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(12) **United States Design Patent** (10) **Patent No.:** **US D967,863 S**
Sperry et al. (45) **Date of Patent:** **** Oct. 25, 2022**

(54) **EXHAUST GAS AFTERTREATMENT SYSTEM**

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

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(51) **LOC (13) Cl.** **15-01**

(52) **U.S. Cl.**
USPC **D15/5**

(58) **Field of Classification Search**
USPC D15/4, 5, 148, 143; D12/194
CPC F28D 21/0003; B01D 53/9431; B01D 53/944; F02M 26/22; F02M 26/28; F02M 26/29; F02M 26/32; B01J 19/26; B01J 19/1862

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,824,078 A * 9/1931 Fischer B01D 53/944
60/299
D247,360 S * 2/1978 Hamaguchi D12/194
7,077,102 B1 7/2006 Stowe
D702,735 S * 4/2014 Sandou D15/5
9,920,676 B2 * 3/2018 Freeman B01D 53/944
9,957,868 B2 5/2018 Johnson
10,508,579 B2 12/2019 Fischer et al.

10,934,918 B1 * 3/2021 Goffe B01D 53/9427
2006/0207757 A1 * 9/2006 Danielsson F28F 1/426
165/159
2010/0083643 A1 * 4/2010 Hayashi F01N 3/2066
60/297

(Continued)

FOREIGN PATENT DOCUMENTS

EP 2 944 371 A1 11/2015
JP 2014-223610 A 12/2014

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(57) **CLAIM**

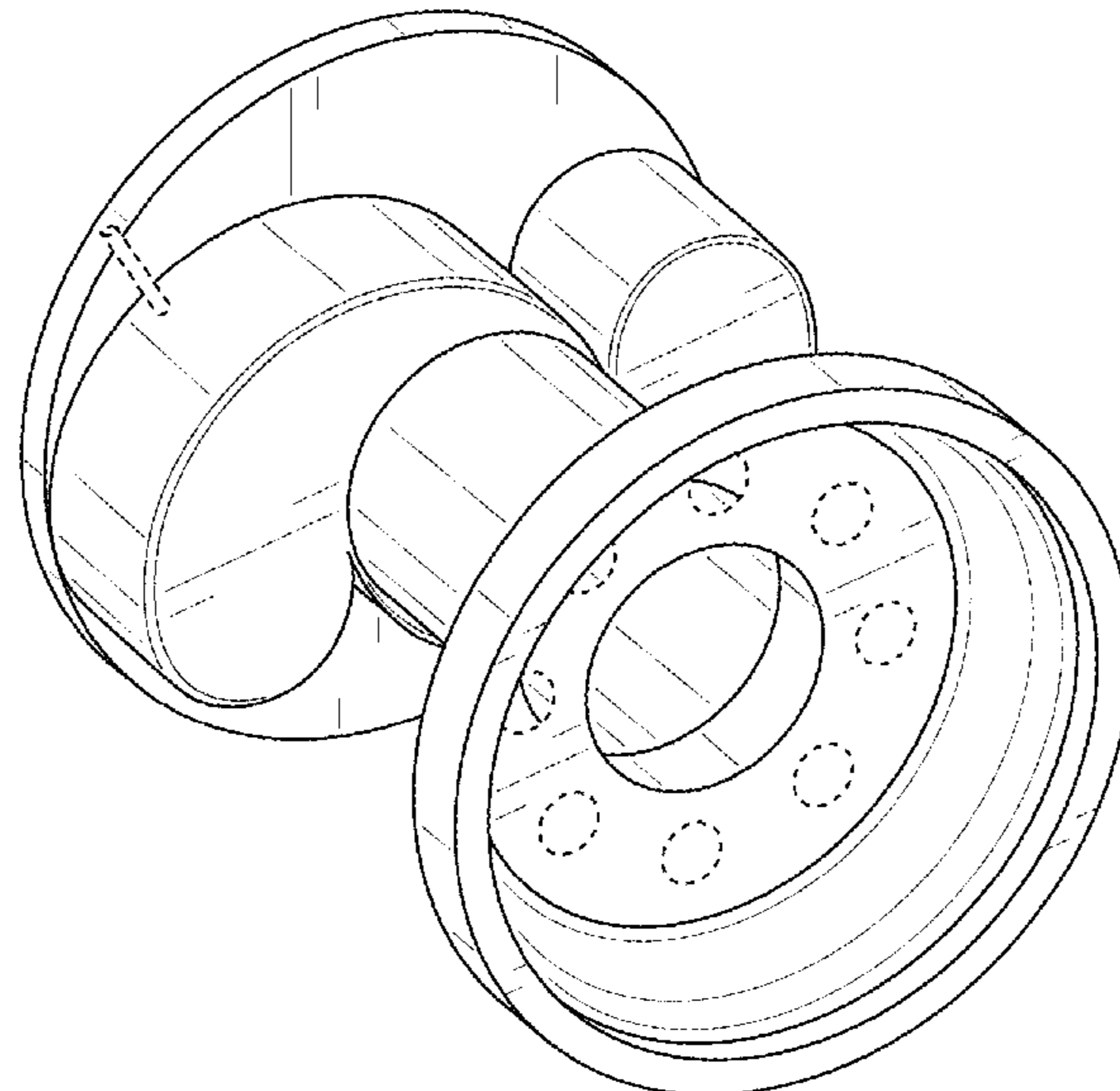
We claim the ornamental design for an exhaust gas after-treatment system, as shown and described.

DESCRIPTION

FIG. 1 is a front, top, left side perspective view of the exhaust gas aftertreatment system showing our new design; FIG. 2 is a rear, top, right side perspective view of the exhaust gas aftertreatment system; FIG. 3 is a front view of the exhaust gas aftertreatment system; FIG. 4 is a rear view of the exhaust gas aftertreatment system; FIG. 5 is a left side view of the exhaust gas aftertreatment system; FIG. 6 is a right side view of the exhaust gas aftertreatment system; FIG. 7 is a top view of the exhaust gas aftertreatment system; and, FIG. 8 is a bottom view of the exhaust gas aftertreatment system.

The ornamental design which is claimed is shown in solid lines in the drawings. The broken lines depict portions of the exhaust gas aftertreatment system that form no part of the claimed design.

1 Claim, 7 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2012/0048246	A1 *	3/2012	Takagi	F02M 26/06 123/568.15
2014/0056767	A1 *	2/2014	Bedard	C07C 2/78 422/128

* cited by examiner

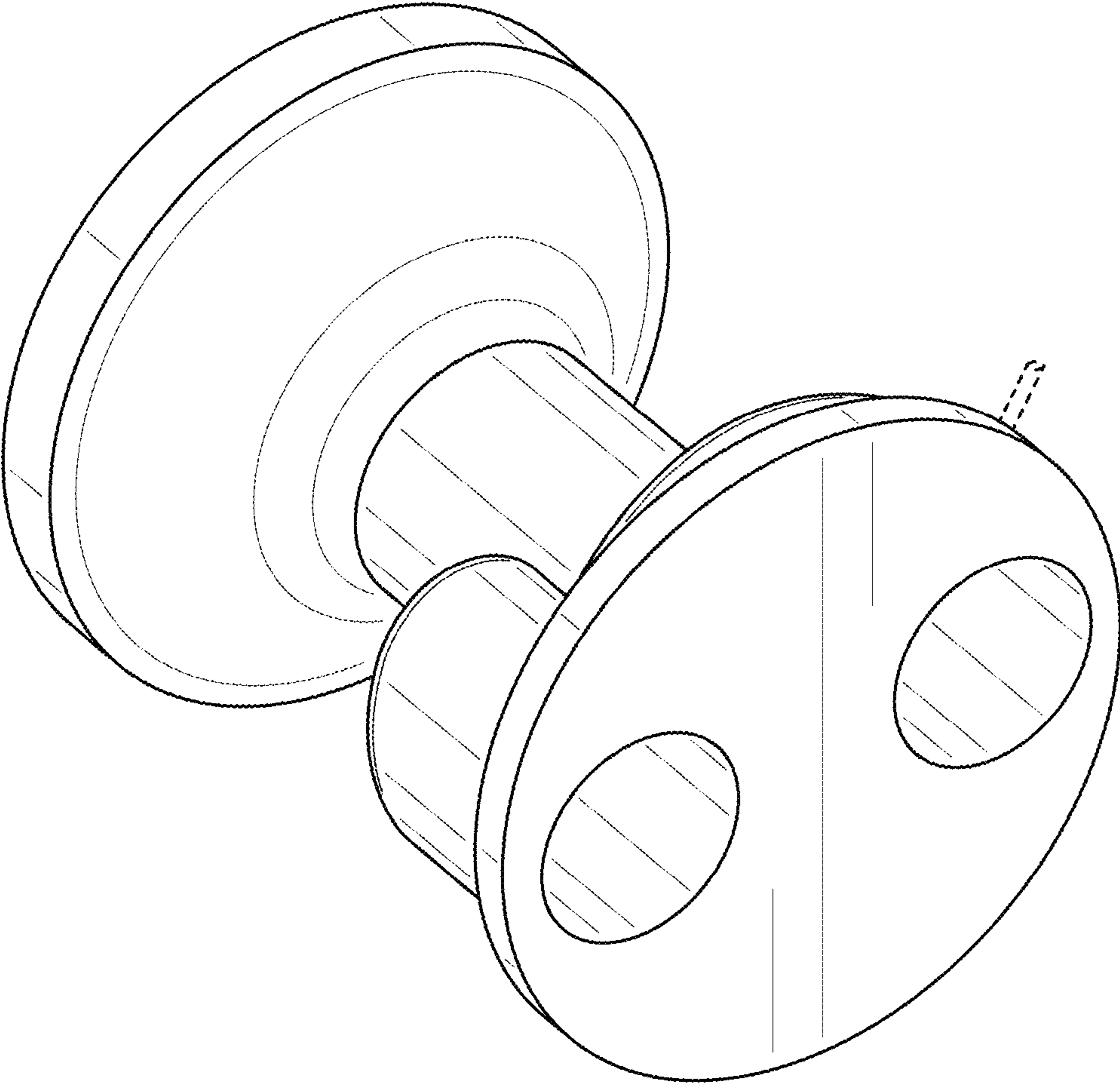


FIG. 1

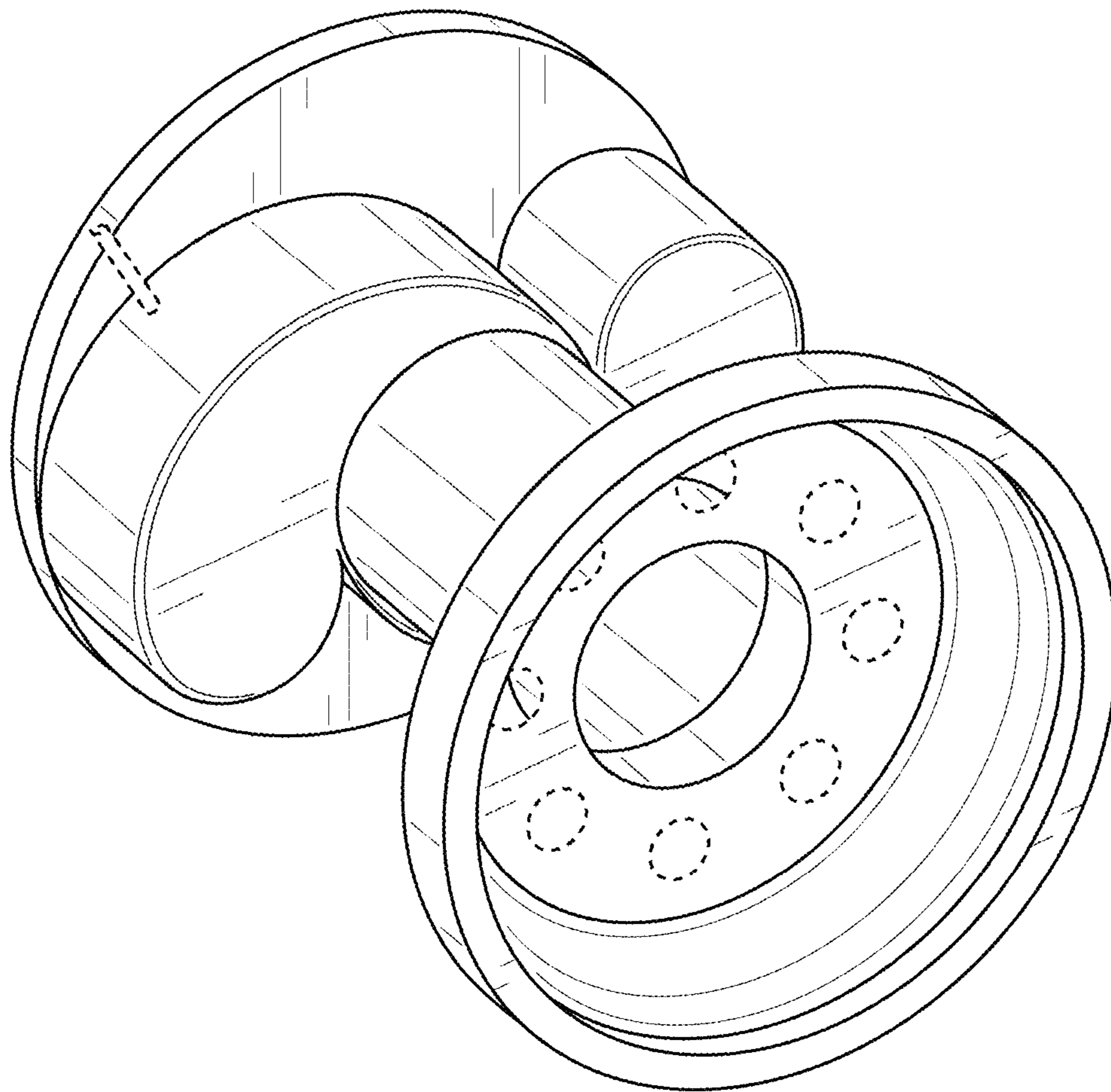


FIG. 2

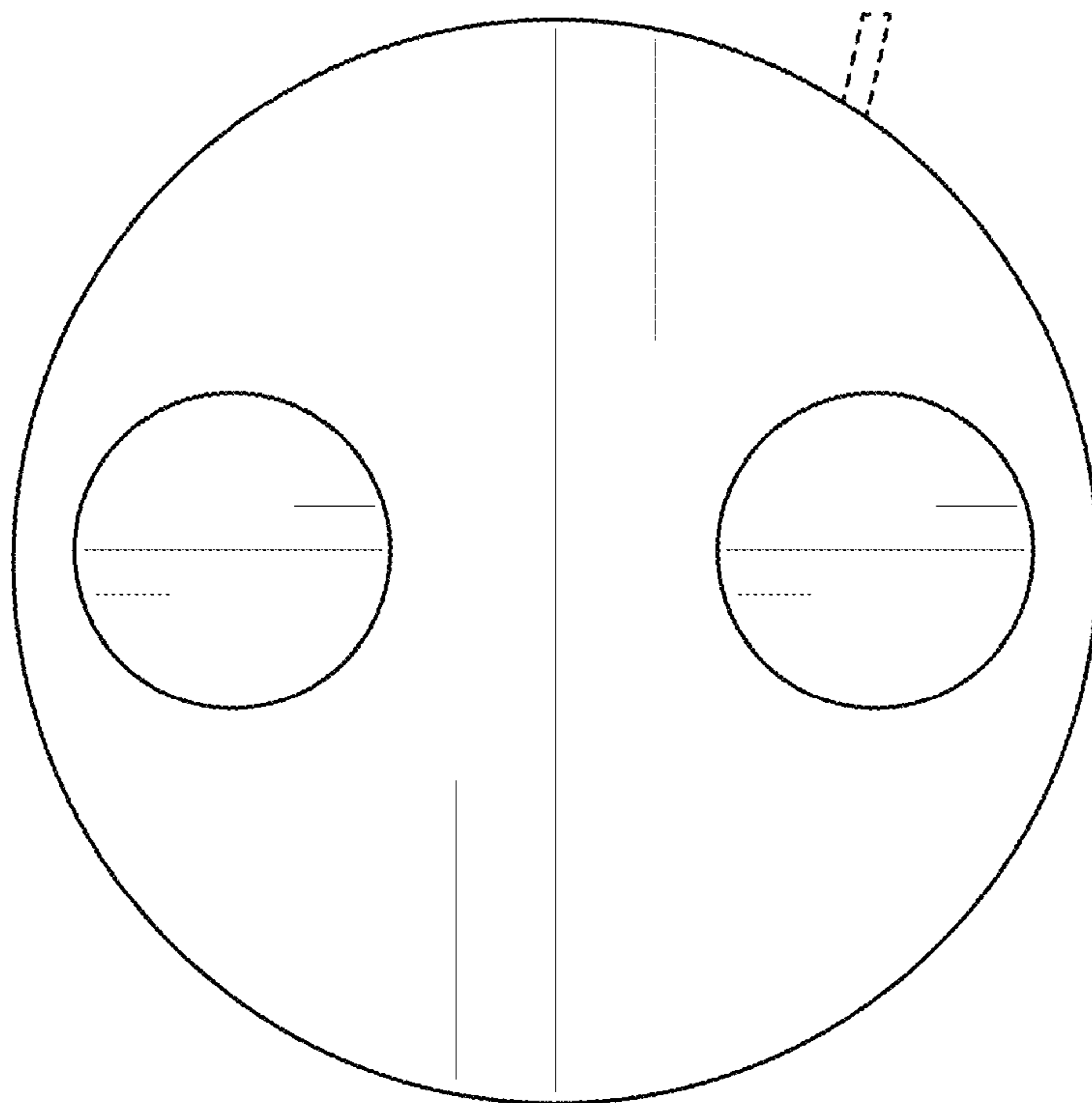


FIG. 3

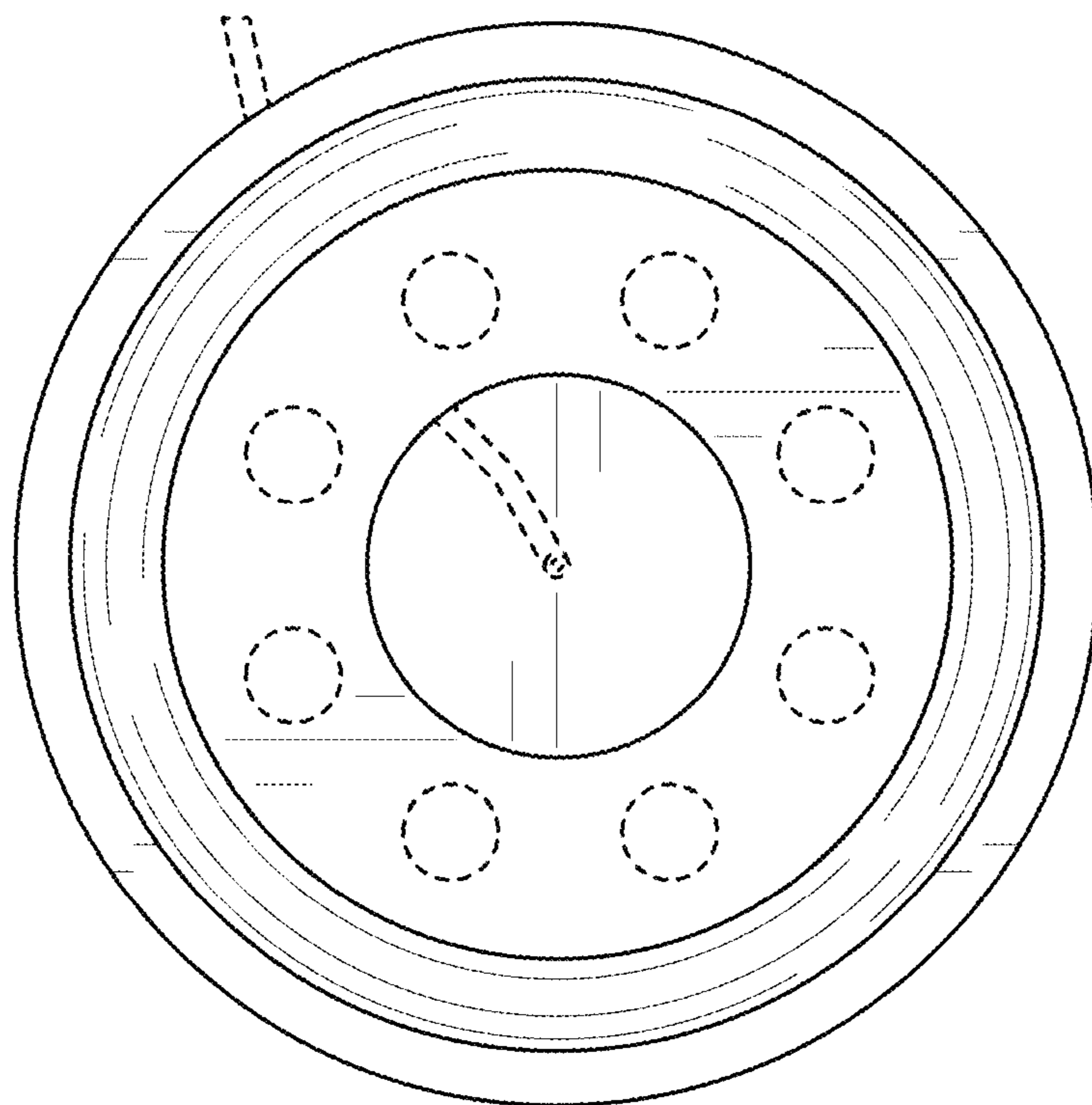


FIG. 4

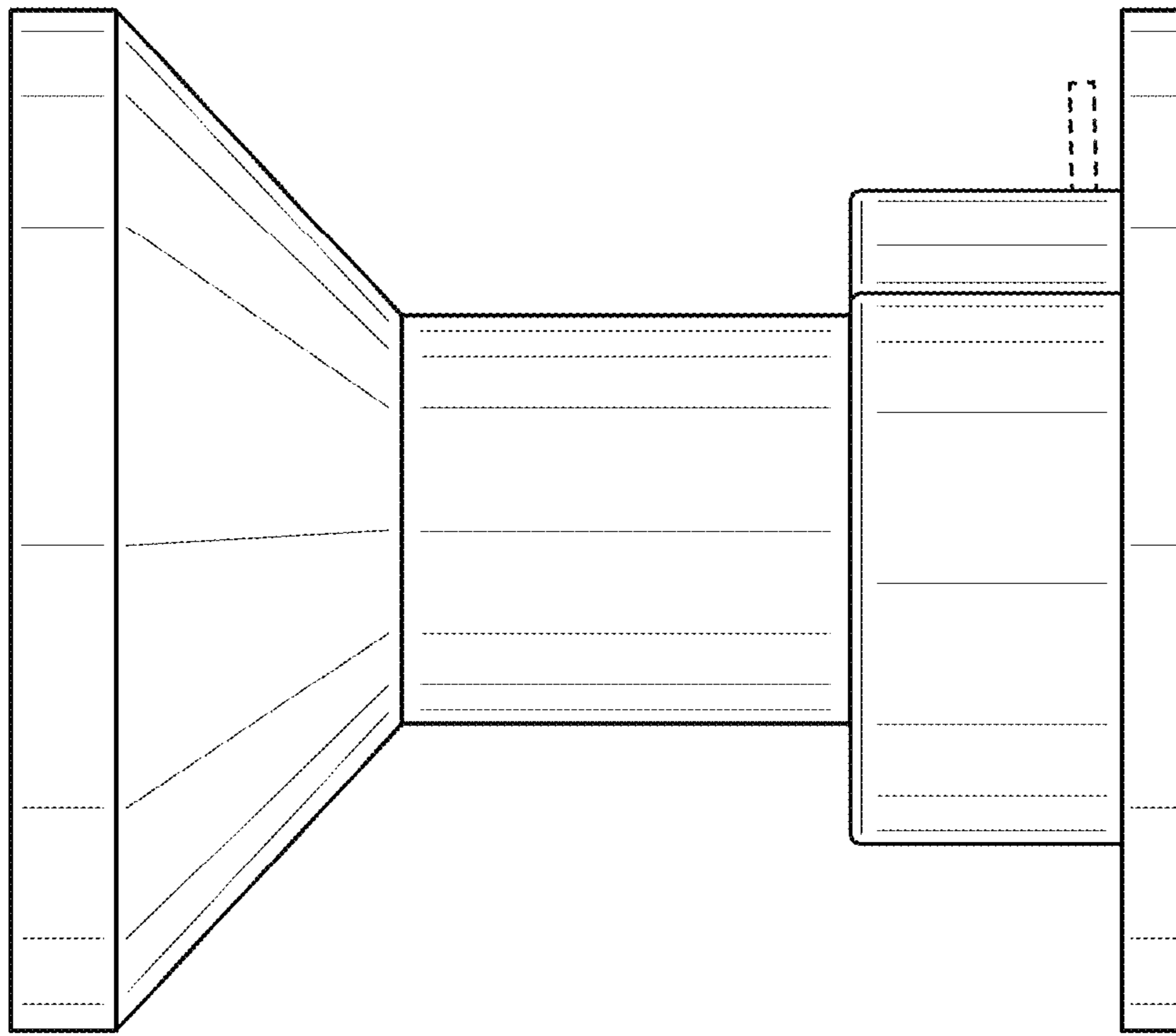


FIG. 5

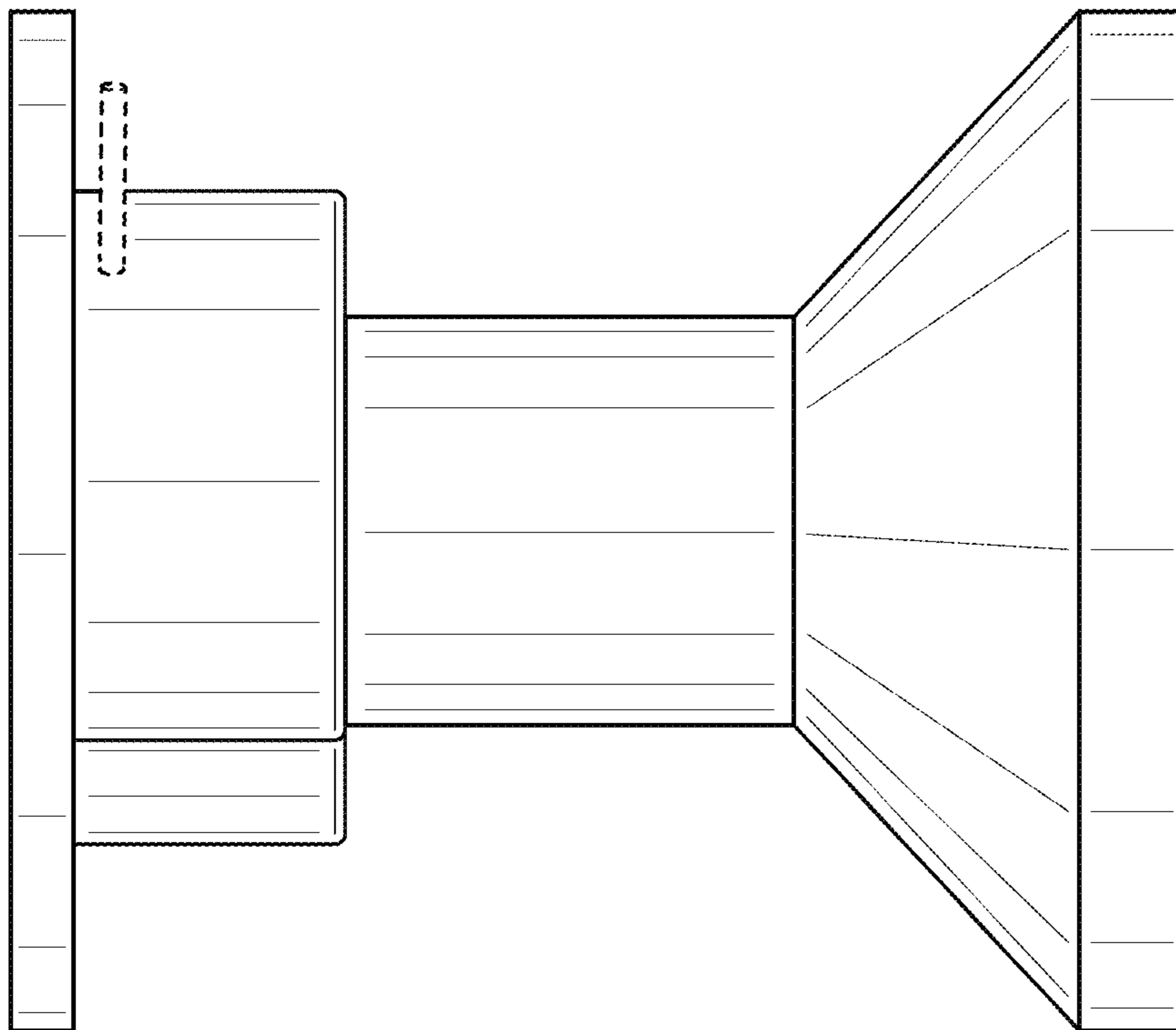


FIG. 6

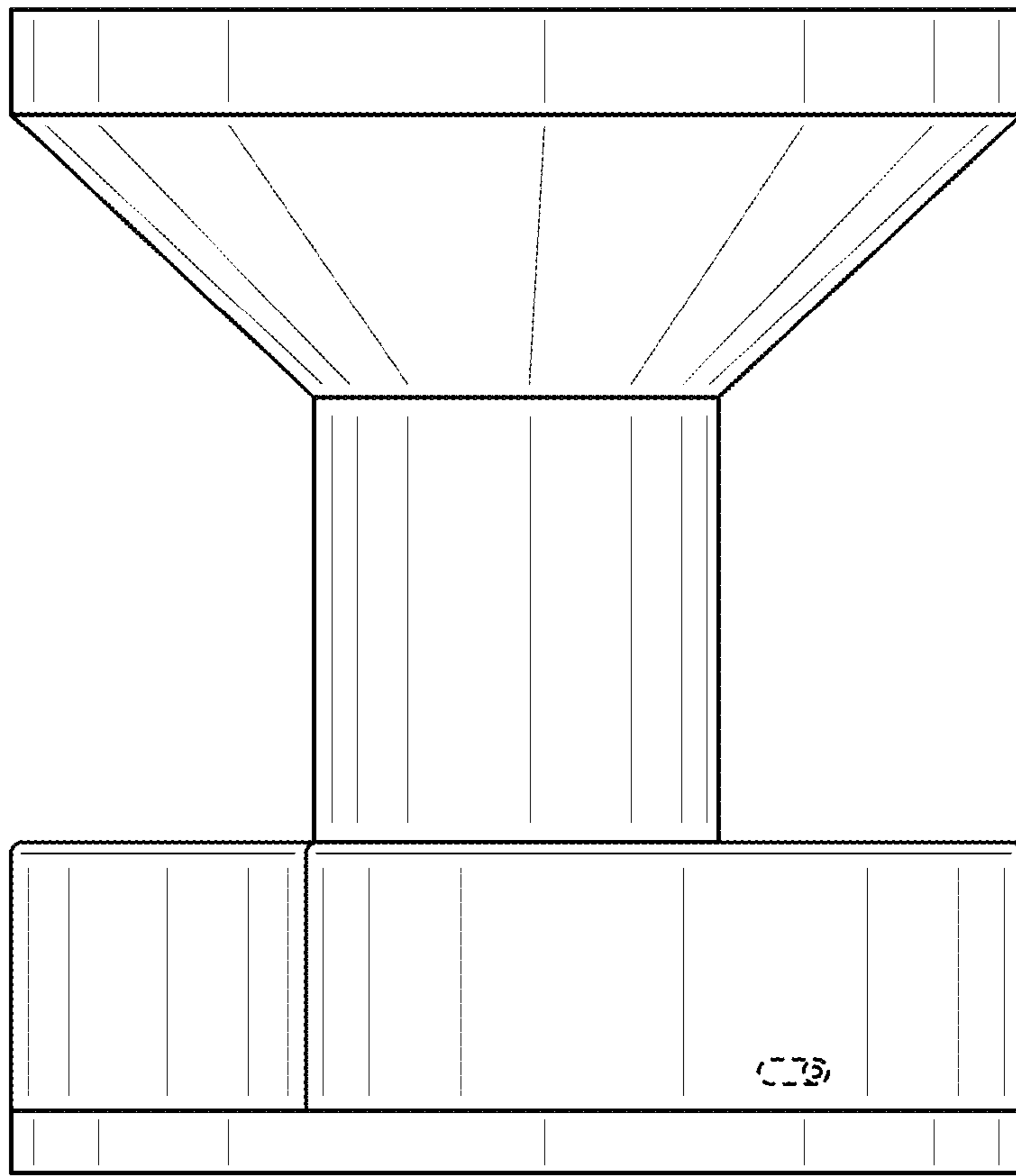


FIG. 7

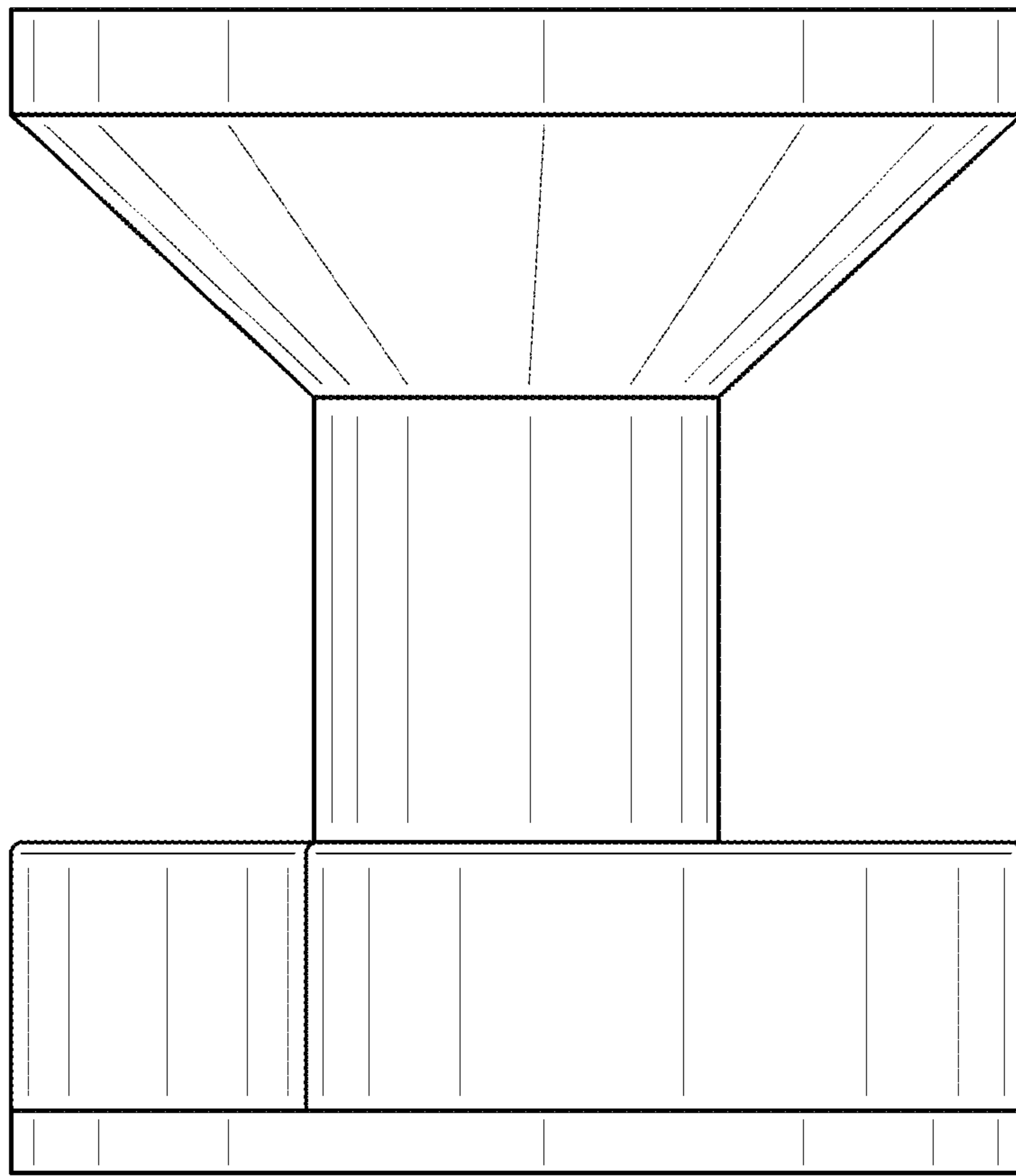


FIG. 8