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(12) United States Design Patent

Ito et al.

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(54) **PROJECTOR LENS UNIT FOR A PROJECTOR**

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

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(30) **Foreign Application Priority Data**

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Jul. 19, 2016 (JP) 2016-015375

(51) **LOC (12) Cl.** **16-02**

(52) **U.S. Cl.**
USPC **D16/235**

(58) **Field of Classification Search**
USPC D21/514; D14/450; D16/235, 221, 225, D16/230–231, 234, 208, 213, 130,
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

D111,605 S * 10/1938 Kay D20/10
D111,607 S * 10/1938 Kay D20/10
(Continued)

FOREIGN PATENT DOCUMENTS

JP D1602051 * 6/2017

Primary Examiner — Wan Laymon

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(57) **CLAIM**

The ornamental design of a projector lens unit for a projector, as shown and described.

DESCRIPTION

FIG. **1** is a perspective view of the projector lens unit for a projector, showing the new design;
FIG. **2** is a front view thereof.
FIG. **3** is a rear view thereof.
FIG. **4** is a top view thereof.
FIG. **5** is a bottom view thereof.
FIG. **6** is a right side view thereof.
FIG. **7** is a left side view thereof.
FIG. **8** is a half sectional view, taken along line **8-8** in FIG. **2**, of the projector lens unit for a projector.
FIG. **9** is an enlarged view, taken along line **9-9** in FIG. **8**, of the projector lens unit for a projector.
FIG. **10** is a reference view showing a usage state of the projector lens unit for a projector.
FIG. **11** is a perspective view of a second embodiment of the projector lens unit for a projector, showing the new design;
FIG. **12** is a front view thereof.
FIG. **13** is a rear view thereof.
FIG. **14** is a top view thereof.
FIG. **15** is a bottom view thereof.
FIG. **16** is a right side view thereof.
FIG. **17** is a half sectional view, taken along line **17-17** in FIG. **12**, of the projector lens unit for a projector.
FIG. **18** is an enlarged view, taken along line **18-18** in FIG. **17**, of the projector lens unit for a projector; and,
FIG. **19** is a reference view showing a usage state of the projector lens unit for a projector.
The portions represented with solid lines represent claimed portions of the design. The portion for which a partial design registration is sought is transparent. The left side view of the second embodiment of the projector lens unit for a projector is omitted since it is symmetrical to the right side view thereof (FIG. **16**).
The broken line showing of the projector do not form part of the claimed design.

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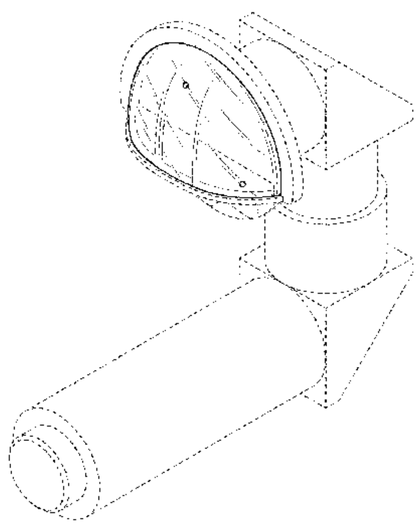

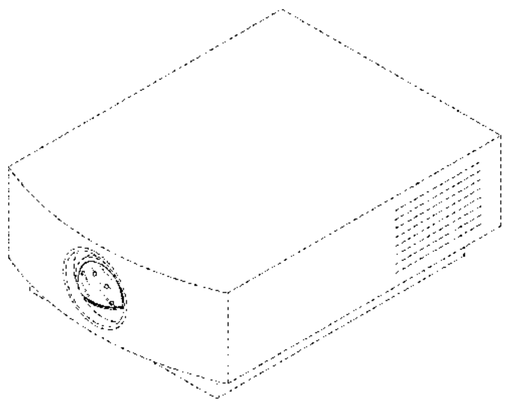

The article according to the design of the present application is a projector lens unit for a projector, wherein the projector lens unit for a projector is a bent-type and is used by being connected to a projection unit of a projector. As shown in the "Enlarged view taken along line **9-9** in FIG. **8**" (FIG. **9**), each of the three substantially circular-shaped portions shown in the portion for which a design registration is sought is convex. As shown in the "Reference view showing a usage state of the projector lens unit for a projector" (FIG. **10**), the present article can be used by being connected to a projection unit of a projector.

The article according to the design of the present application is a projector lens unit for a projector according to an embodiment, wherein the projector lens unit for a projector is a straight-type and is used by being connected to a projection unit of a projector. As shown in the "Enlarged view, taken along line **18-18** in FIG. **17**, of the projector lens unit for a projector" (FIG. **18**), each of the five substantially circular-shaped portions shown in FIG. **12** is convex. As shown in the "Reference view showing a usage state of the projector lens unit for a projector" (FIG. **19**), the present article can be used by being fit inside a projector.

1 Claim, 19 Drawing Sheets

(58) **Field of Classification Search**

USPC D16/134–137, 203; D8/310, 300; D7/393; D26/36, 123–124; D20/28; 353/119

CPC G03B 21/145; G03B 21/14; G03B 21/54; G03B 21/28

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D470,890	S *	2/2003	Meyer	D20/28
D500,343	S *	12/2004	McRobbie	D20/28
D553,661	S *	10/2007	Nakayama	D16/235
D554,174	S *	10/2007	Nakayama	D16/235
D661,721	S *	6/2012	Fujikawa	D16/225
D718,802	S *	12/2014	Ishibashi	D16/230
9,709,879	B2 *	7/2017	Otsuki	G03B 21/145
2016/0011494	A1 *	1/2016	Otsuki	G03B 21/145 353/119

* cited by examiner

FIG.1

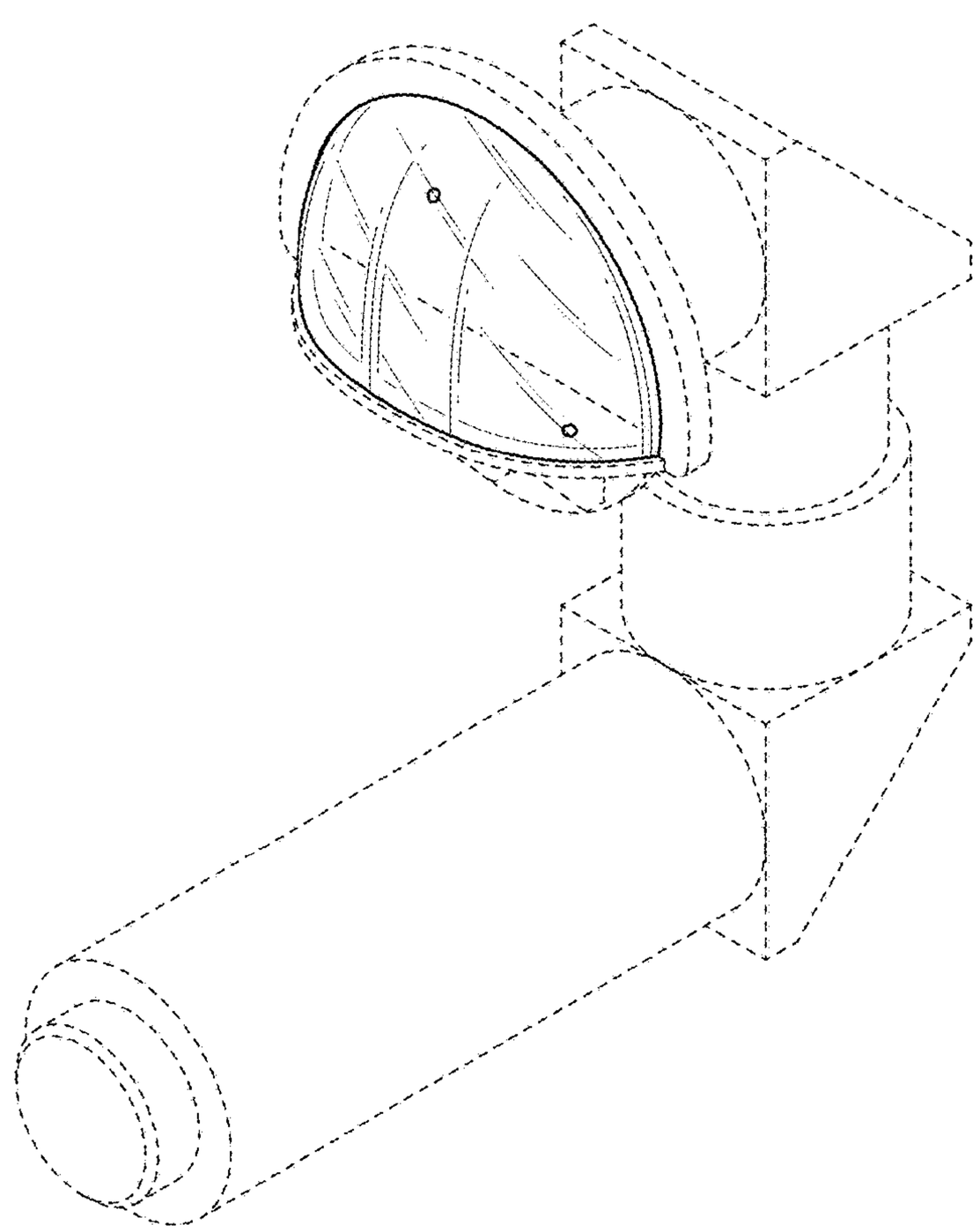

FIG.2

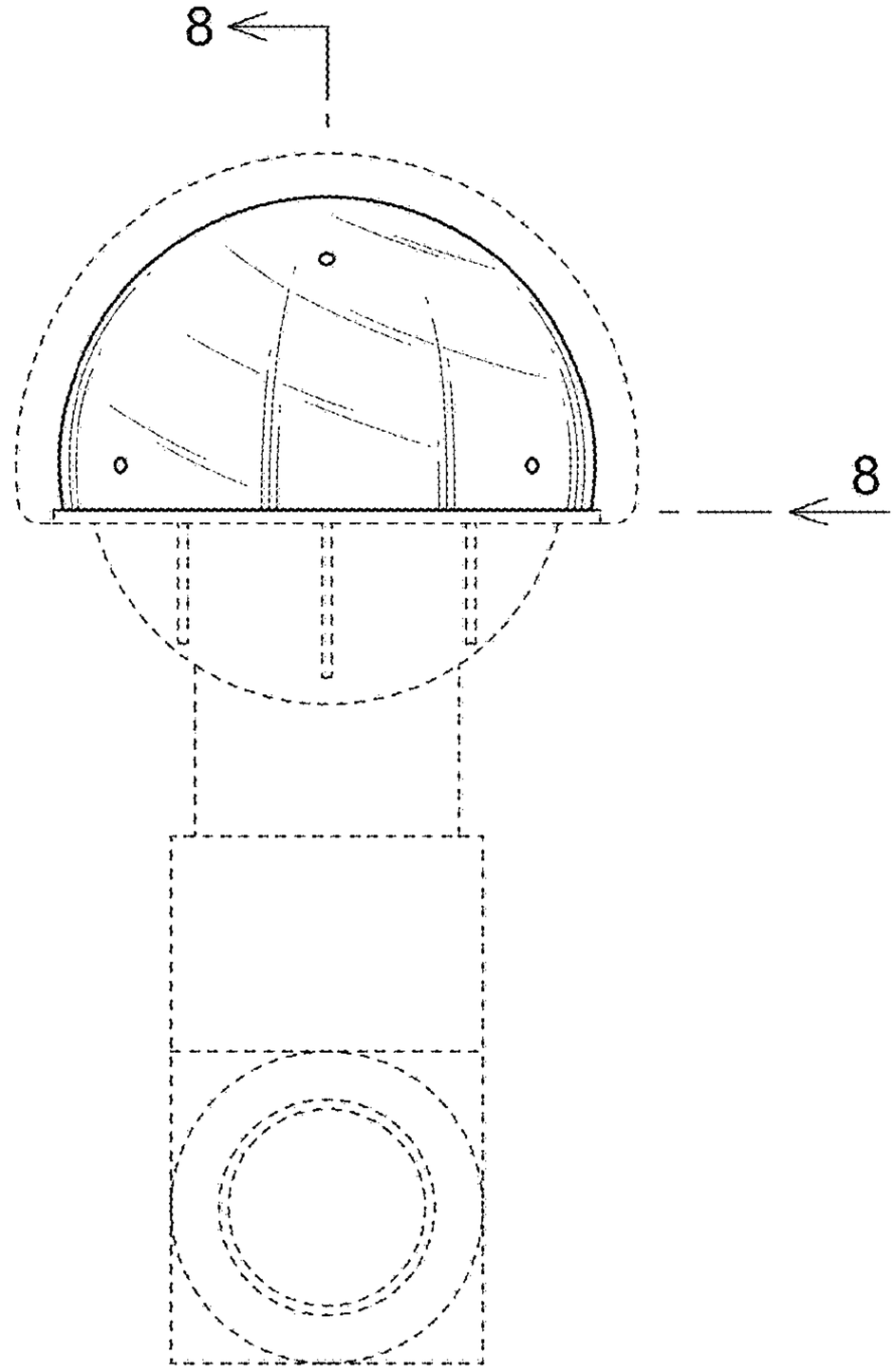

FIG.3

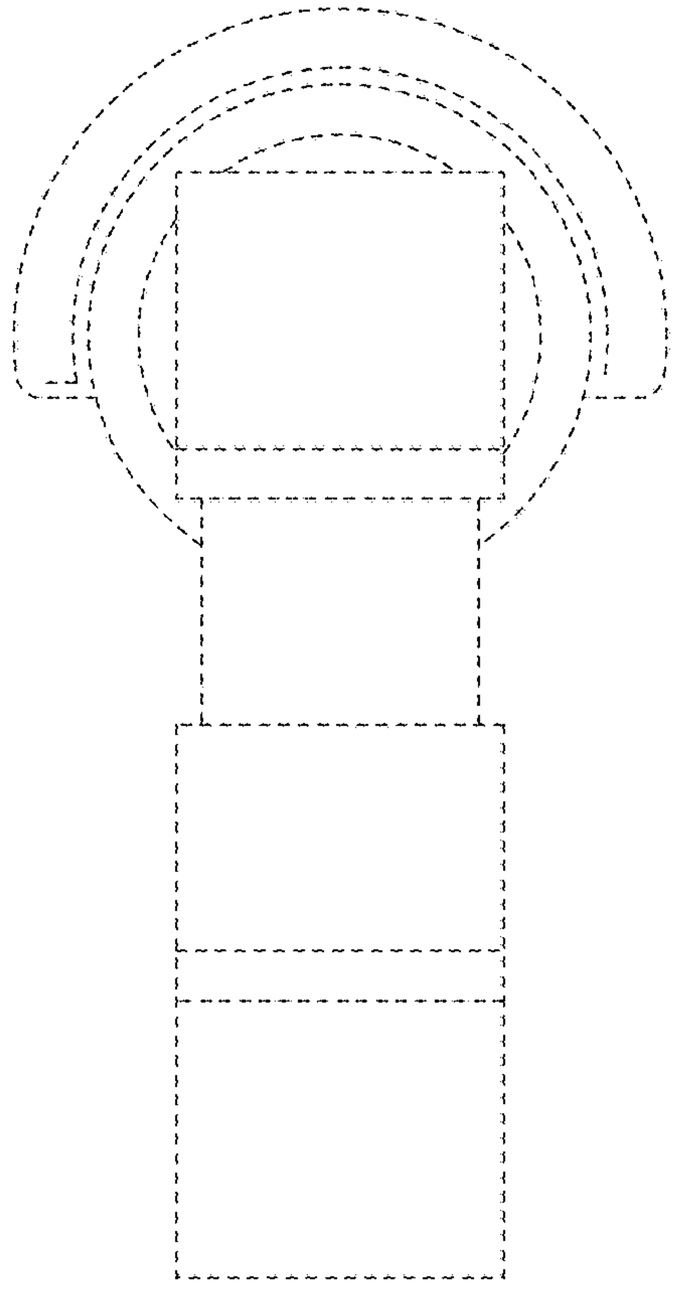

FIG.4

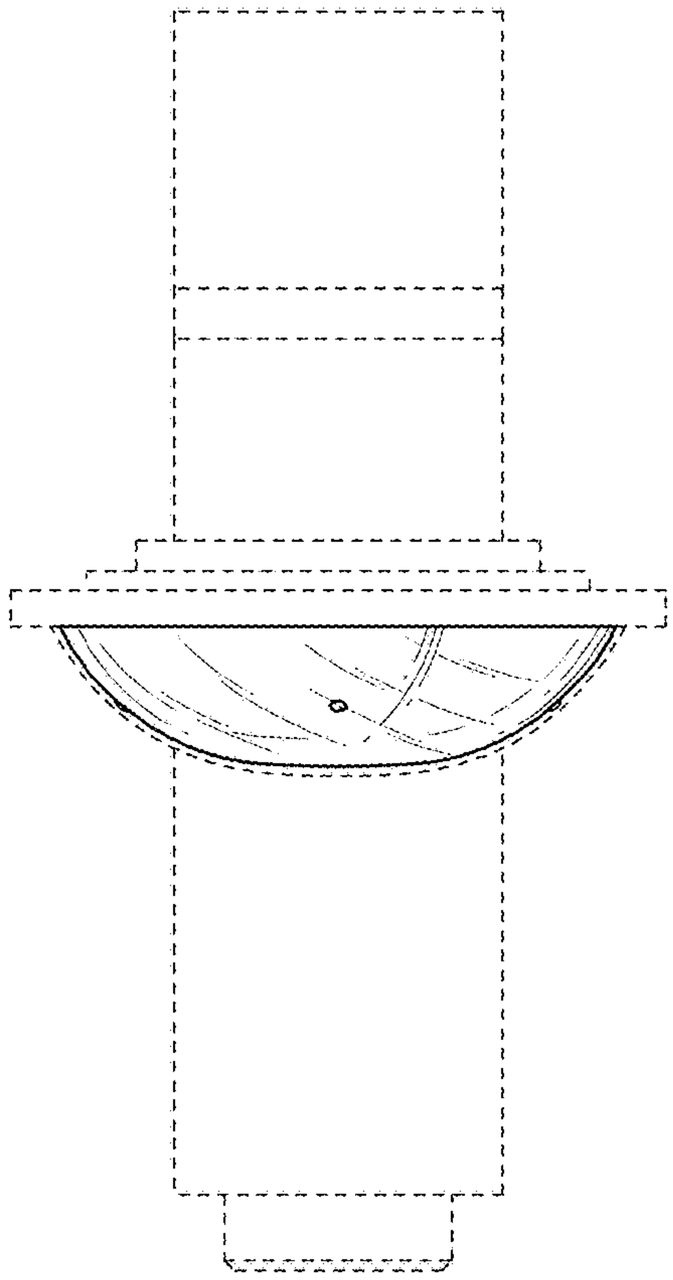

FIG.5

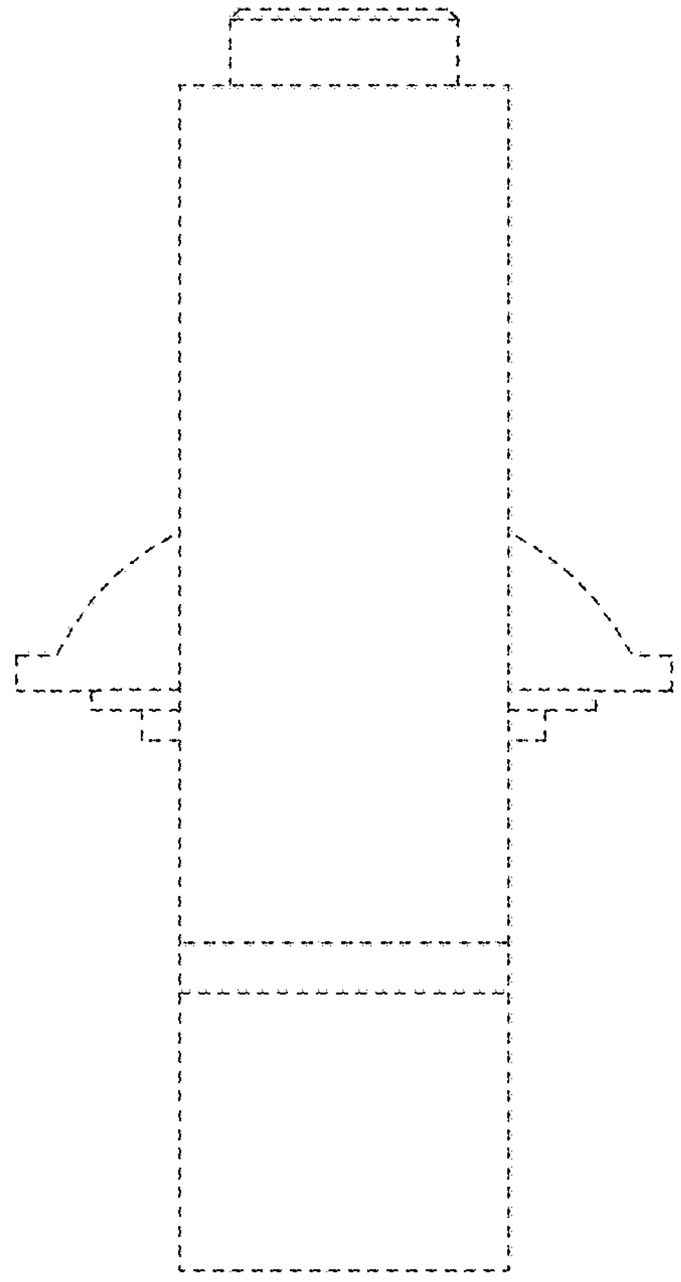

FIG.6

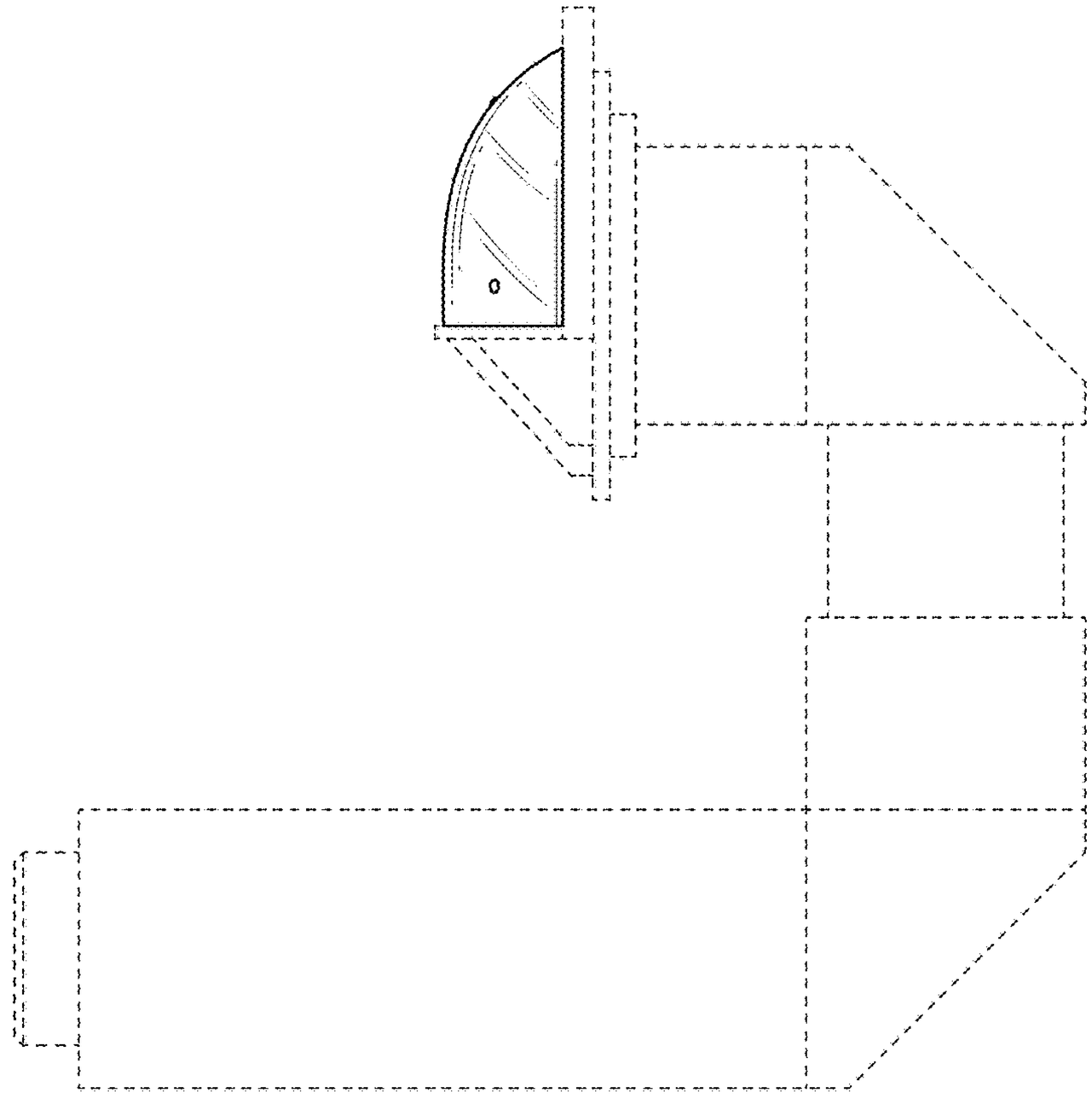

FIG.7

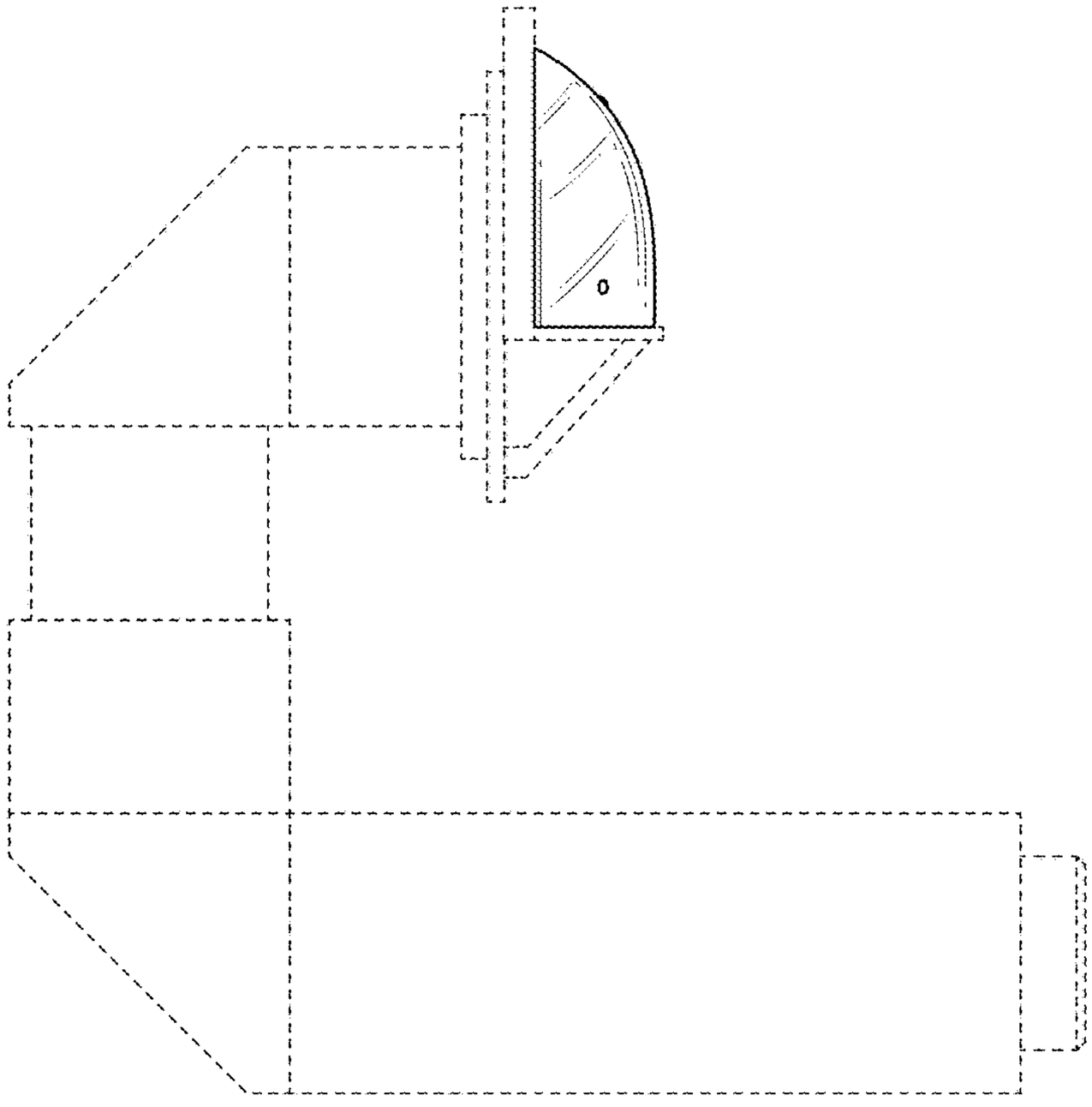

FIG.8

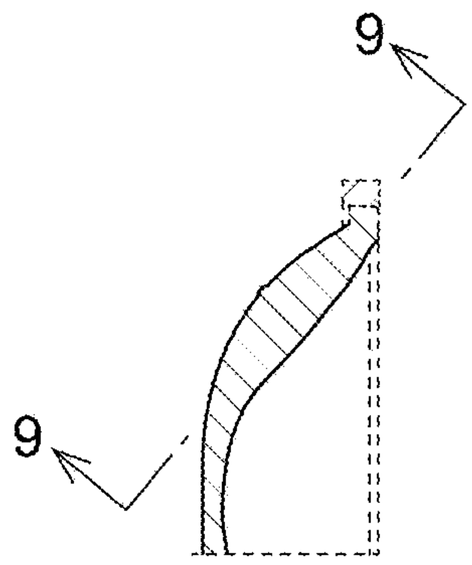

FIG.9

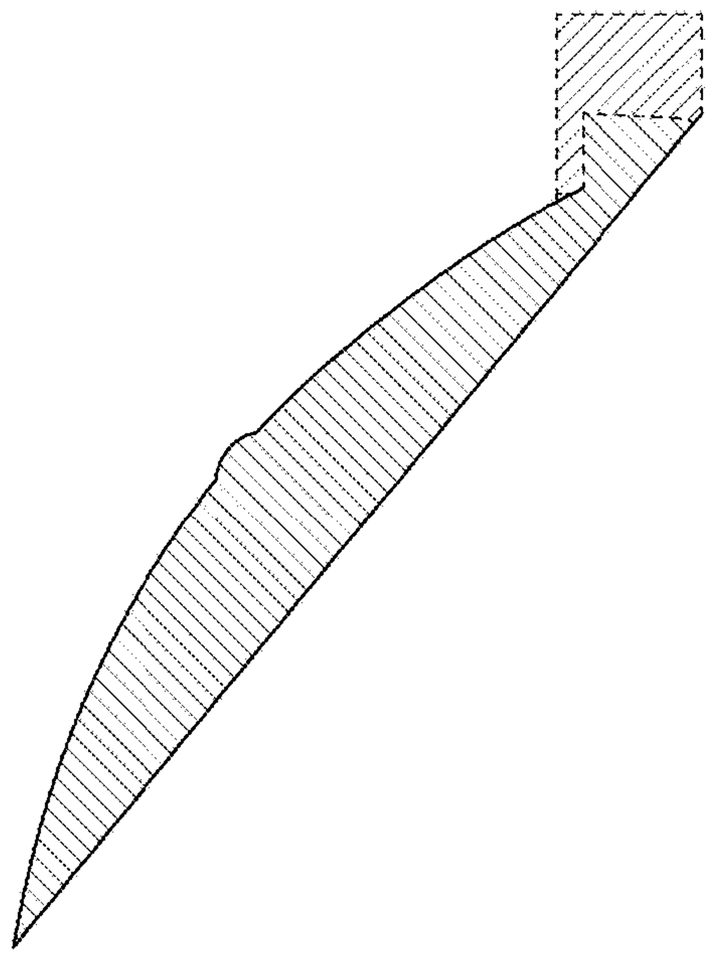

FIG.10

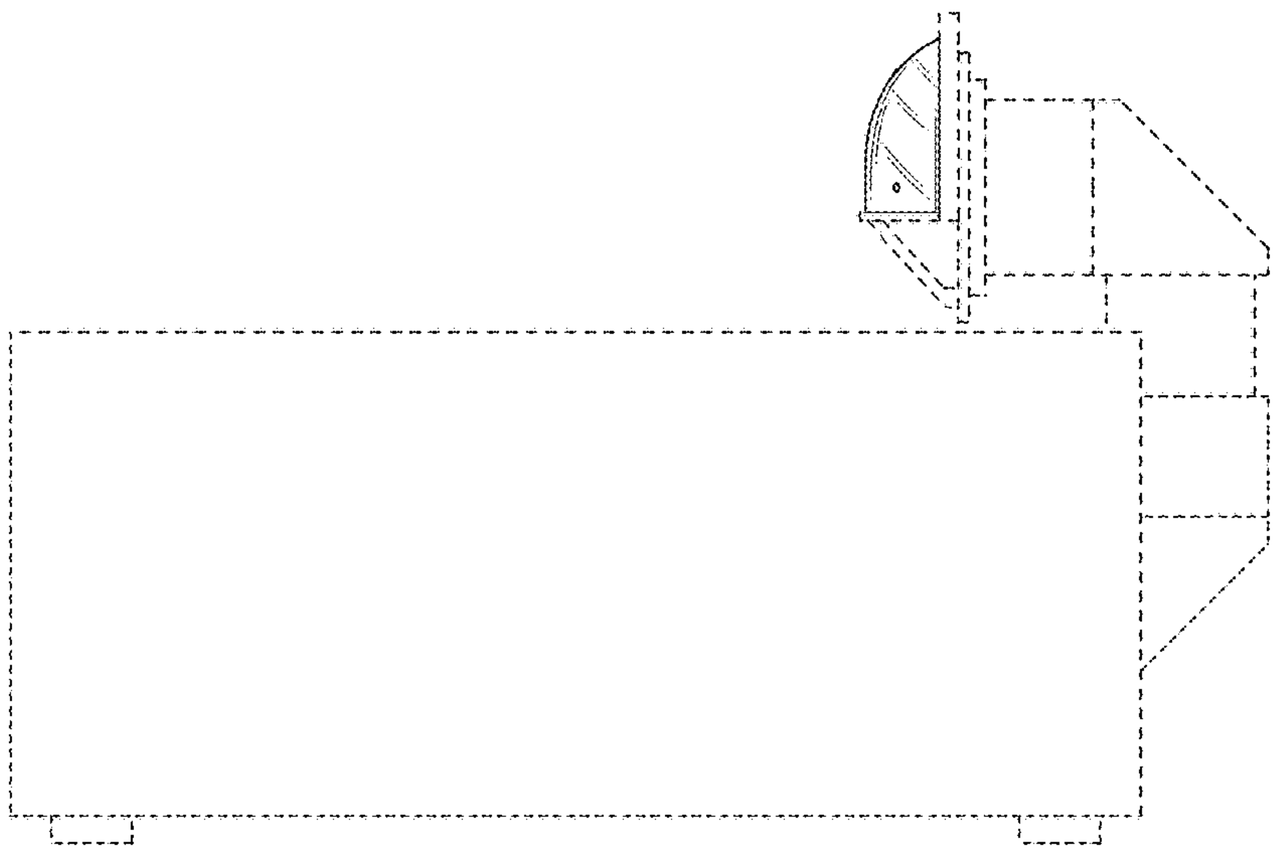

FIG.11

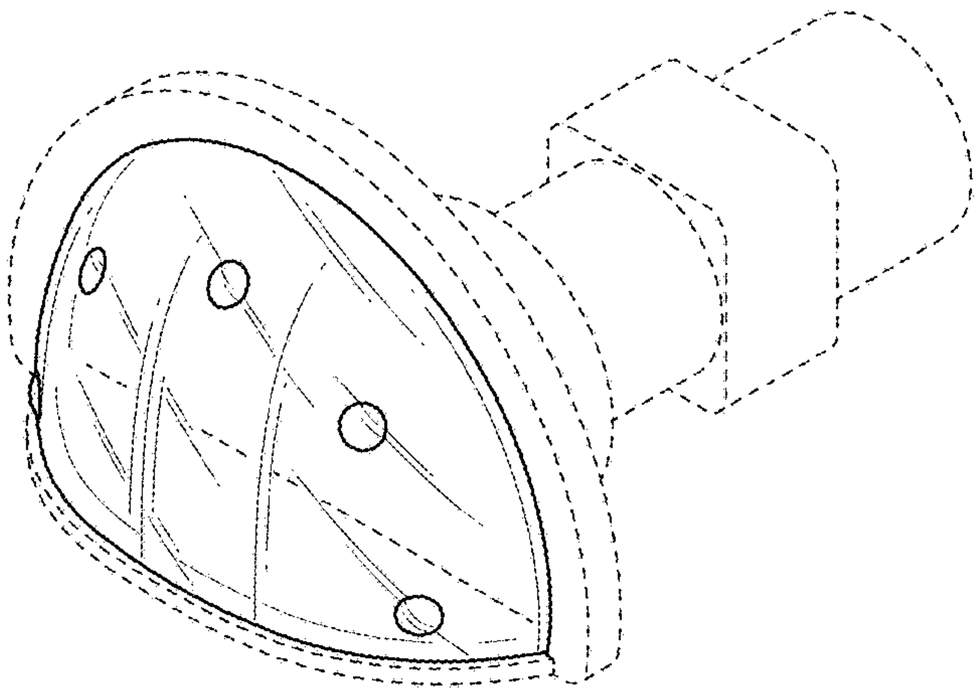

FIG.12

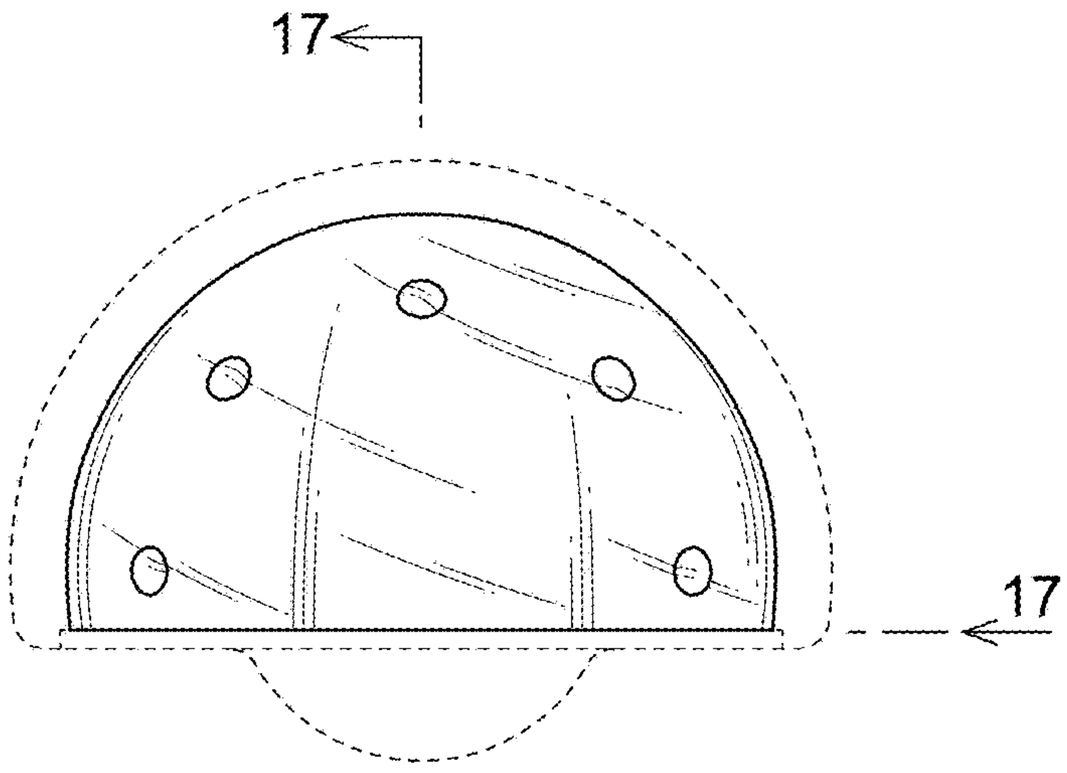

FIG.13

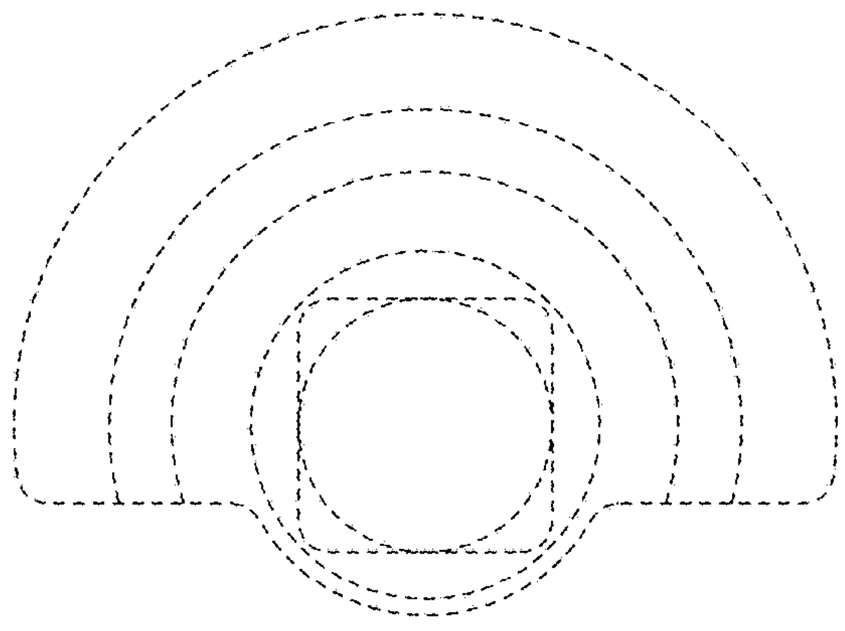

FIG.14

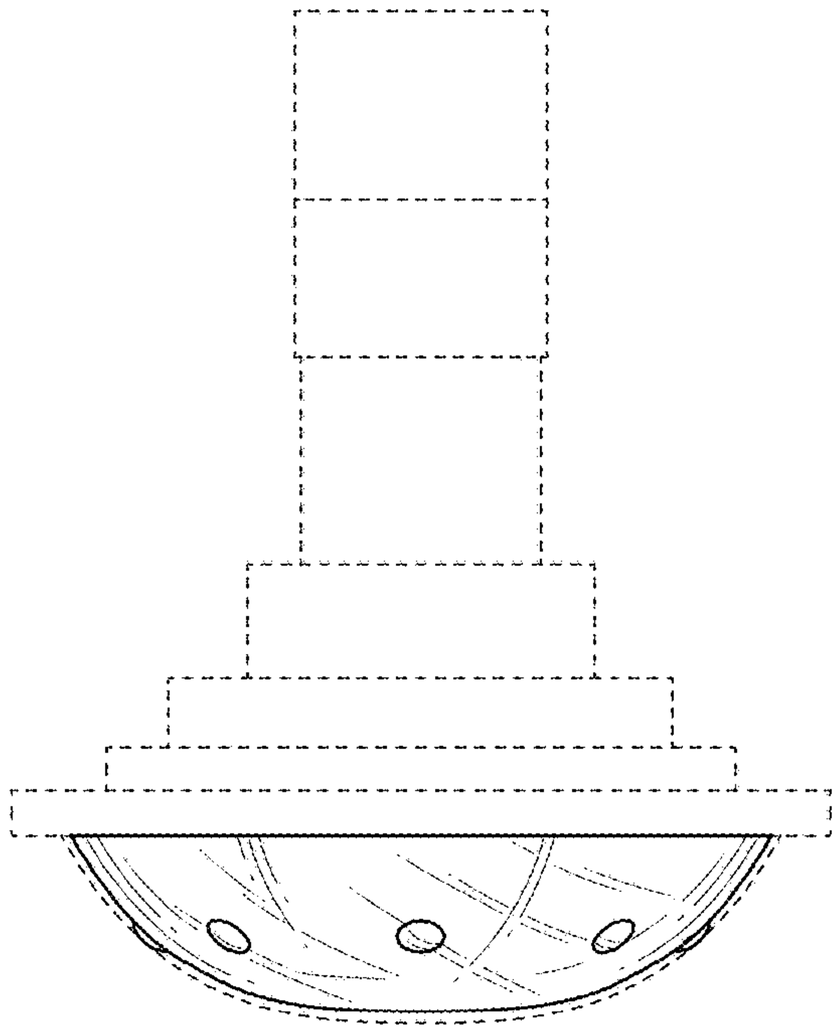

FIG.15

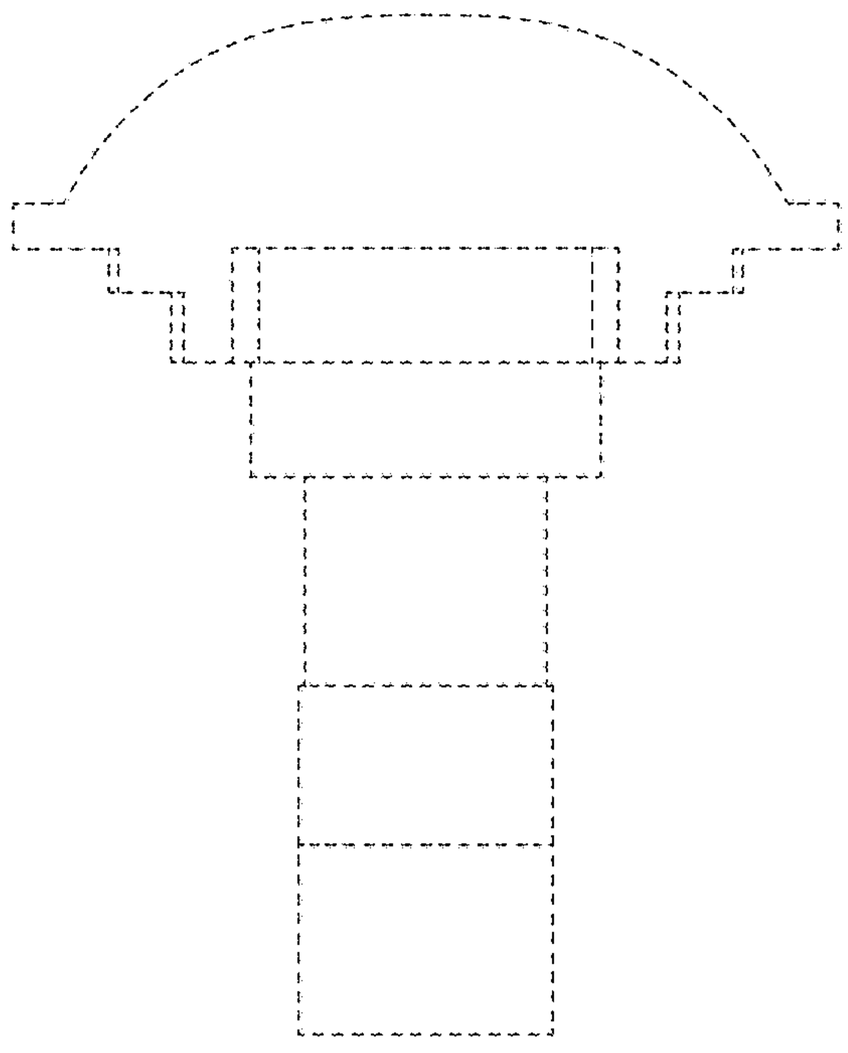

FIG.16

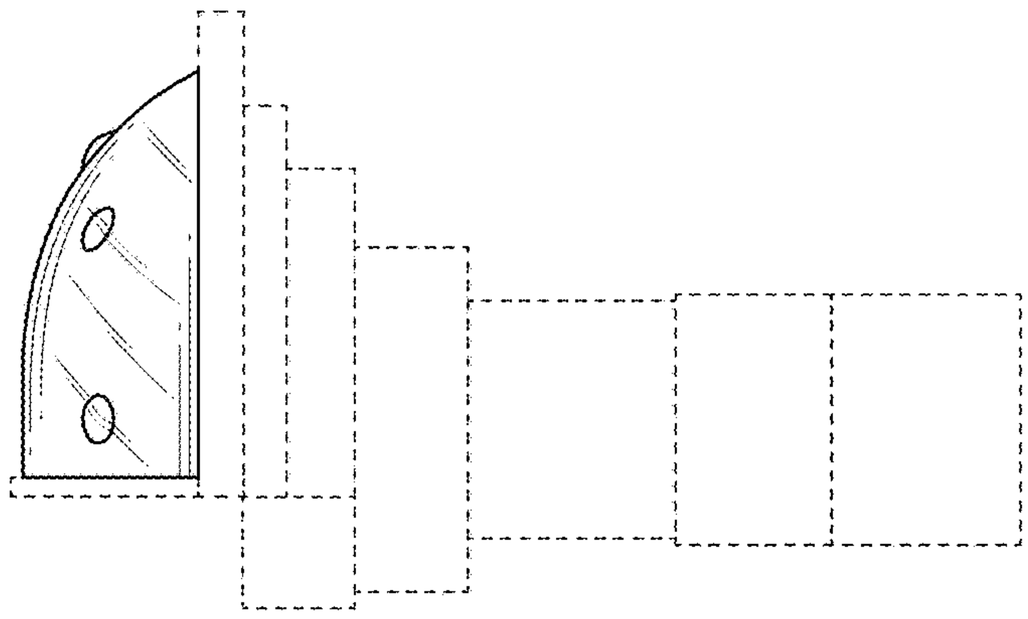

FIG.17

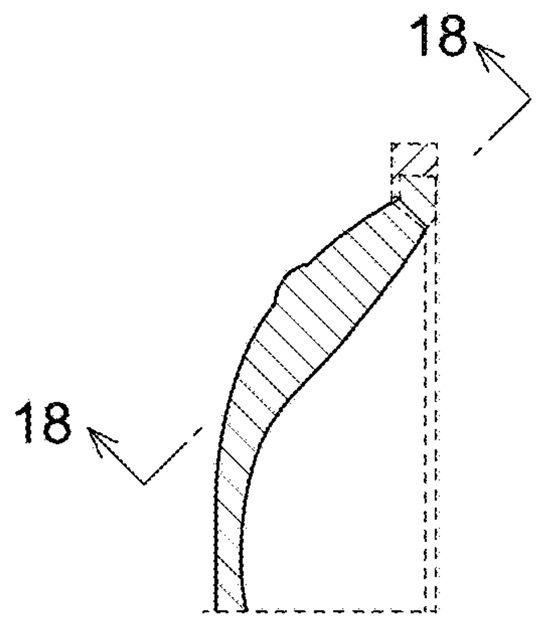

FIG.18

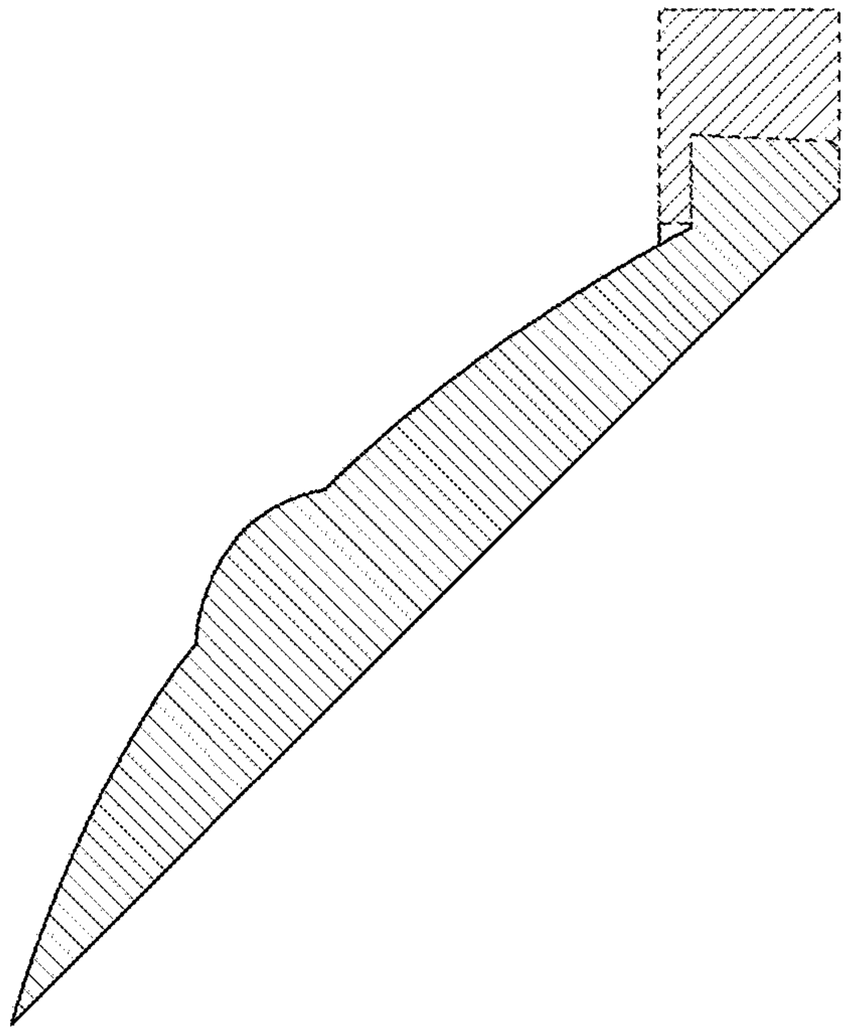

FIG.19