claimed design.

**1 Claim, 6 Drawing Sheets**



(56)

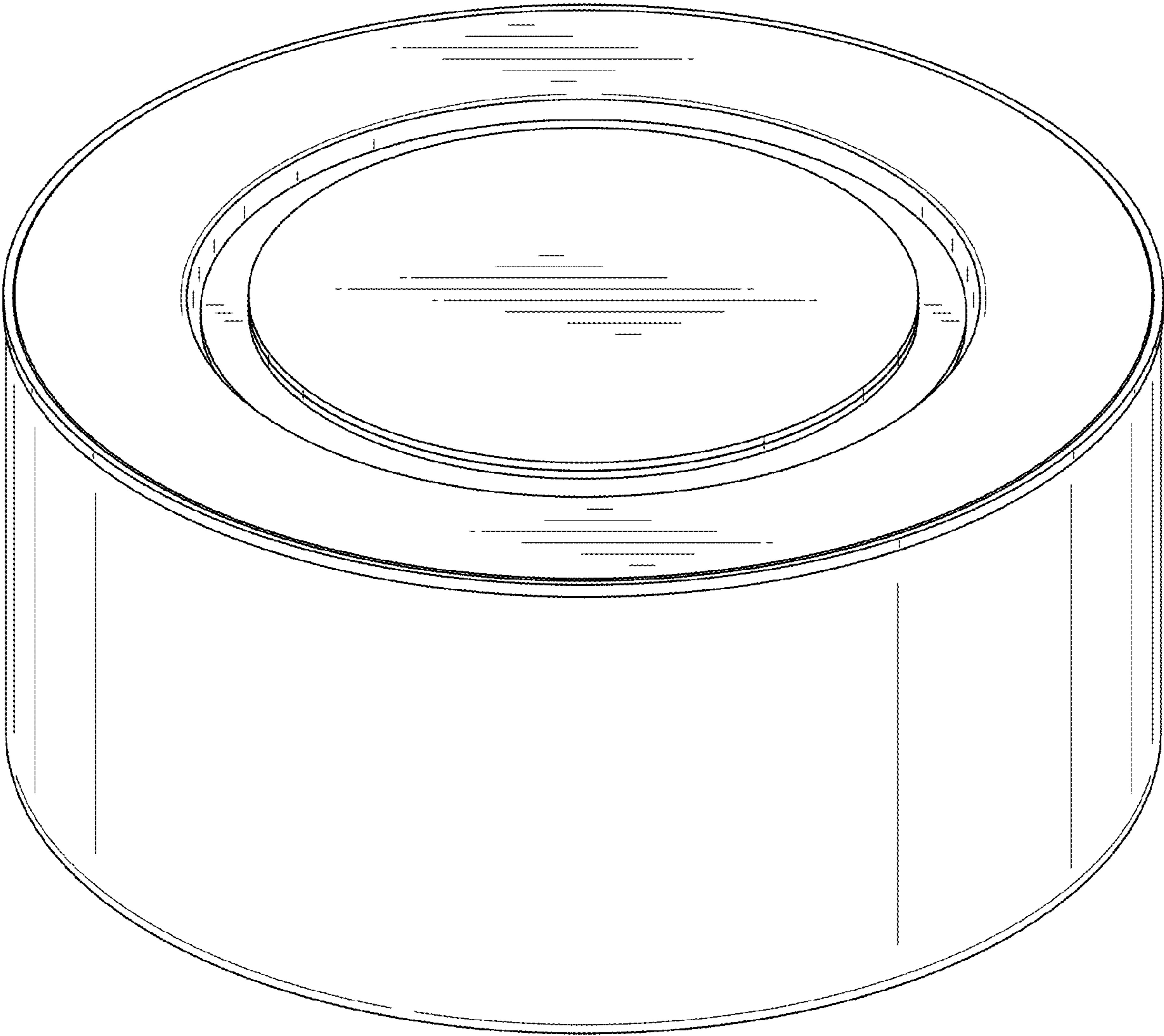
**References Cited**

U.S. PATENT DOCUMENTS

10,573,928 B2 \* 2/2020 Kim ..... H01M 4/58  
D904,981 S \* 12/2020 Worthy ..... D13/110  
2007/0251083 A1 \* 11/2007 Link ..... H01M 12/06  
429/129  
2020/0411824 A1 \* 12/2020 Tsang ..... H01M 50/325  
2021/0184322 A1 \* 6/2021 Park ..... H01M 50/469  
2021/0257760 A1 \* 8/2021 Mun ..... G07C 9/00944

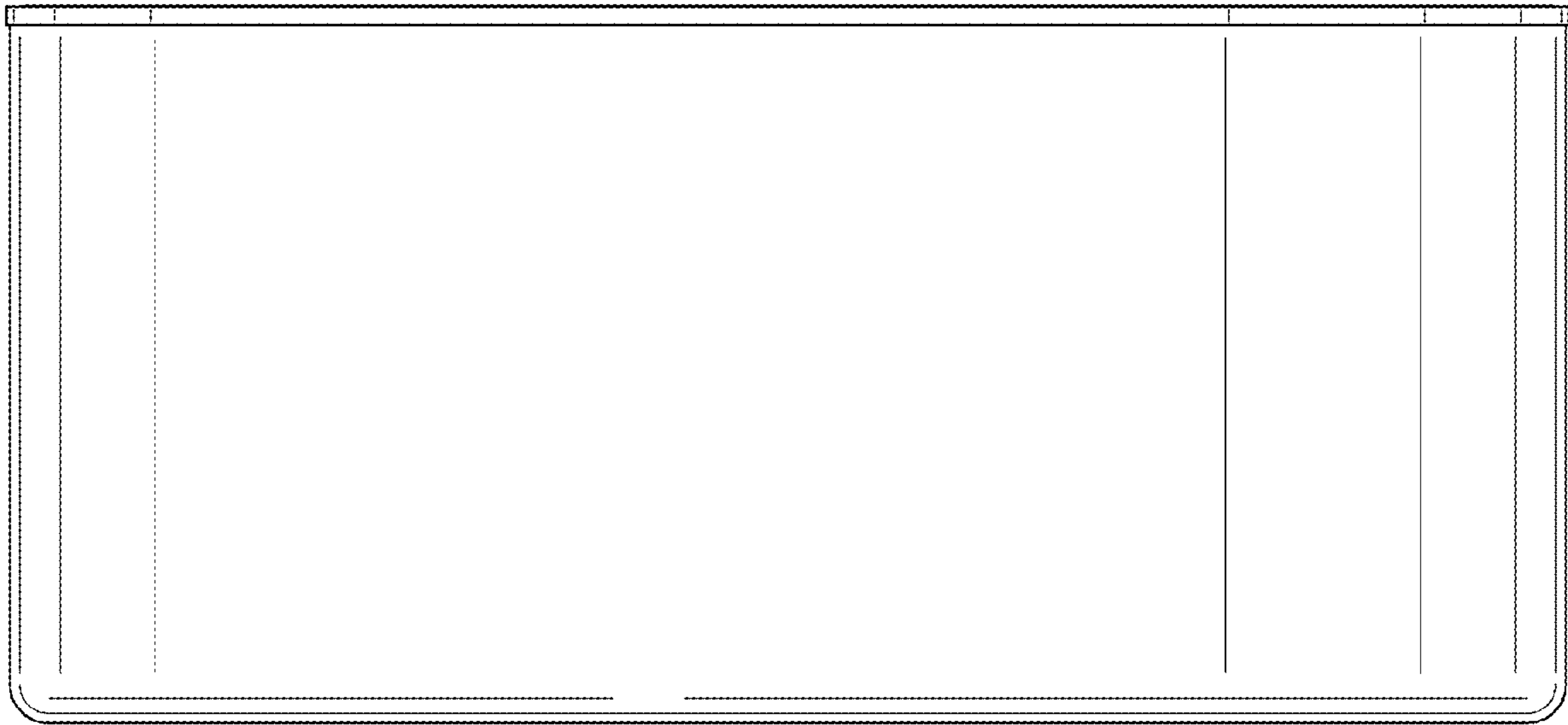
\* cited by examiner

*FIG. 1*



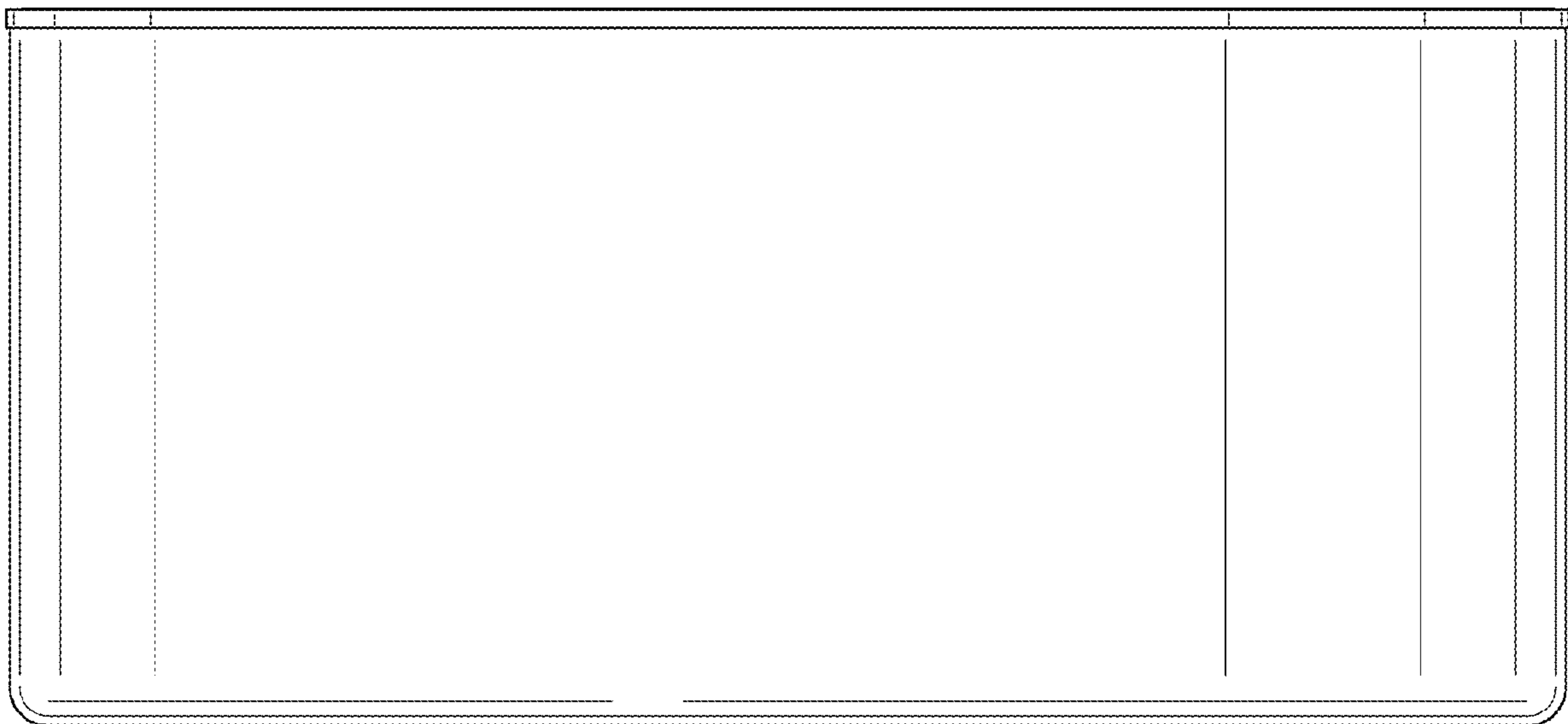
*FIG. 2*

↗ 8

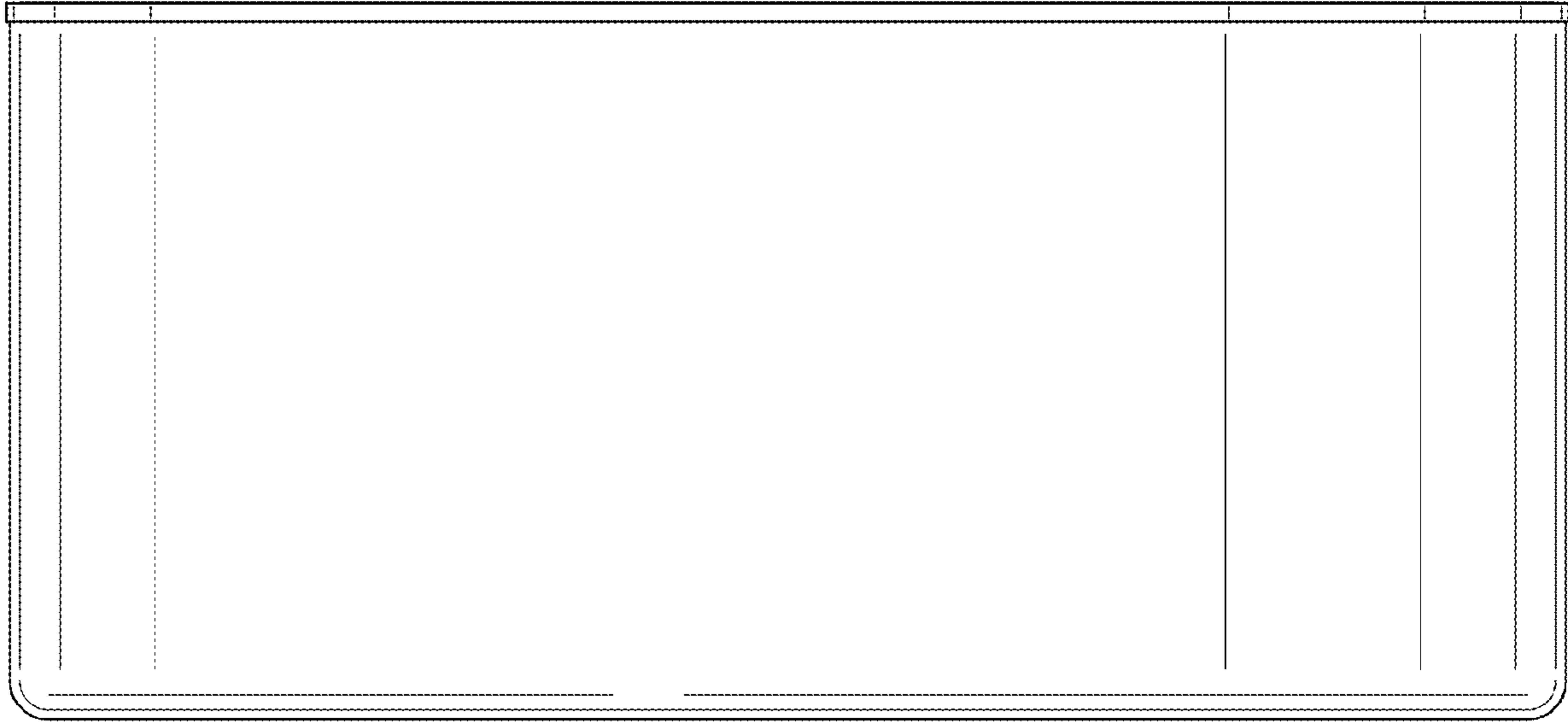


↘ 8

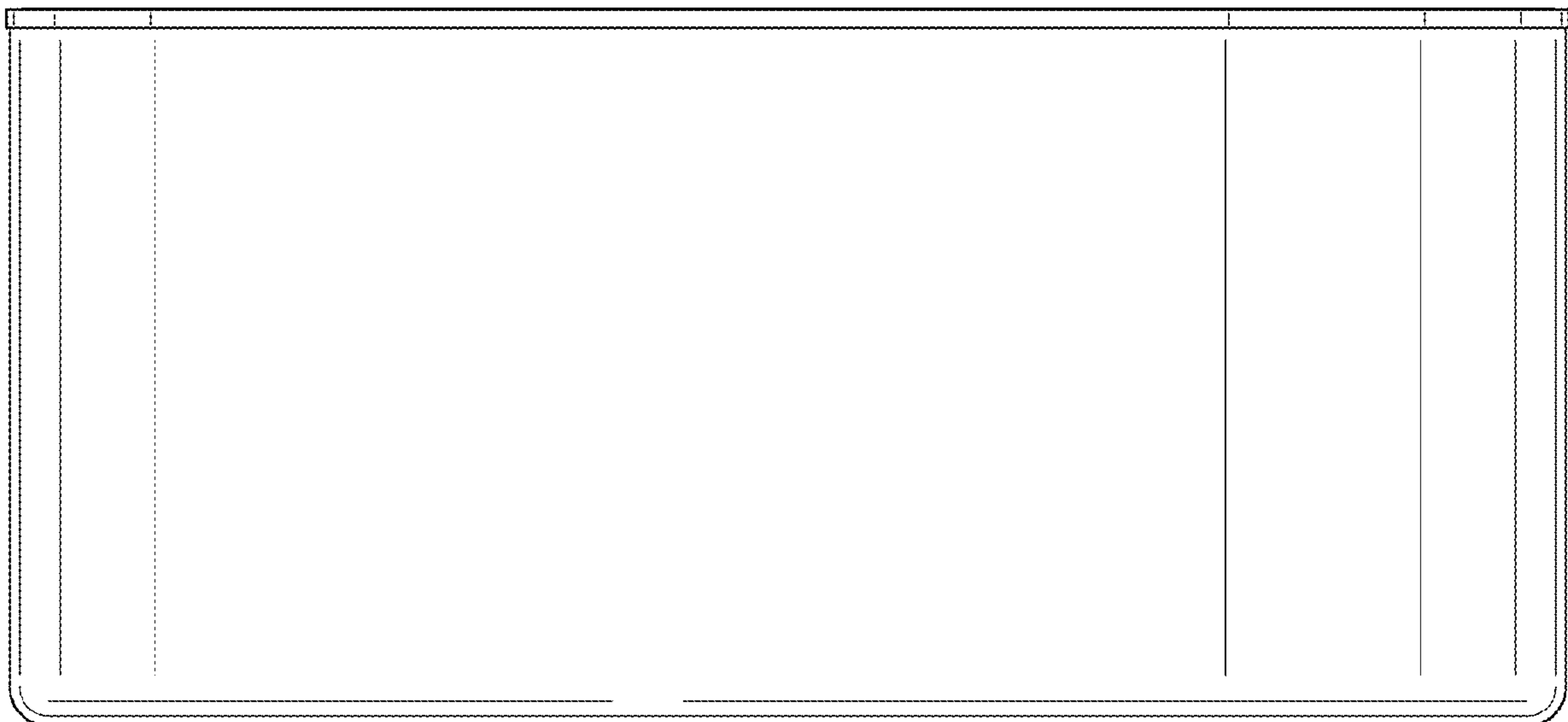
*FIG. 3*



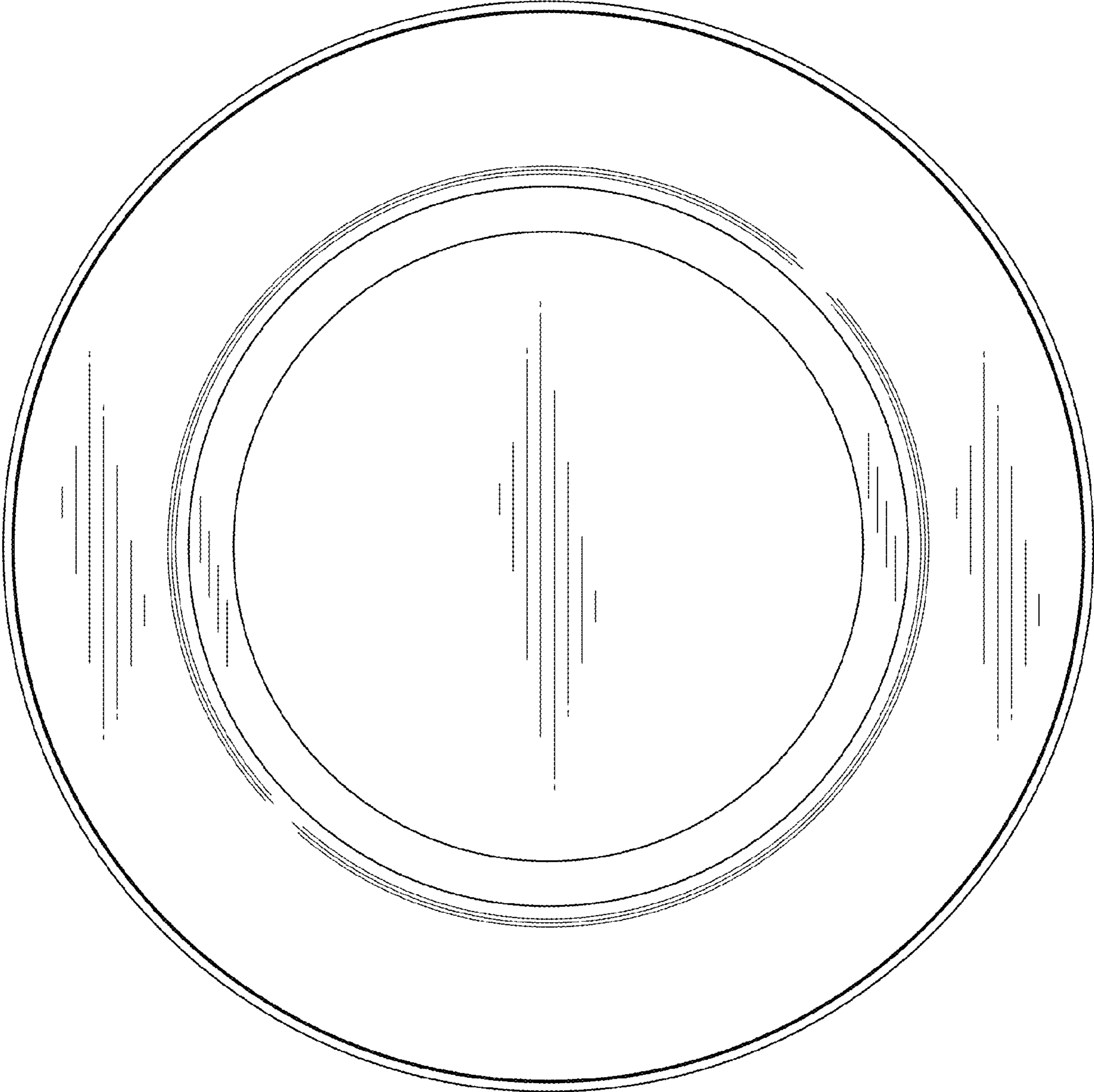
*FIG. 4*



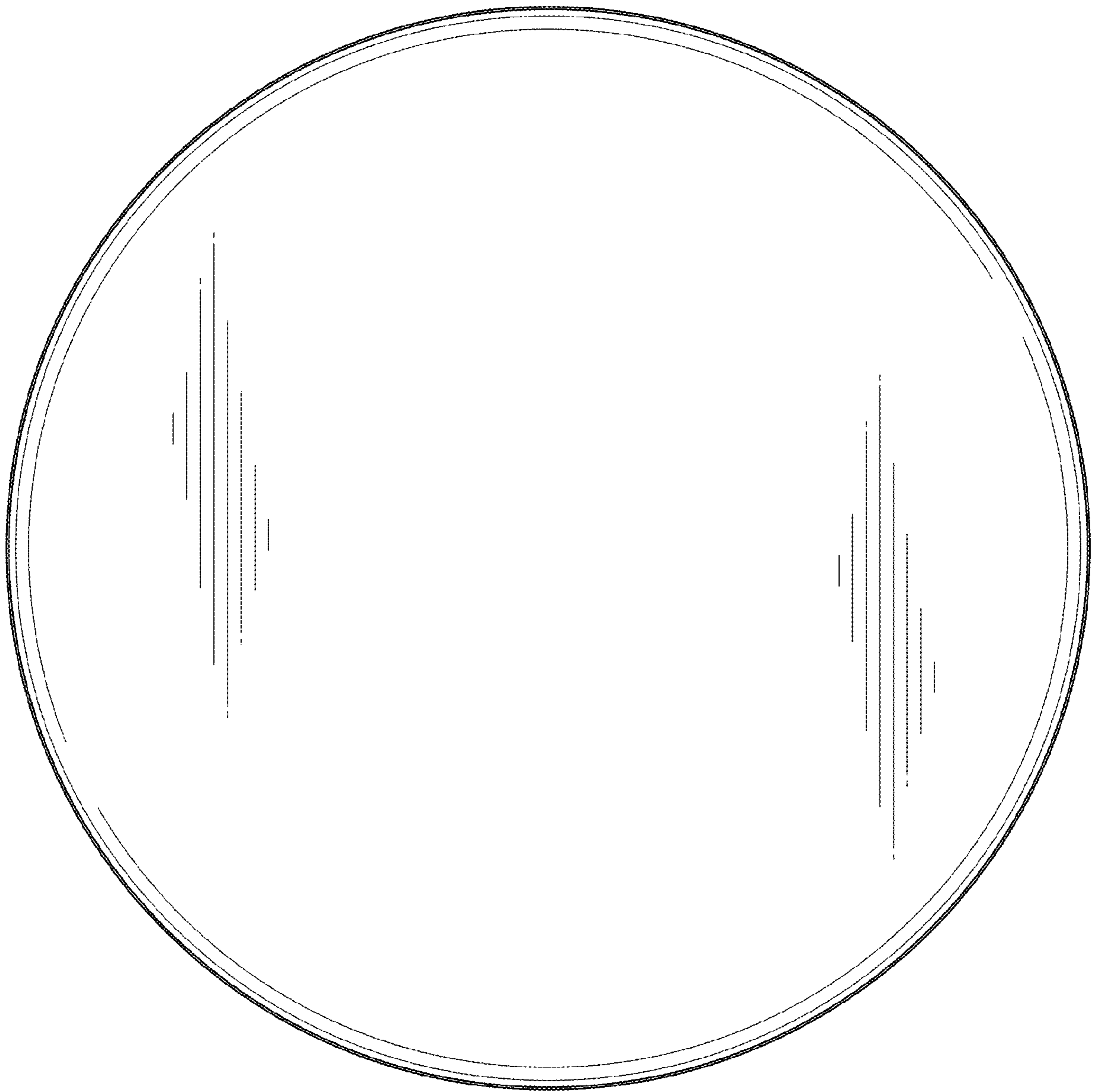
*FIG. 5*



*FIG. 6*



*FIG. 7*



*FIG. 8*

