

US0D1027820S

(12)

United States Design Patent

Katsumoto et al.

(10) Patent No.: US D1,027,820 S

(45) Date of Patent: \*\* \*May 21, 2024

(54) SECONDARY BATTERY

(56) References Cited

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

U.S. PATENT DOCUMENTS

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

|           |   |   |        |           |       |              |
|-----------|---|---|--------|-----------|-------|--------------|
| 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      |

(Continued)

(\*) Notice: This patent is subject to a terminal disclaimer.

(\*\*) Term: 15 Years

(21) Appl. No.: 29/750,223

Primary Examiner — Nathaniel D. Buckner  
(74) Attorney, Agent, or Firm — K&L Gates LLP

(22) Filed: Sep. 11, 2020

(57) CLAIM

(30) Foreign Application Priority Data

Mar. 11, 2020 (JP) ..... 2020-004845 D

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

(51) LOC (14) Cl. .... 13-02

DESCRIPTION

(52) U.S. Cl.

USPC ..... D13/103

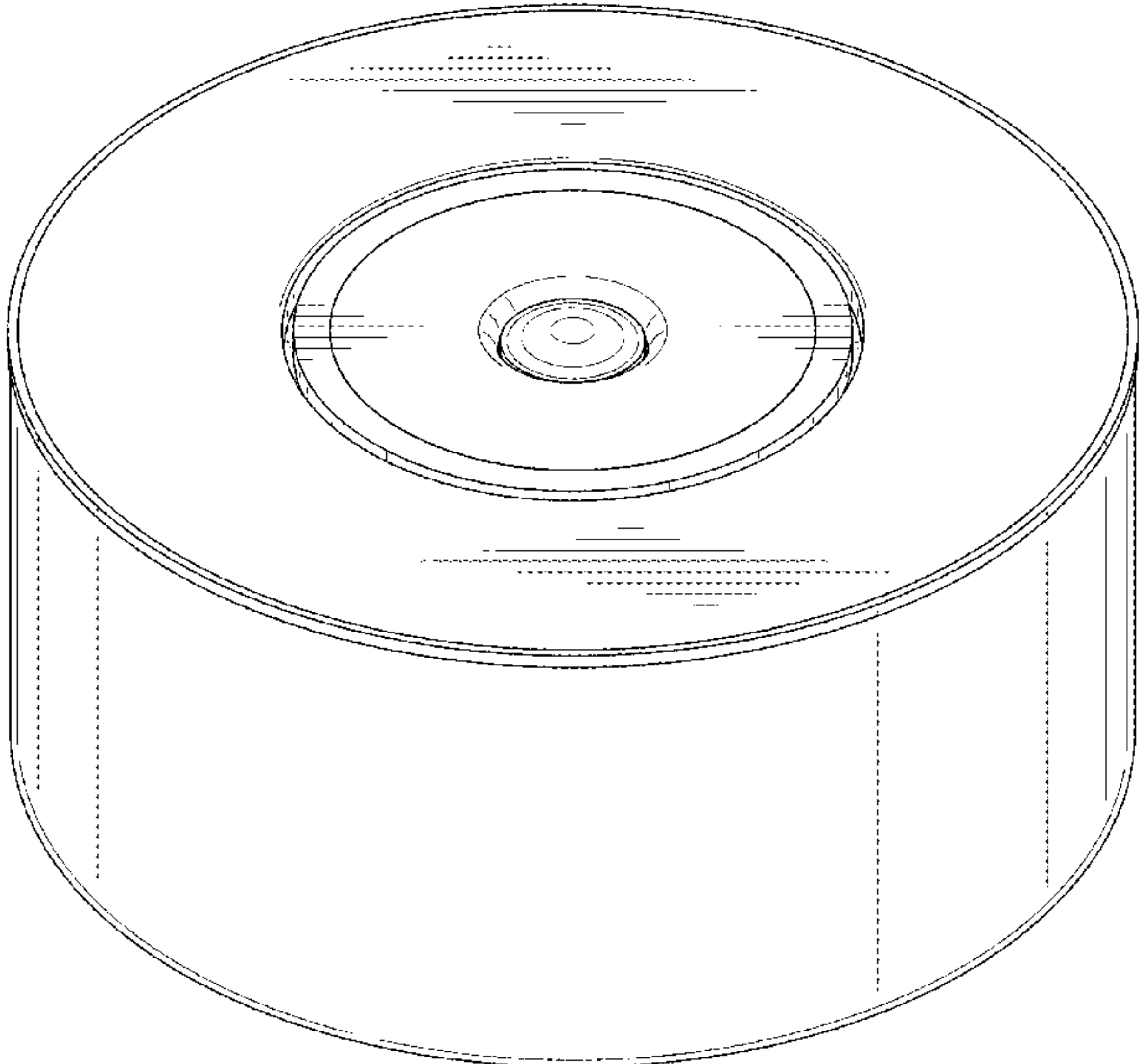
(58) Field of Classification Search

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

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 in FIG. 8 depict portions of the secondary battery that form no part, of the claimed design.

See application file for complete search history.

1 Claim, 6 Drawing Sheets



(56)                      **References Cited**

U.S. PATENT DOCUMENTS

|              |      |         |        |       |              |
|--------------|------|---------|--------|-------|--------------|
| D782,408     | S *  | 3/2017  | Morgan | ..... | D13/102      |
| 10,573,480   | B2 * | 2/2020  | Rosios | ..... | H01M 50/572  |
| 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

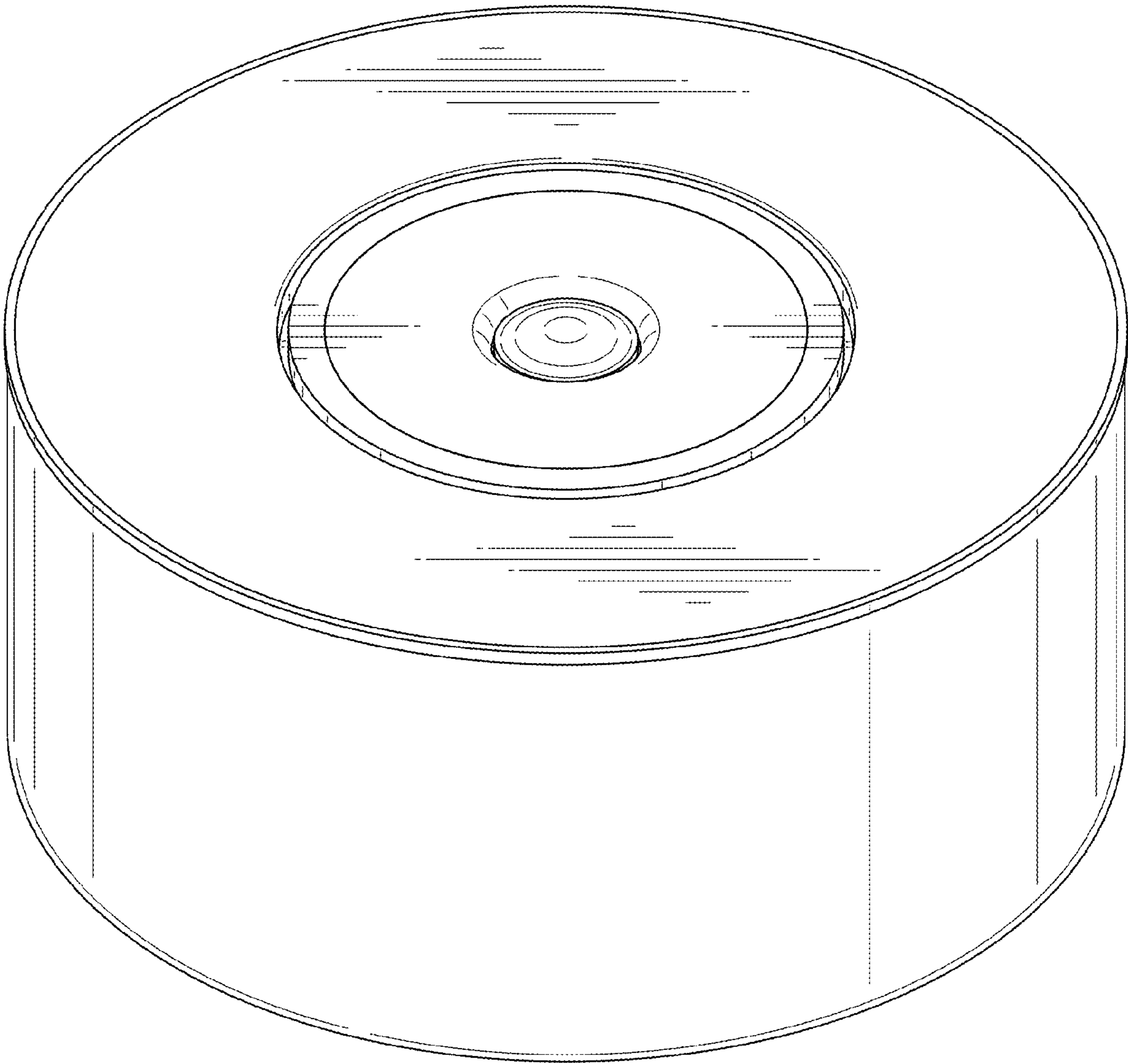


FIG. 2

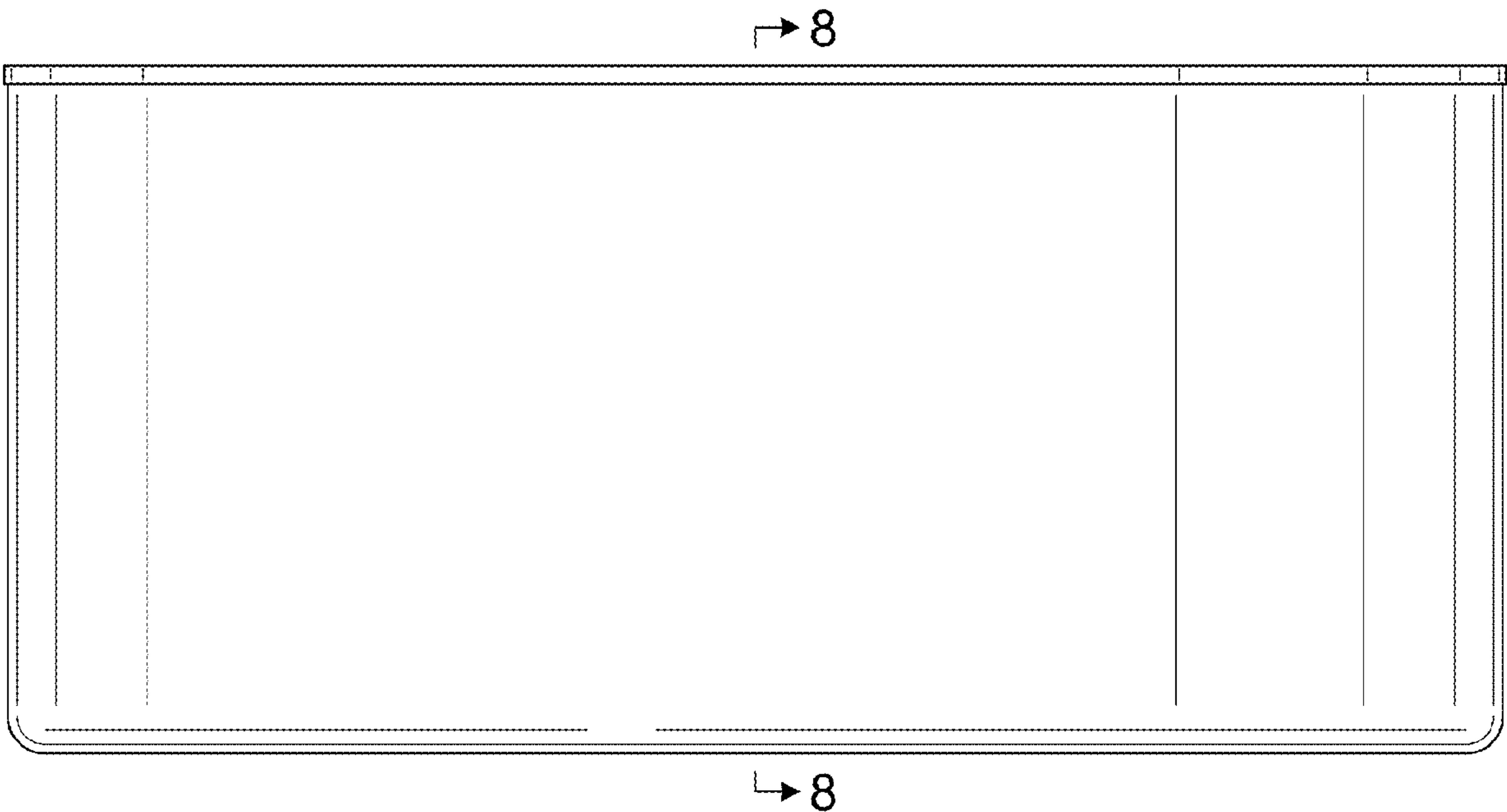


FIG. 3

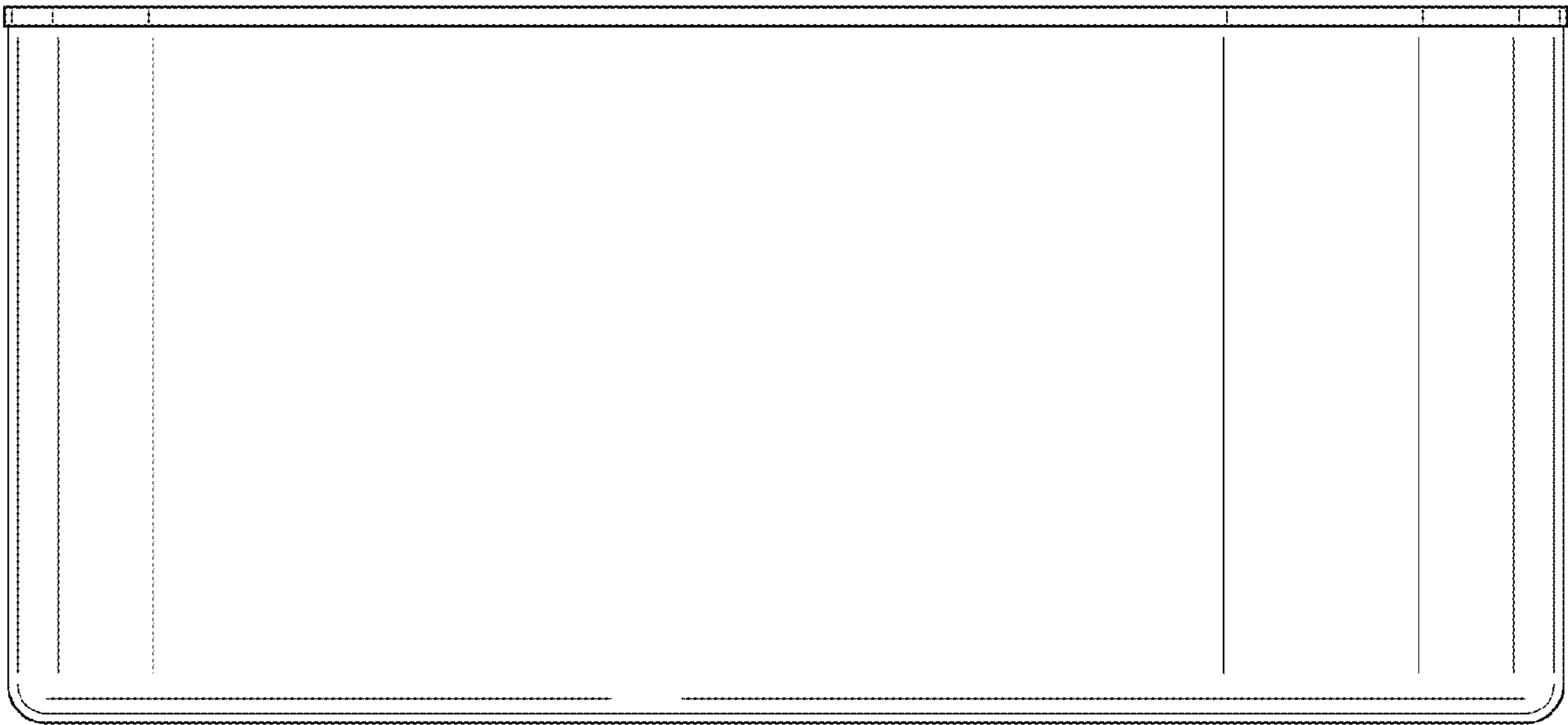


FIG. 4

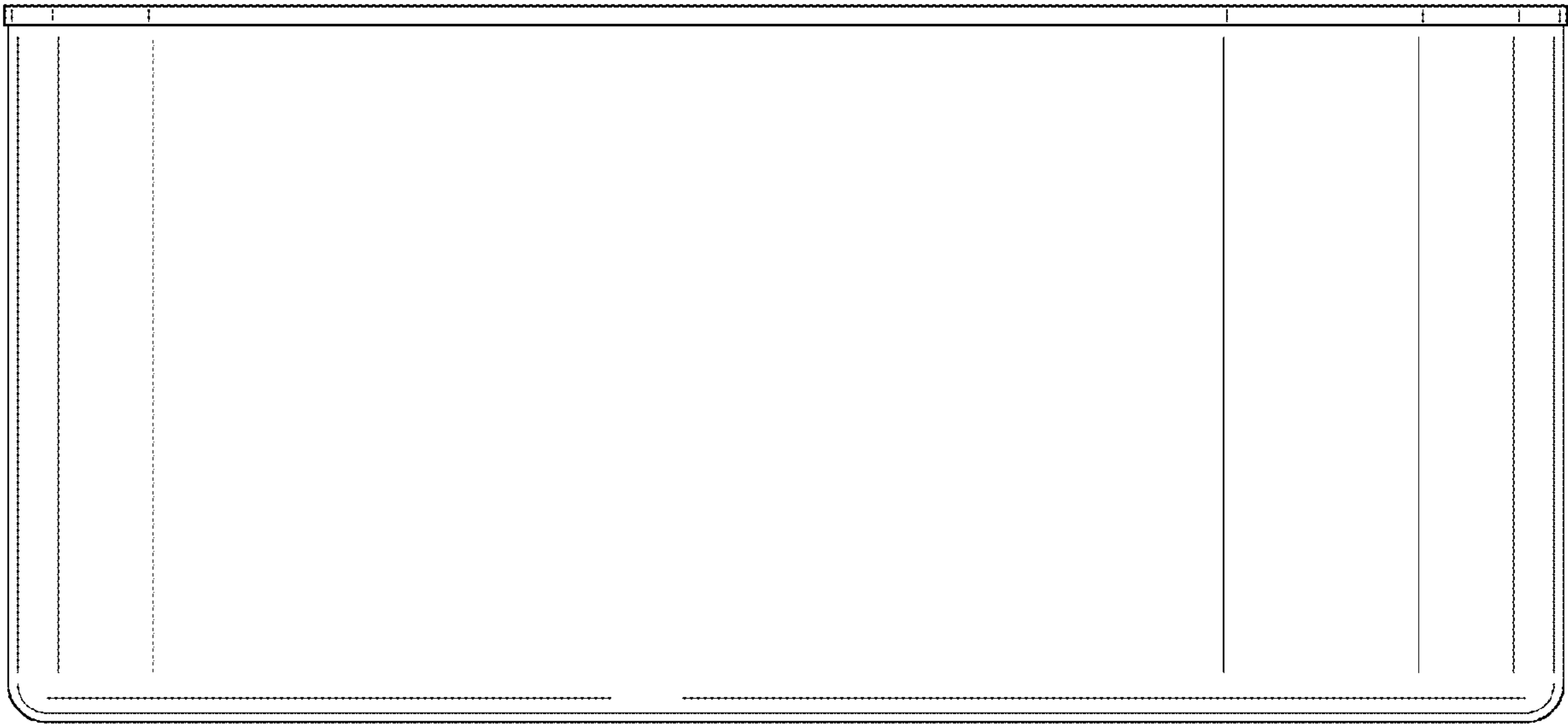


FIG. 5

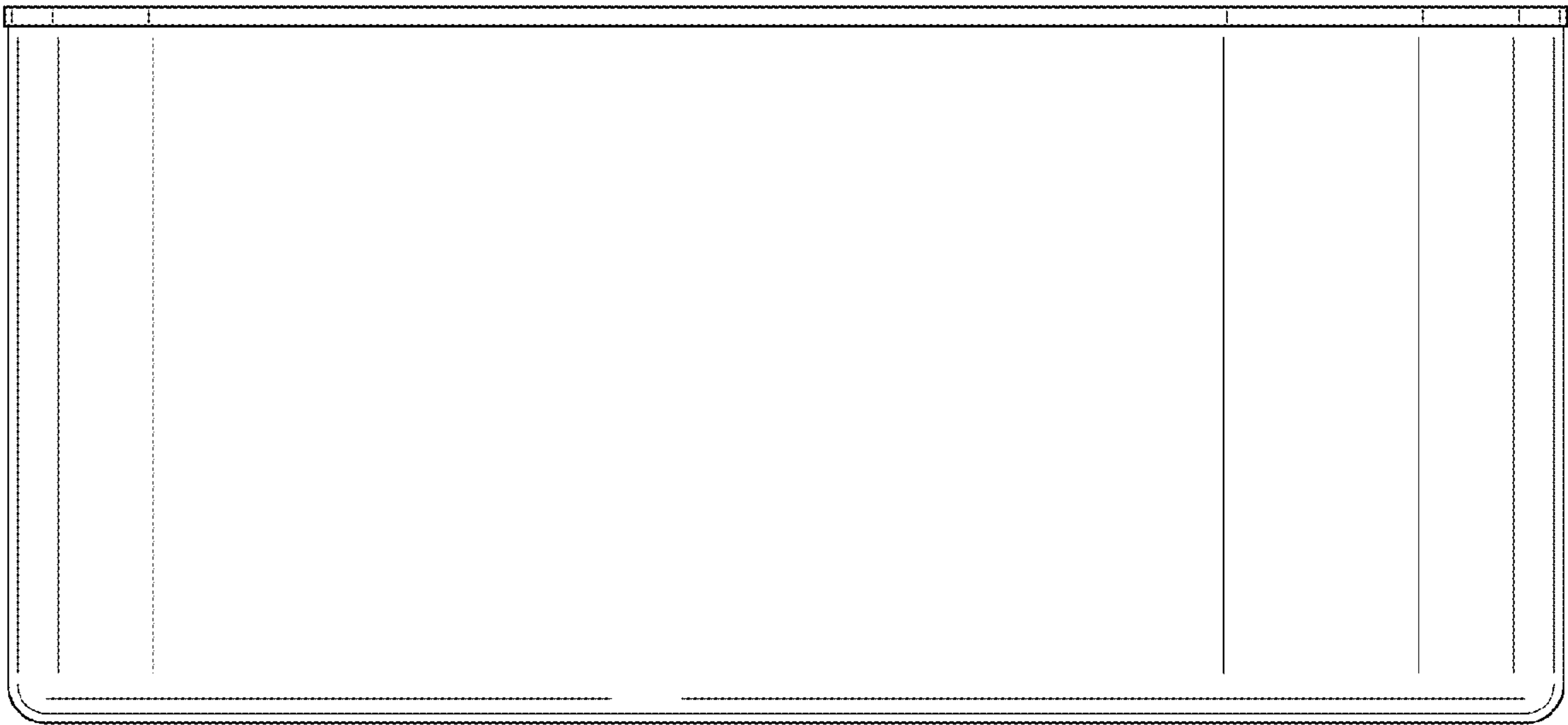


FIG. 6

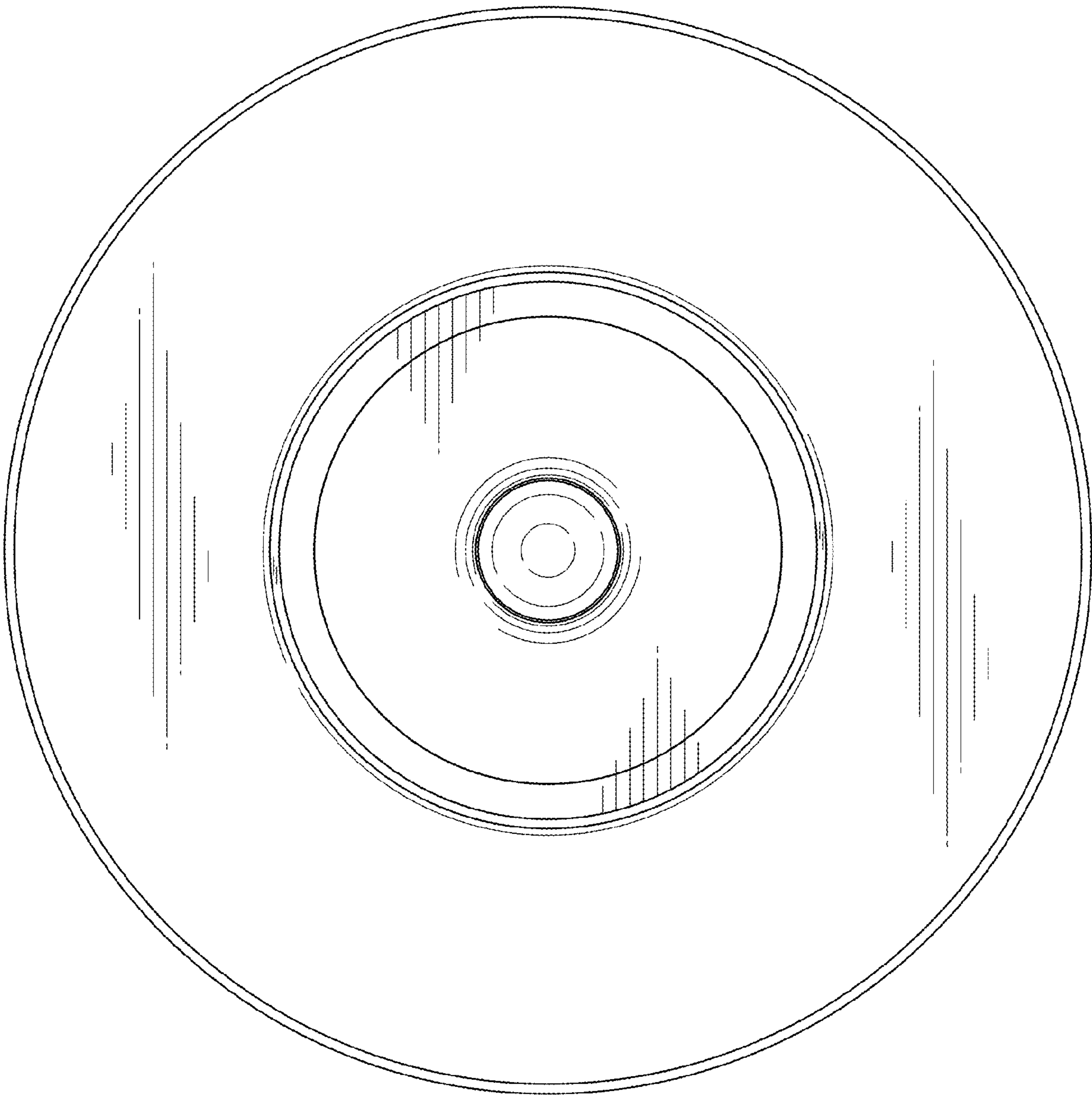


FIG. 7

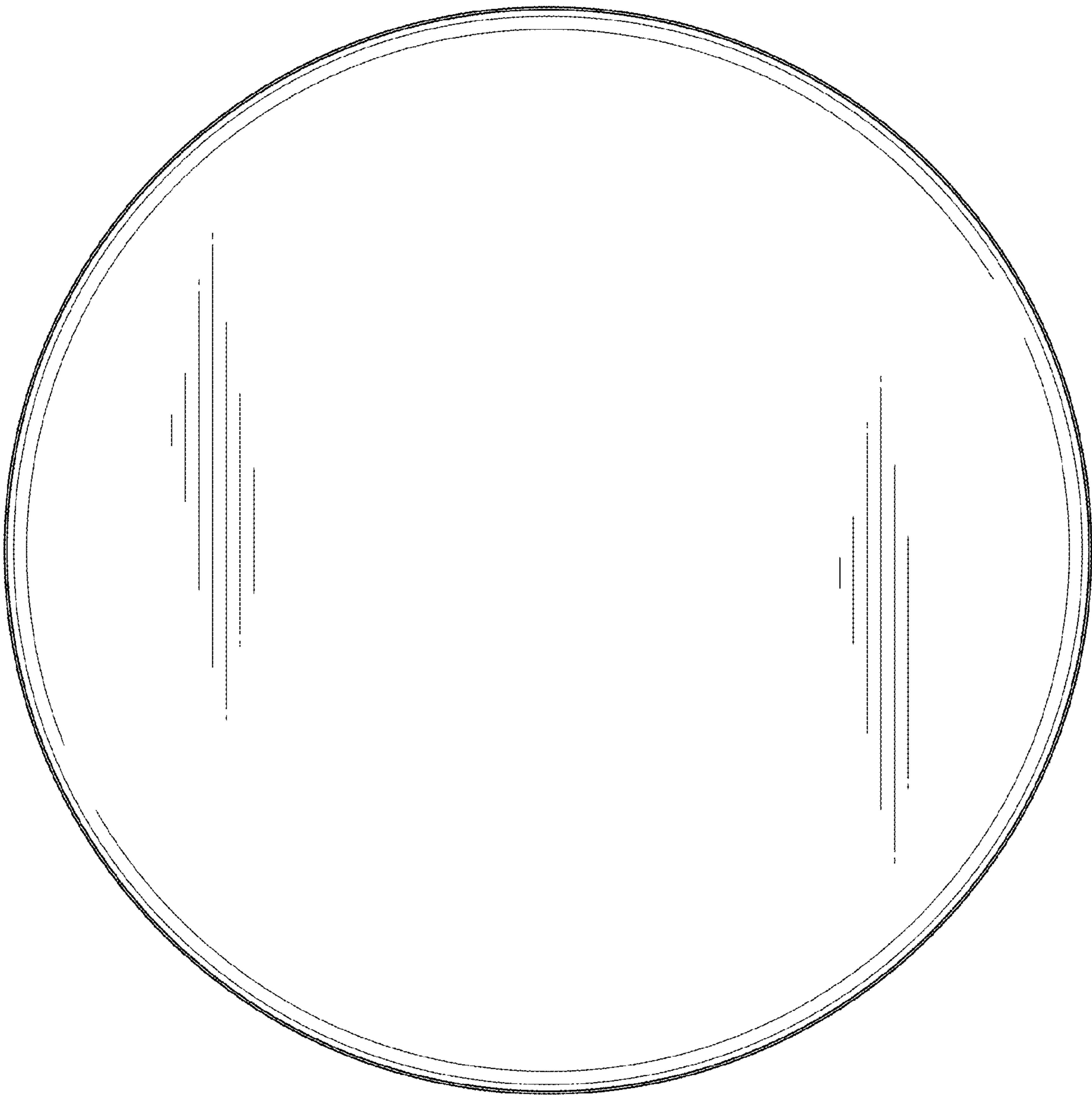


FIG. 8

