



US00D922280S

(12) **United States Design Patent**
Hur

(10) **Patent No.:** **US D922,280 S**

(45) **Date of Patent:** **** Jun. 15, 2021**

(54) **DUST REDUCTION DEVICE FOR AN
AUTOMOBILE**

(71) Applicant: **MANDO CORPORATION,**
Gyeonggi-do (KR)

(72) Inventor: **Jae Jin Hur,** Gyeonggi-do (KR)

(73) Assignee: **MANDO CORPORATION,**
Gyeonggi-Do (KR)

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

(21) Appl. No.: **29/705,251**

(22) Filed: **Sep. 10, 2019**

(30) **Foreign Application Priority Data**

Aug. 2, 2019 (KR) 30-2019-0037023

(51) **LOC (13) Cl.** **12-16**

(52) **U.S. Cl.**
USPC **D12/180**

(58) **Field of Classification Search**

USPC D12/180, 14, 174

CPC F16D 2055/0033; F16D 2055/0037; F16D

65/0031; F16D 65/0081; F16D 65/00;

F16D 65/0006; F16D 65/092; F16D

65/0972; F16D 65/0087; F16D 65/0977;

F16D 65/097; F16D 65/847; F16D 55/00;

F16D 55/22; F16D 55/225; F16D 55/226;

F16D 55/227; B32B 3/06; B60Q 1/326;

B01D 46/10; B03C 1/0332; B60B 7/061

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,845,747 A * 12/1998 Rike F16D 55/228
188/72.4

D515,484 S * 2/2006 Winkler D12/180

D739,319 S * 9/2015 Montgomery D12/180
9,267,557 B2 * 2/2016 Boyle F16D 55/227
D837,704 S * 1/2019 Huang D12/180
D861,559 S * 10/2019 Scotti D12/180
D864,809 S * 10/2019 Puddu D12/180
D890,047 S * 7/2020 Bock D12/180
D892,007 S * 8/2020 Scotti D12/180
D894,066 S * 8/2020 Kuemmerling D12/180
D902,097 S * 11/2020 Ock D12/180

(Continued)

Primary Examiner — Christian P. McLean

Assistant Examiner — Adam C Mager

(74) *Attorney, Agent, or Firm* — Ladas & Parry, LLP

(57) **CLAIM**

I claim the ornamental design for a dust reduction device for an automobile, as shown and described.

DESCRIPTION

FIG. 1 is the front perspective view of a dust reduction device for an automobile showing my new design;

FIG. 2 is the front view thereof;

FIG. 3 is the rear view thereof;

FIG. 4 is the left-side view thereof;

FIG. 5 is the right-side view thereof;

FIG. 6 is the top view thereof;

FIG. 7 is the bottom view thereof;

FIG. 8 is the bottom perspective view thereof;

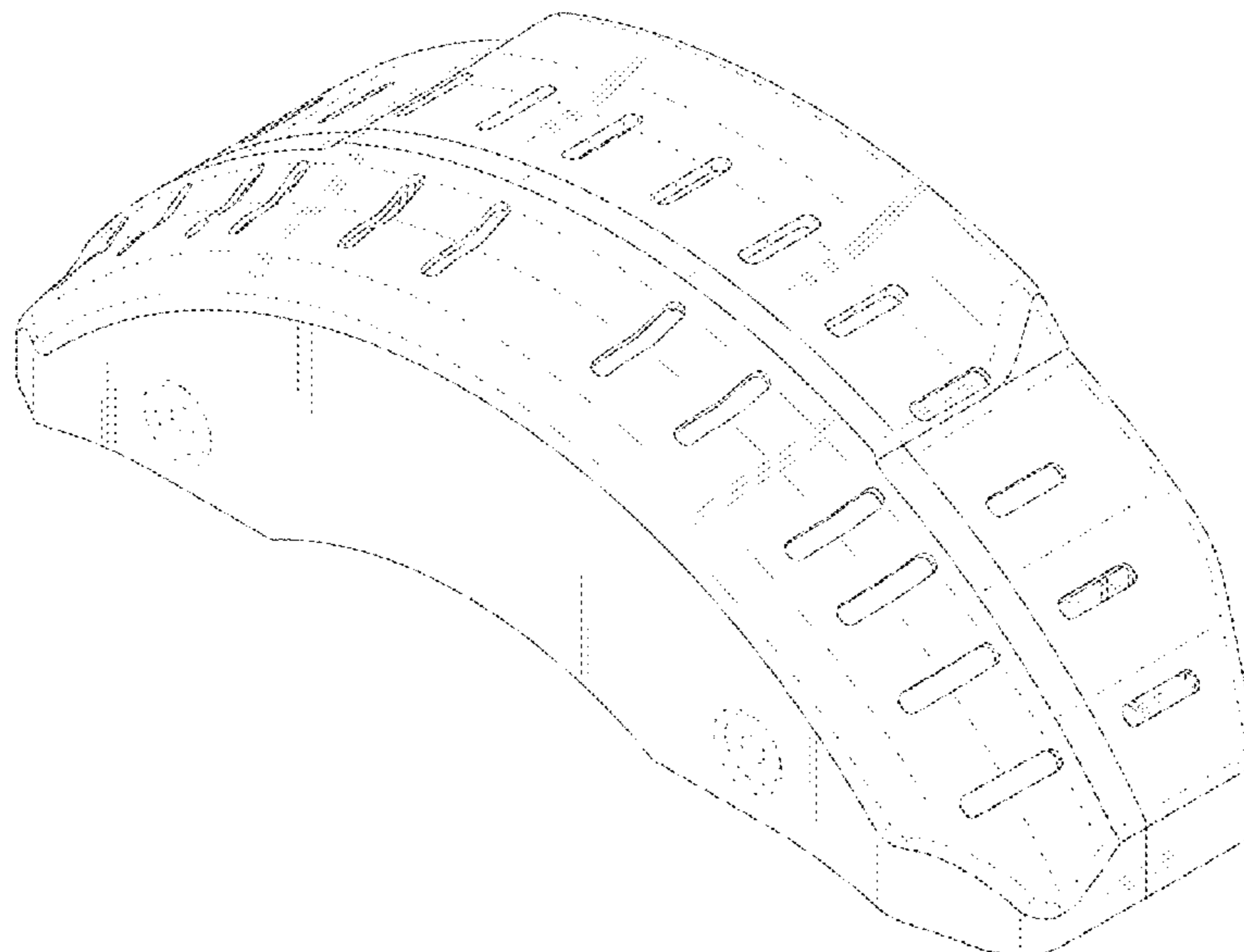
FIG. 9 is the view showing overall the present design in separated state;

FIG. 10 is view showing the using status of the present design mounted on the disc brake caliper; and,

FIG. 11 is view showing the present design separated from the disc brake caliper.

The broken line showing is for the purpose of illustrating portions of the article and environmental structure and forms no part of the claimed design. The unshaded surfaces shown between the solid lines and the broken lines form no part of the claim.

1 Claim, 8 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2005/0173205 A1* 8/2005 Bach F16D 65/092
188/72.5
2005/0258008 A1* 11/2005 King F16D 65/00
188/264 R
2009/0321198 A1* 12/2009 Barland F16D 65/0031
188/264 A
2013/0095278 A1* 4/2013 Collura B32B 3/06
428/99
2017/0037916 A1* 2/2017 Crippa F16D 65/0977
2018/0080512 A1* 3/2018 Barland F16D 65/0081
2018/0149219 A1* 5/2018 Noh B22D 25/02
2019/0338815 A1* 11/2019 Park F16D 65/0081

* cited by examiner

FIG. 1

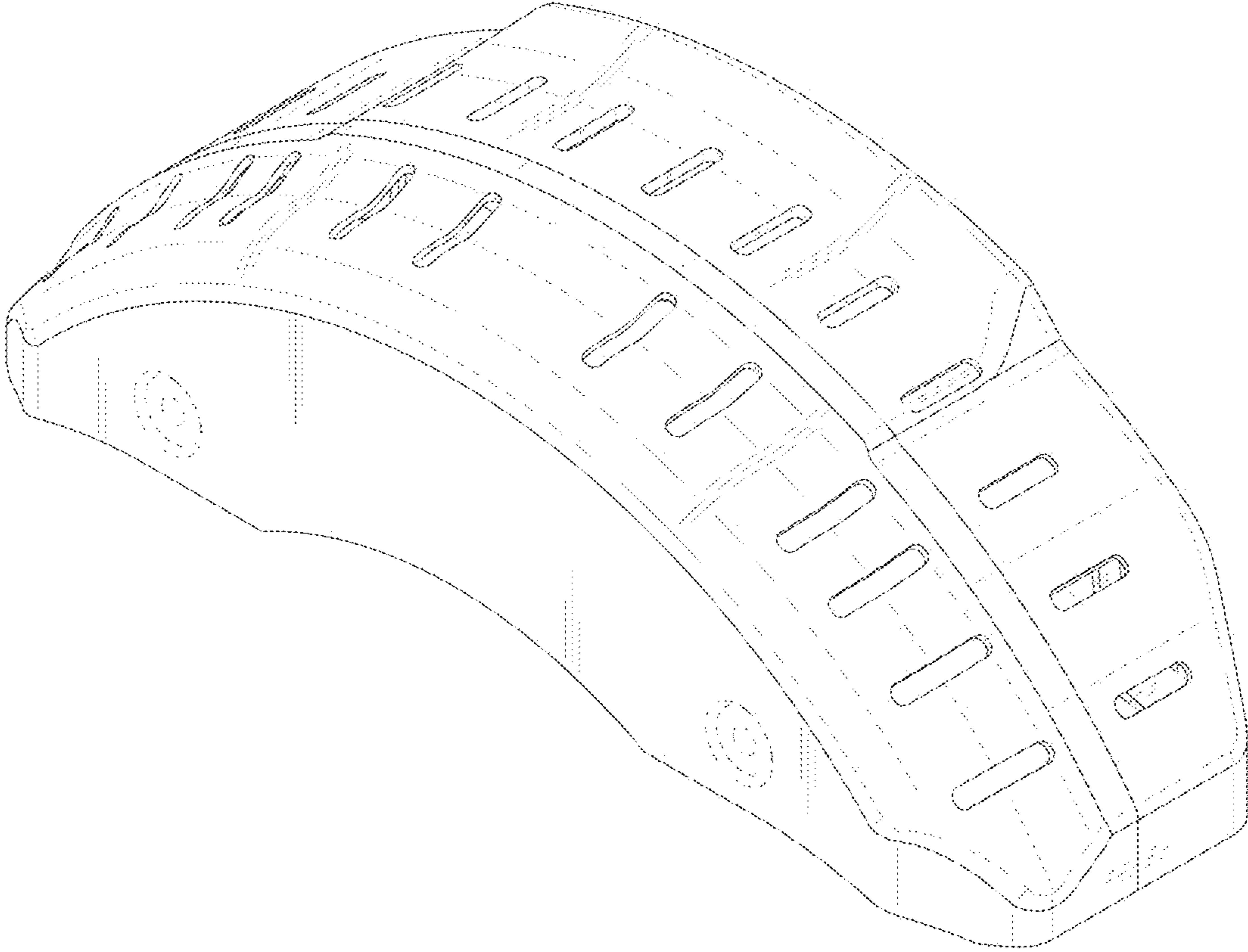


FIG. 2

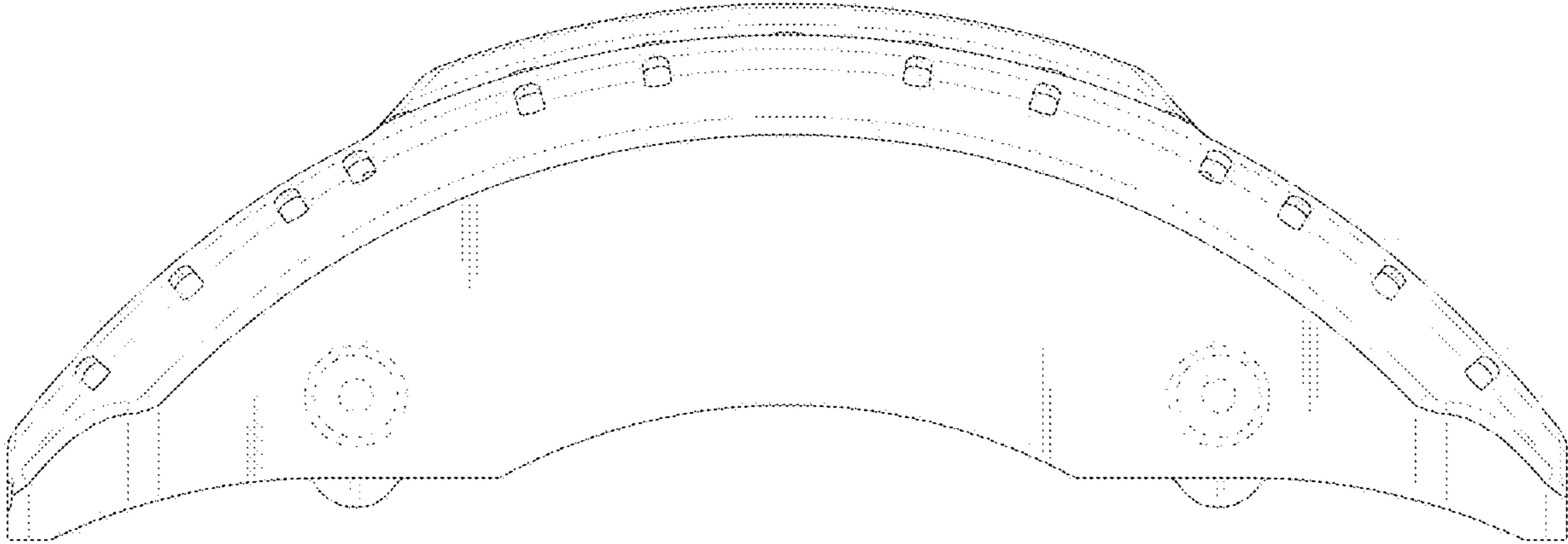


FIG. 3

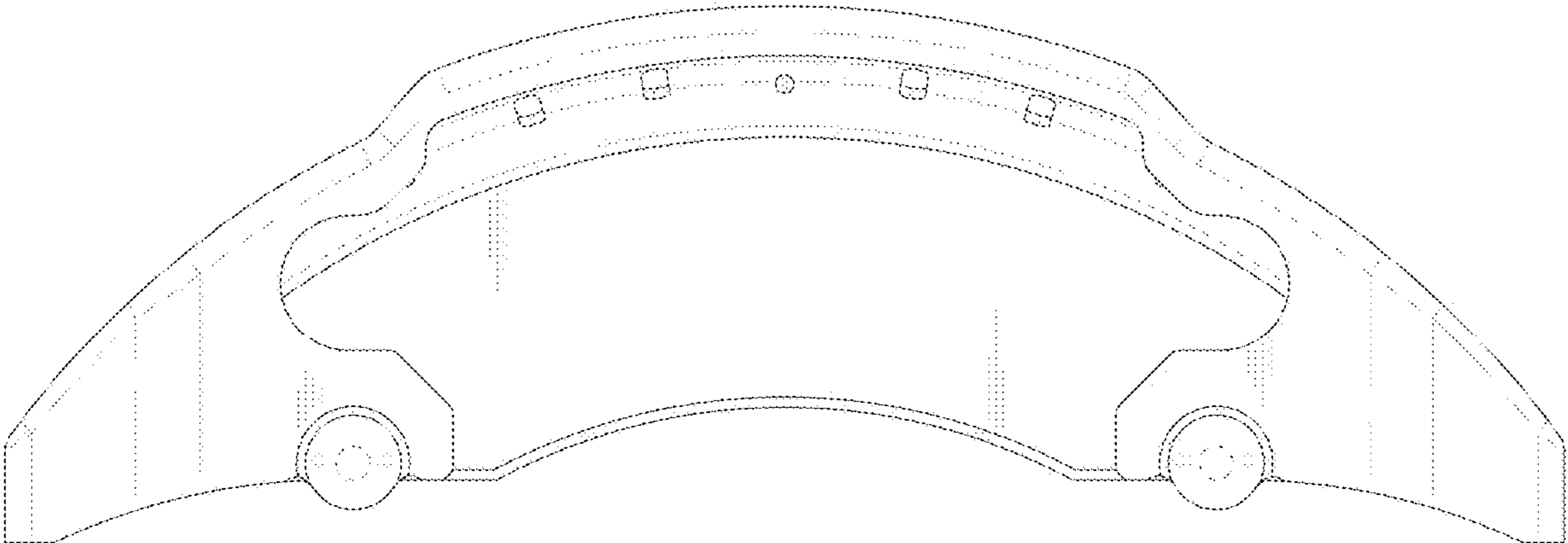


FIG. 4

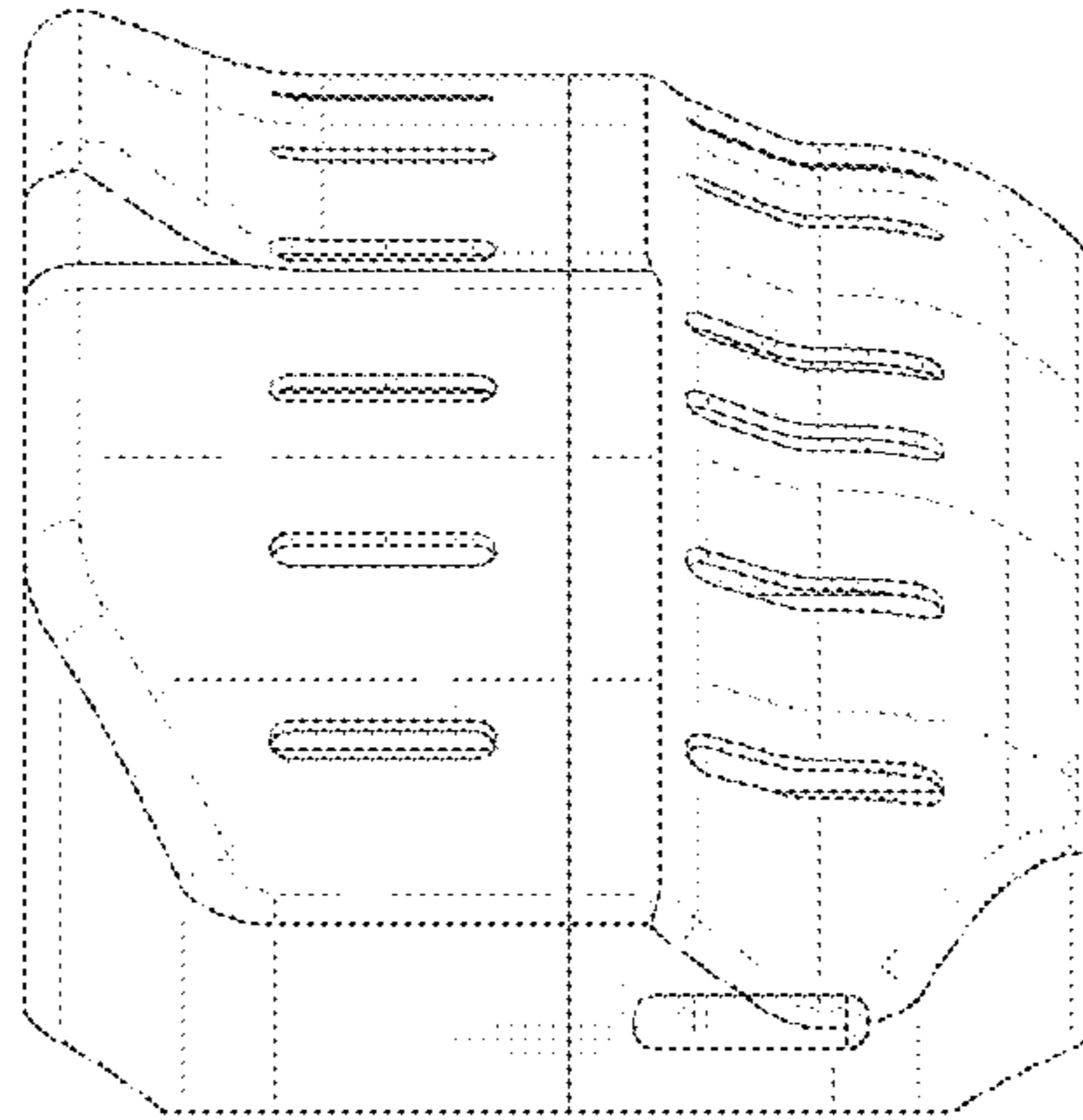


FIG. 5

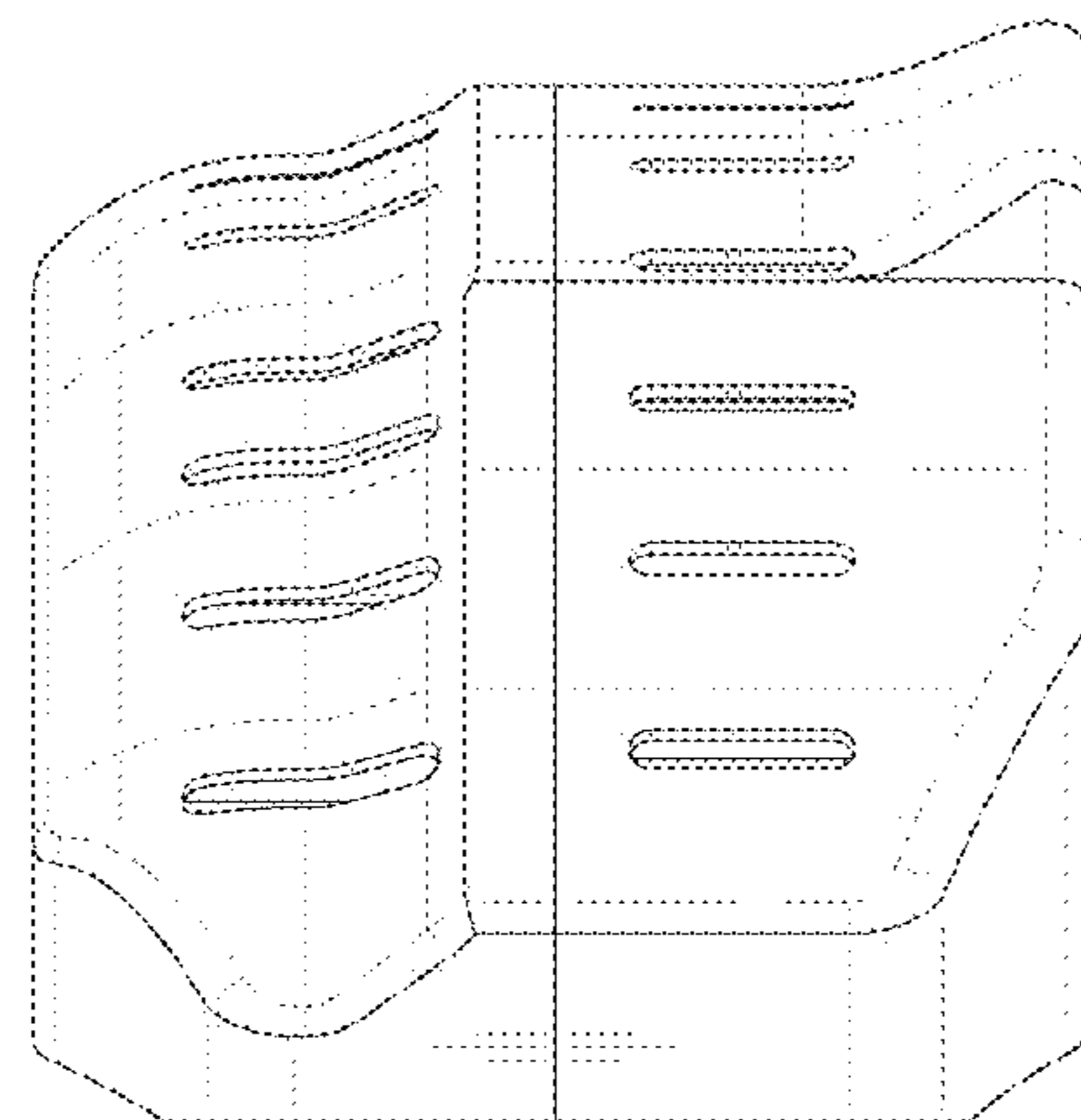


FIG. 6

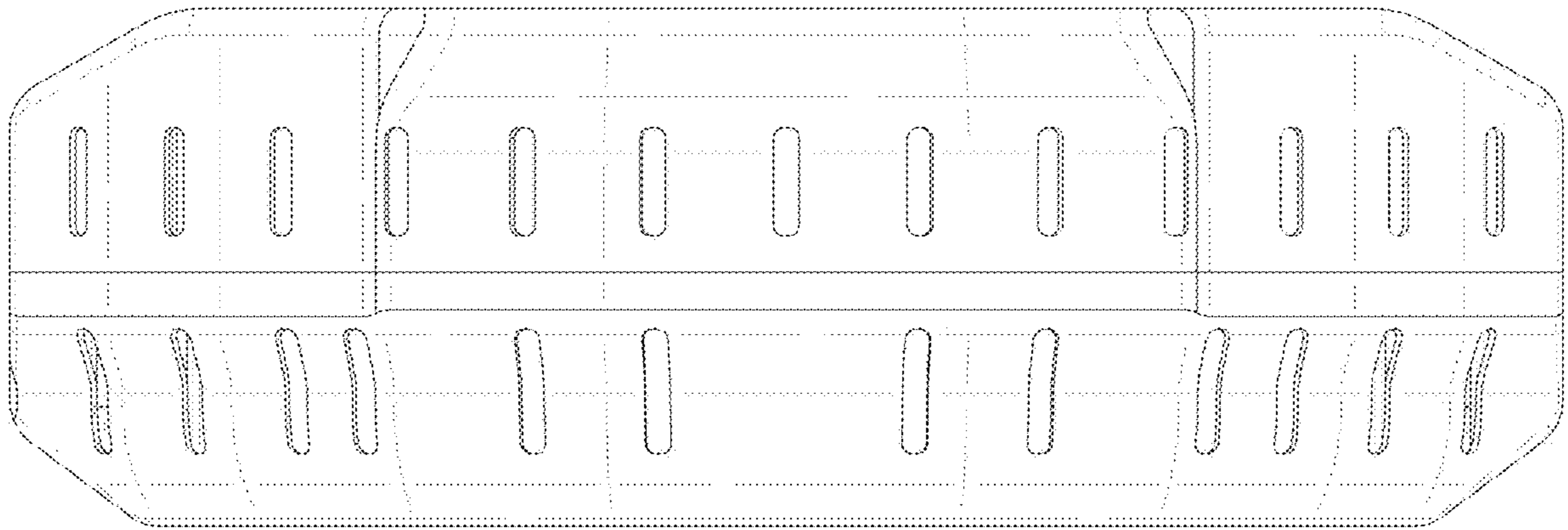


FIG. 7

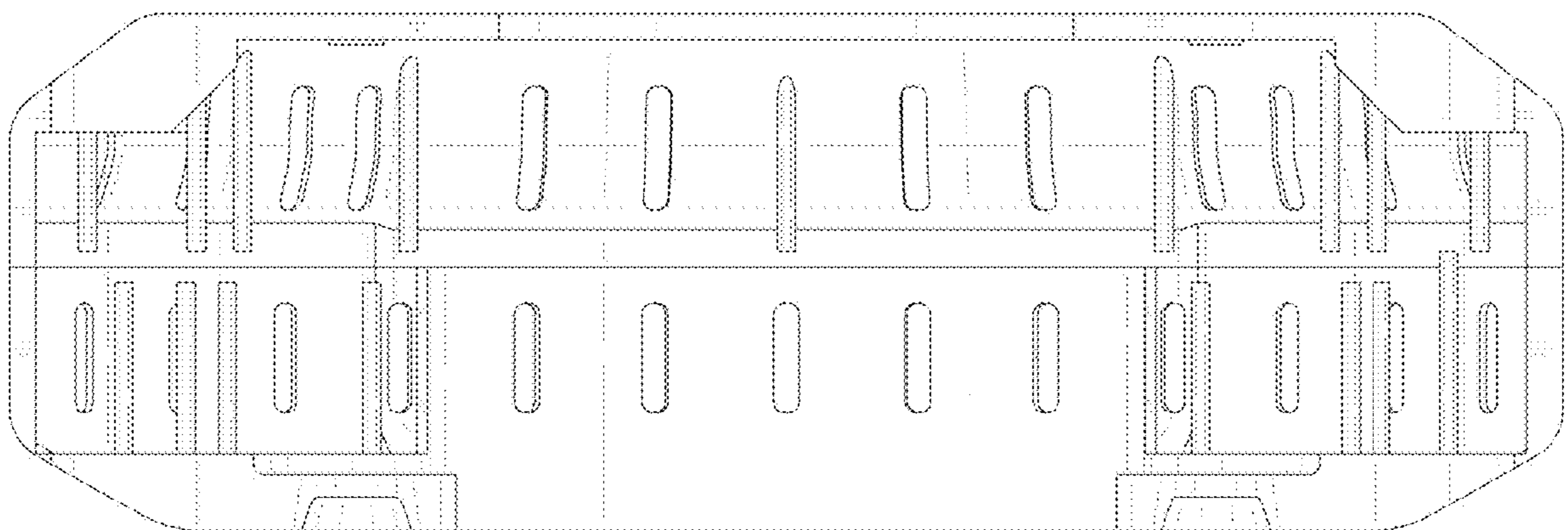


FIG. 8

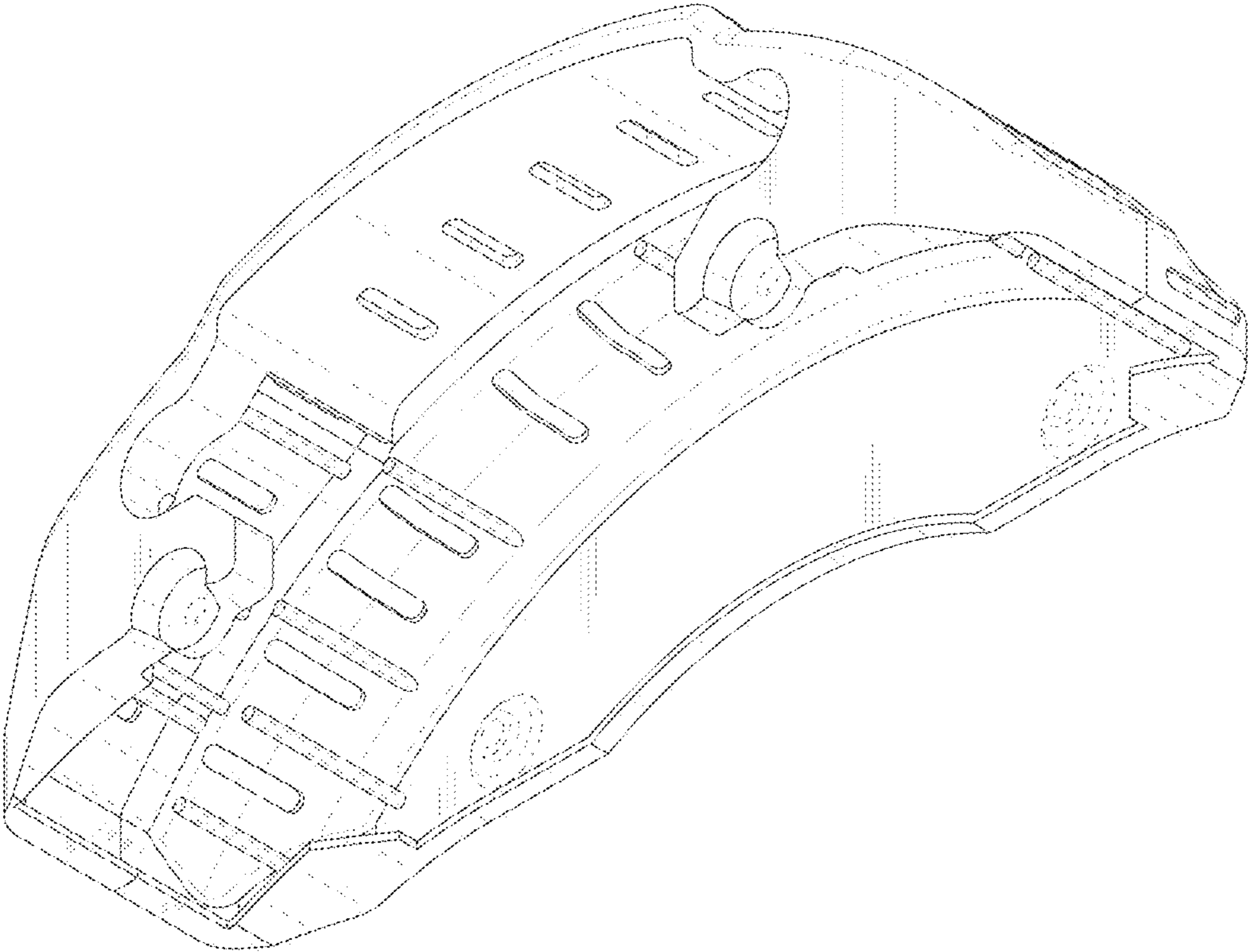


FIG. 9

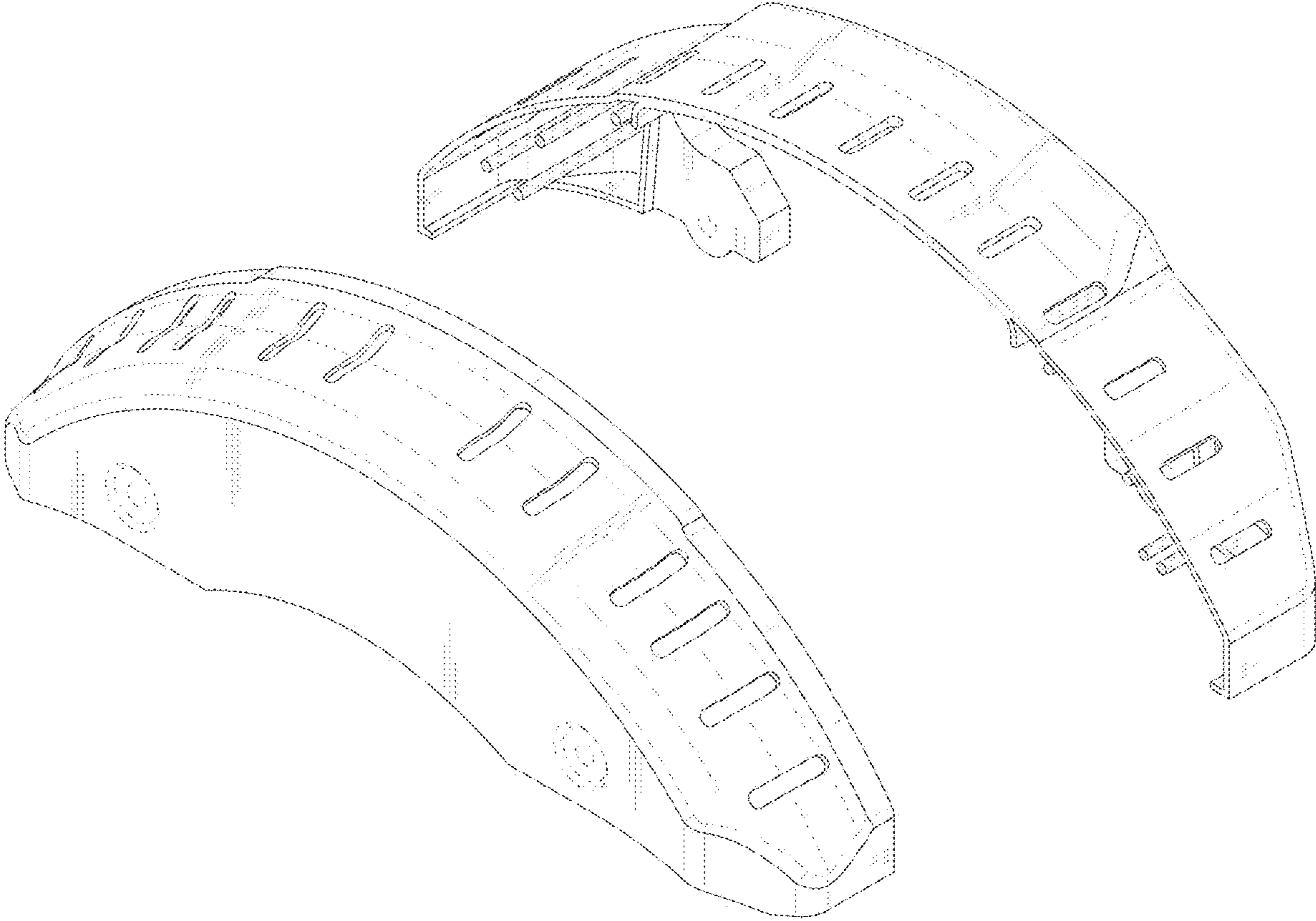


FIG. 10

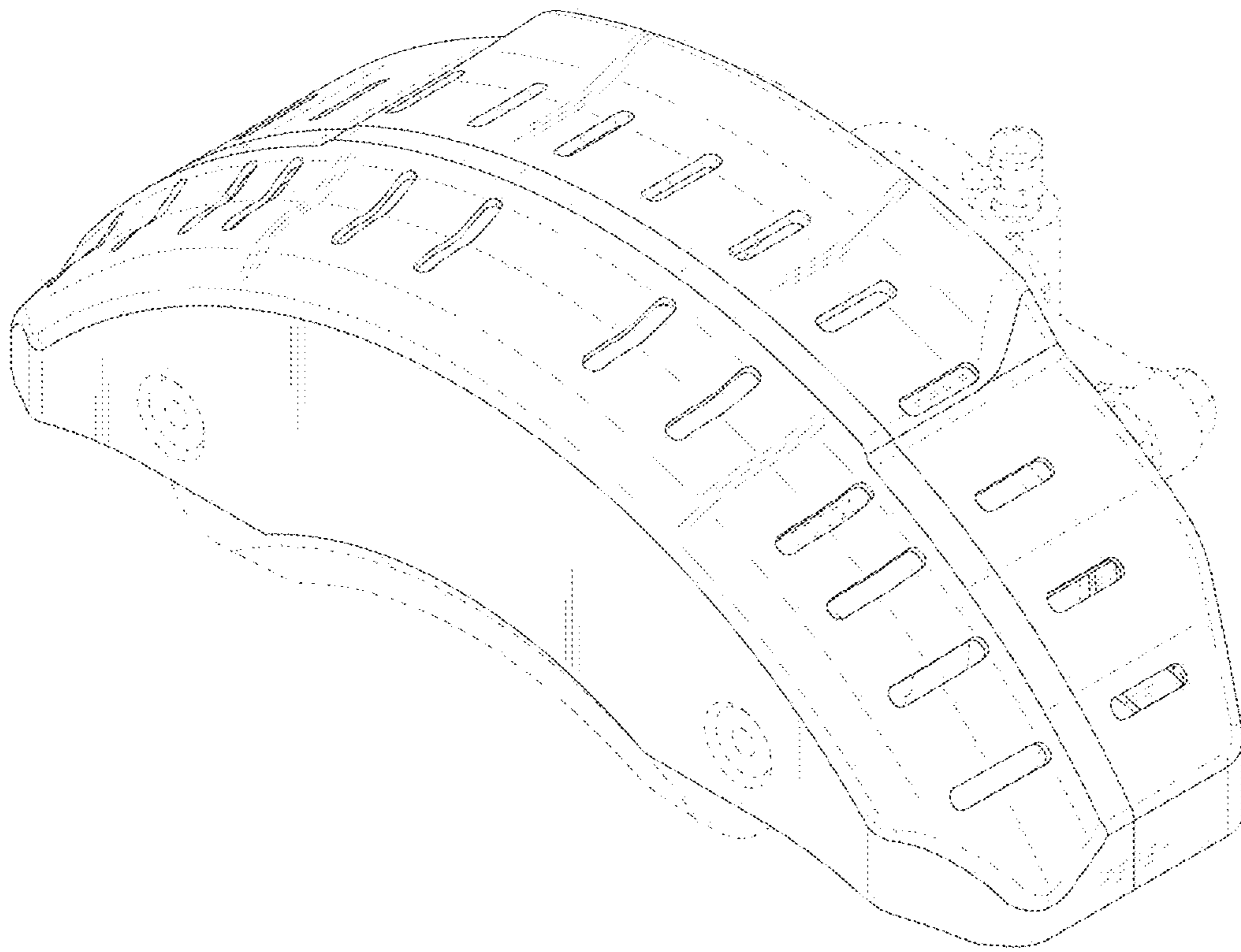


FIG. 11

