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(12)

United States Design Patent

Bowden et al.

(10)

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(45)

Date of Patent:

** Jul. 9, 2024

- (54) BRAKE SYSTEM BACK PLATE HAVING THERMAL MANAGEMENT FEATURES
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- (73) Assignee: Westinghouse Ari Brake Technologies Corporation, Pittsburgh, PA (US)
- (**) Term: 15 Years
- (21) Appl. No.: 29/874,601
- (22) Filed: Apr. 21, 2023

Related U.S. Application Data

- (62) Division of application No. 29/775,002, filed on Mar. 19, 2021, now Pat. No. Des. 988,214.
- (51) LOC (14) Cl. 12-16
- (52) U.S. Cl. D12/180
- (58) Field of Classification Search USPC D12/106, 114, 122, 179–180, 207, 400
- (Continued)

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Assistant Examiner — D. Ryan Tisdale
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CLAIM

The ornamental design for a brake system back plate having thermal management features, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a first embodiment of a back plate and brake pad of a brake system;
FIG. 2 is an elevational view of a first side of the back plate and brake pad shown in FIG. 1;
FIG. 3 is an elevational view of a second side of the back plate and brake pad shown in FIG. 1;
FIG. 4 is an elevational view of a first end of the back plate and brake pad shown in FIG. 1;
FIG. 5 is an elevational view of a second end of the back plate and brake pad shown in FIG. 1;
FIG. 6 is a plan view of a top side of the back plate and brake pad shown in FIG. 1;
FIG. 7 is a plan view of a bottom side of the back plate and brake pad shown in FIG. 1;
FIG. 8 is a perspective view of the first embodiment of the back plate shown in FIG. 1;
FIG. 9 is an elevational view of the first side of the back plate shown in FIG. 1;
FIG. 10 is an elevational view of the second side of the back plate shown in FIG. 1;
FIG. 11 is an elevational view of the first end of the back plate shown in FIG. 1;
FIG. 12 is an elevational view of the second end of the back plate shown in FIG. 1;

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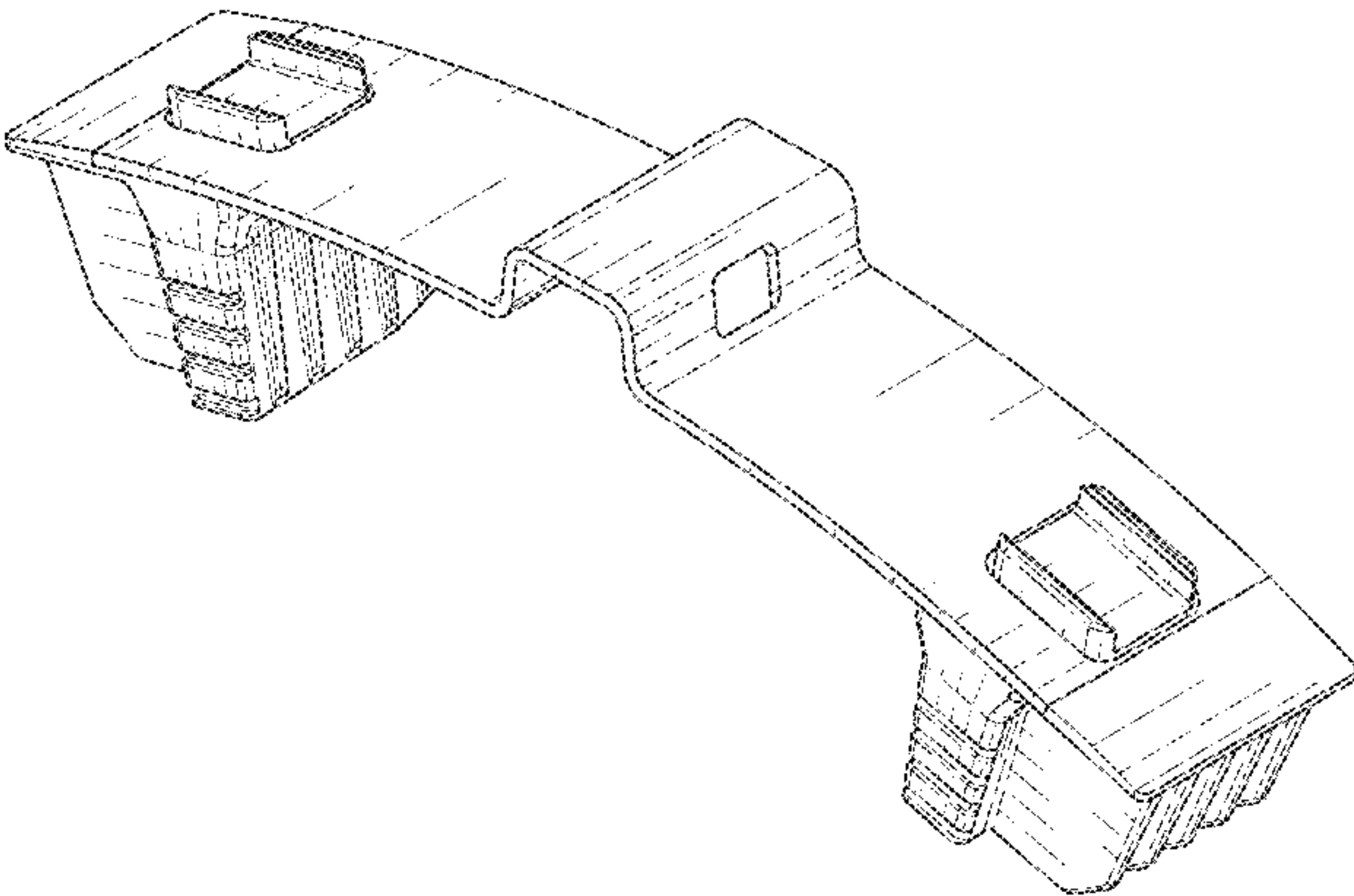
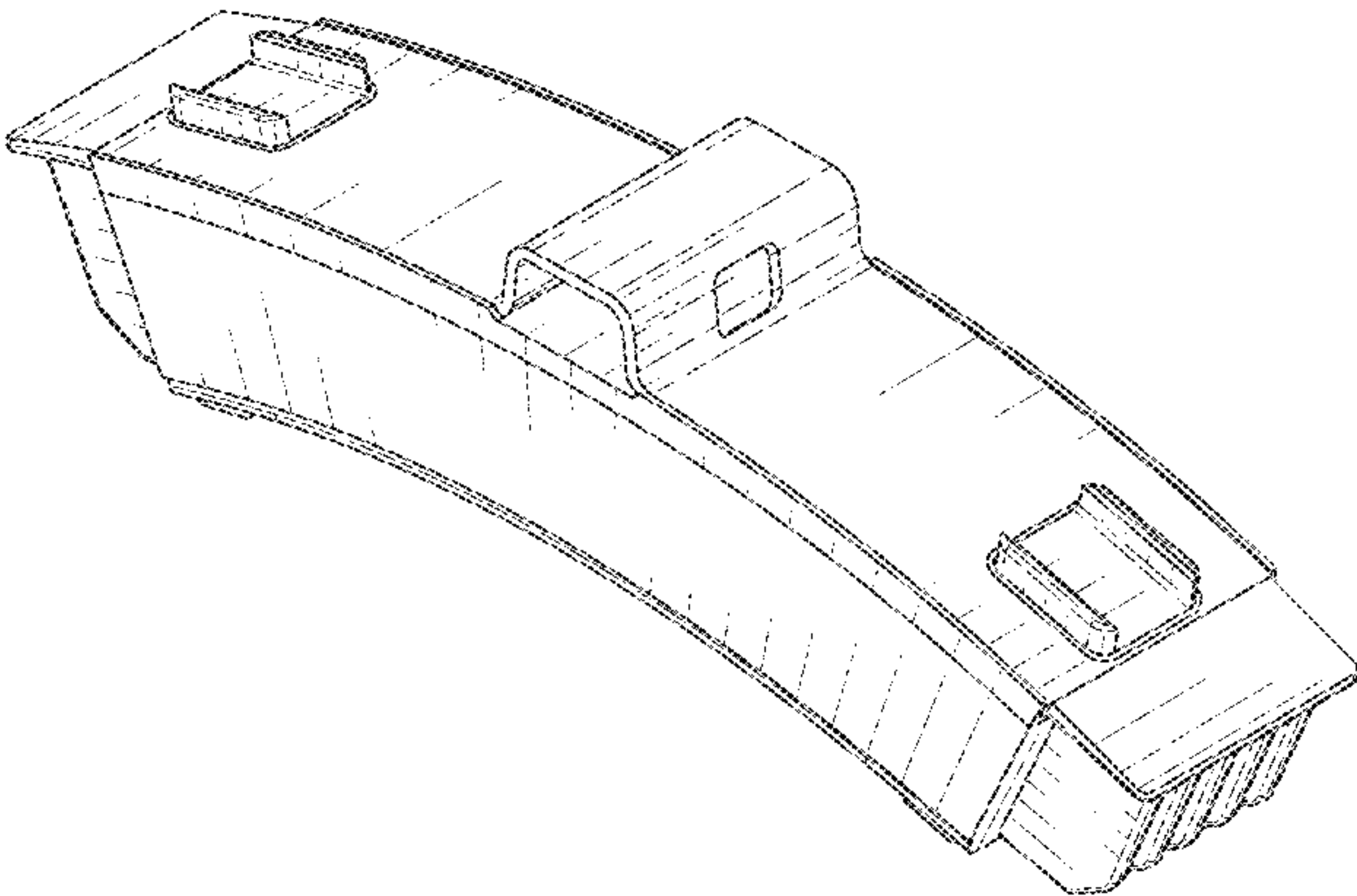


FIG. 13 is a plan view of the top side of the back plate shown in FIG. 1;
FIG. 14 is a plan view of the bottom side of the back plate shown in FIG. 1;
FIG. 15 is a perspective view of a second embodiment of a back plate and brake pad of a brake system;
FIG. 16 is an elevational view of a first side of the back plate and brake pad shown in FIG. 15;
FIG. 17 is an elevational view of a second side of the back plate and brake pad shown in FIG. 15;
FIG. 18 is an elevational view of a first end of the back plate and brake pad shown in FIG. 15;
FIG. 19 is an elevational view of a second end of the back plate and brake pad shown in FIG. 15;
FIG. 20 is a plan view of a top side of the back plate and brake pad shown in FIG. 15;
FIG. 21 is a plan view of a bottom side of the back plate and brake pad shown in FIG. 15;
FIG. 22 is a perspective view of the second embodiment of the back plate shown in FIG. 15;
FIG. 23 is an elevational view of the first side of the back plate shown in FIG. 15;
FIG. 24 is an elevational view of the second side of the back plate shown in FIG. 15;
FIG. 25 is an elevational view of the first end of the back plate shown in FIG. 15;
FIG. 26 is an elevational view of the second end of the back plate shown in FIG. 15;
FIG. 27 is a plan view of the top side of the back plate shown in FIG. 15; and,
FIG. 28 is a plan view of the bottom side of the back plate shown in FIG. 15.

1 Claim, 16 Drawing Sheets

(58) **Field of Classification Search**
CPC . B60T 7/00; B60T 8/265; B60T 11/00; B60T 11/103; B60T 13/00; B60T 13/66; B60T 17/223; B60T 2201/00; B60T 2201/03; B60T 2270/82; B60T 2270/83; B60T 2270/84; B60T 1/06; B62L 1/00; B62L 3/02; B62D 63/04; B62D 65/02; B62D 65/12; F16D 55/00; F16D 55/226; F16D 65/00
See application file for complete search history.

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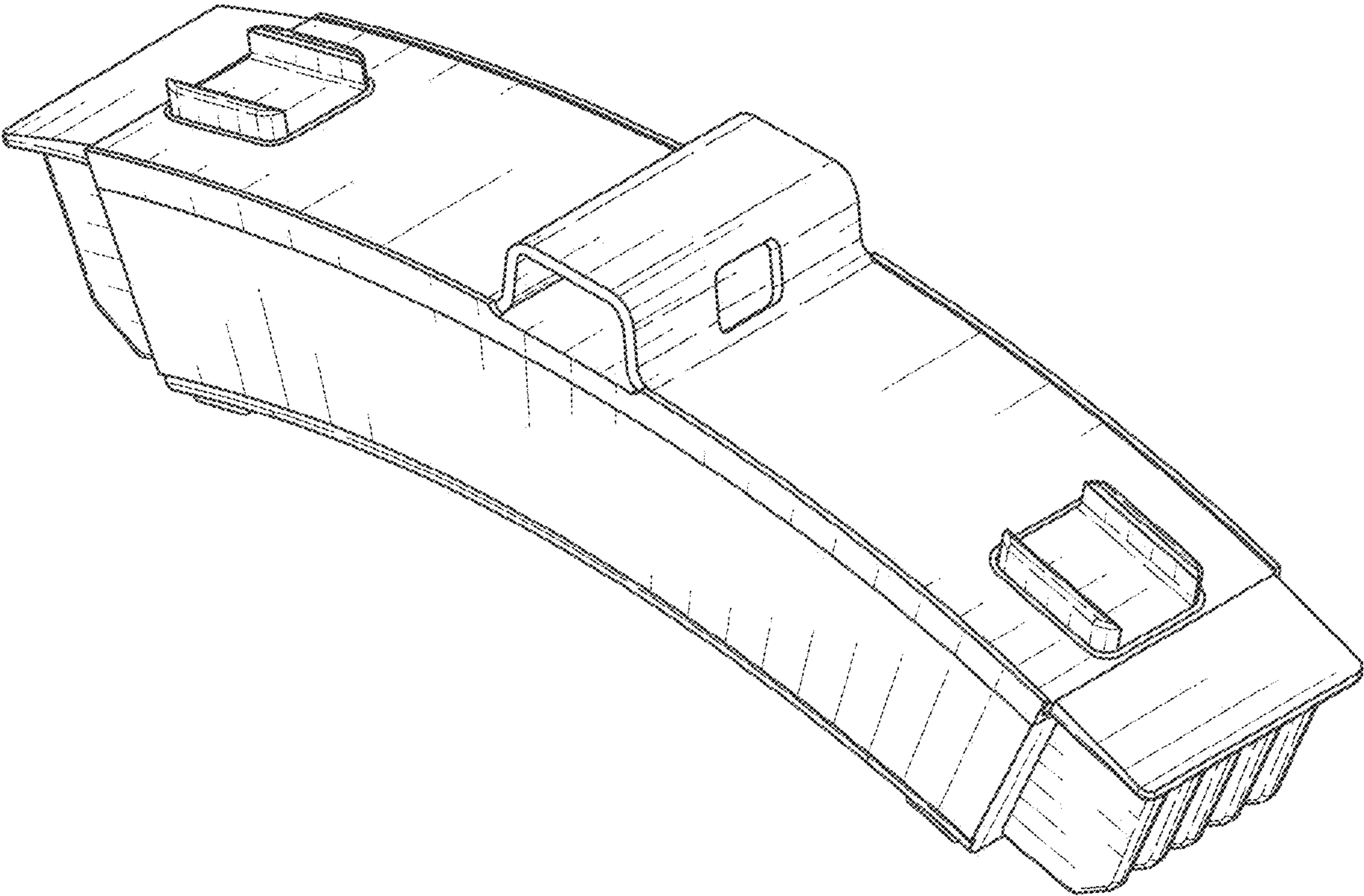


FIG. 1

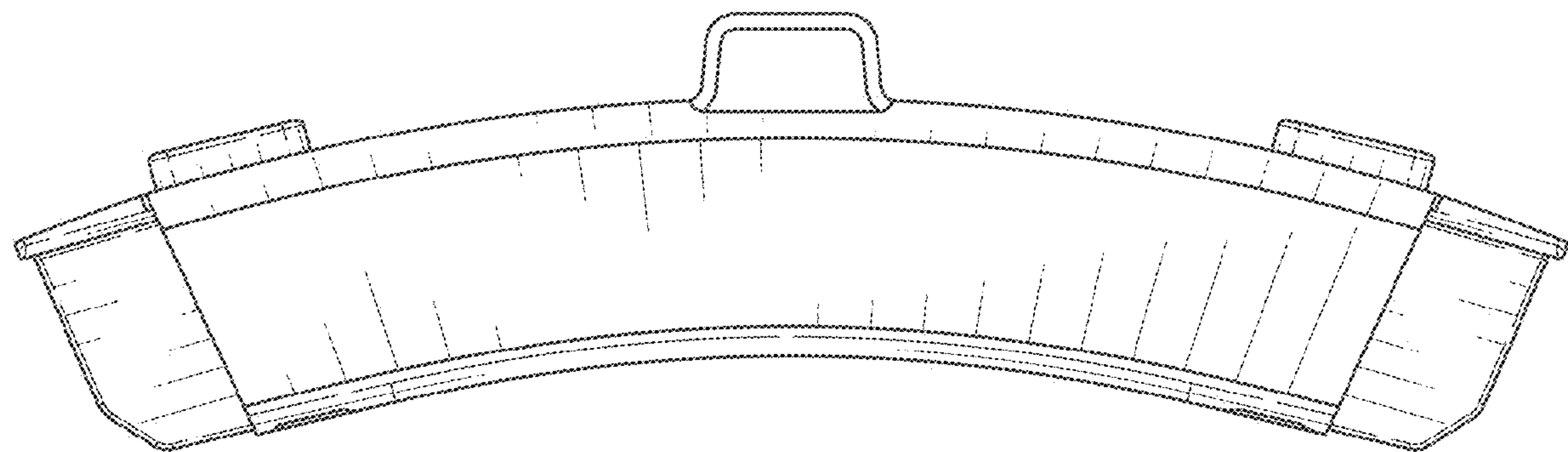


FIG. 2

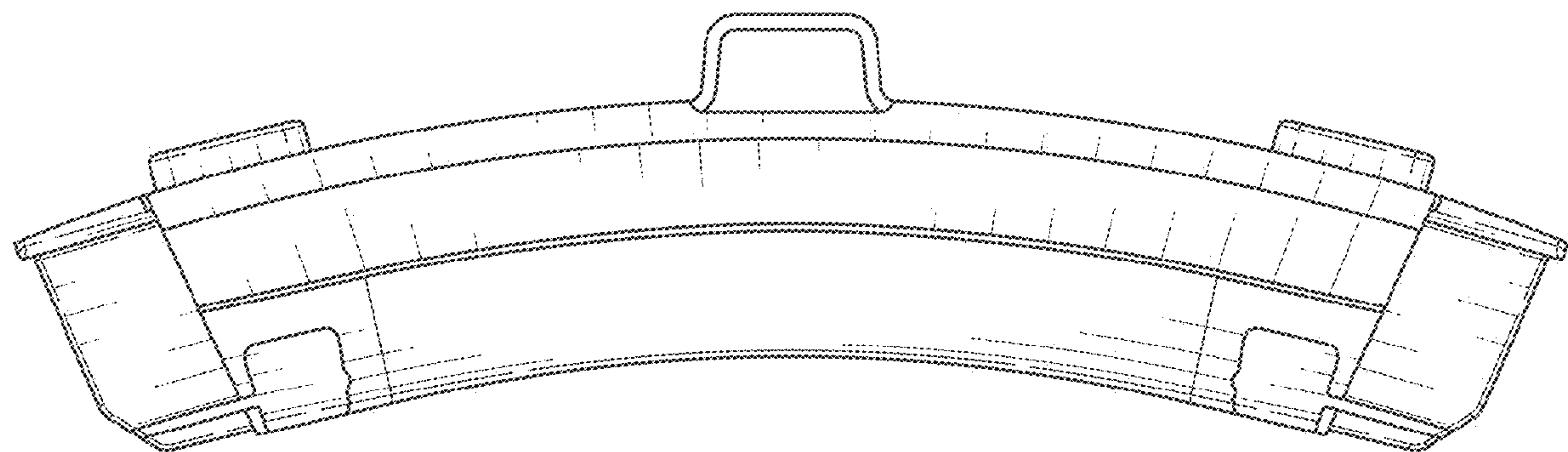


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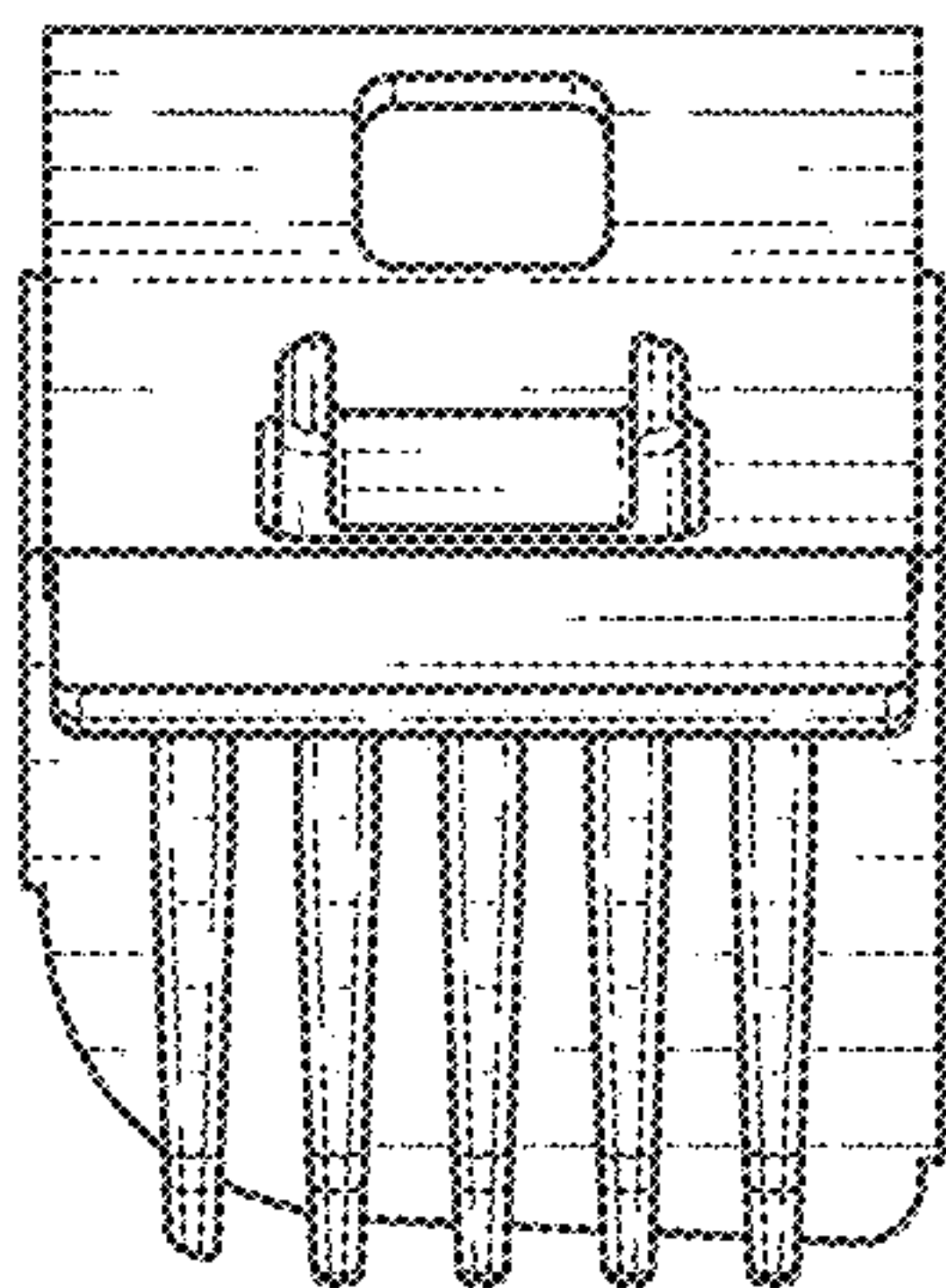


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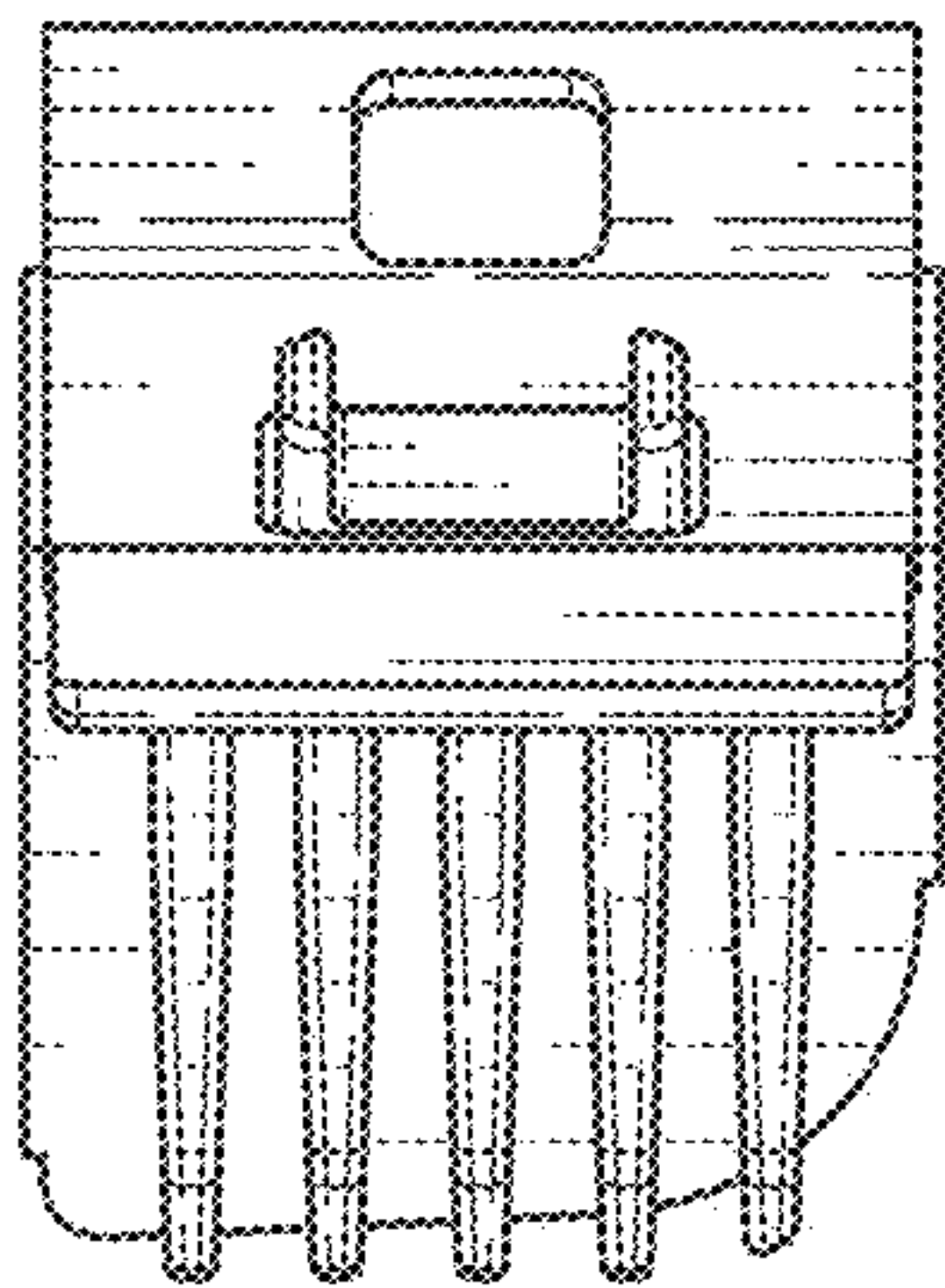


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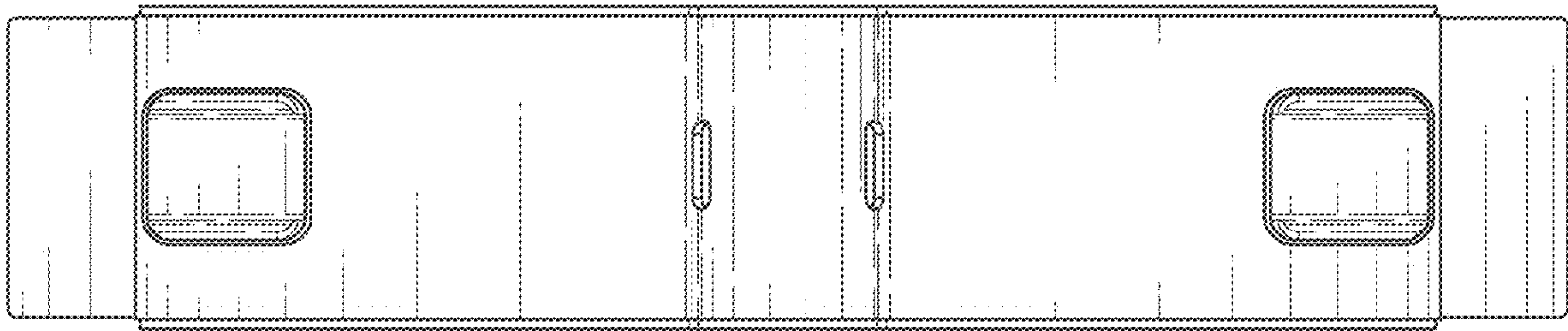


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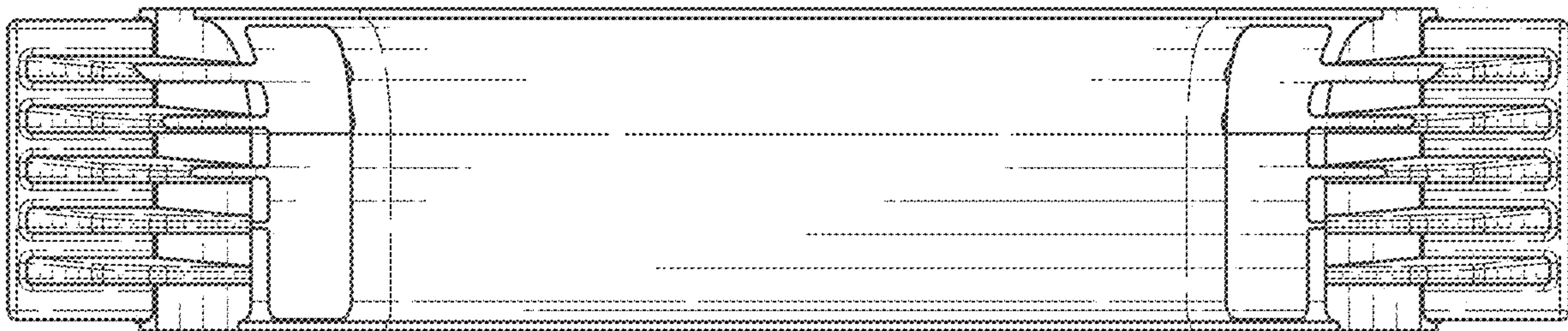


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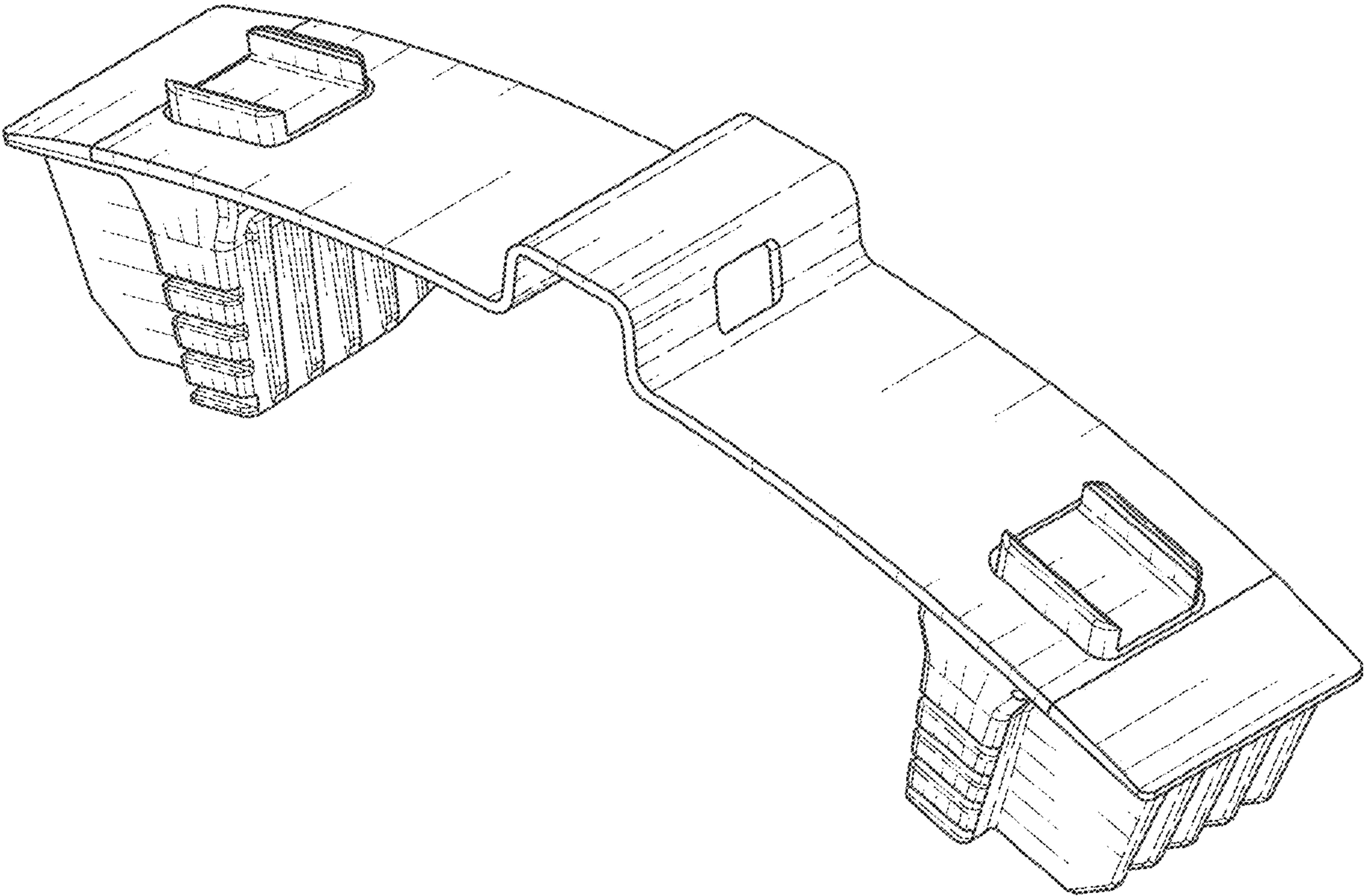


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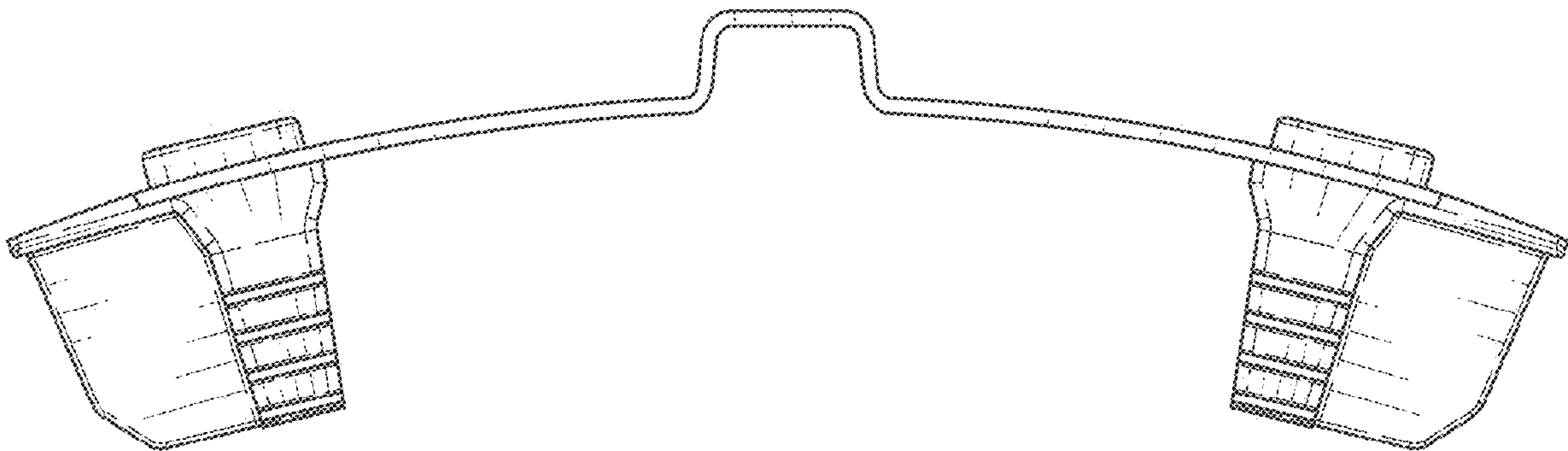


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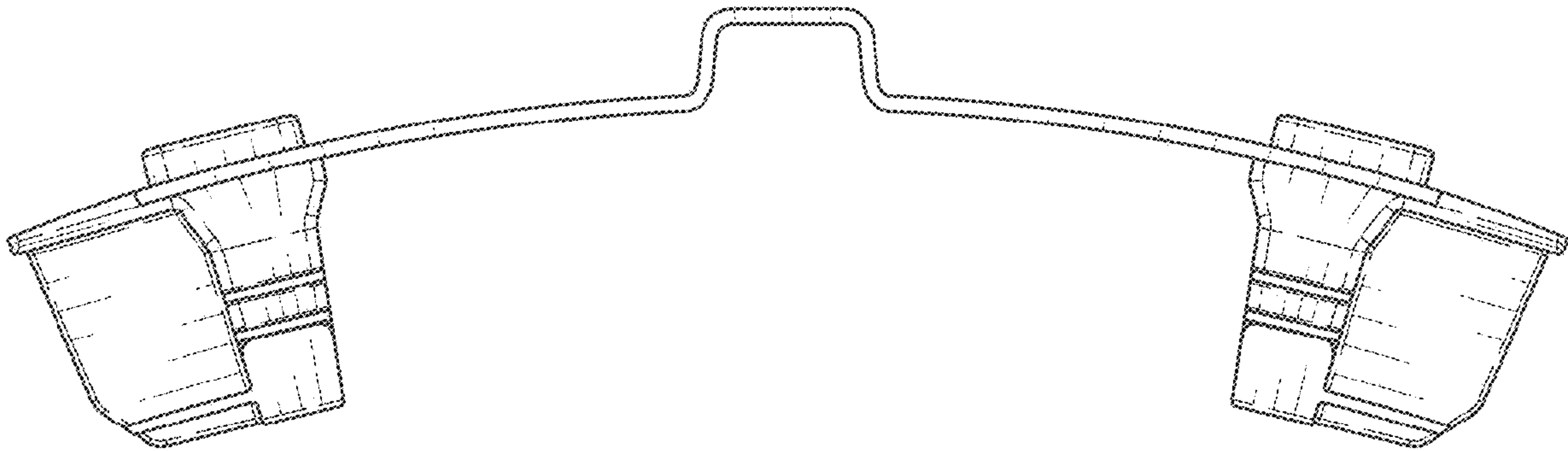


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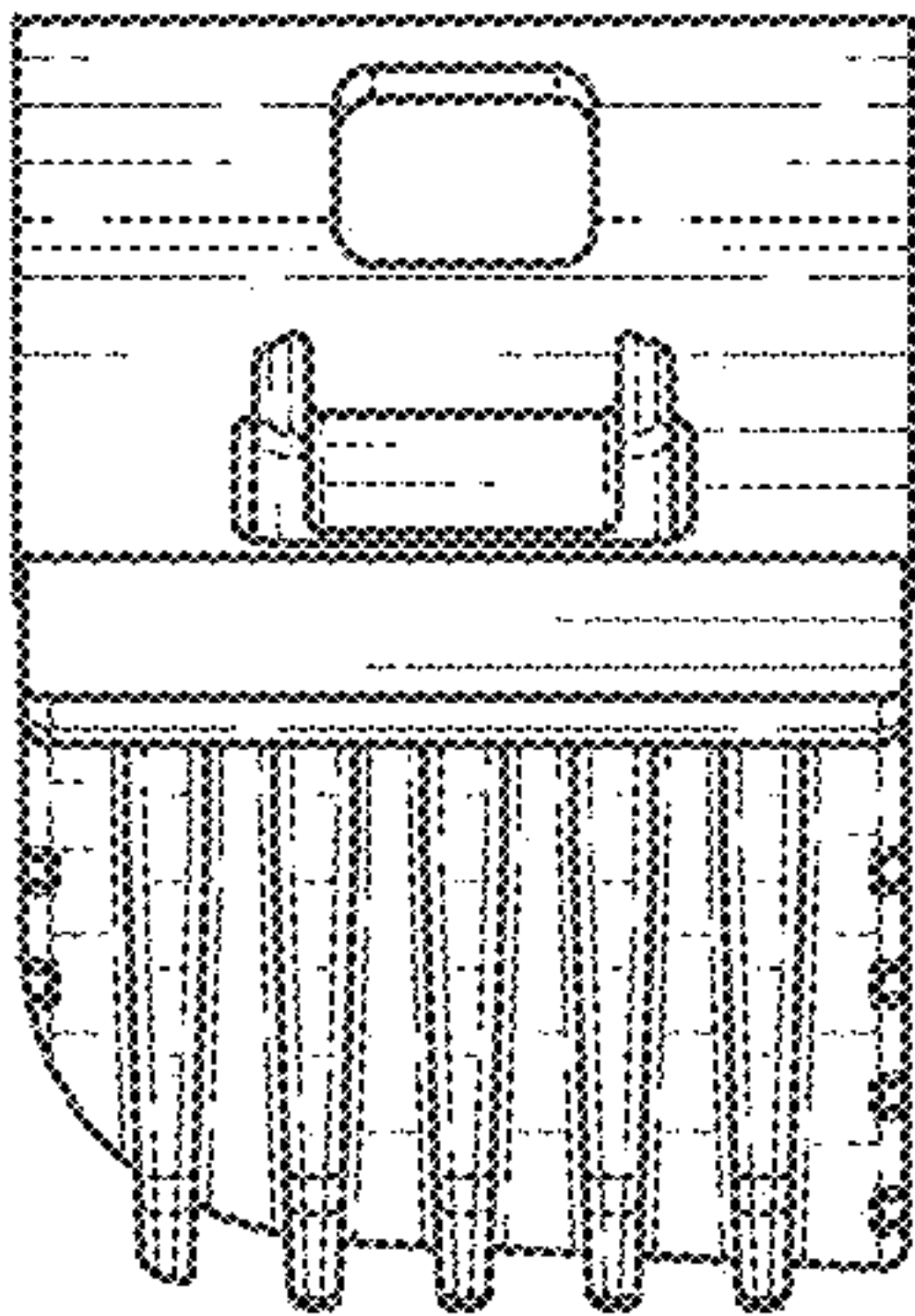


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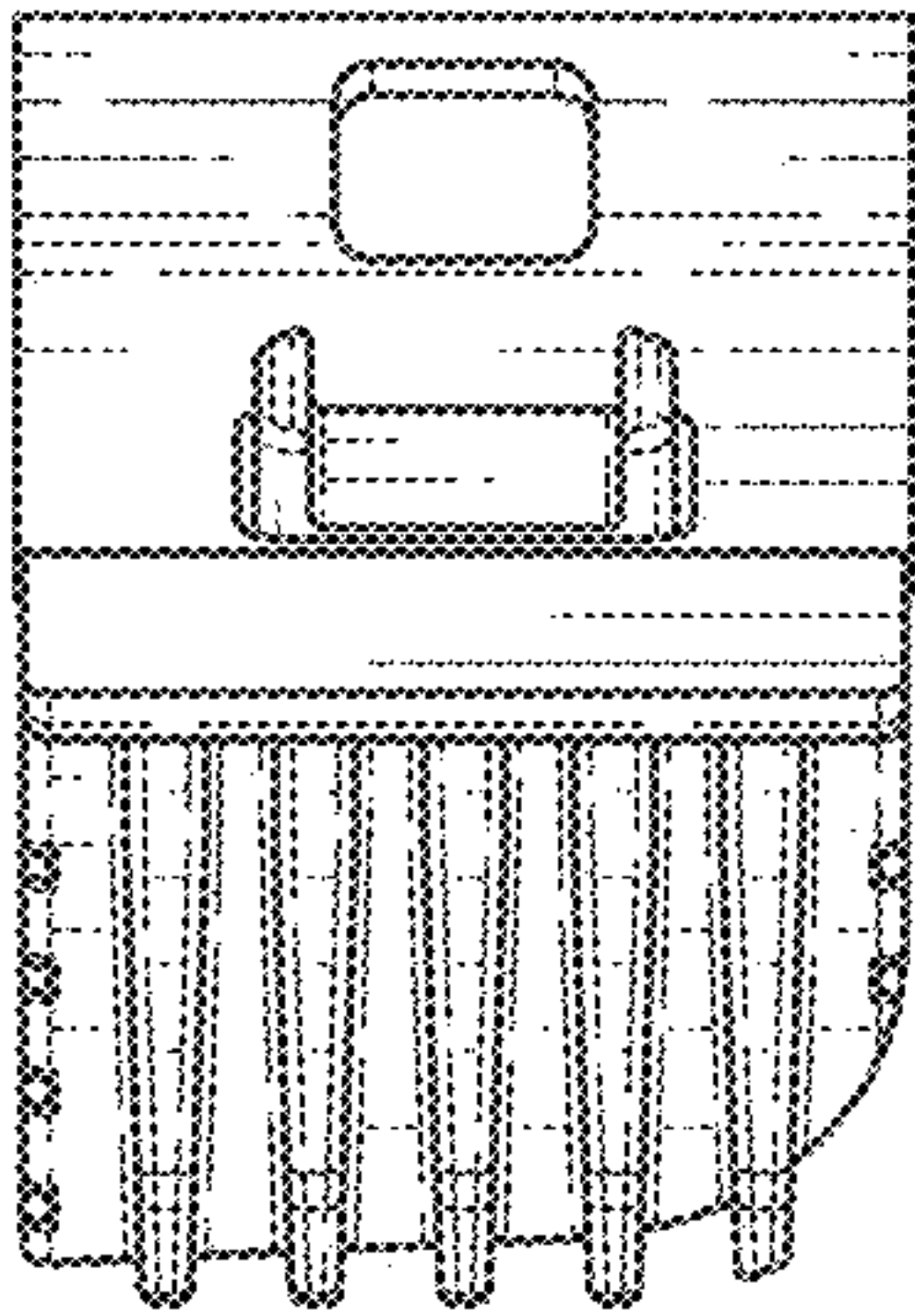


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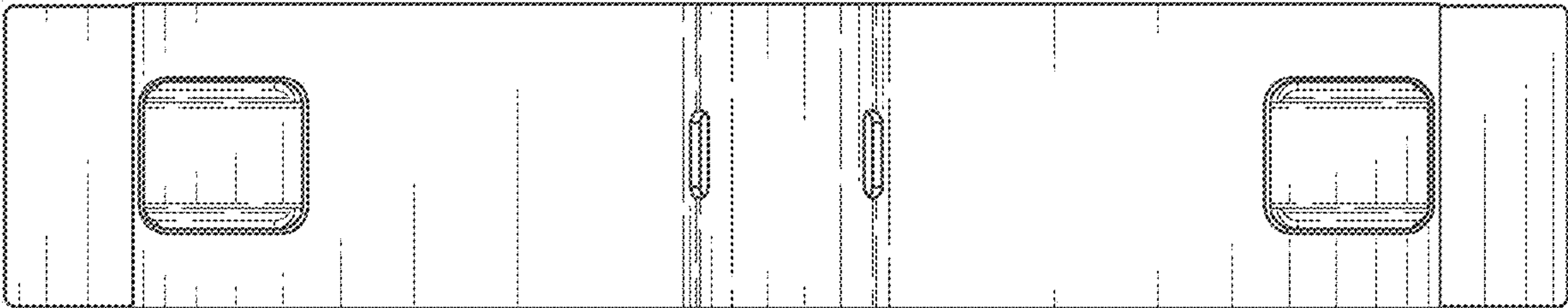


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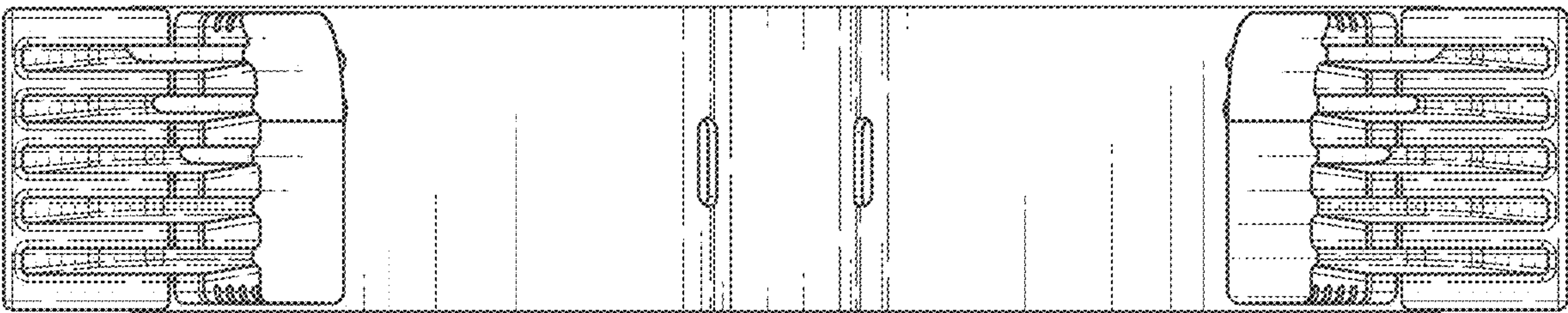


FIG. 14

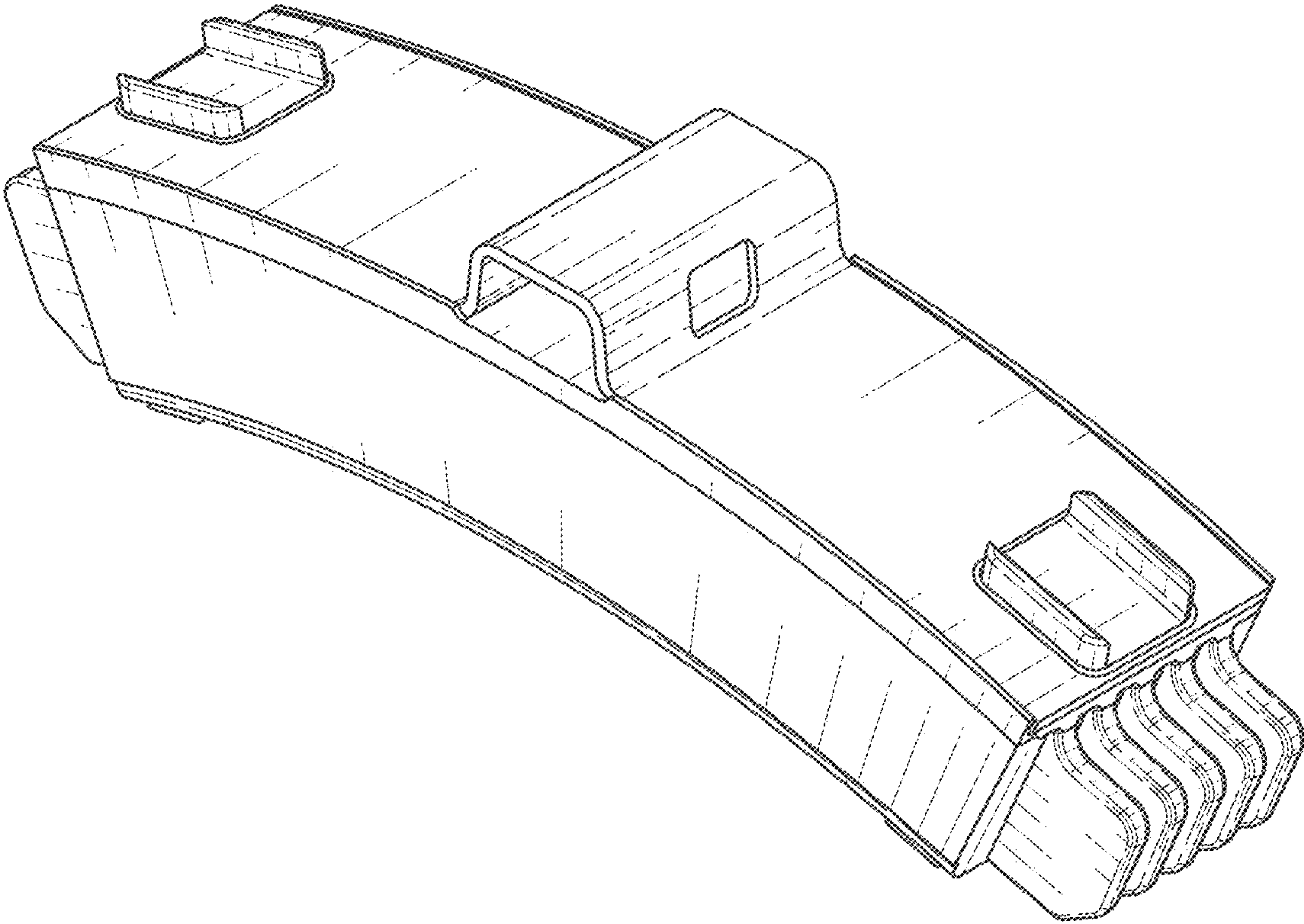


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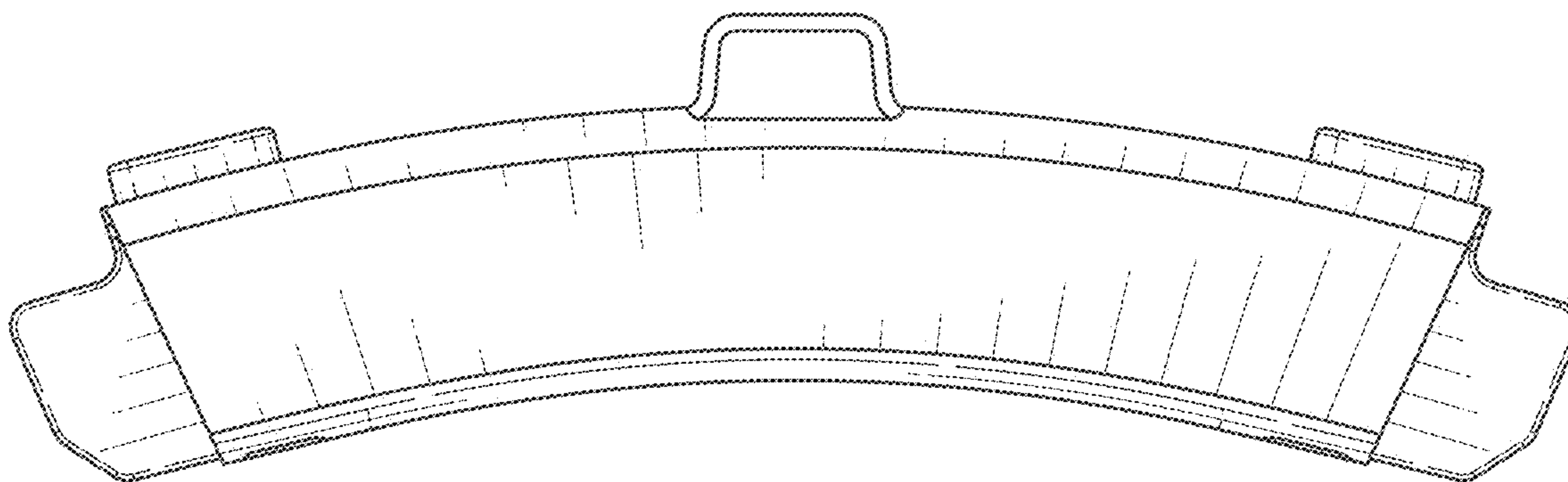


FIG. 16

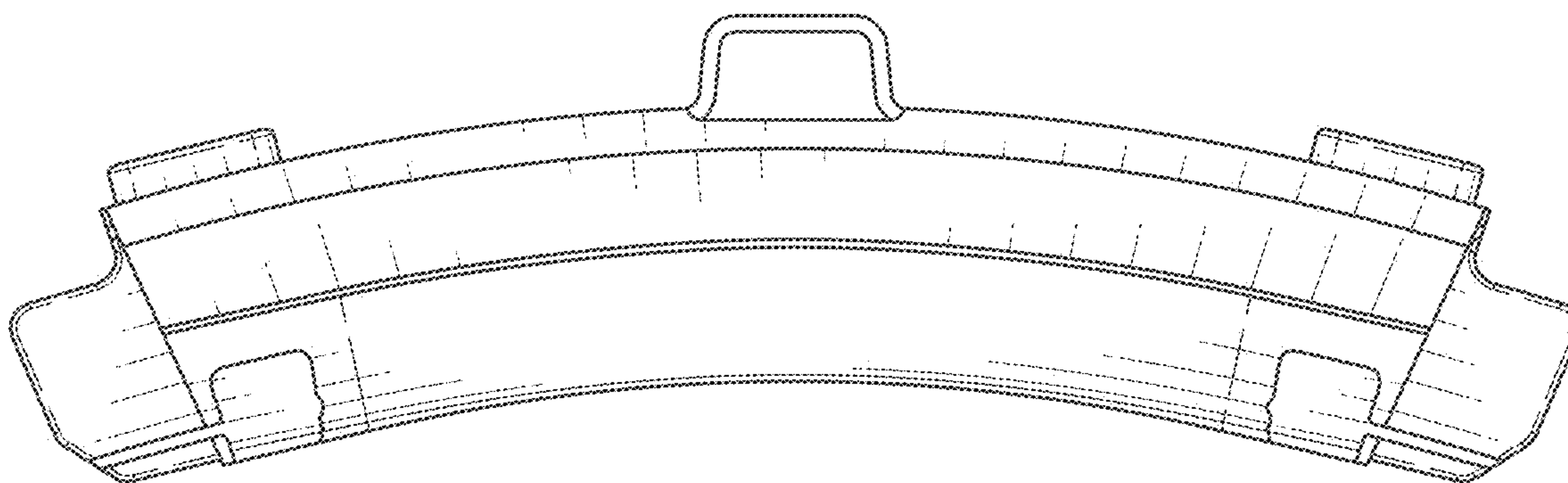


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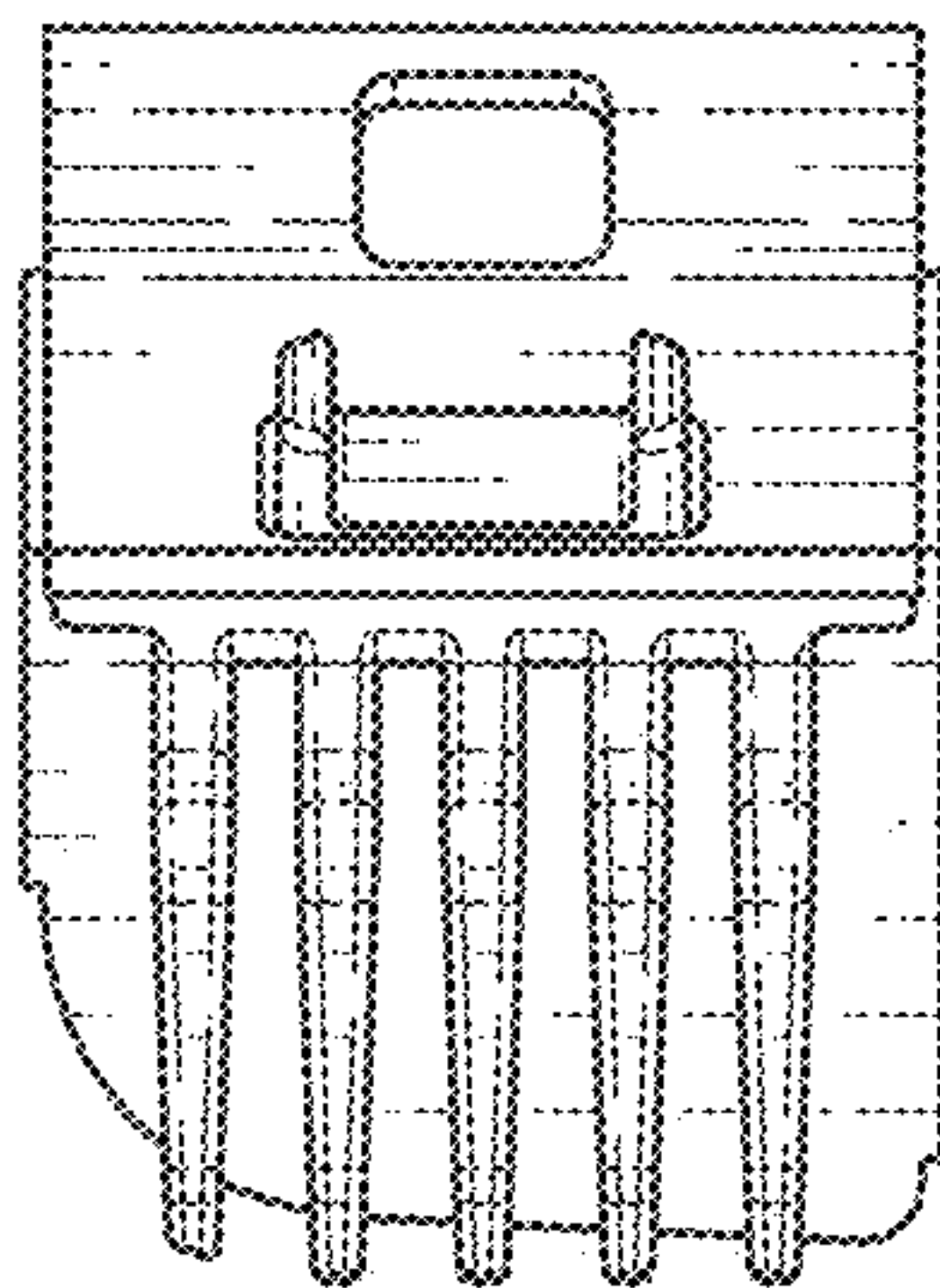


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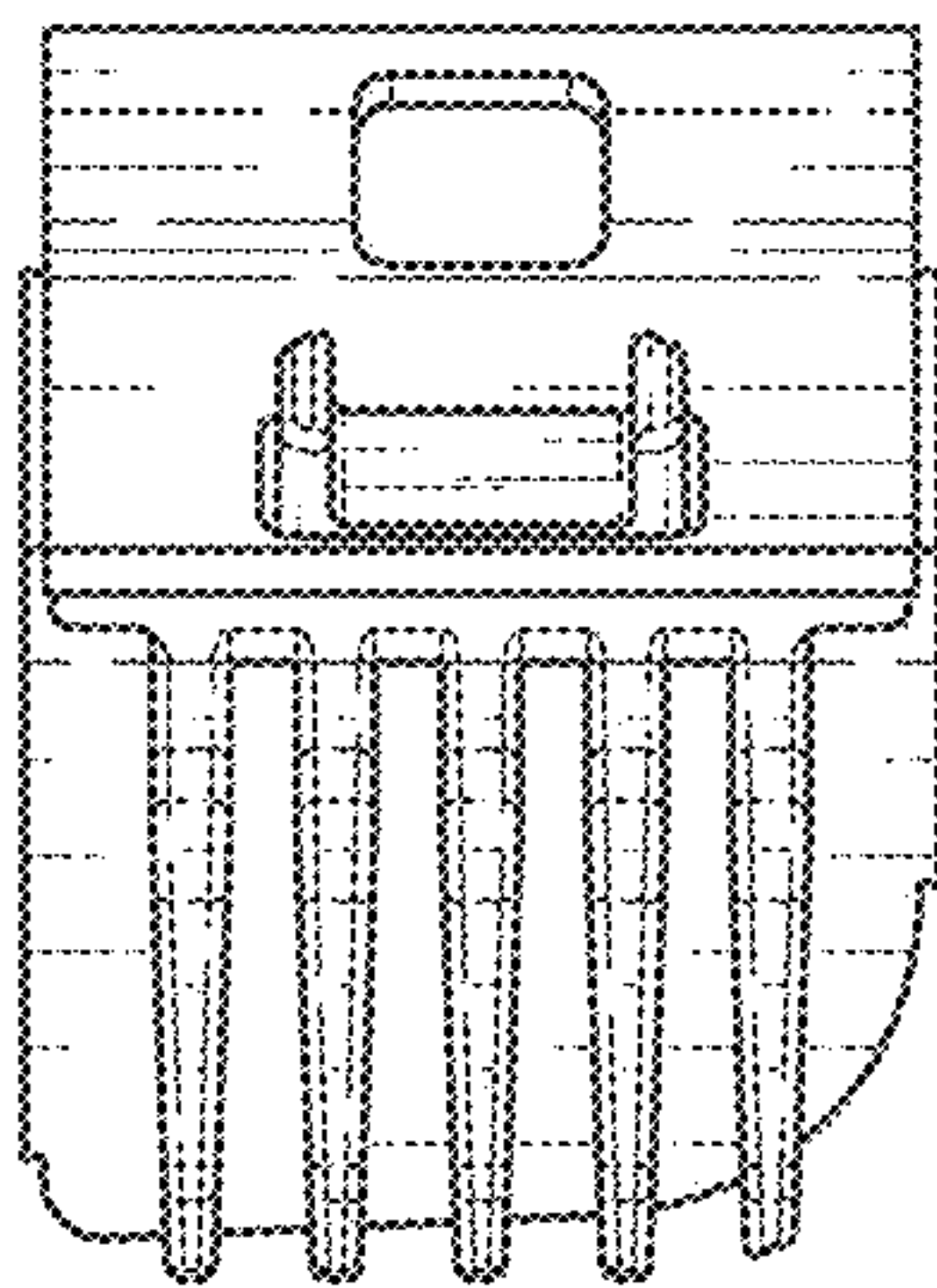


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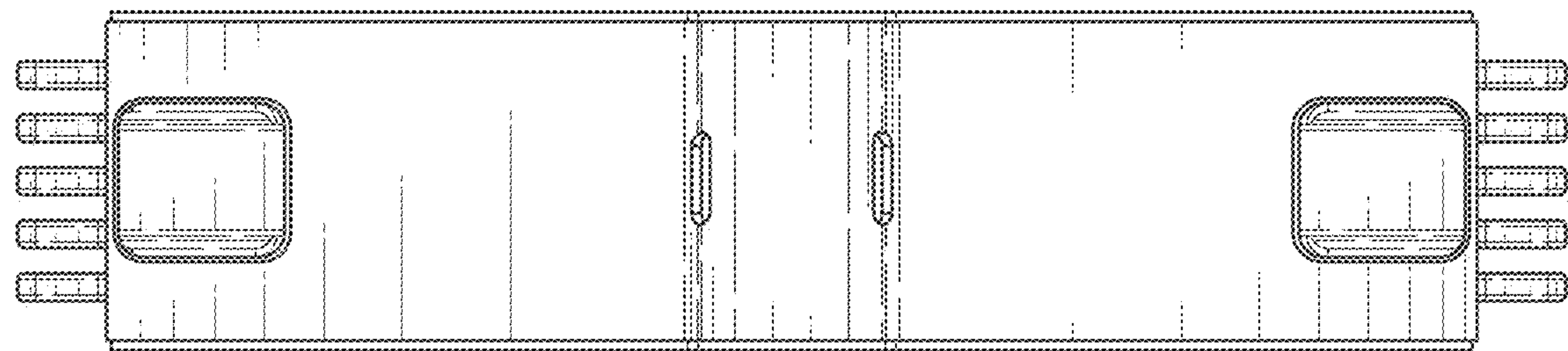


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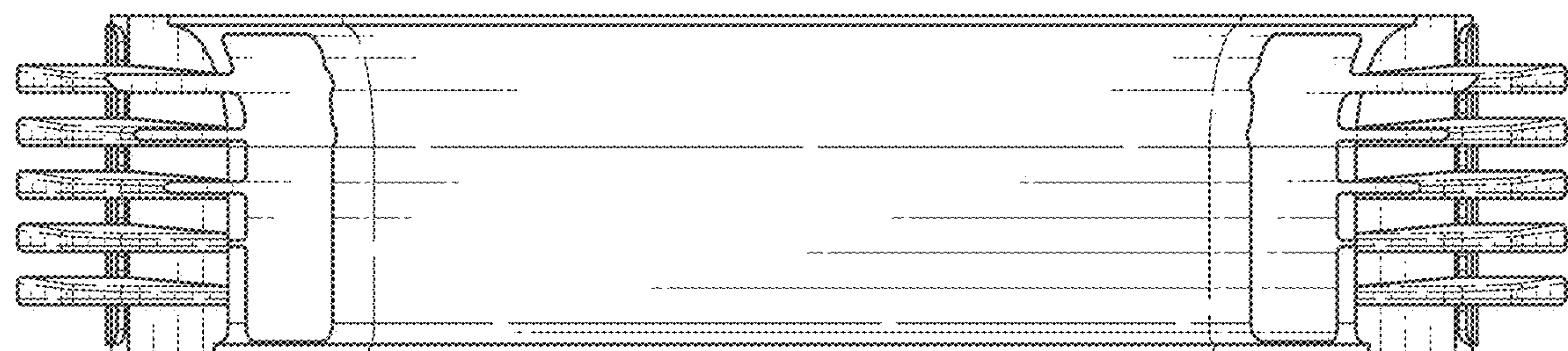


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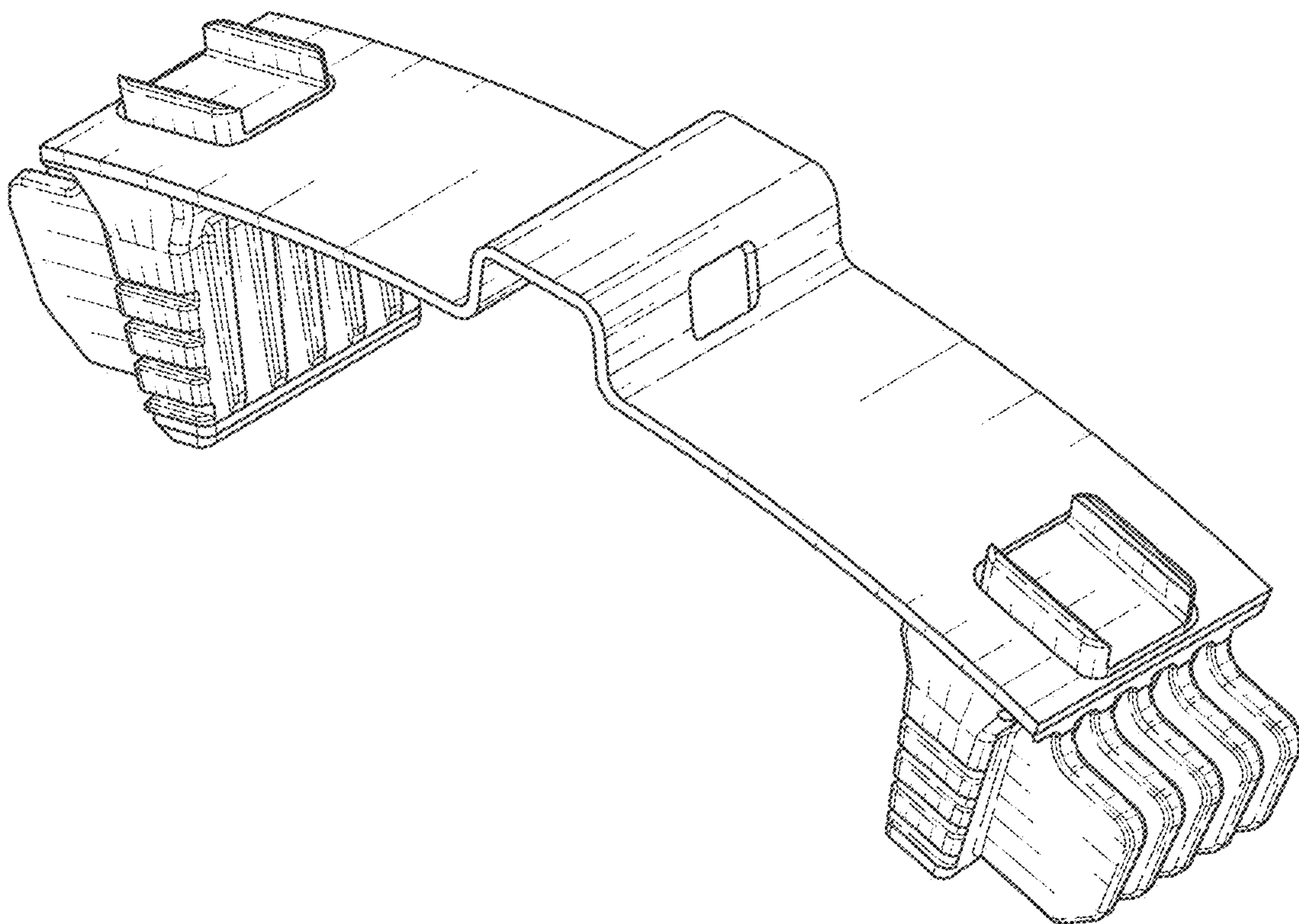


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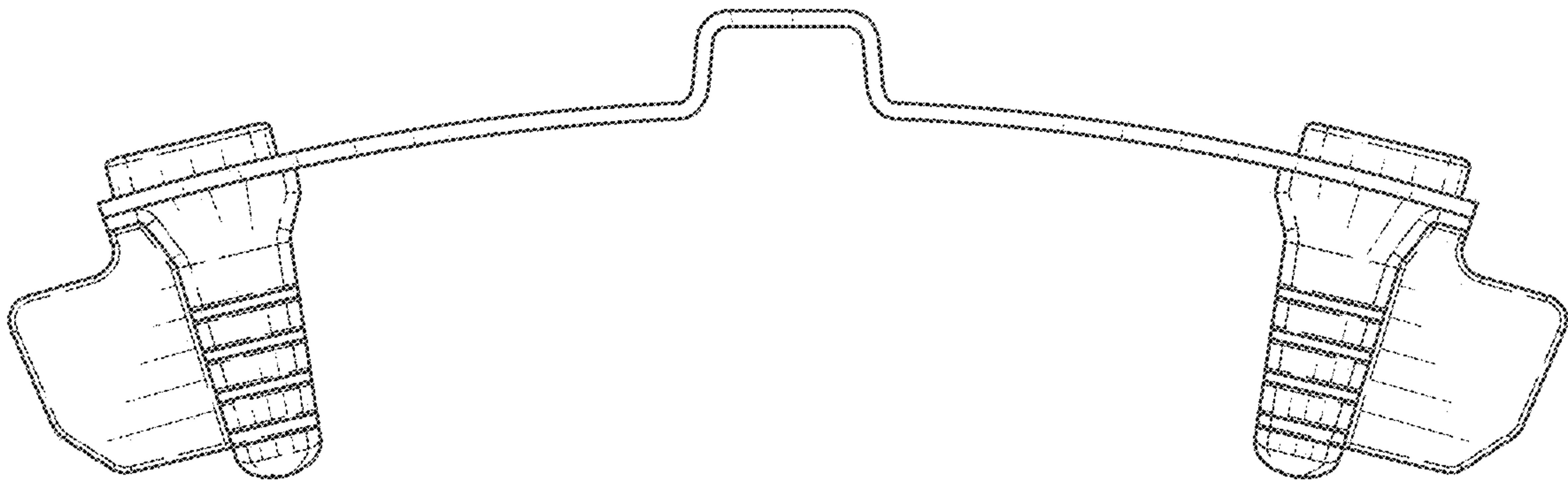


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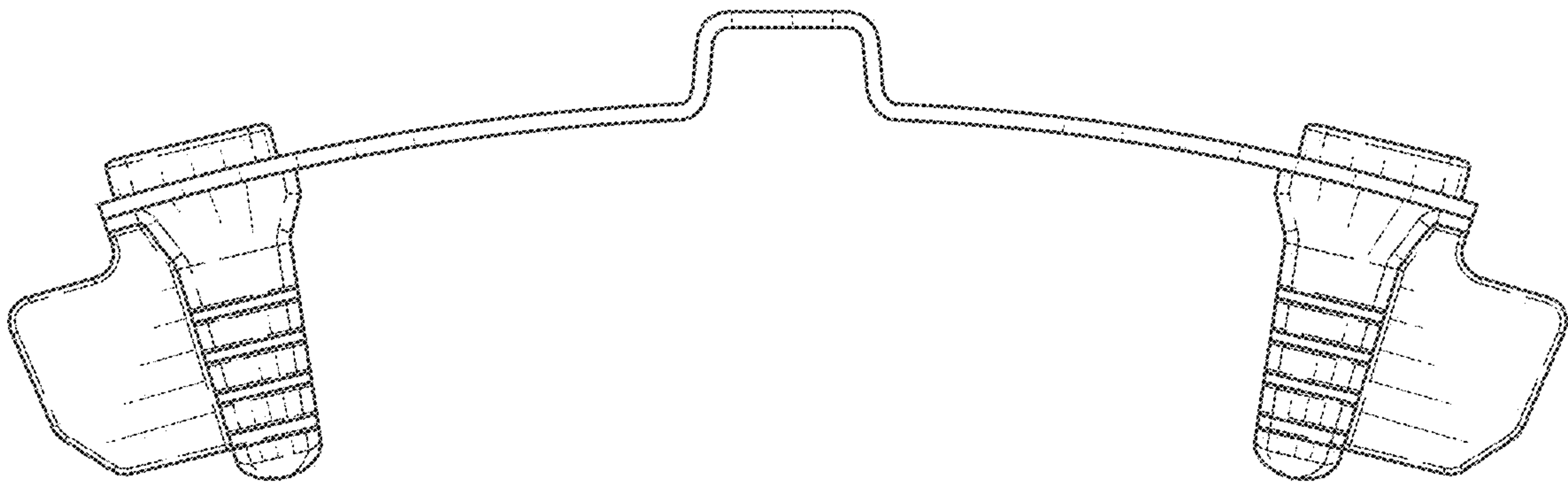


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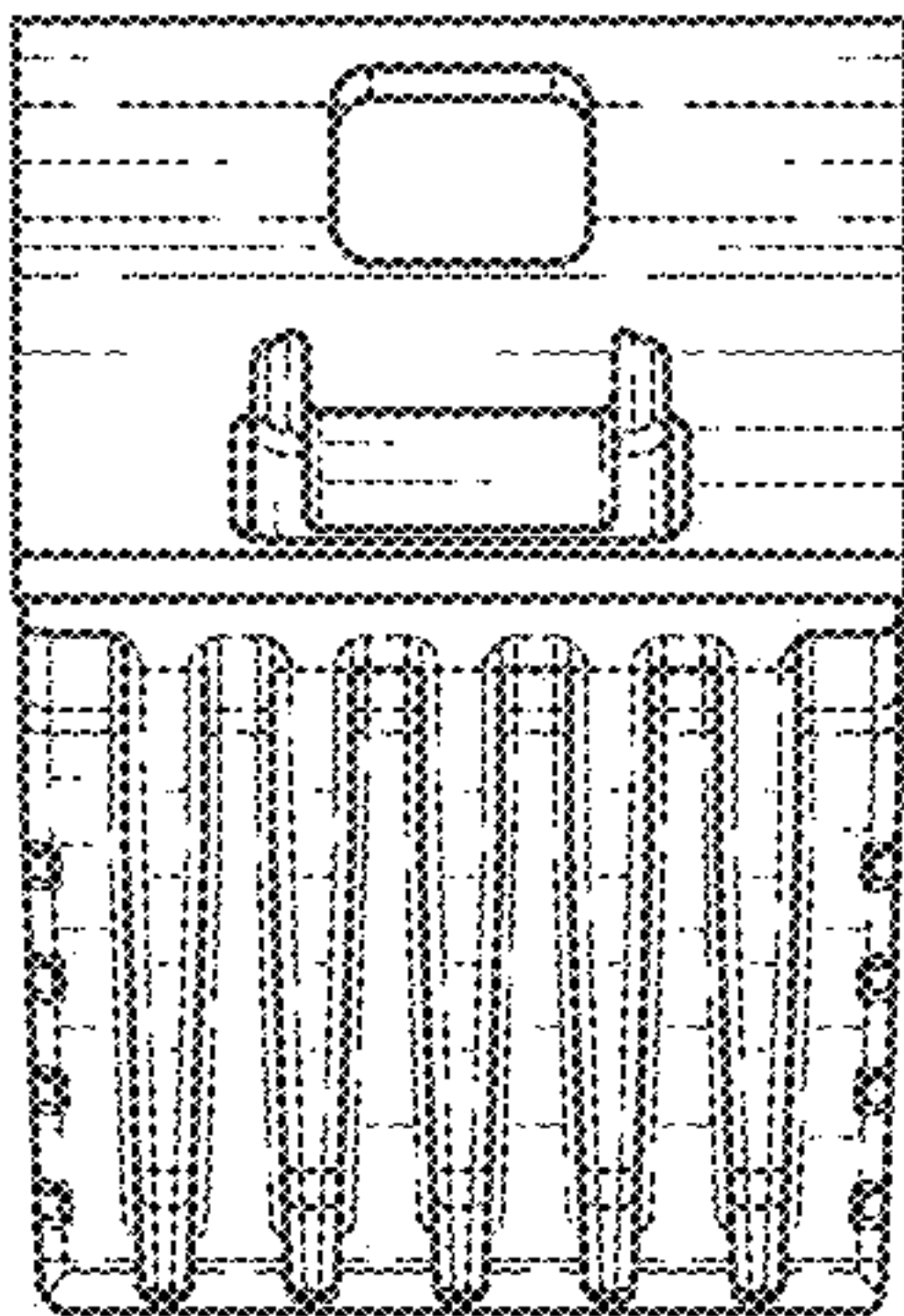


FIG. 25

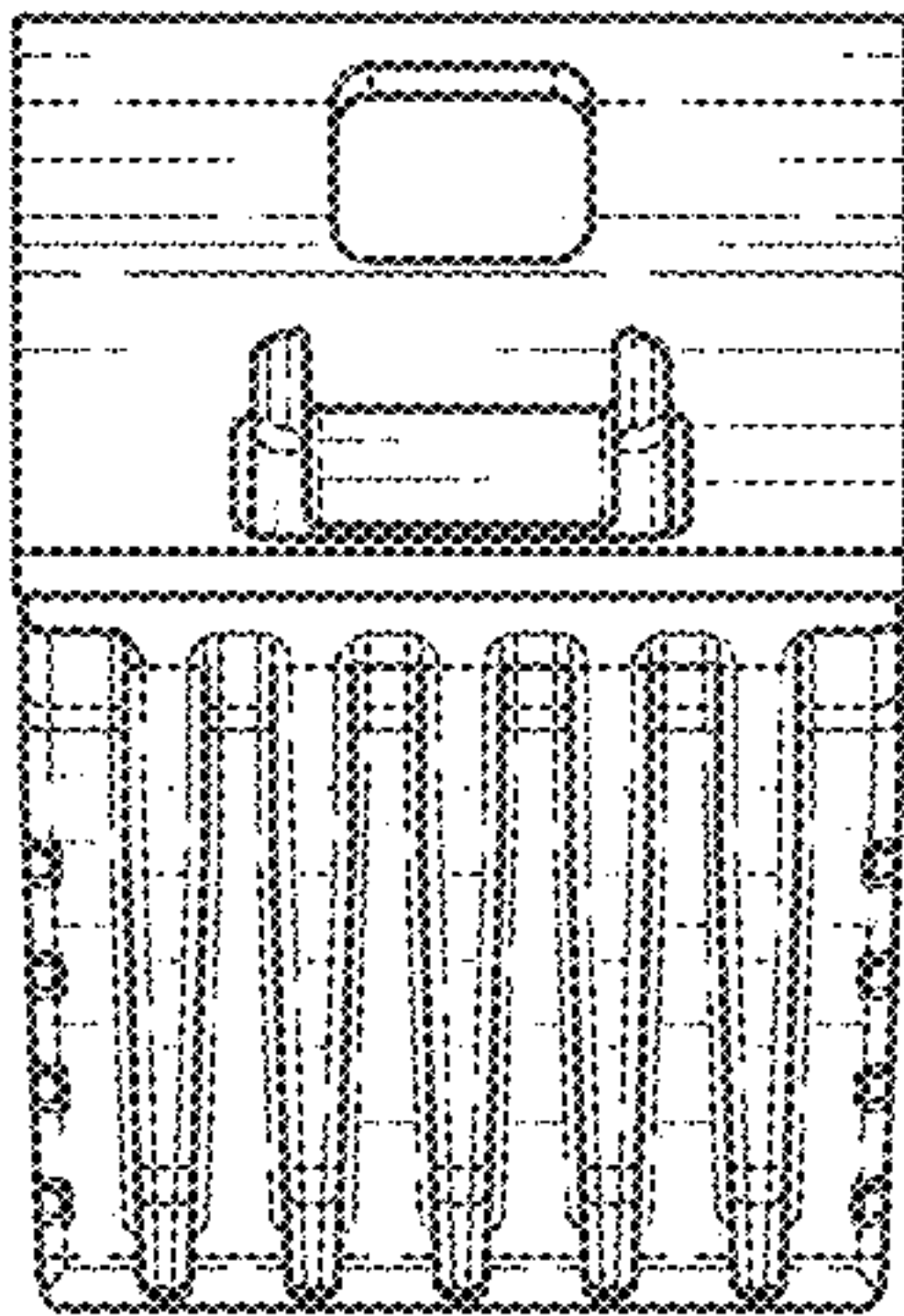


FIG. 26

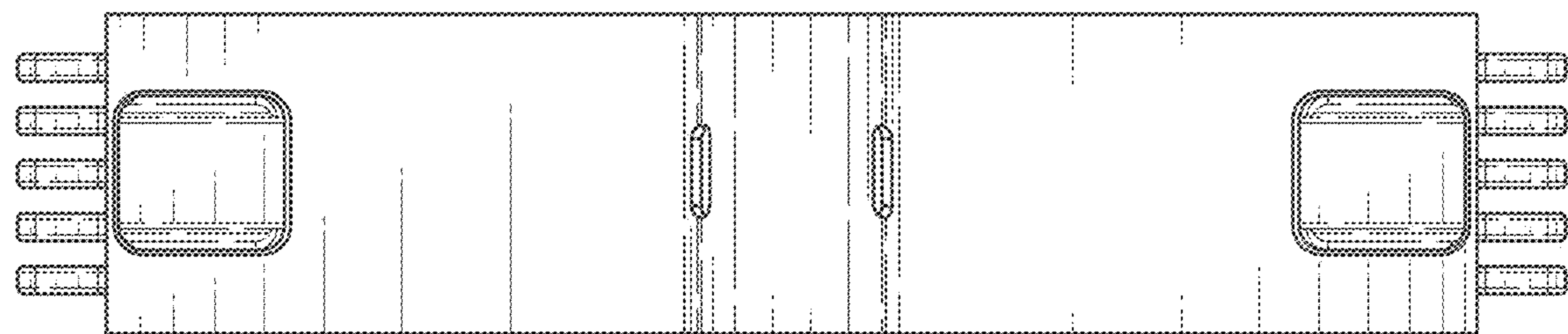


FIG. 27

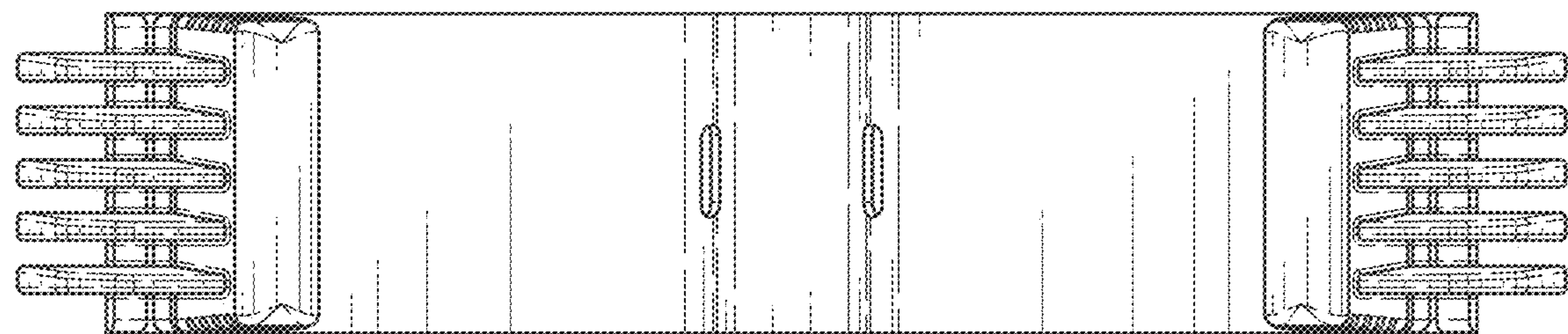


FIG. 28