



US00D941165S

(12) **United States Design Patent** (10) **Patent No.:** **US D941,165 S**
Krywyj et al. (45) **Date of Patent:** **** Jan. 18, 2022**

- (54) **LOCATION SENSOR AND FLOW RATE METER**
- (71) Applicant: **Orbis Intelligent Systems, Inc.**, San Diego, CA (US)
- (72) Inventors: **Daniel Milne Krywyj**, La Jolla, CA (US); **Jeffrey A. Prsha**, San Diego, CA (US)
- (73) Assignee: **Orbis Intelligent Systems, Inc.**, San Diego, CA (US)
- (**) Term: **15 Years**
- (21) Appl. No.: **29/723,772**
- (22) Filed: **Feb. 10, 2020**

Related U.S. Application Data

- (62) Division of application No. 29/643,348, filed on Apr. 6, 2018, now Pat. No. Des. 874,954.
 - (51) **LOC (13) Cl.** **10-04**
 - (52) **U.S. Cl.**
USPC **D10/70; D10/46**
 - (58) **Field of Classification Search**
USPC D10/46, 70
CPC . F16L 55/28; F16L 55/30; F16L 55/46; F16L 55/40; F16L 2101/30; G01M 3/005; G01M 3/246; G01M 3/38; G03B 37/005; B08B 9/045; B65H 61/00; B65H 75/364; G01N 3/02; G01N 21/954; G01N 29/0654; G01N 29/265; G01N 2021/9544; G01N 2291/2636; G01S 7/03; G01S 13/88; G01S 13/885; G01V 3/08; G01V 3/081; G01V 3/15; G06F 3/016; G06F 3/0346; H04N 7/185
- See application file for complete search history.

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- New Zealand Office Action dated Jul. 9, 2019, issued in New Zealand Patent Application No. 426148.
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- Preliminary Amendment dated May 11, 2020 in U.S. Appl. No. 29/723,771.

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Primary Examiner — Antoine Duval Davis
(74) *Attorney, Agent, or Firm* — Weaver Austin Villeneuve & Sampson LLP

(57) **CLAIM**

We claim the ornamental design for a location sensor and flow rate meter, as shown and described.

DESCRIPTION

FIG. 1 depicts an isometric view of a first example location sensor and flow rate meter.

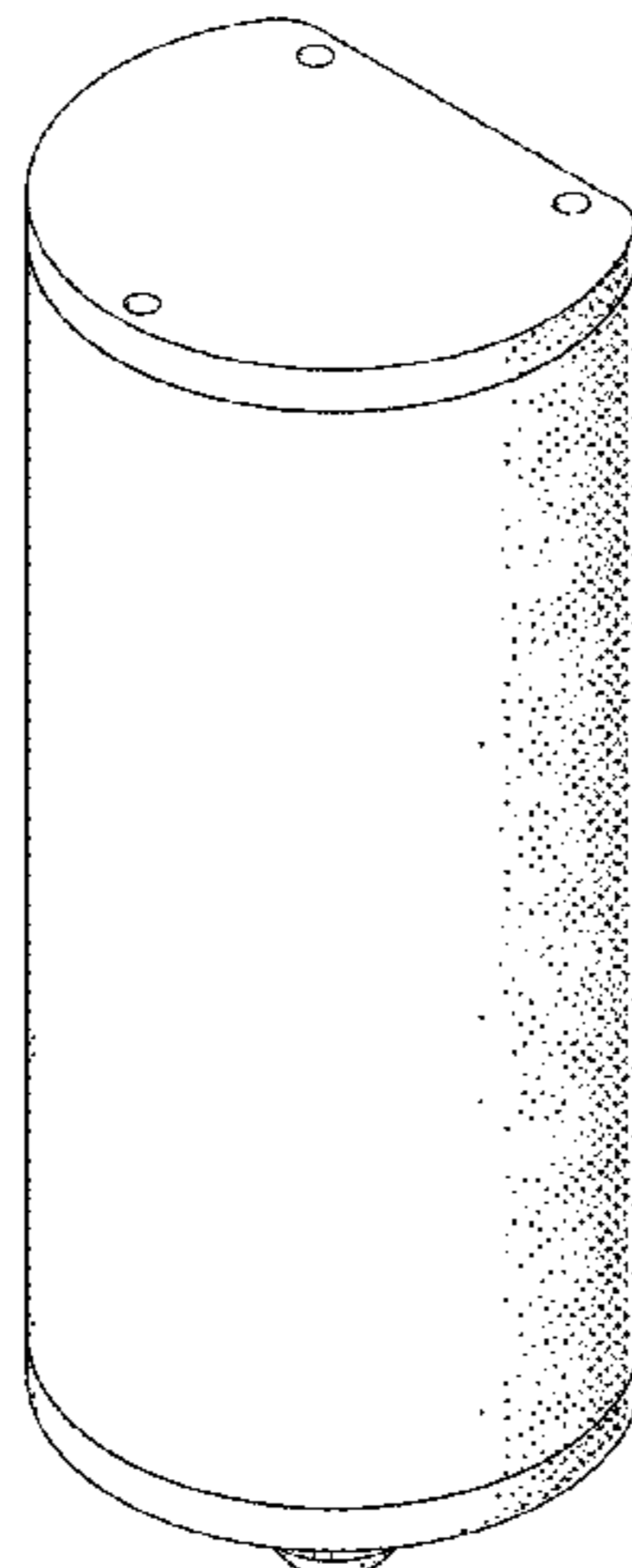


FIG. 2 depicts a front view of the location sensor and flow rate meter of FIG. 1.

FIG. 3 depicts a back view of the location sensor and flow rate meter of FIG. 1.

FIG. 4 depicts a side view of the location sensor and flow rate meter of FIG. 1.

FIG. 5 depicts an opposite side view of the location sensor and flow rate meter of FIG. 1.

FIG. 6 depicts an off-angle view of the location sensor and flow rate meter of FIG. 1.

FIG. 7 depicts another off-angle view of the location sensor and flow rate meter of FIG. 1.

FIG. 8 depicts a top view of the location sensor and flow rate meter of FIG. 1.

FIG. 9 depicts a bottom view of the location sensor and flow rate meter of FIG. 1.

FIG. 10 depicts an isometric view of a second example location sensor and flow rate meter; the location sensor and flow rate meter of FIGS. 10-18 depicts the same location sensor and flow rate meter of FIGS. 1-9, but without a back plate.

FIG. 11 depicts a front view of the location sensor and flow rate meter of FIG. 10.

FIG. 12 depicts a back view of the location sensor and flow rate meter of FIG. 10.

FIG. 13 depicts a side view of the location sensor and flow rate meter of FIG. 10.

FIG. 14 depicts an opposite side view of the location sensor and flow rate meter of FIG. 10.

FIG. 15 depicts an off-angle view of the location sensor and flow rate meter of FIG. 10.

FIG. 16 depicts another off-angle view of the location sensor and flow rate meter of FIG. 10.

FIG. 17 depicts a top view of the location sensor and flow rate meter of FIG. 10.

FIG. 18 depicts a bottom view of the location sensor and flow rate meter of FIG. 10.

FIG. 19 depicts an isometric view of a third example location sensor and flow rate meter; the location sensor and flow rate meter of FIGS. 19-27 depicts the same location sensor and flow rate meter of FIGS. 9-18, but without some exterior features.

FIG. 20 depicts a front view of the location sensor and flow rate meter of FIG. 19.

FIG. 21 depicts a back view of the location sensor and flow rate meter of FIG. 19.

FIG. 22 depicts a side view of the location sensor and flow rate meter of FIG. 19.

FIG. 23 depicts an opposite side view of the location sensor and flow rate meter of FIG. 19.

FIG. 24 depicts an off-angle view of the location sensor and flow rate meter of FIG. 19.

FIG. 25 depicts another off-angle view of the location sensor and flow rate meter of FIG. 19.

FIG. 26 depicts a top view of the location sensor and flow rate meter of FIG. 19.

FIG. 27 depicts a bottom view of the location sensor and flow rate meter of FIG. 19.

FIG. 28 depicts an isometric view of a fourth example location sensor and flow rate meter; the location sensor and flow rate meter of FIGS. 28-36 depicts the same location sensor and flow rate meter of FIGS. 1-9, but without a gland fitting.

FIG. 29 depicts a front view of the location sensor and flow rate meter of FIG. 28.

FIG. 30 depicts a back view of the location sensor and flow rate meter of FIG. 28.

FIG. 31 depicts a side view of the location sensor and flow rate meter of FIG. 28.

FIG. 32 depicts an opposite side view of the location sensor and flow rate meter of FIG. 28.

FIG. 33 depicts an off-angle view of the location sensor and flow rate meter of FIG. 28.

FIG. 34 depicts another off-angle view of the location sensor and flow rate meter of FIG. 28.

FIG. 35 depicts a top view of the location sensor and flow rate meter of FIG. 28.

FIG. 36 depicts a bottom view of the location sensor and flow rate meter of FIG. 28.

FIG. 37 depicts an isometric view of a fifth example location sensor and flow rate meter; the location sensor and flow rate meter of FIGS. 37-45 depicts the same location sensor and flow rate meter of FIGS. 28-36, but without a back plate.

FIG. 38 depicts a front view of the location sensor and flow rate meter of FIG. 37.

FIG. 39 depicts a back view of the location sensor and flow rate meter of FIG. 37.

FIG. 40 depicts a side view of the location sensor and flow rate meter of FIG. 37.

FIG. 41 depicts an opposite side view of the location sensor and flow rate meter of FIG. 37.

FIG. 42 depicts an off-angle view of the location sensor and flow rate meter of FIG. 37.

FIG. 43 depicts another off-angle view of the location sensor and flow rate meter of FIG. 37.

FIG. 44 depicts a top view of the location sensor and flow rate meter of FIG. 37.

FIG. 45 depicts a bottom view of the location sensor and flow rate meter of FIG. 37.

FIG. 46 depicts an isometric view of a sixth example location sensor and flow rate meter; the location sensor and flow rate meter of FIGS. 46-54 depicts the same location sensor and flow rate meter of FIGS. 28-36, but without a hole on the bottom of the housing.

FIG. 47 depicts a front view of the location sensor and flow rate meter of FIG. 46.

FIG. 48 depicts a back view of the location sensor and flow rate meter of FIG. 46.

FIG. 49 depicts a side view of the location sensor and flow rate meter of FIG. 46.

FIG. 50 depicts an opposite side view of the location sensor and flow rate meter of FIG. 46.

FIG. 51 depicts an off-angle view of the location sensor and flow rate meter of FIG. 46.

FIG. 52 depicts another off-angle view of the location sensor and flow rate meter of FIG. 46.

FIG. 53 depicts a top view of the location sensor and flow rate meter of FIG. 46.

FIG. 54 depicts a bottom view of the location sensor and flow rate meter of FIG. 46.

FIG. 55 depicts an isometric view of a seventh example location sensor and flow rate meter; the location sensor and flow rate meter of FIGS. 55-63 depicts the same location sensor and flow rate meter of FIGS. 46-54, but without a back plate.

FIG. 56 depicts a front view of the location sensor and flow rate meter of FIG. 55.

FIG. 57 depicts a back view of the location sensor and flow rate meter of FIG. 55.

FIG. **58** depicts a side view of the location sensor and flow rate meter of FIG. **55**.

FIG. **59** depicts an opposite side view of the location sensor and flow rate meter of FIG. **55**.

FIG. **60** depicts an off-angle view of the location sensor and flow rate meter of FIG. **55**.

FIG. **61** depicts another off-angle view of the location sensor and flow rate meter of FIG. **55**.

FIG. **62** depicts a top view of the location sensor and flow rate meter of FIG. **55**; and,

FIG. **63** depicts a bottom view of the location sensor and flow rate meter of FIG. **55**.

The location sensor and flow rate meter in the accompanying figures may be positioned on or near a fluid conduit, such as a pipe or a standpipe.

Stipple shading is used in all of the accompanying Figures to convey surface contouring and not texture.

1 Claim, 14 Drawing Sheets

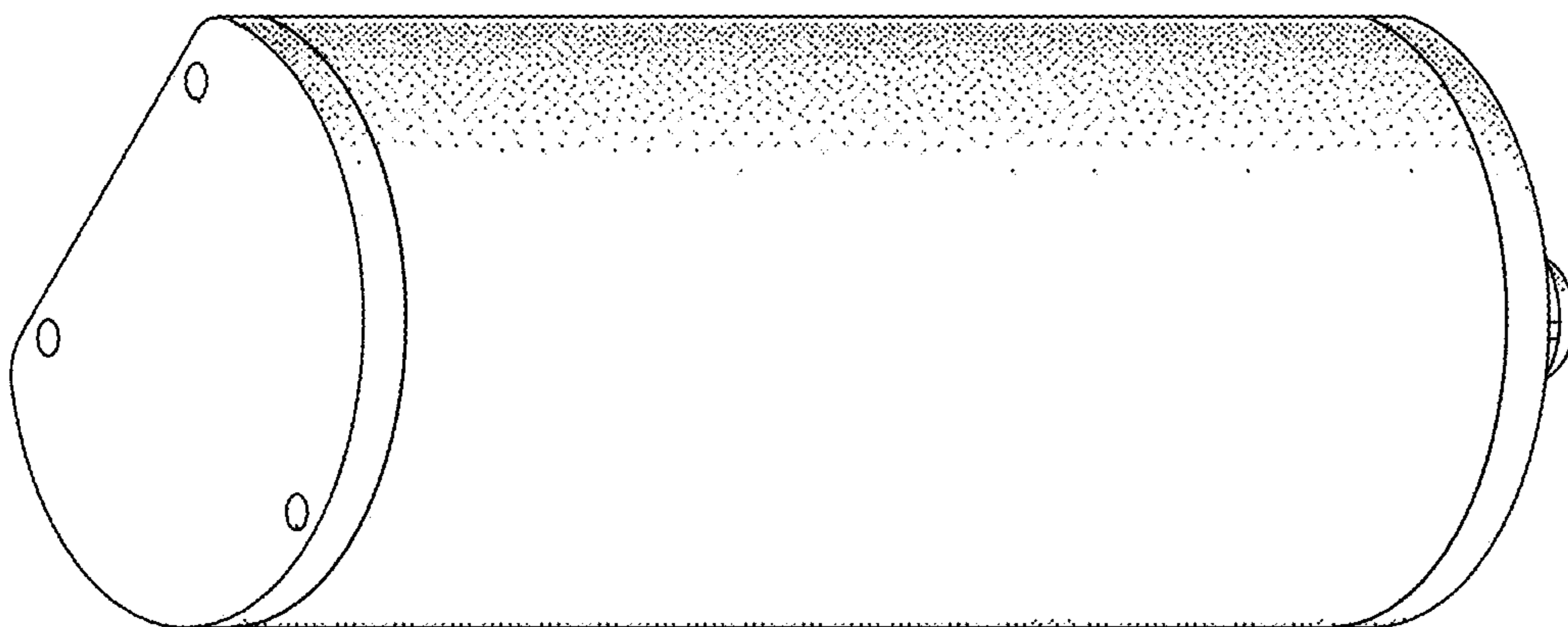


Figure 1

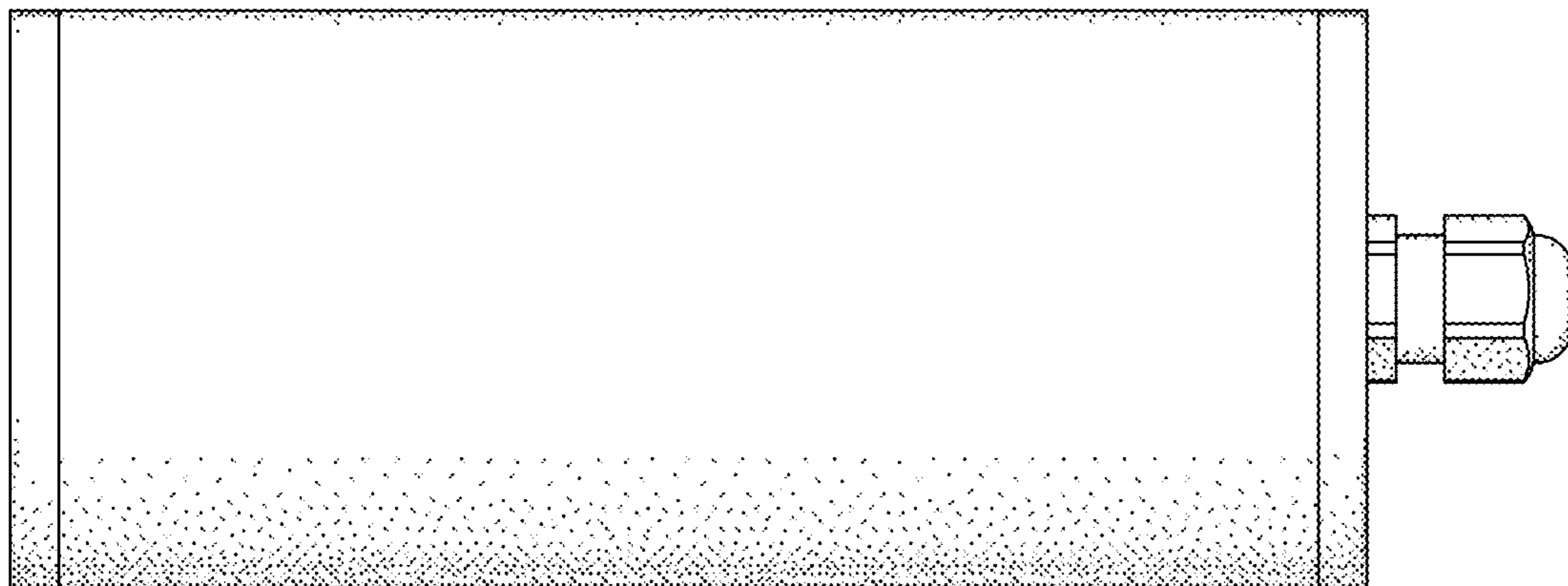


Figure 2

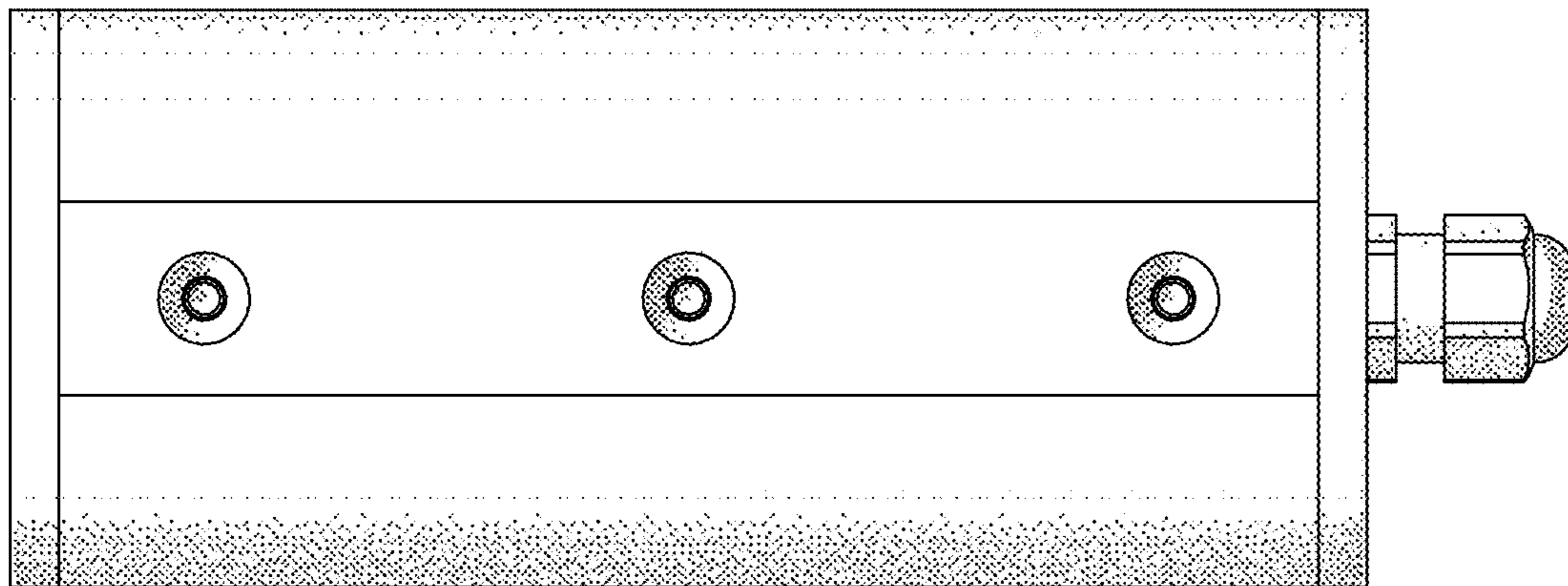


Figure 3

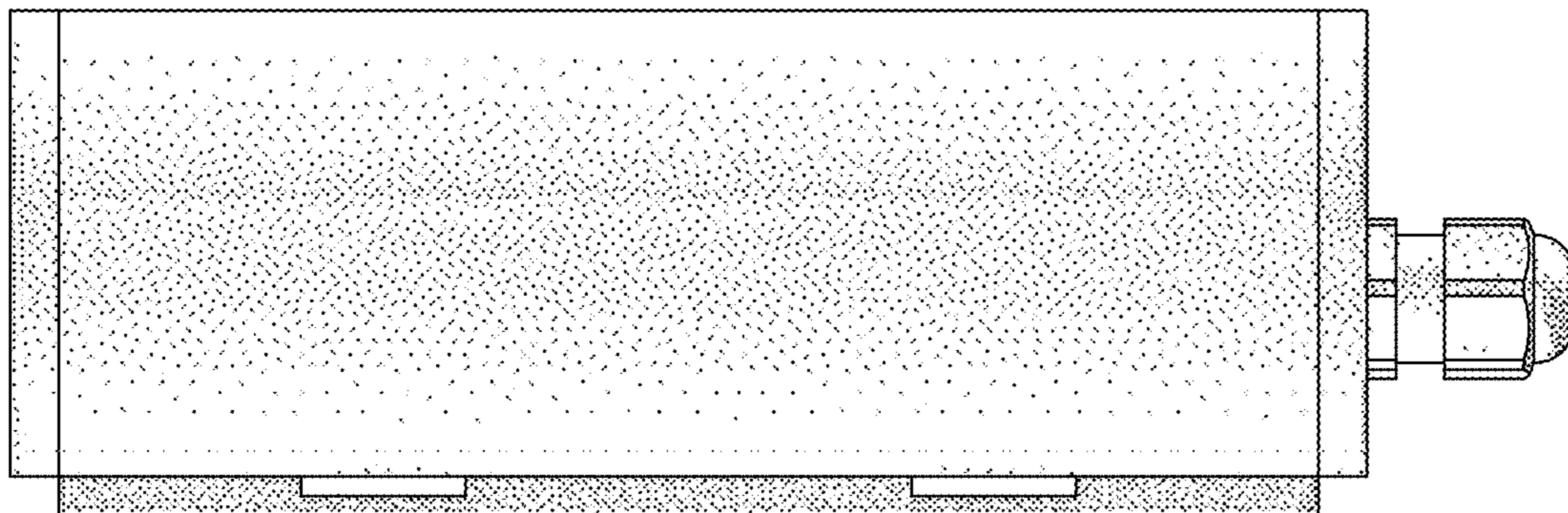


Figure 4

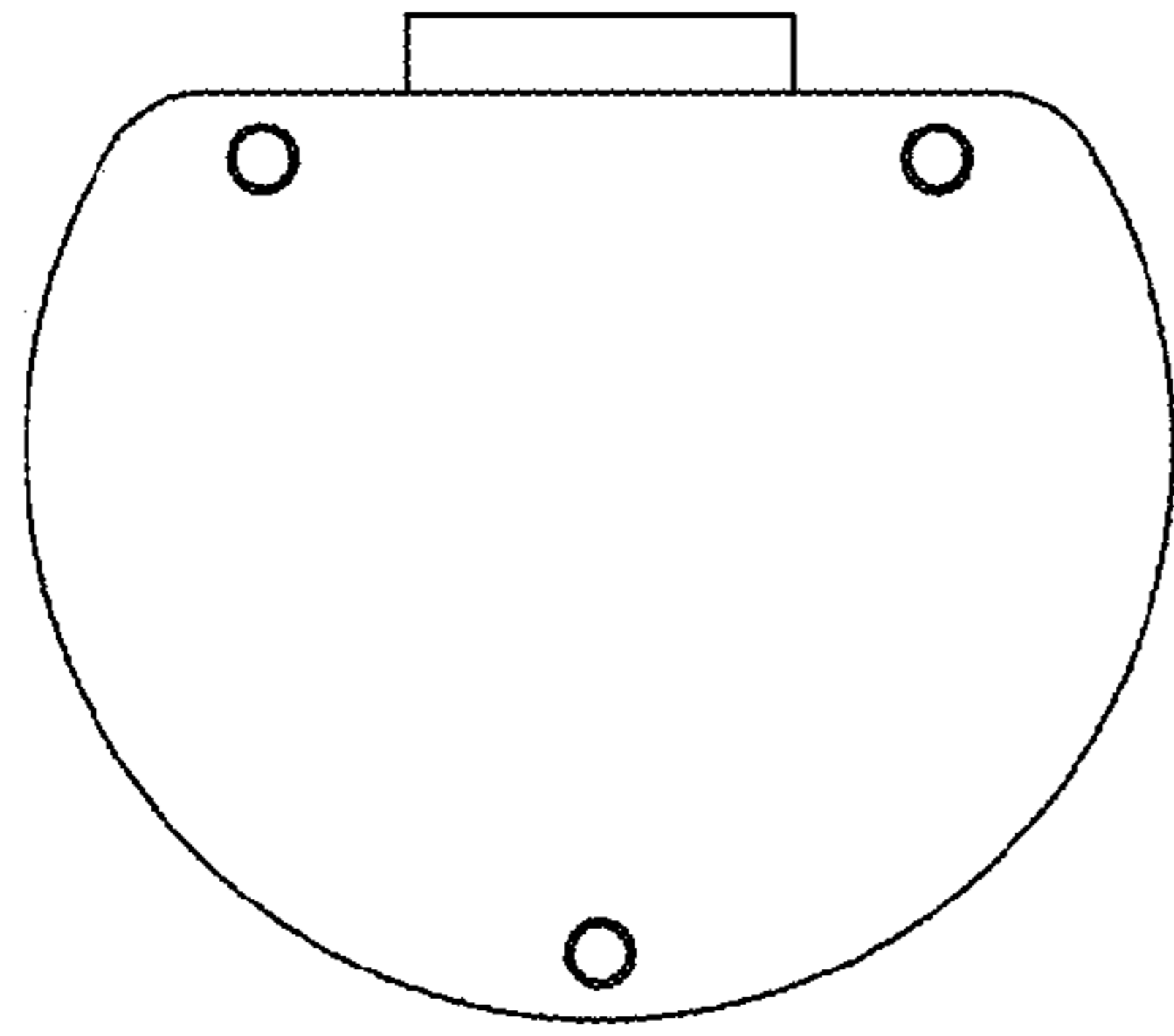


Figure 8

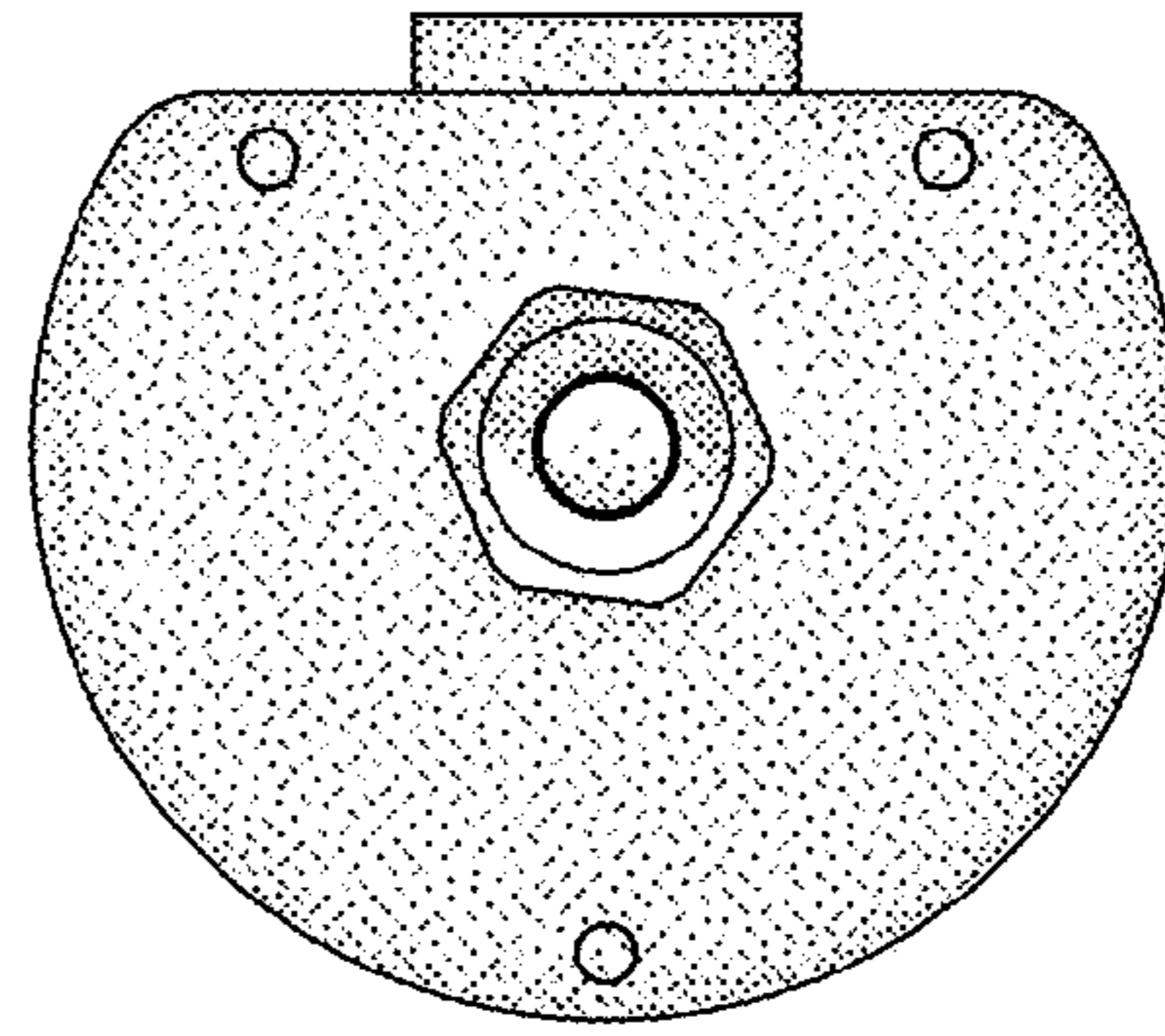


Figure 9

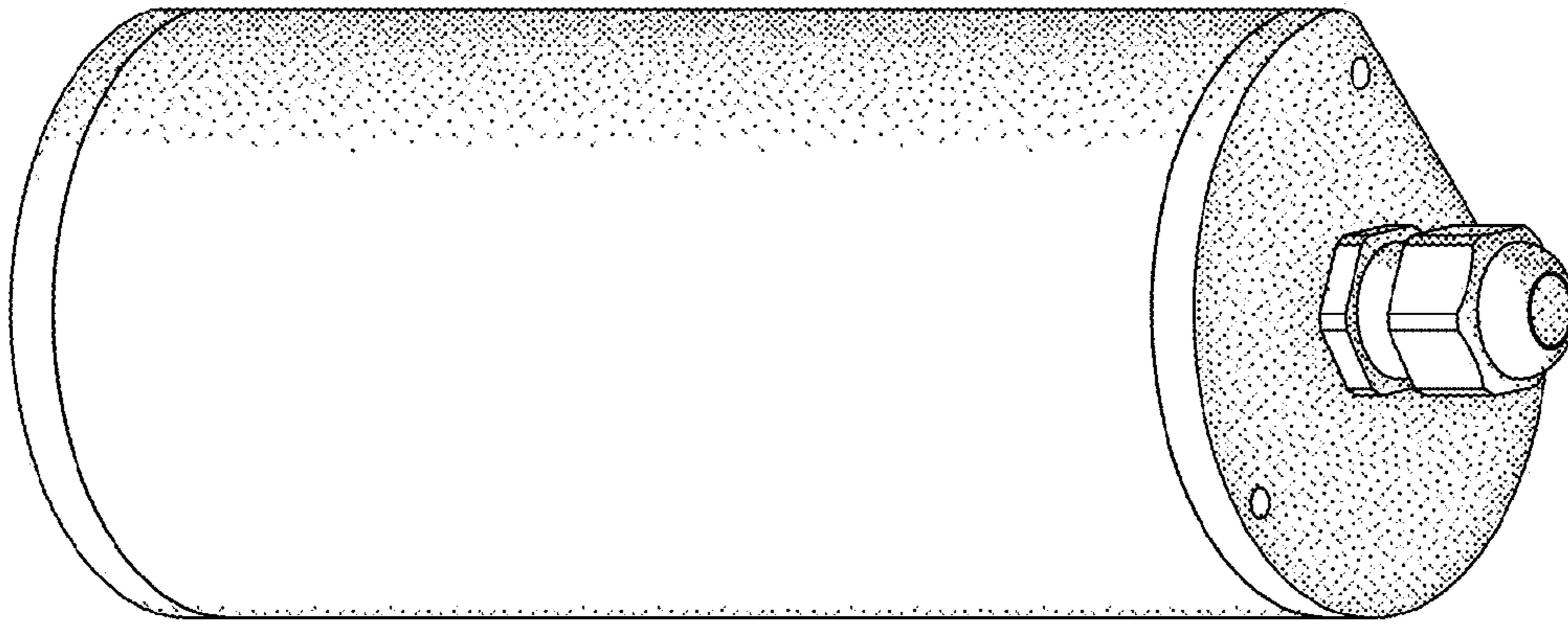


Figure 7

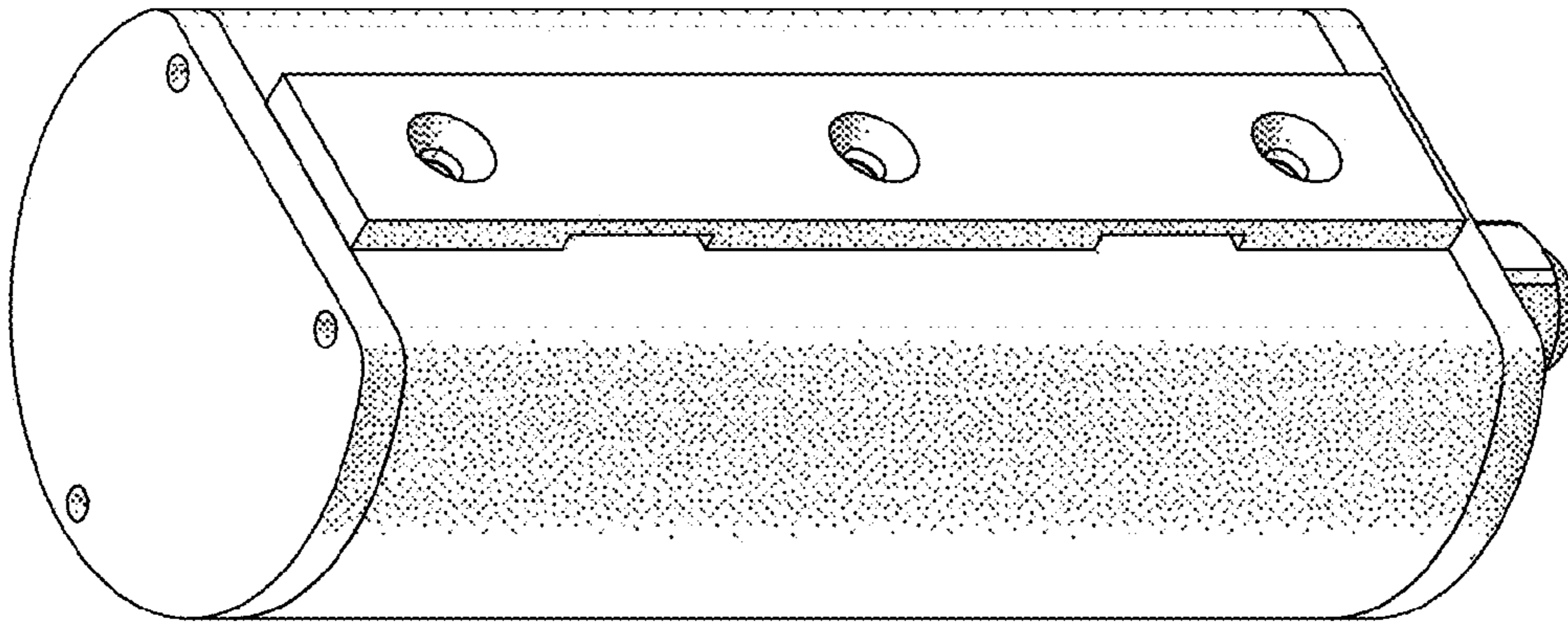


Figure 6

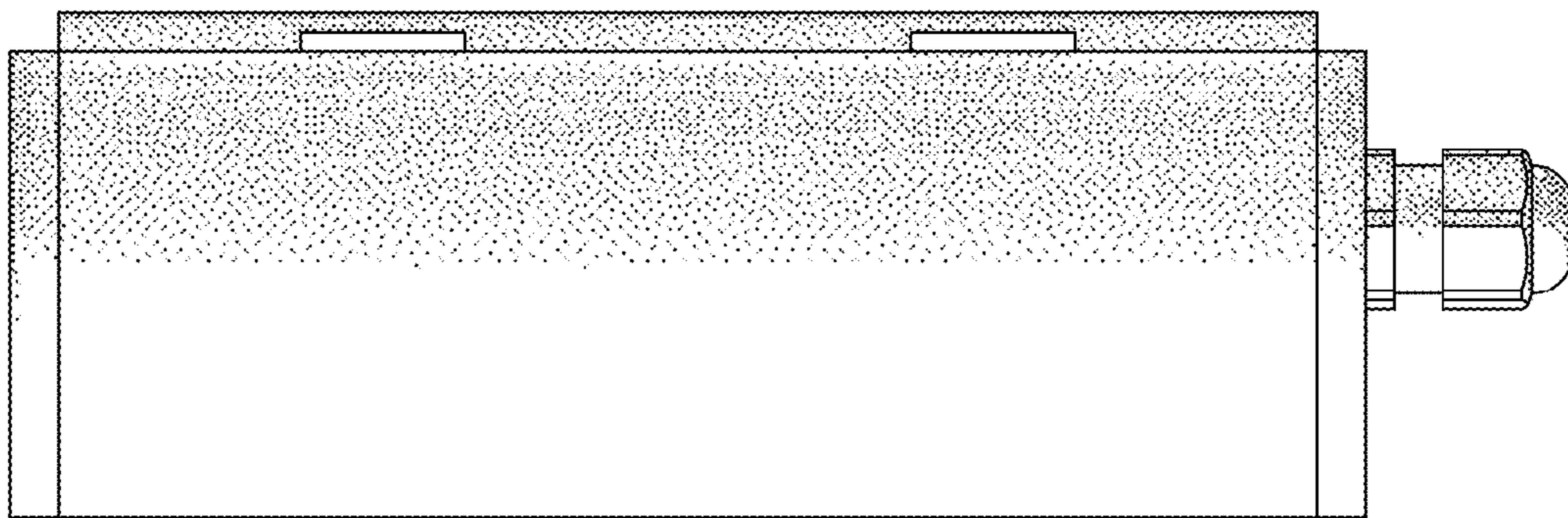


Figure 5

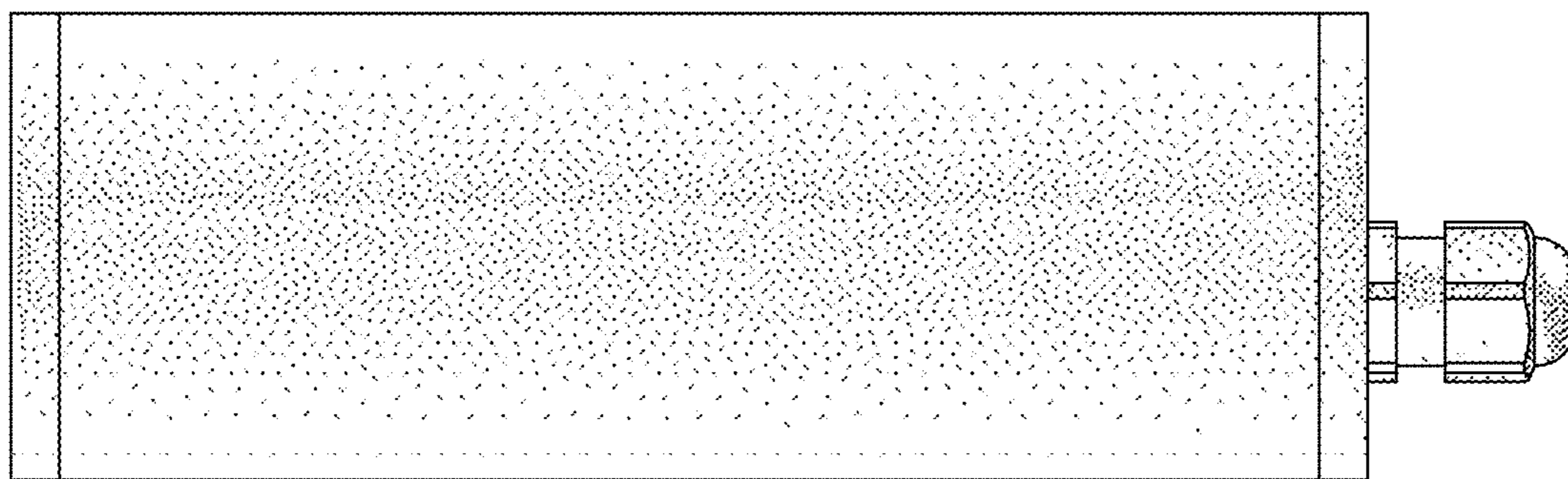


Figure 13

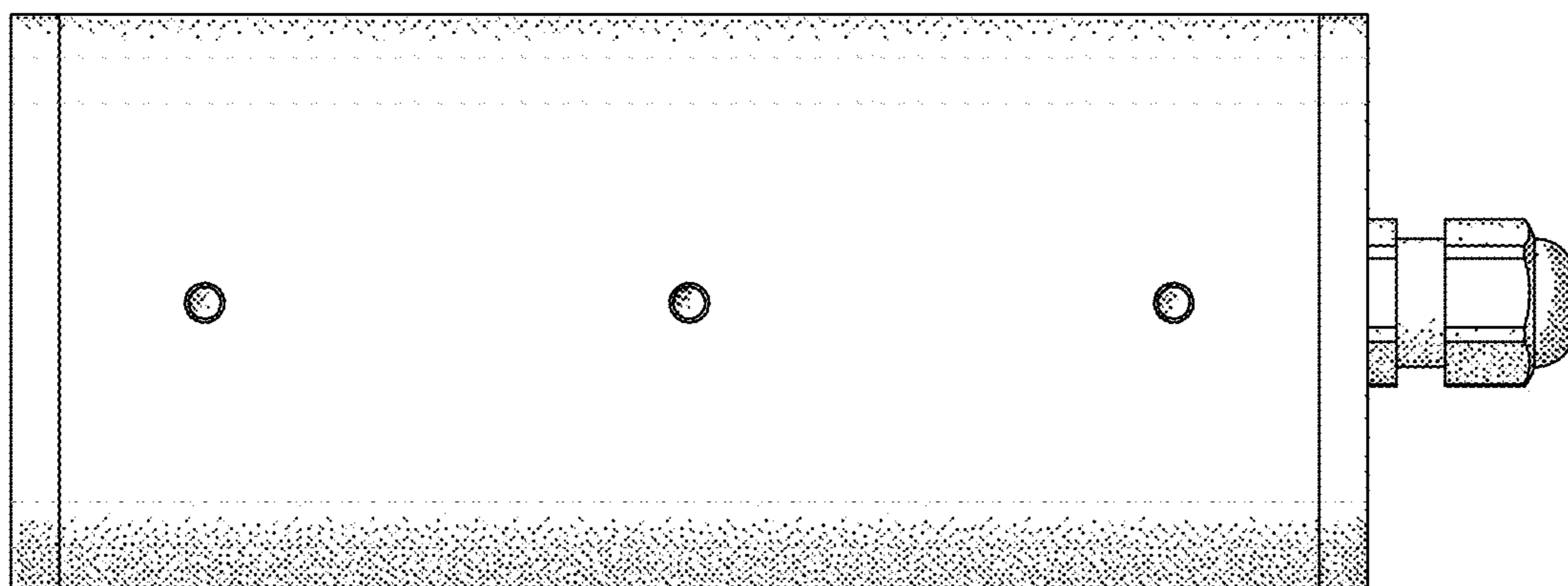


Figure 12

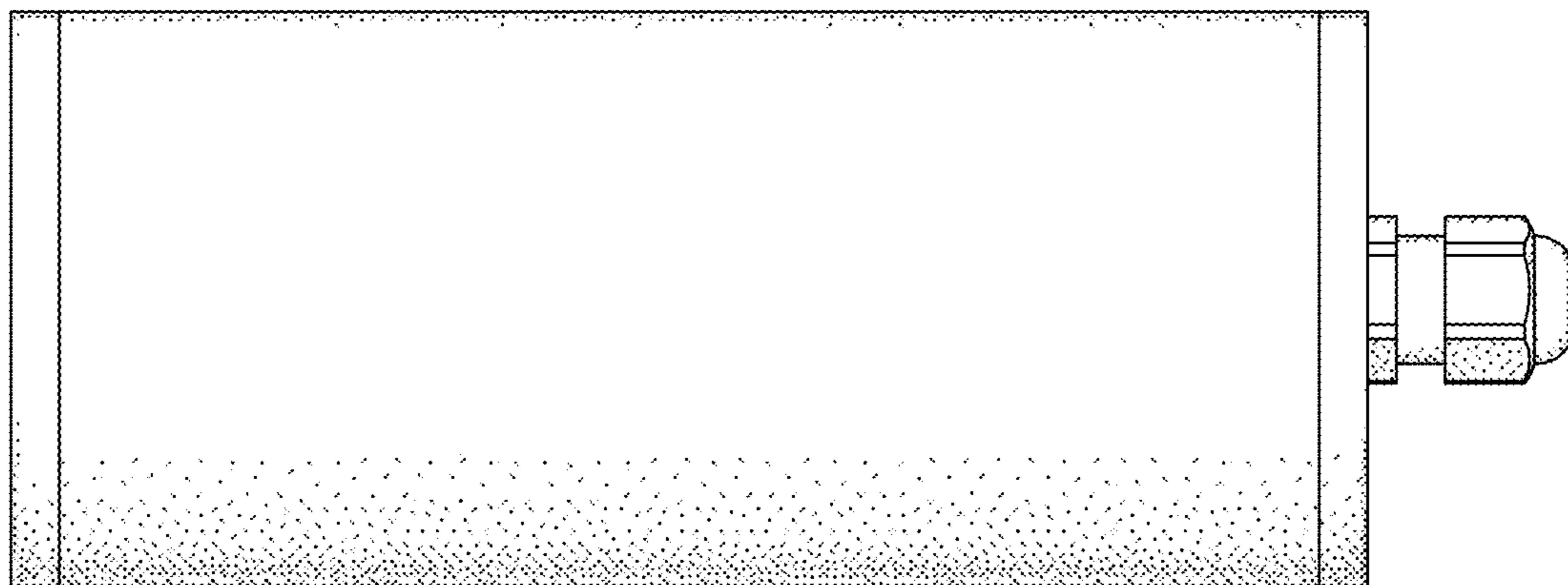


Figure 11

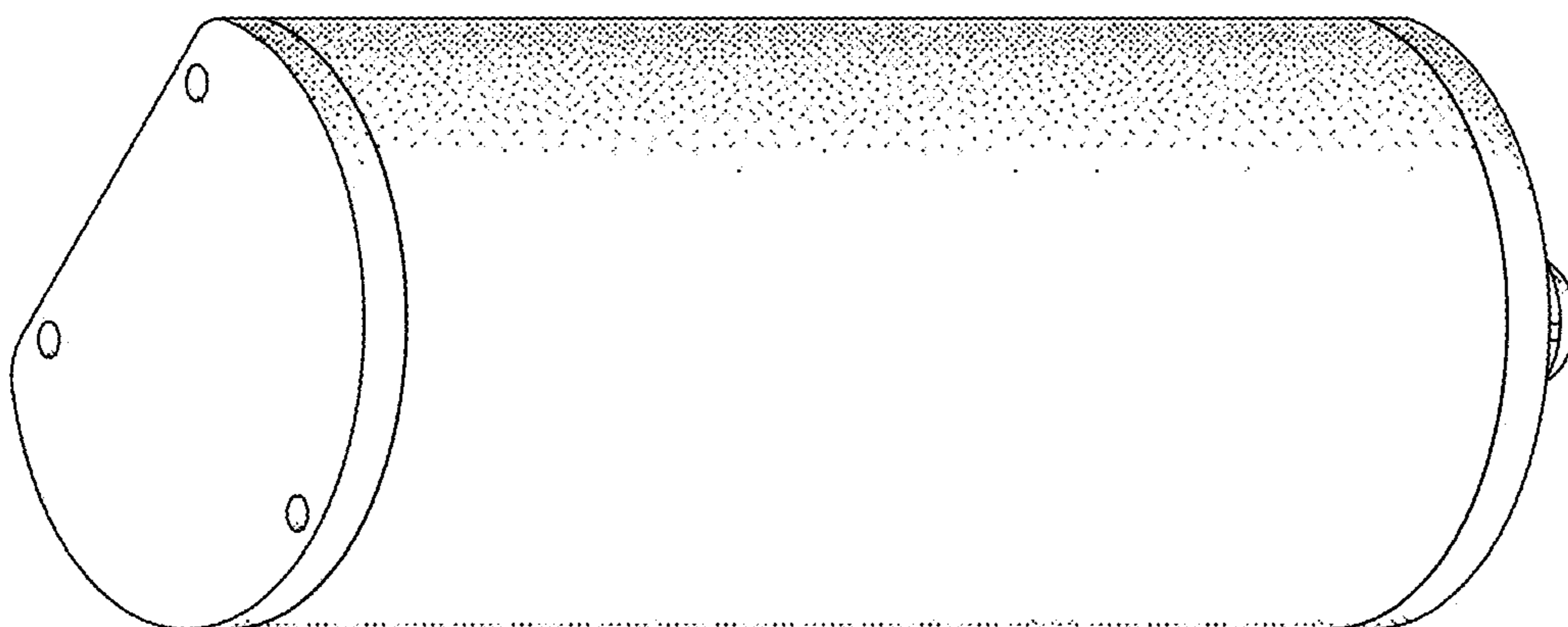


Figure 10

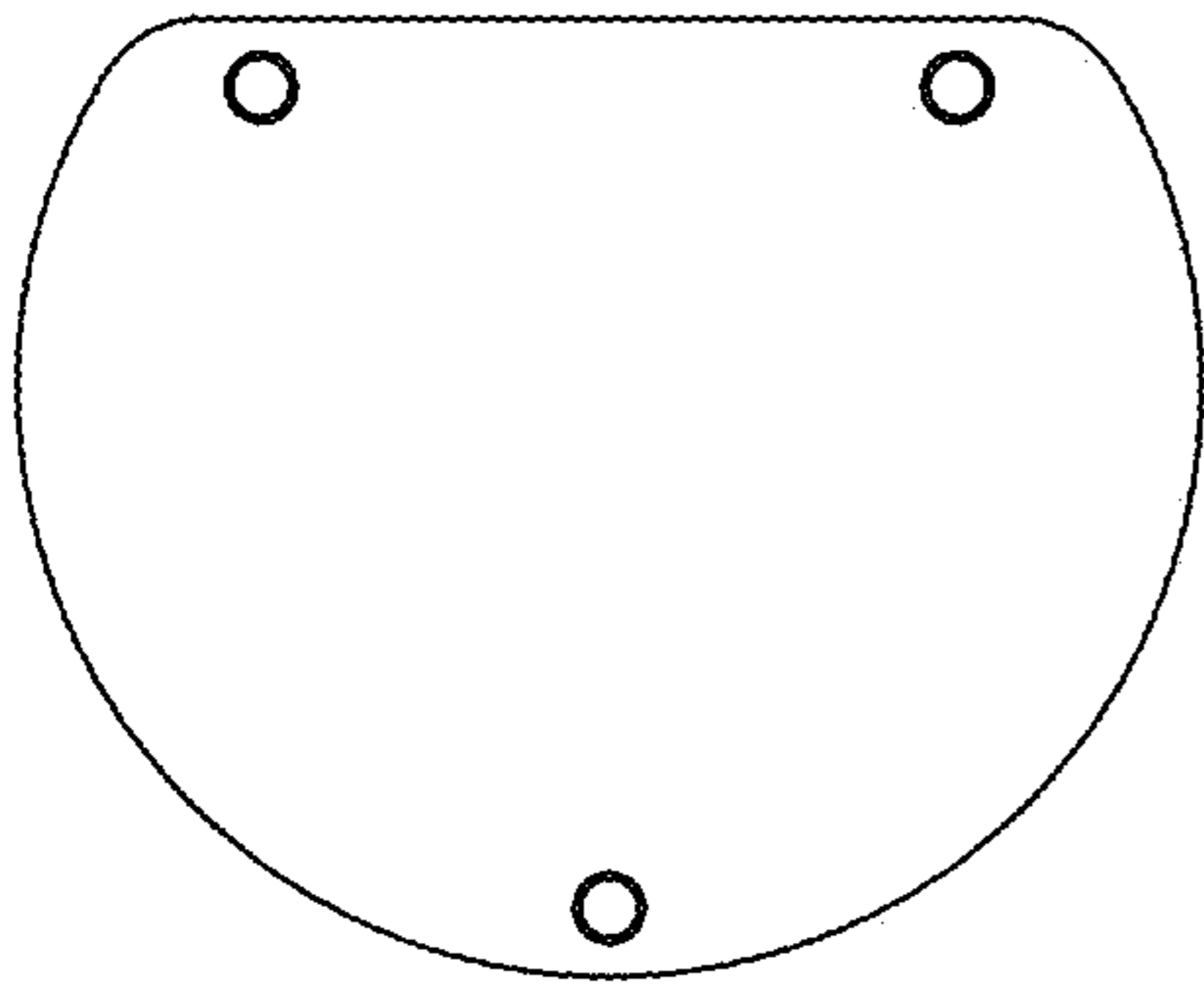


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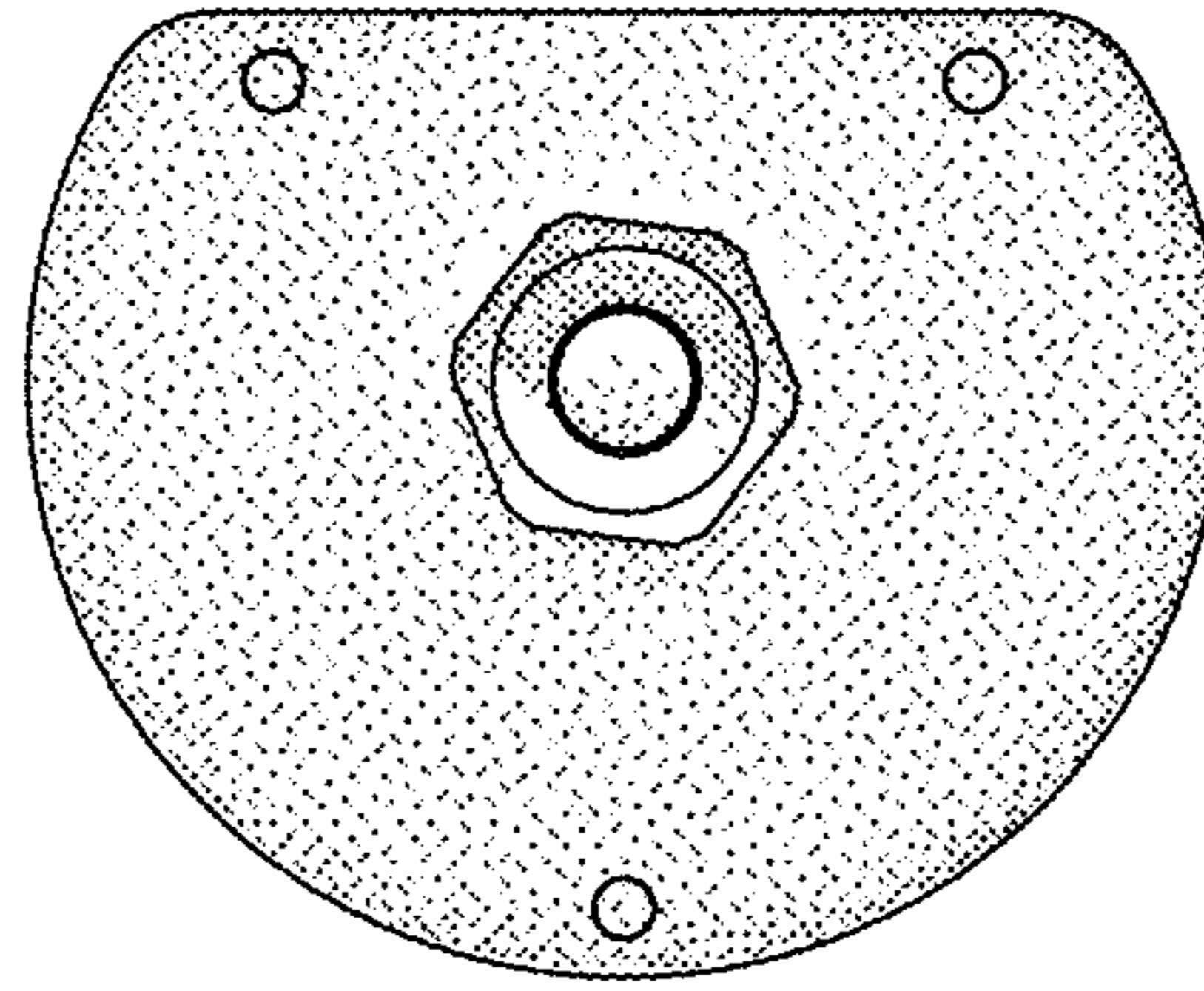


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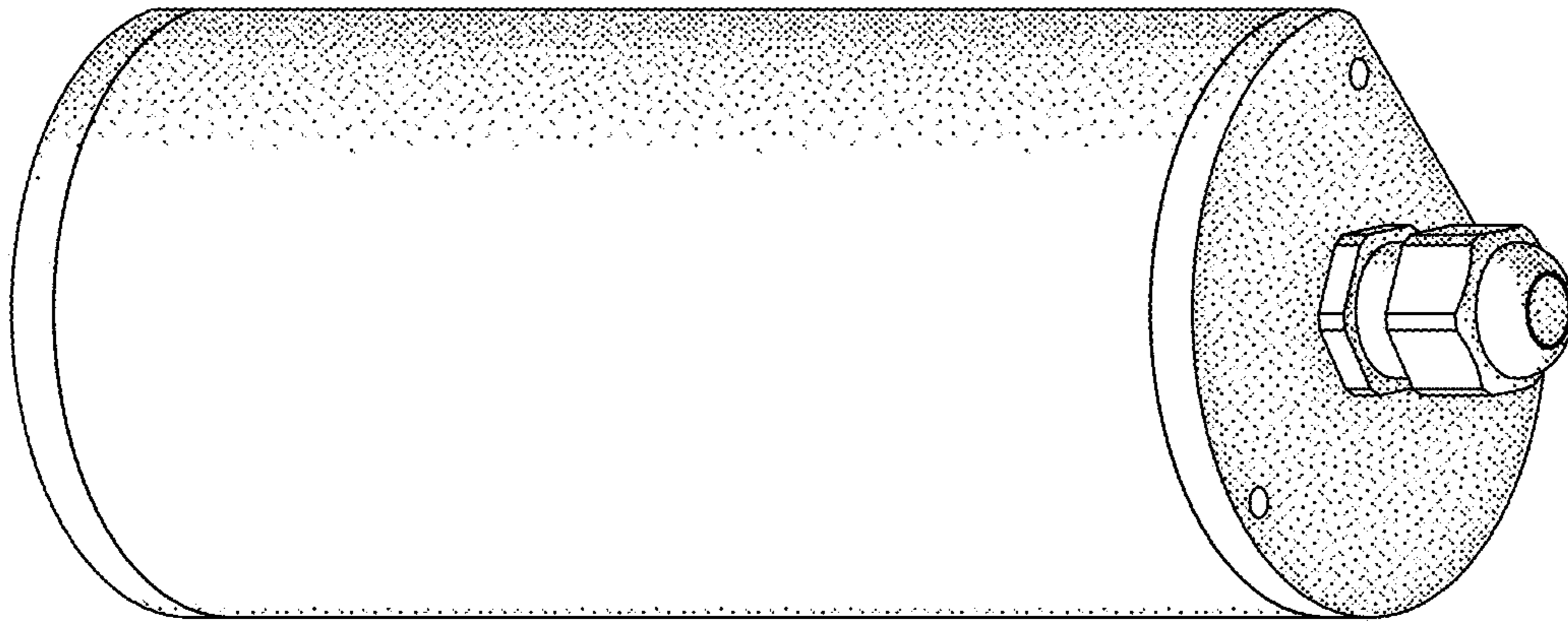


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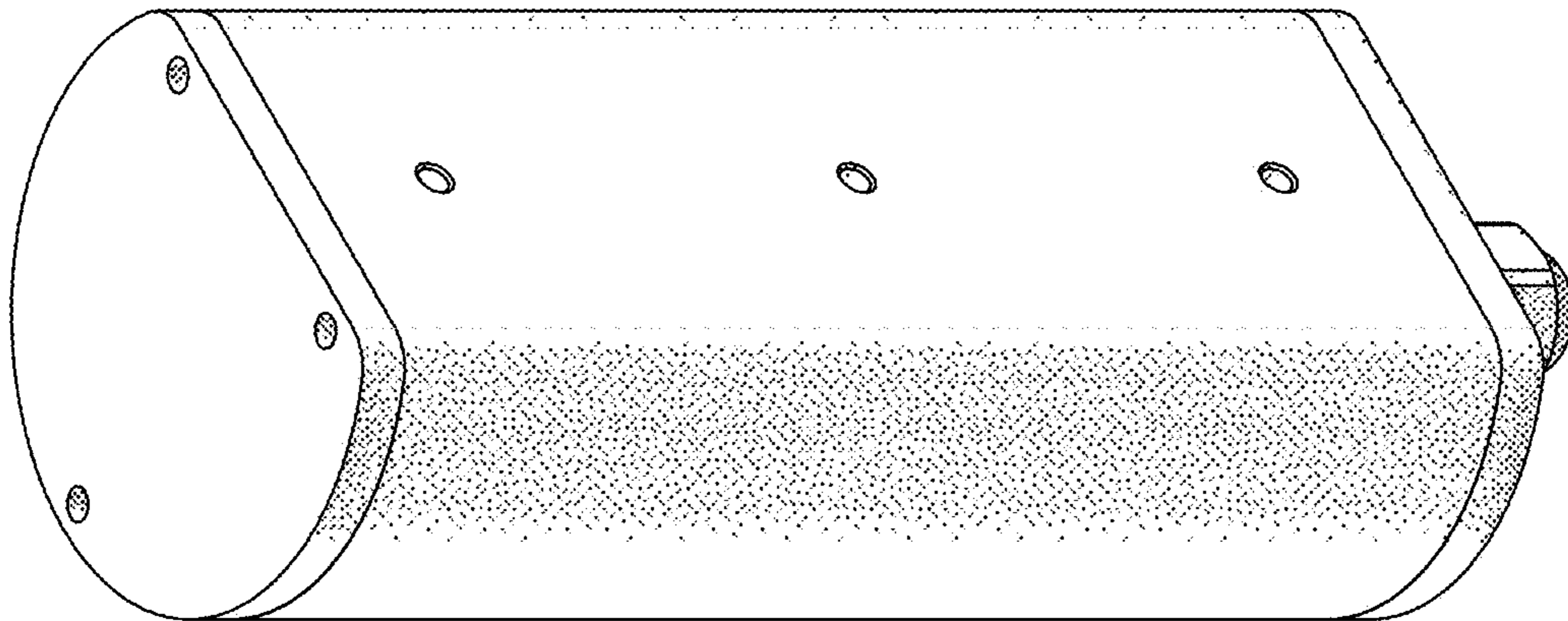


Figure 15

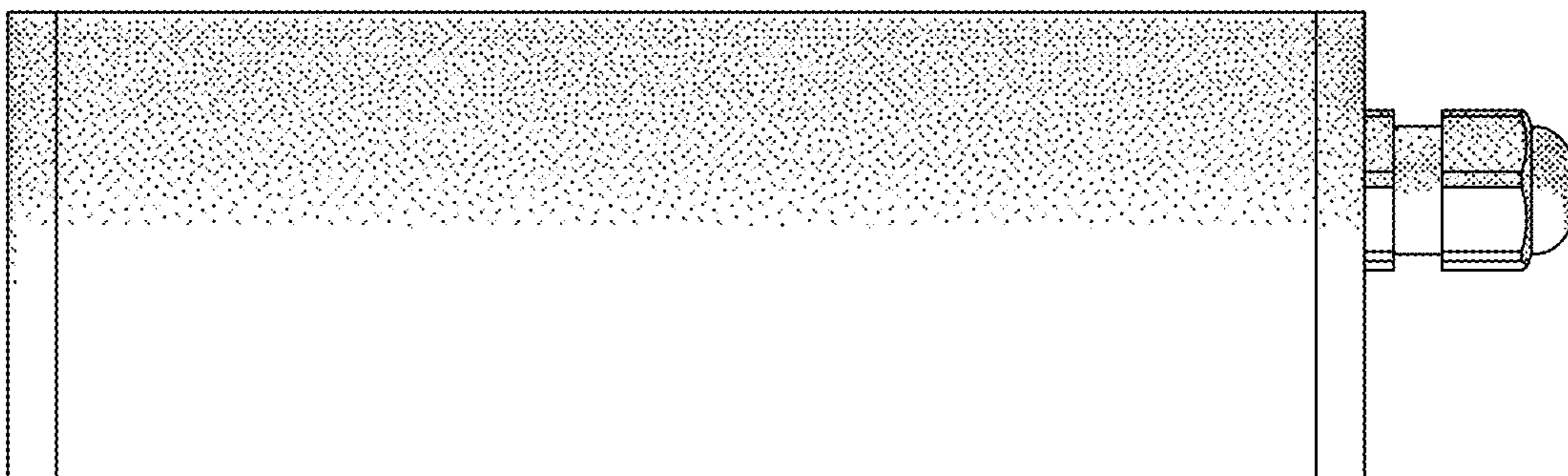


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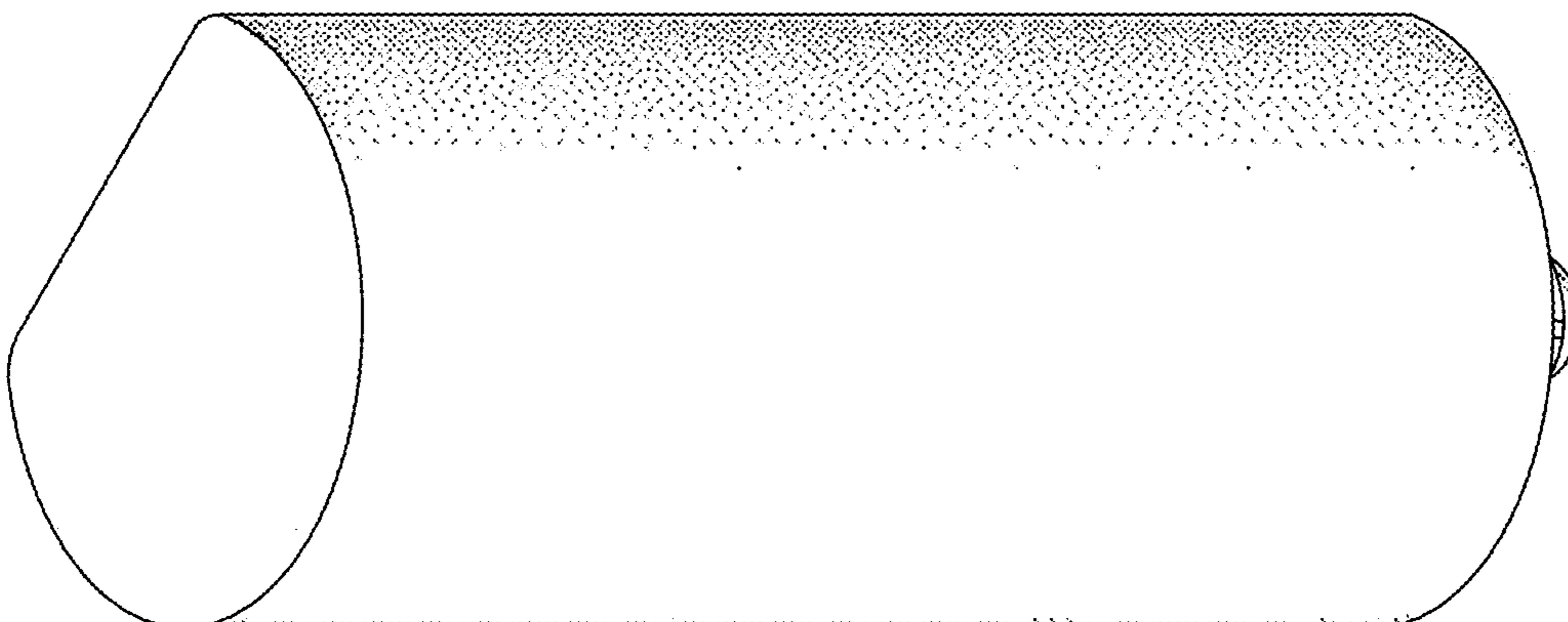


Figure 19

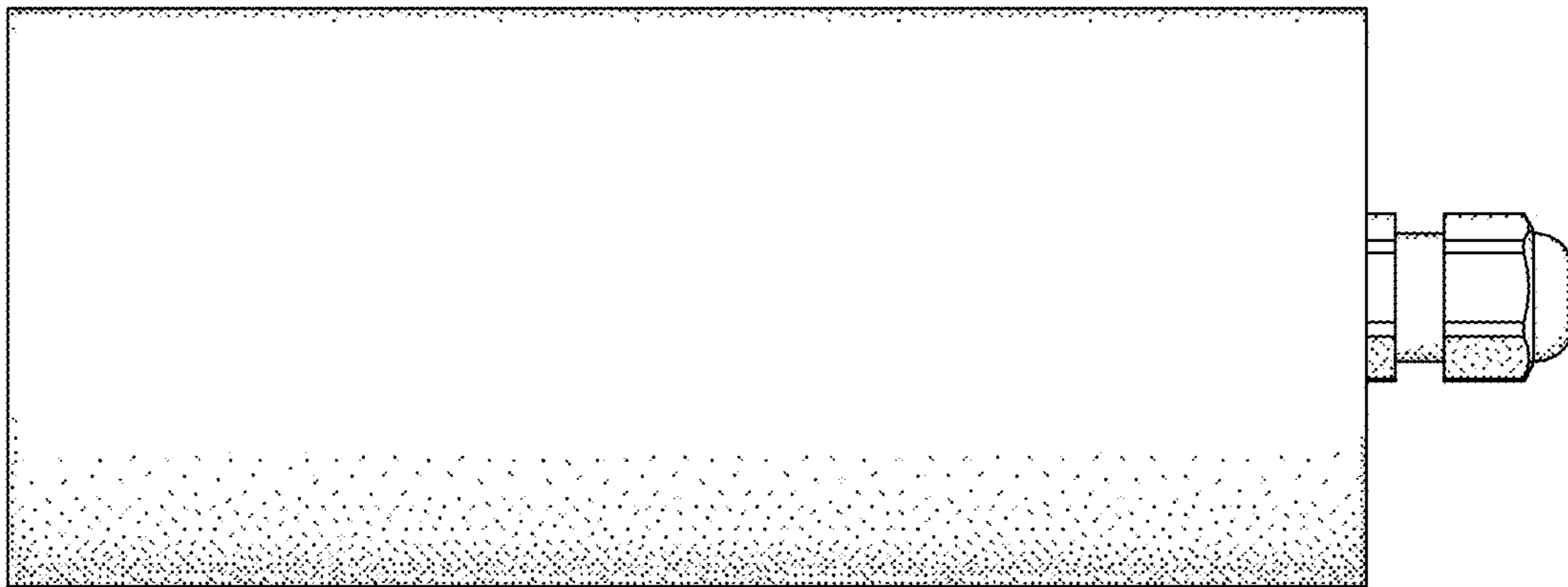


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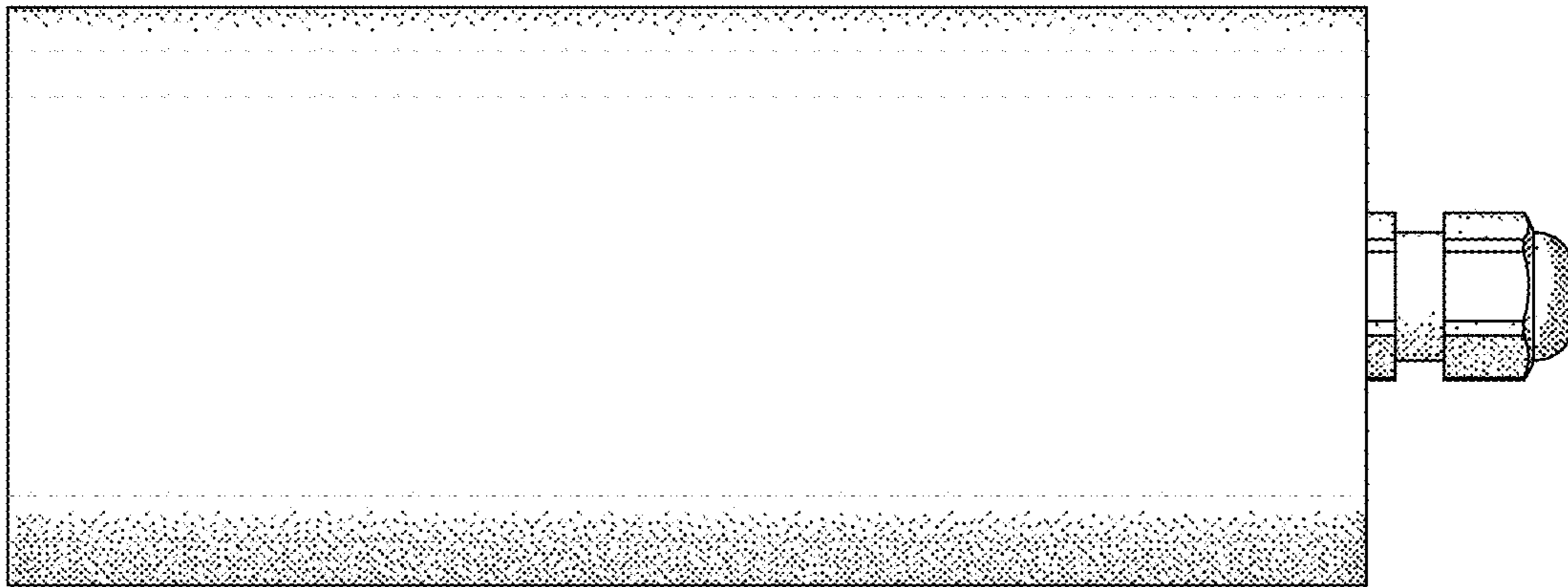


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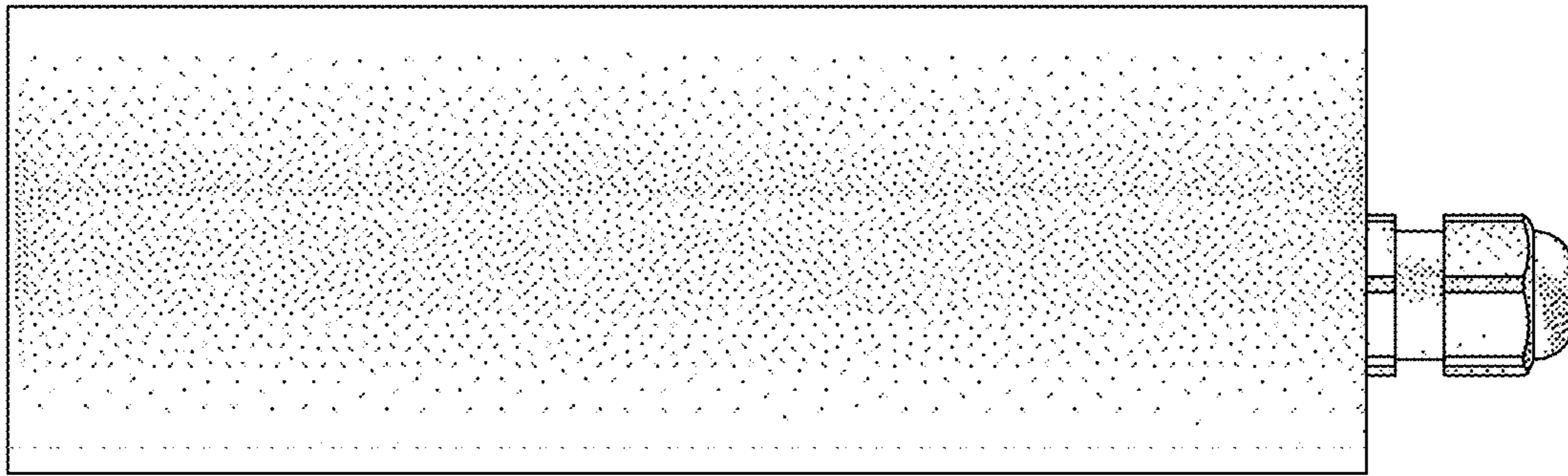


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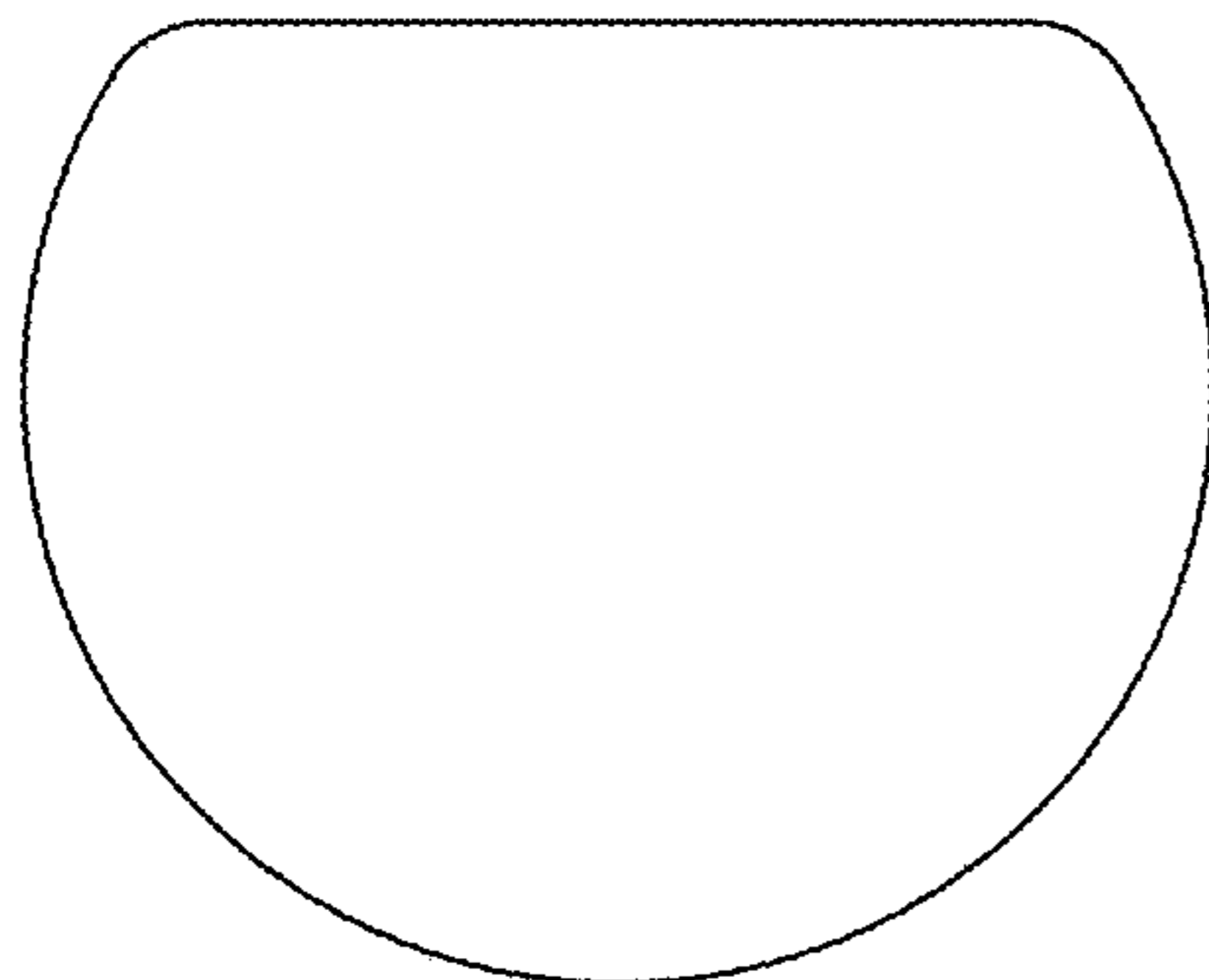


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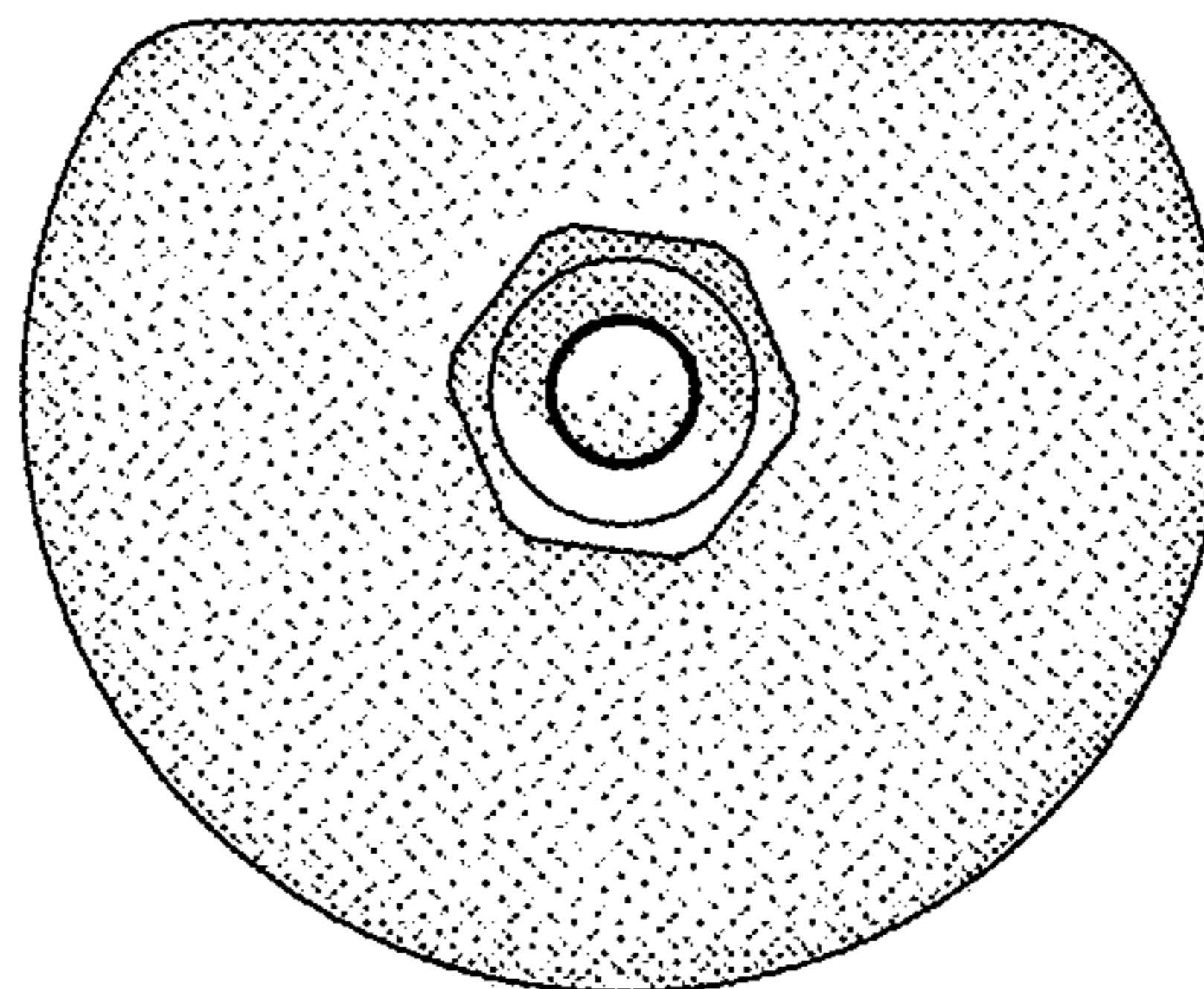


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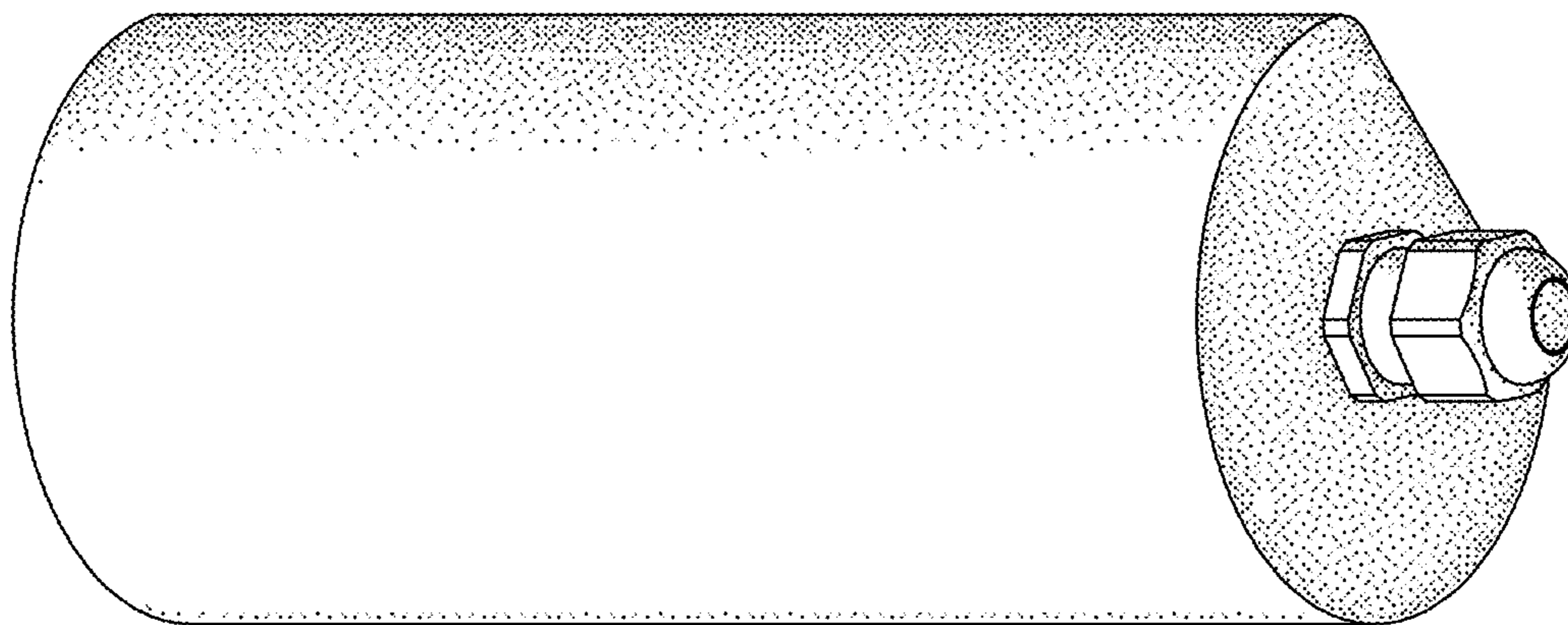


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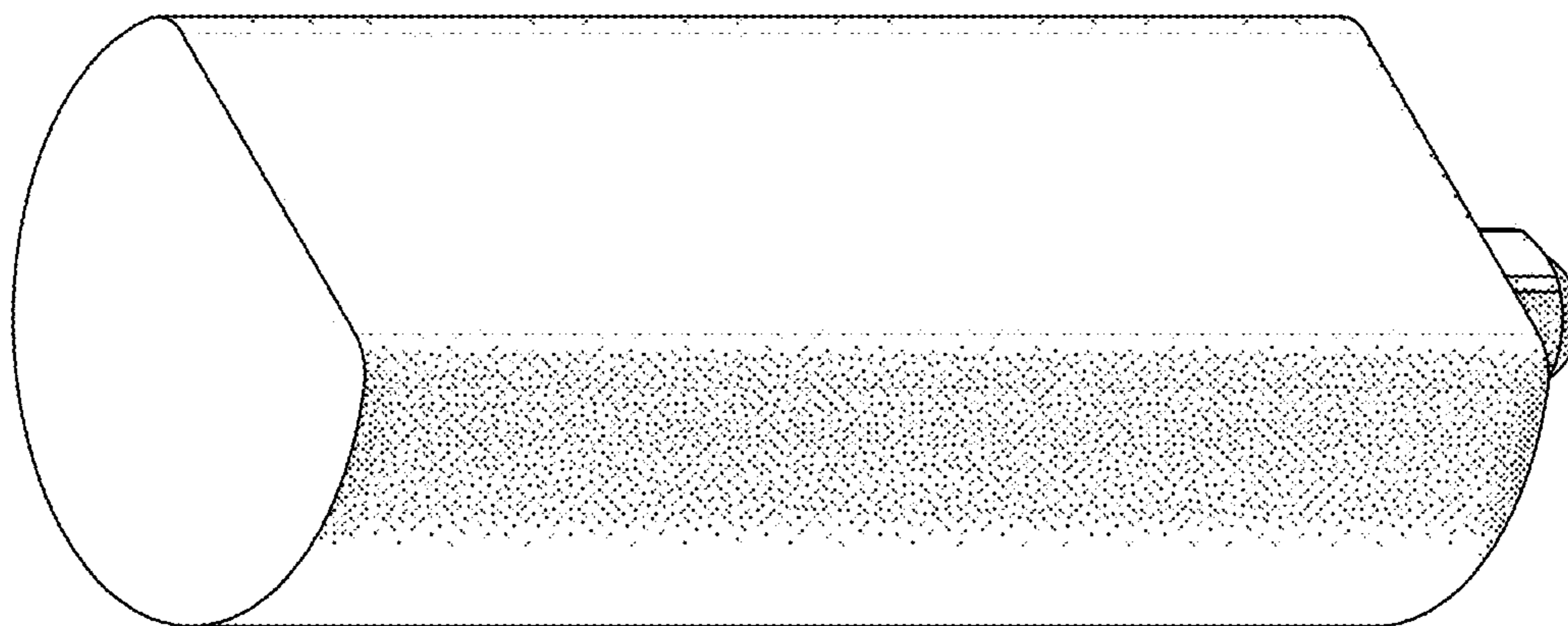


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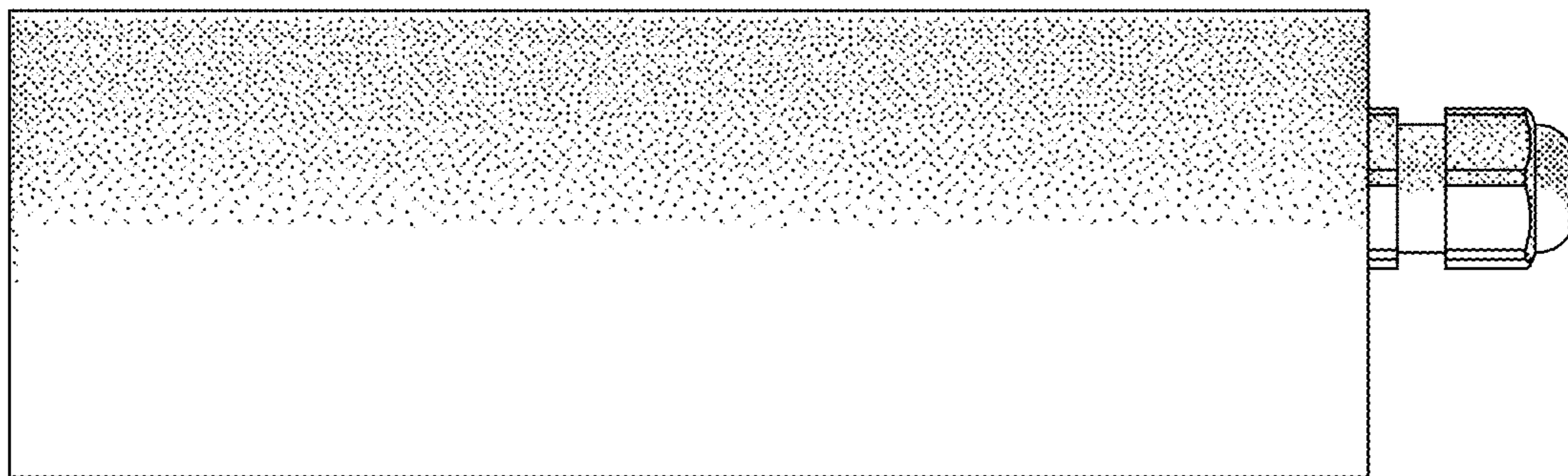


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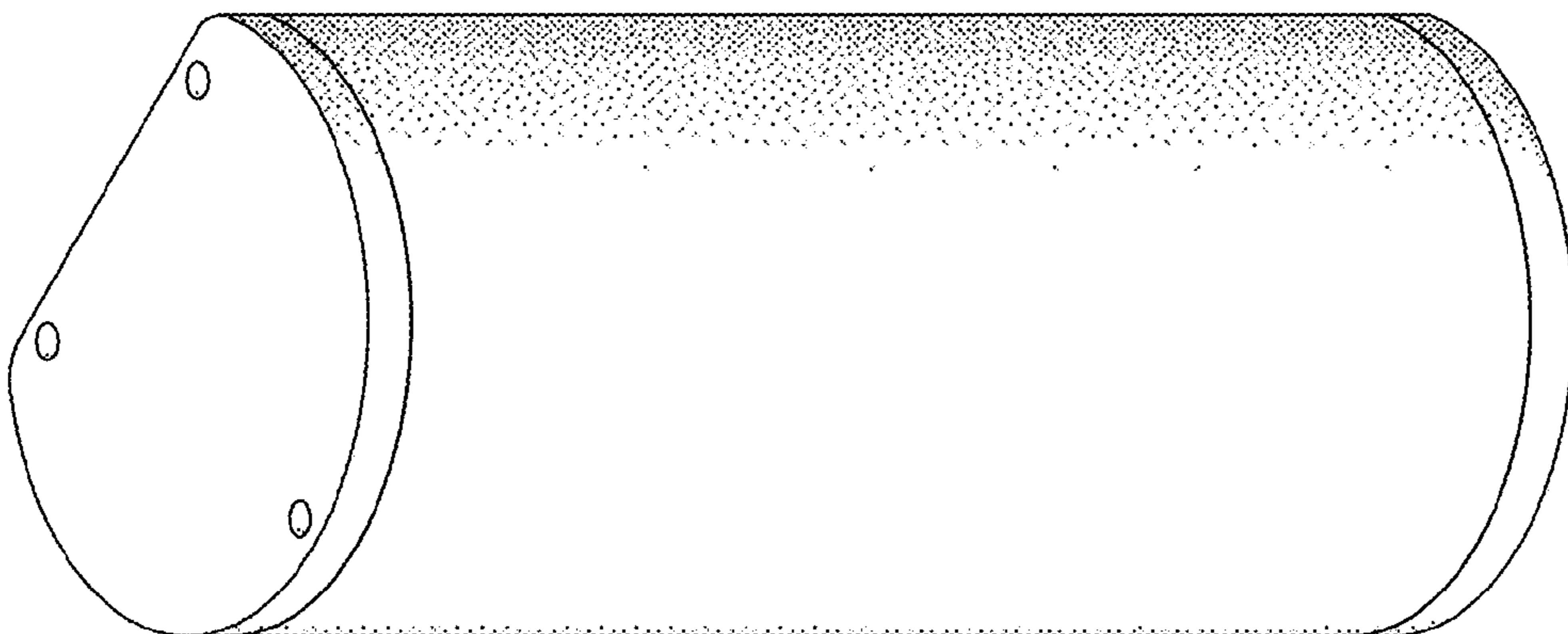


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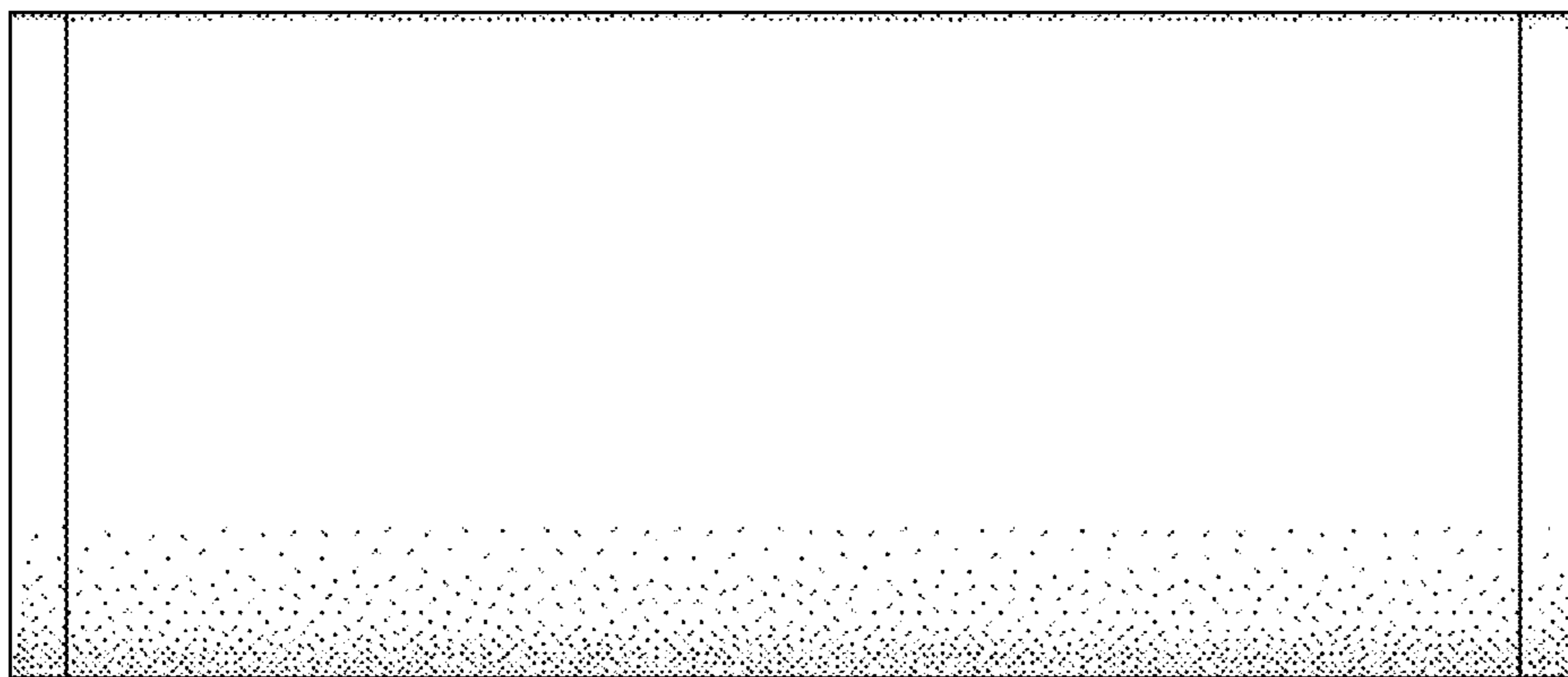


Figure 29

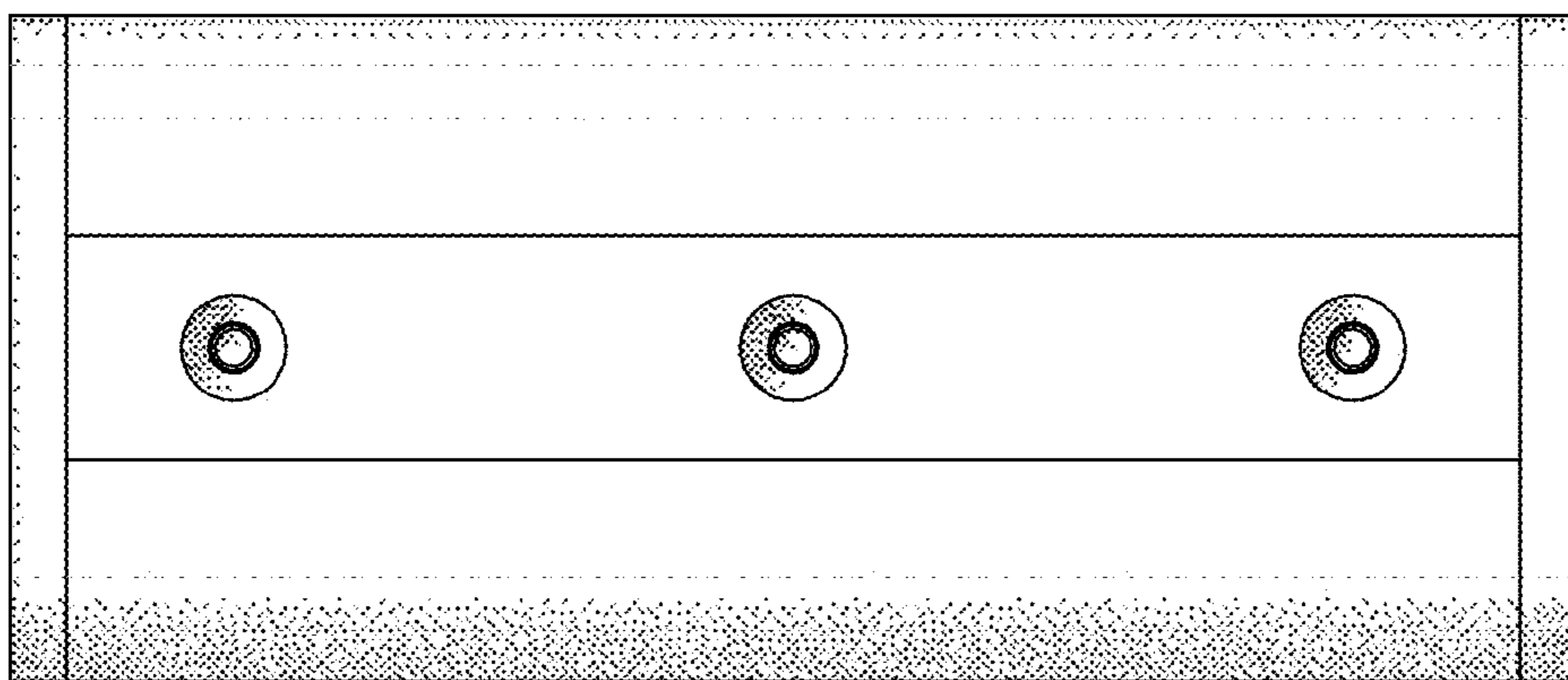


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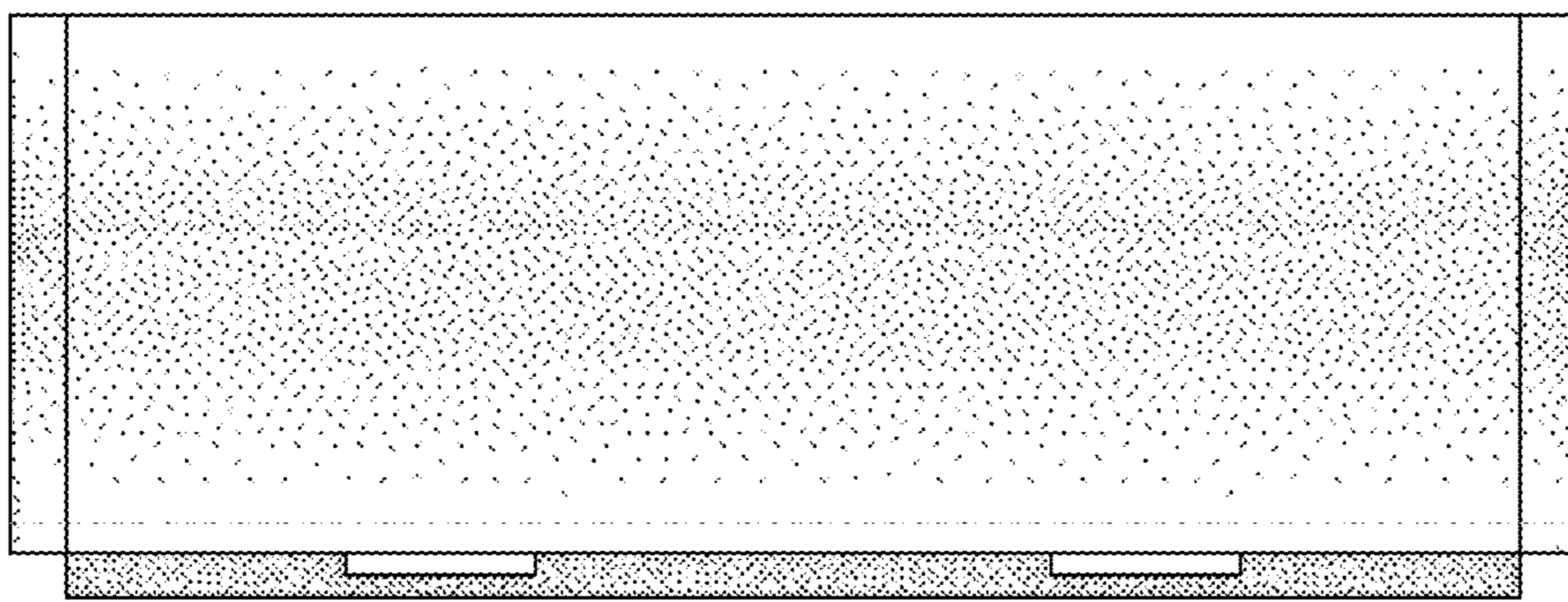


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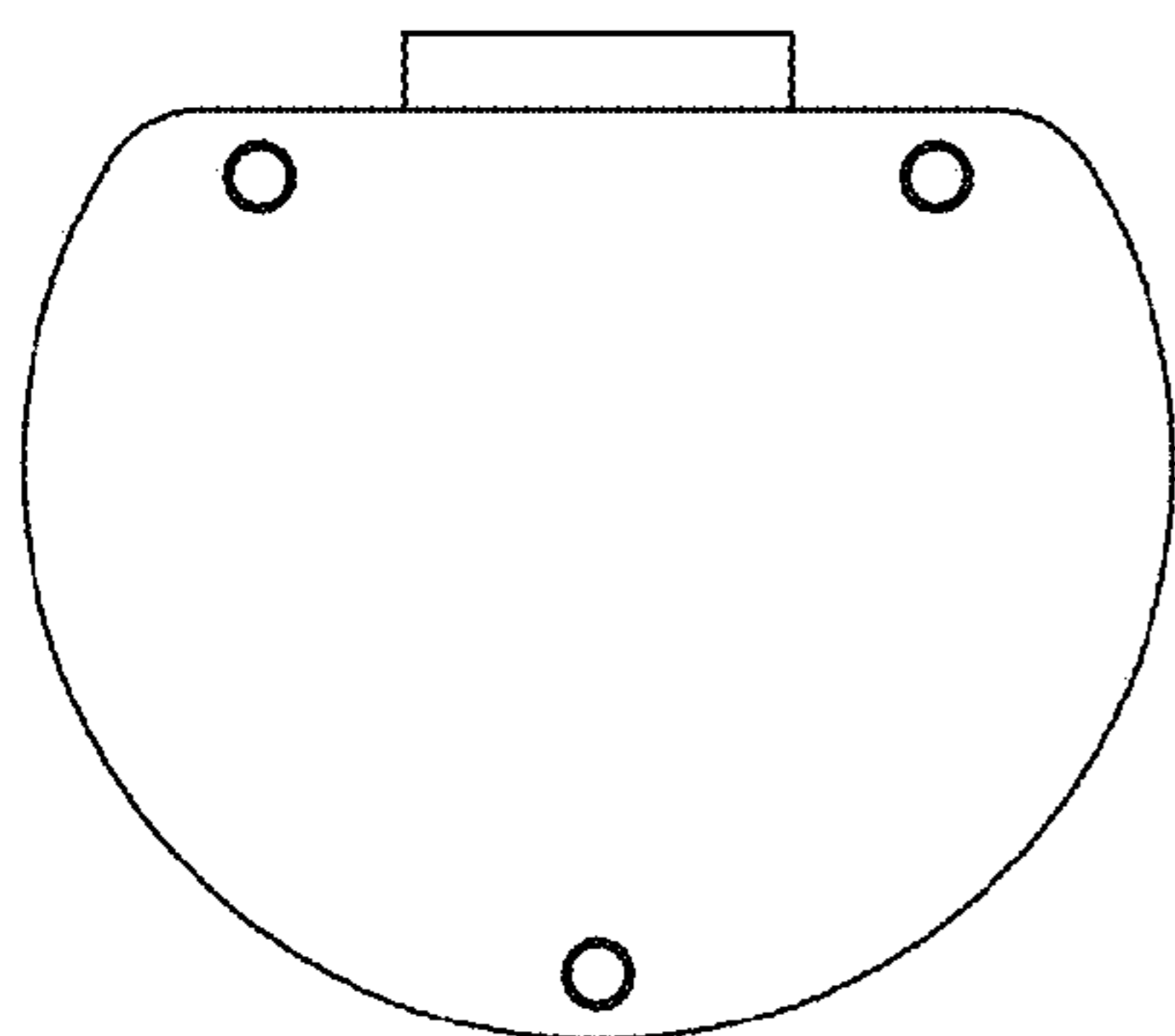


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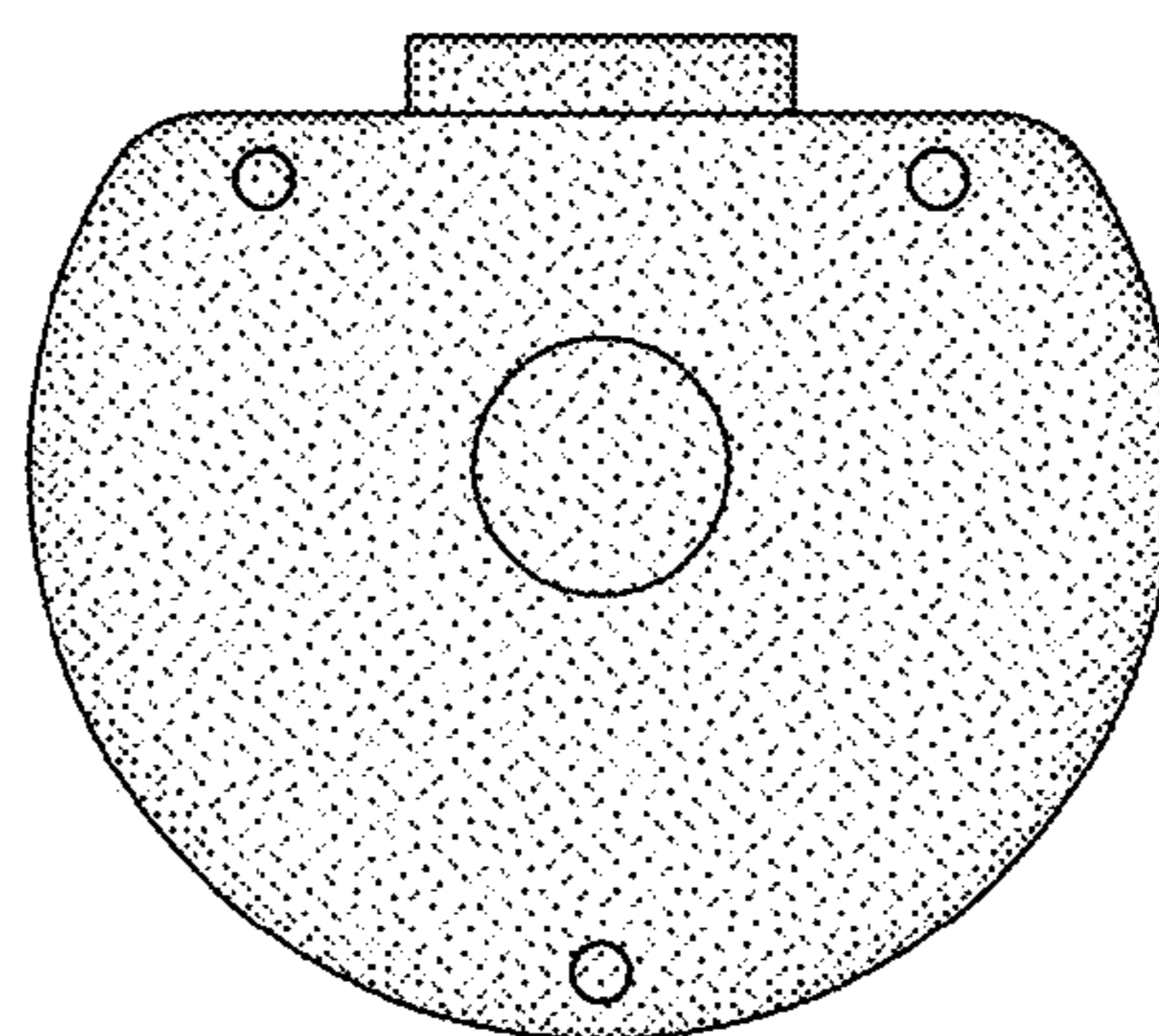


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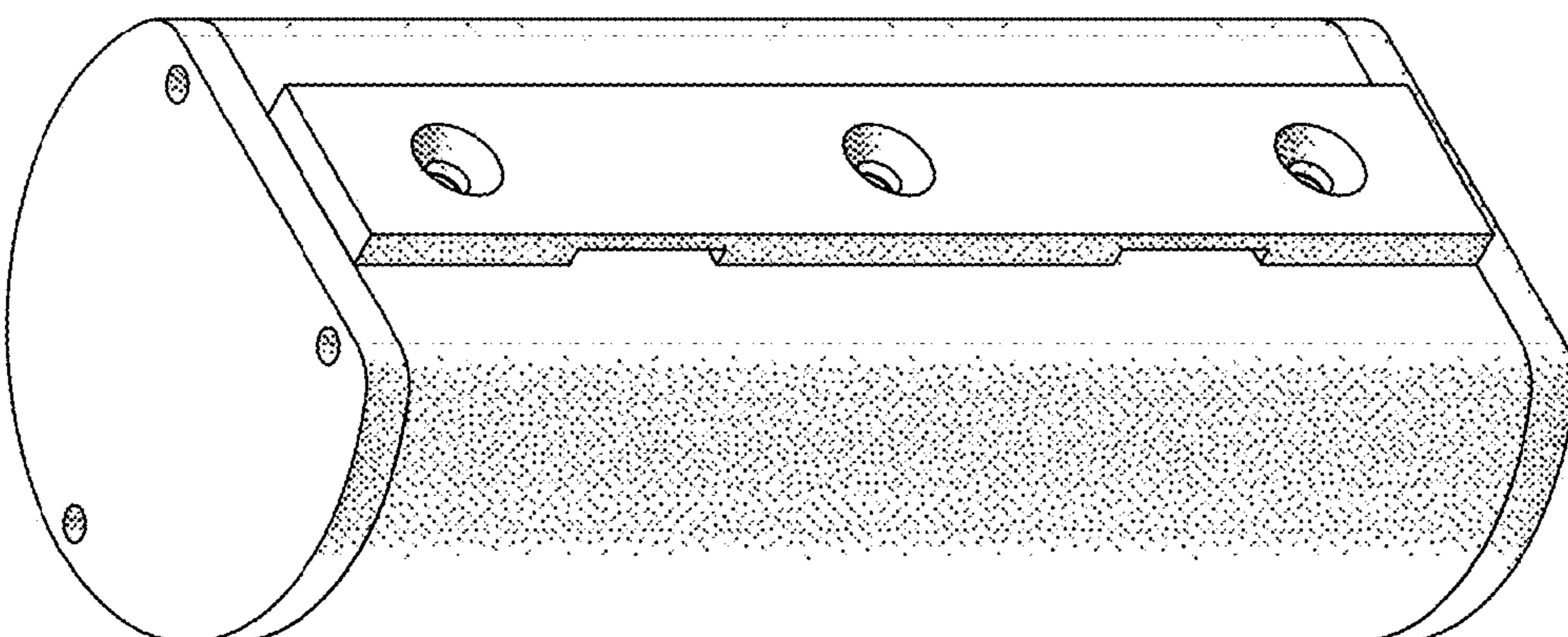


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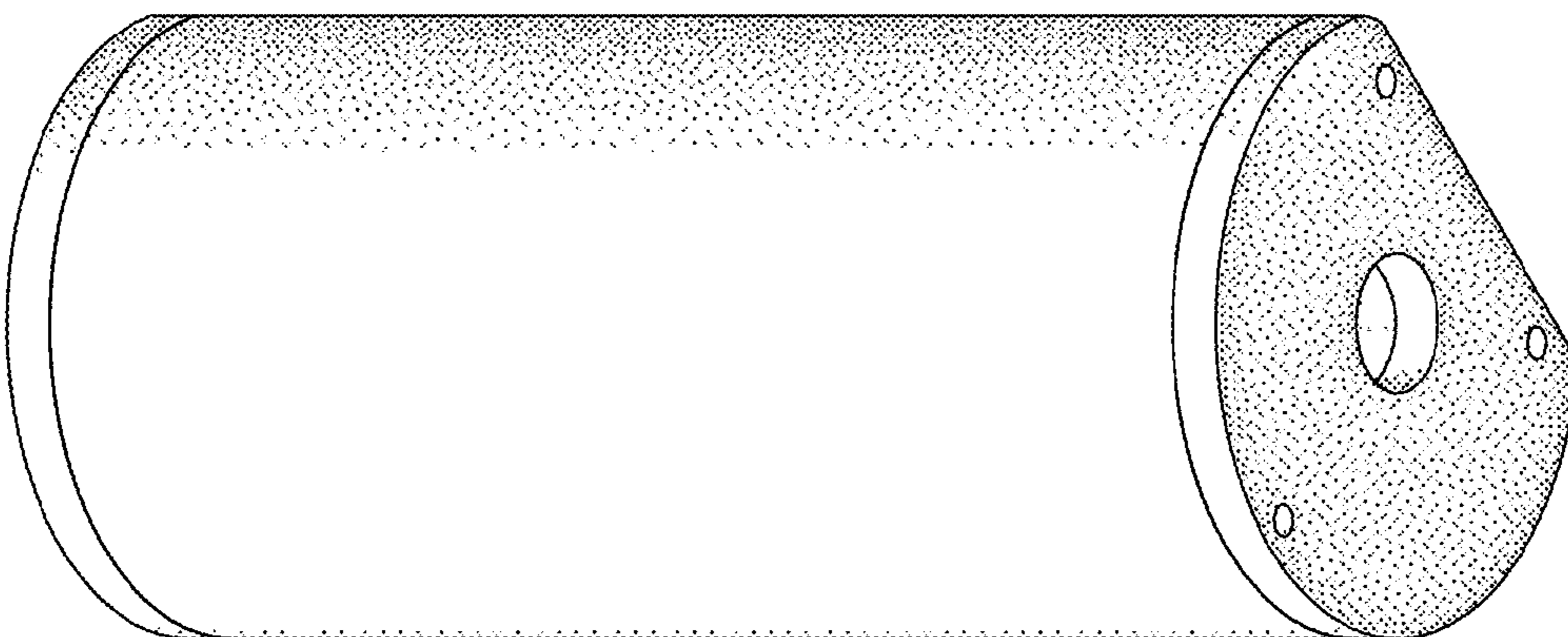


Figure 33

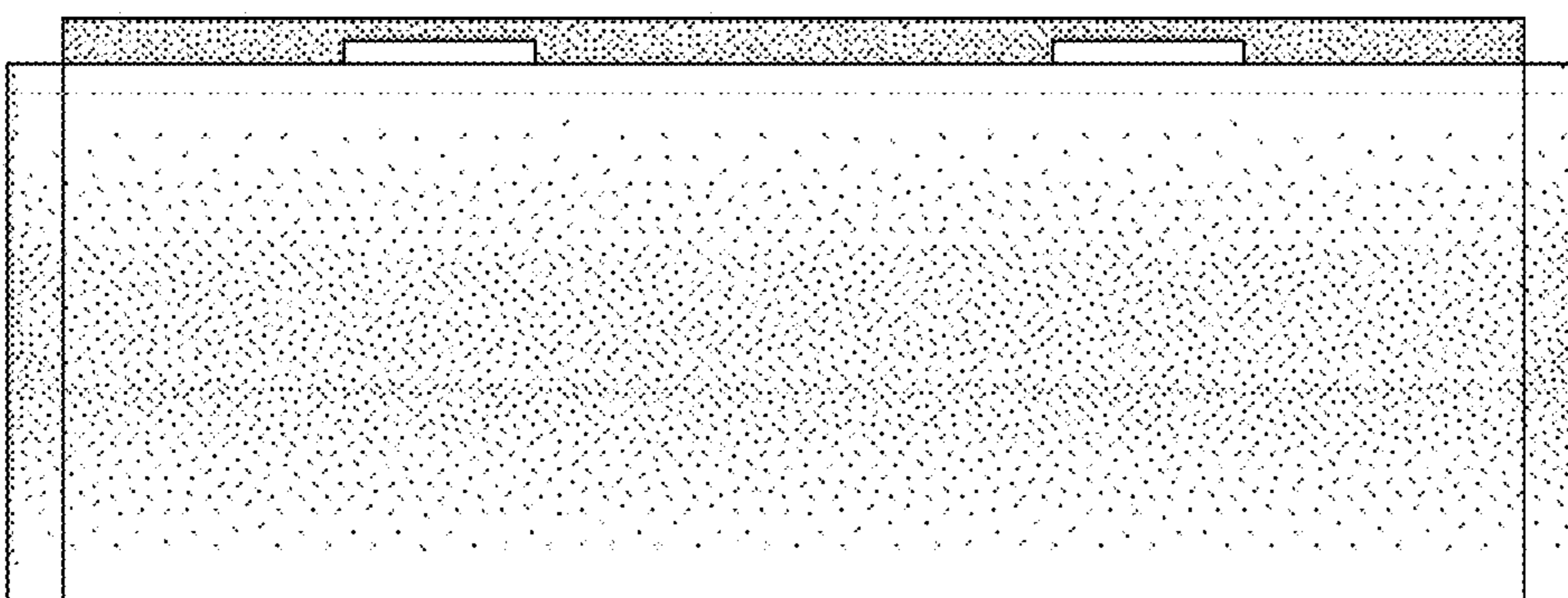


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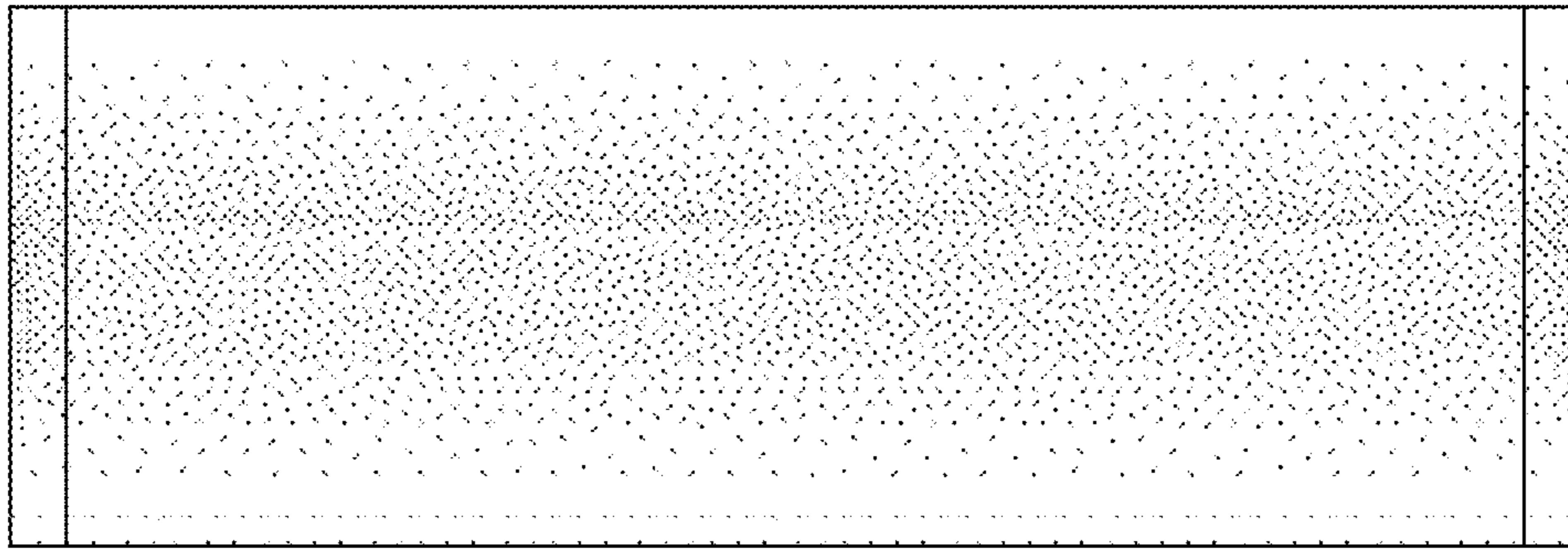


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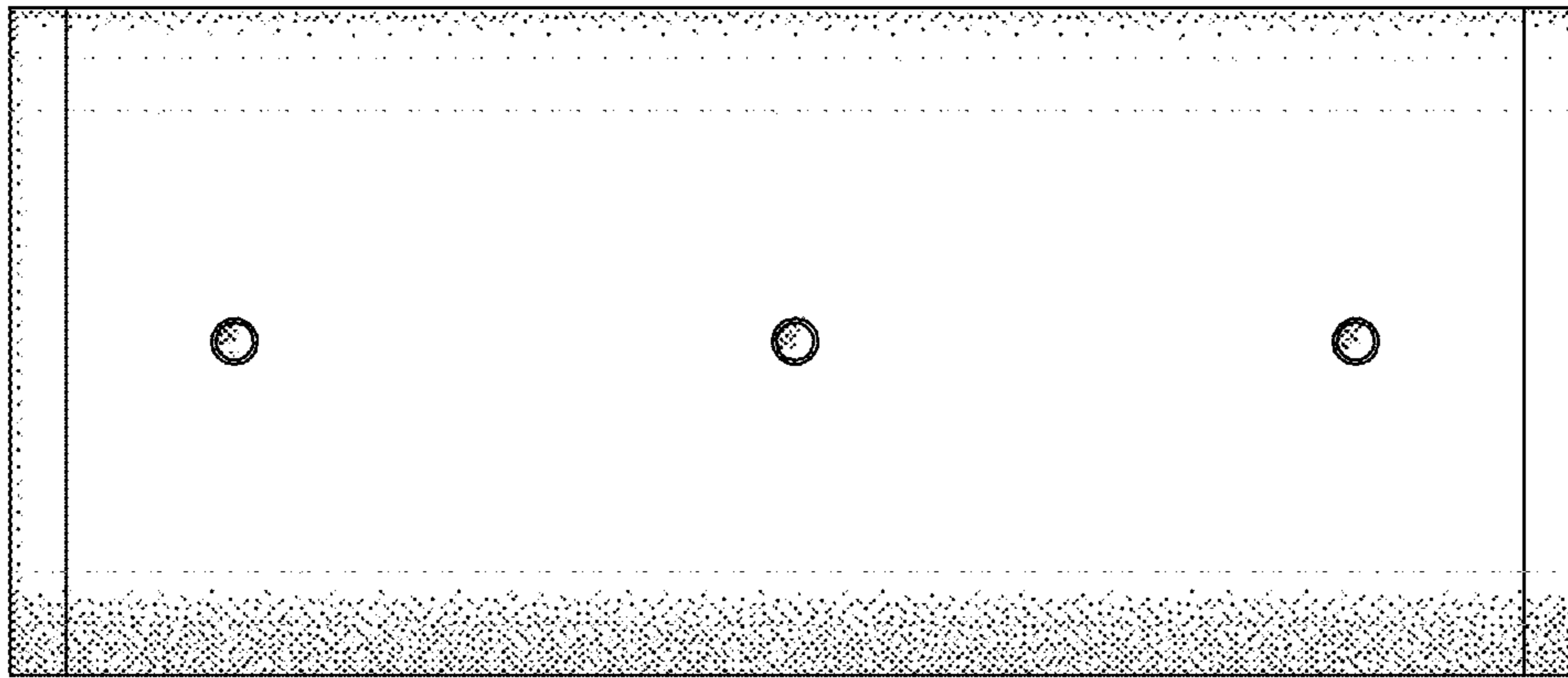


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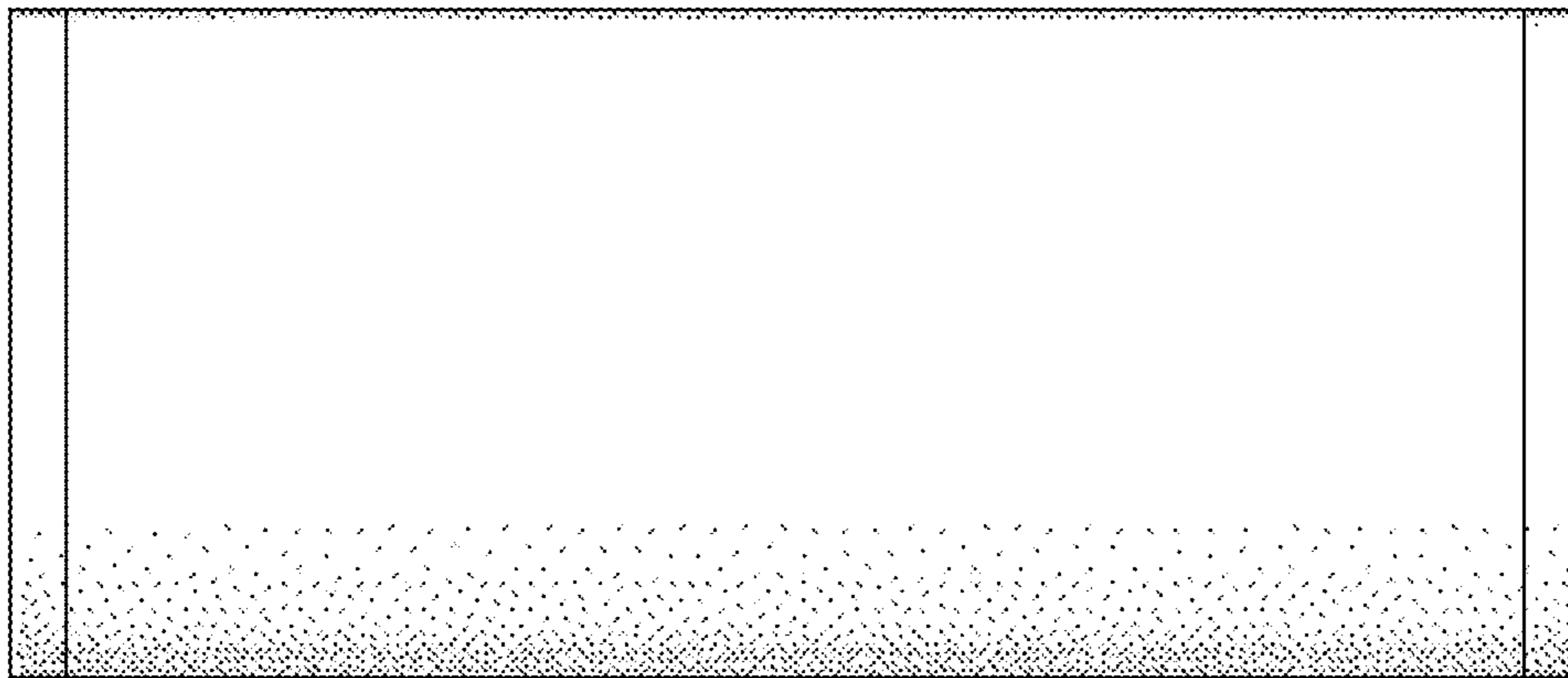


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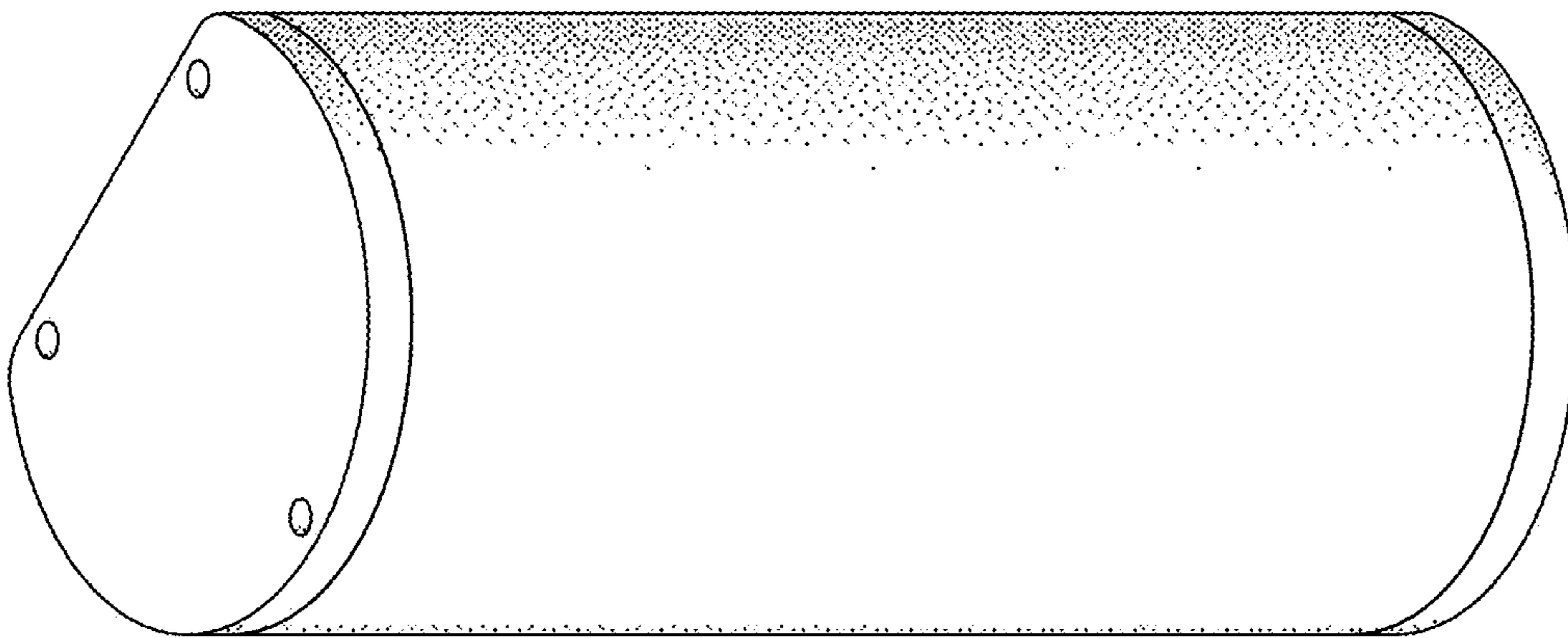


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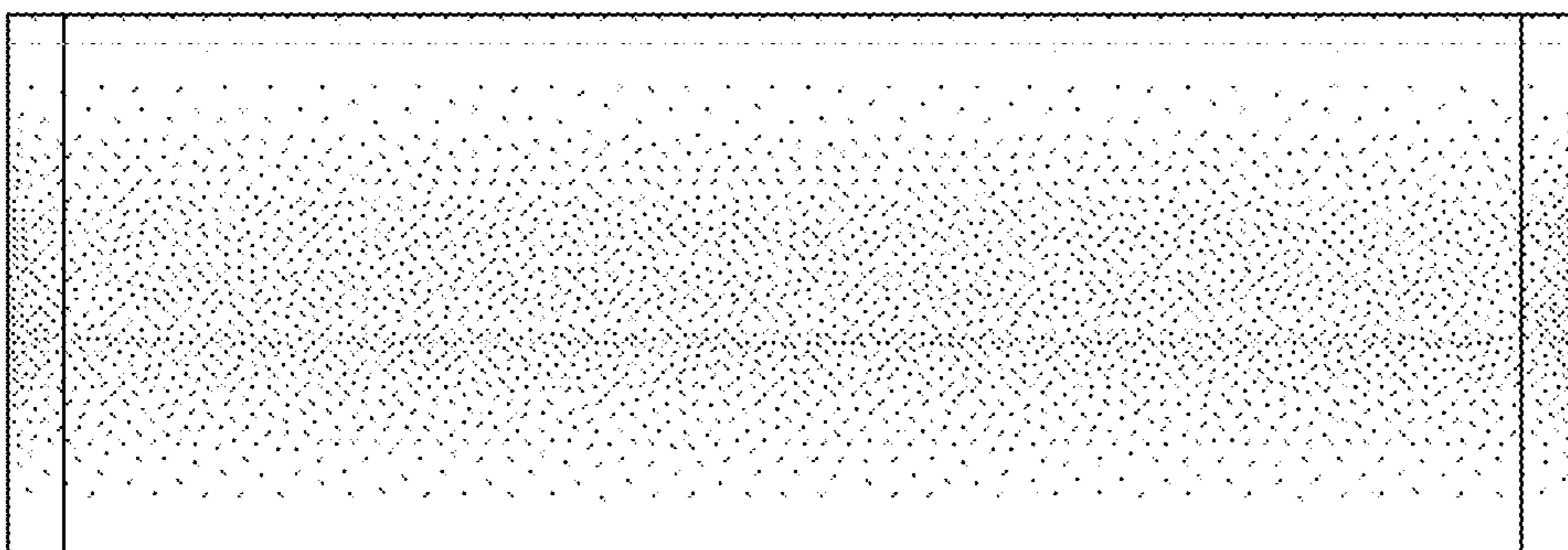


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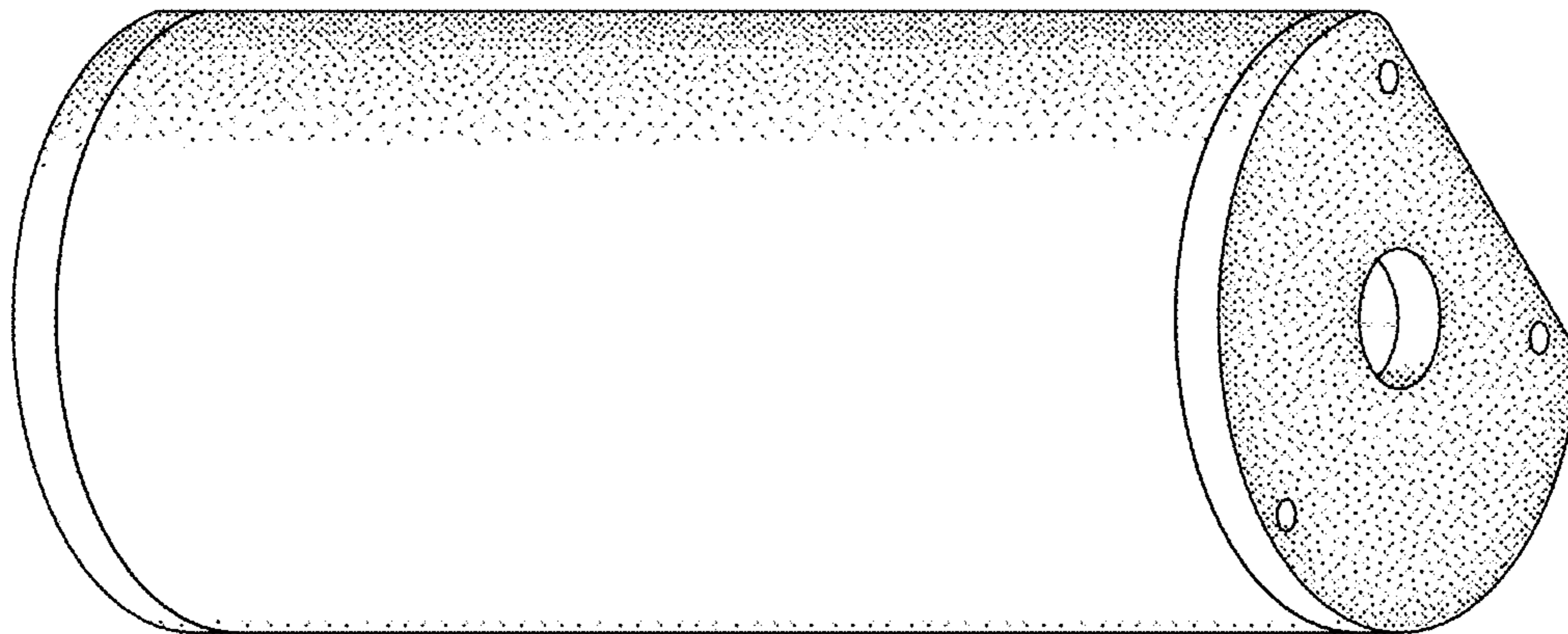


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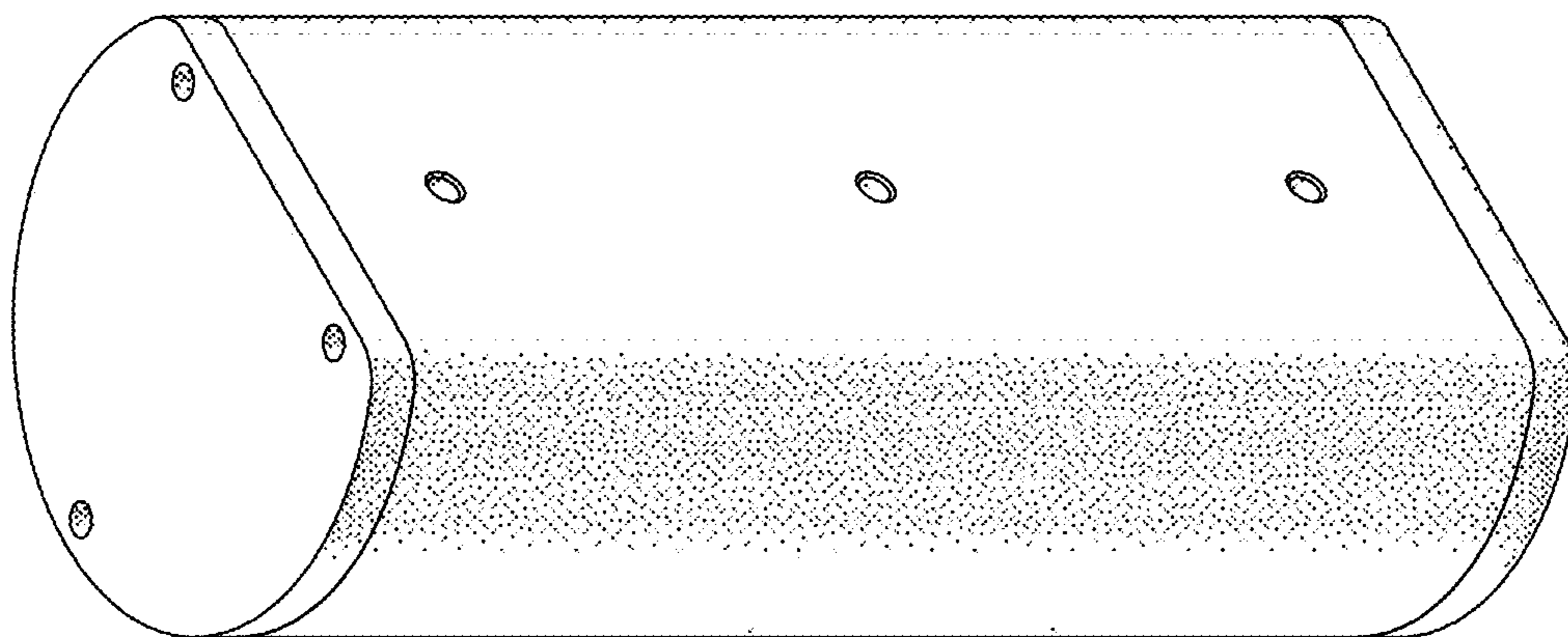


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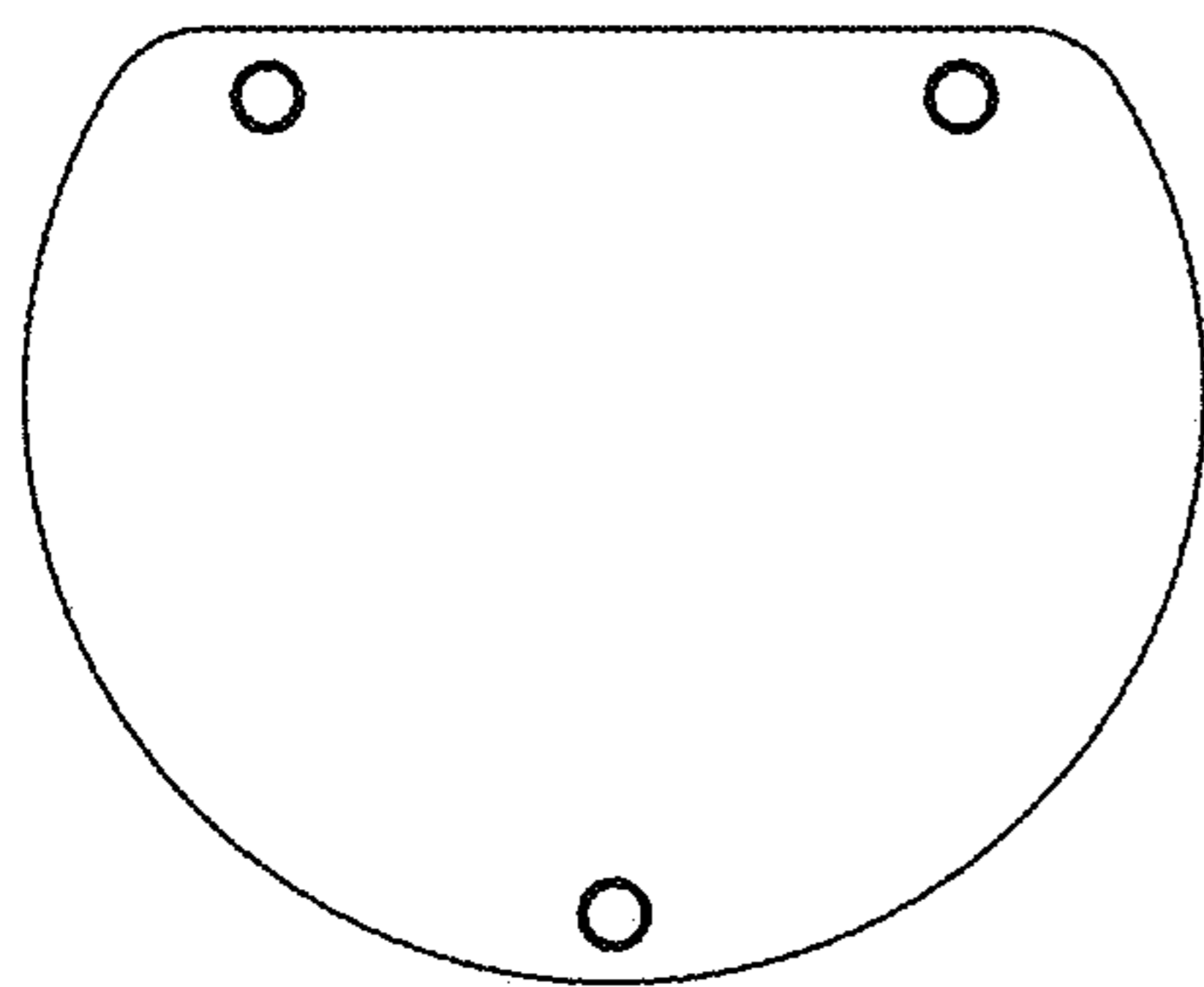


Figure 44

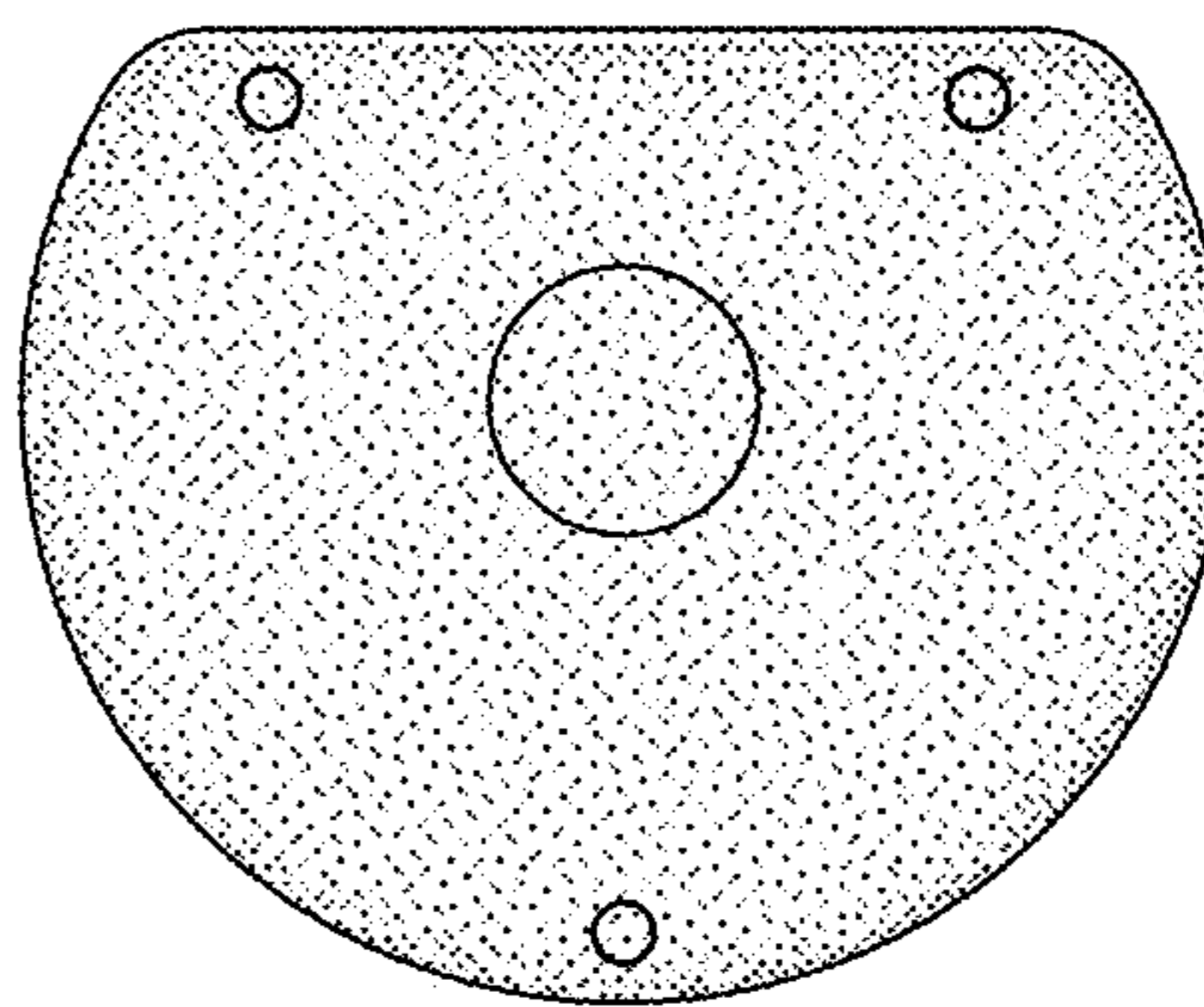


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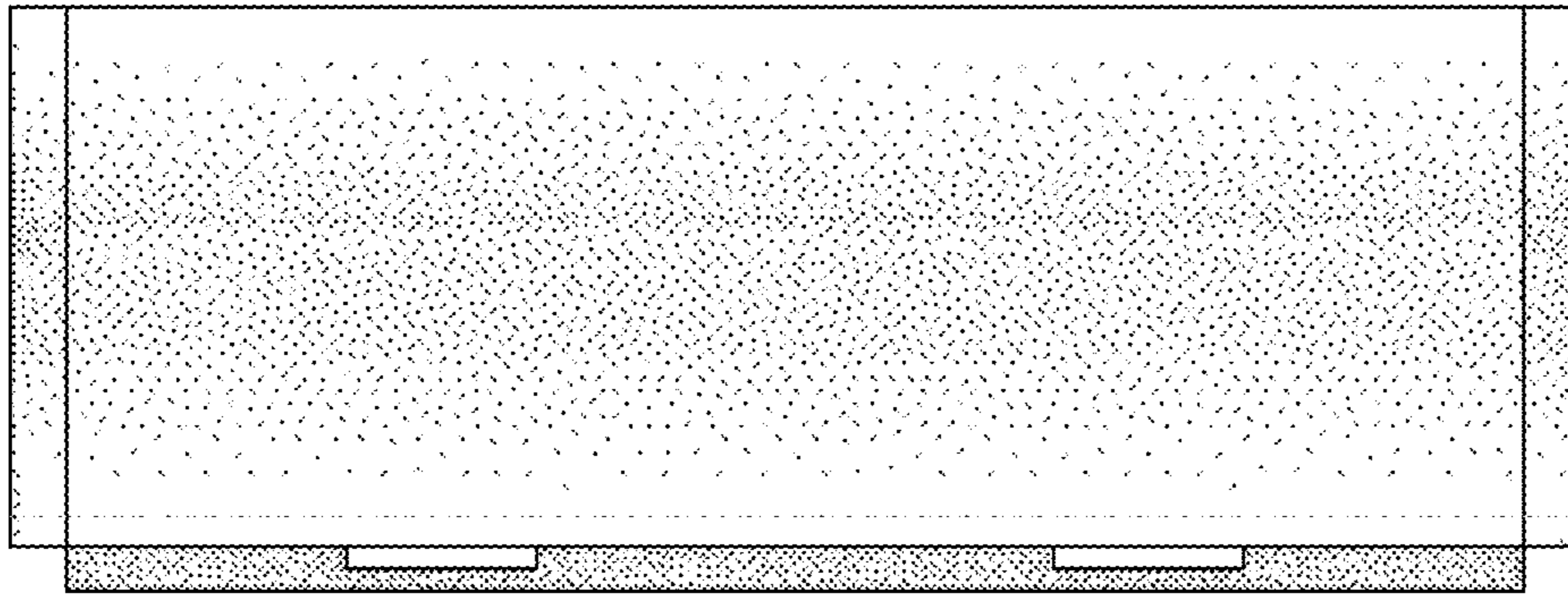


Figure 46

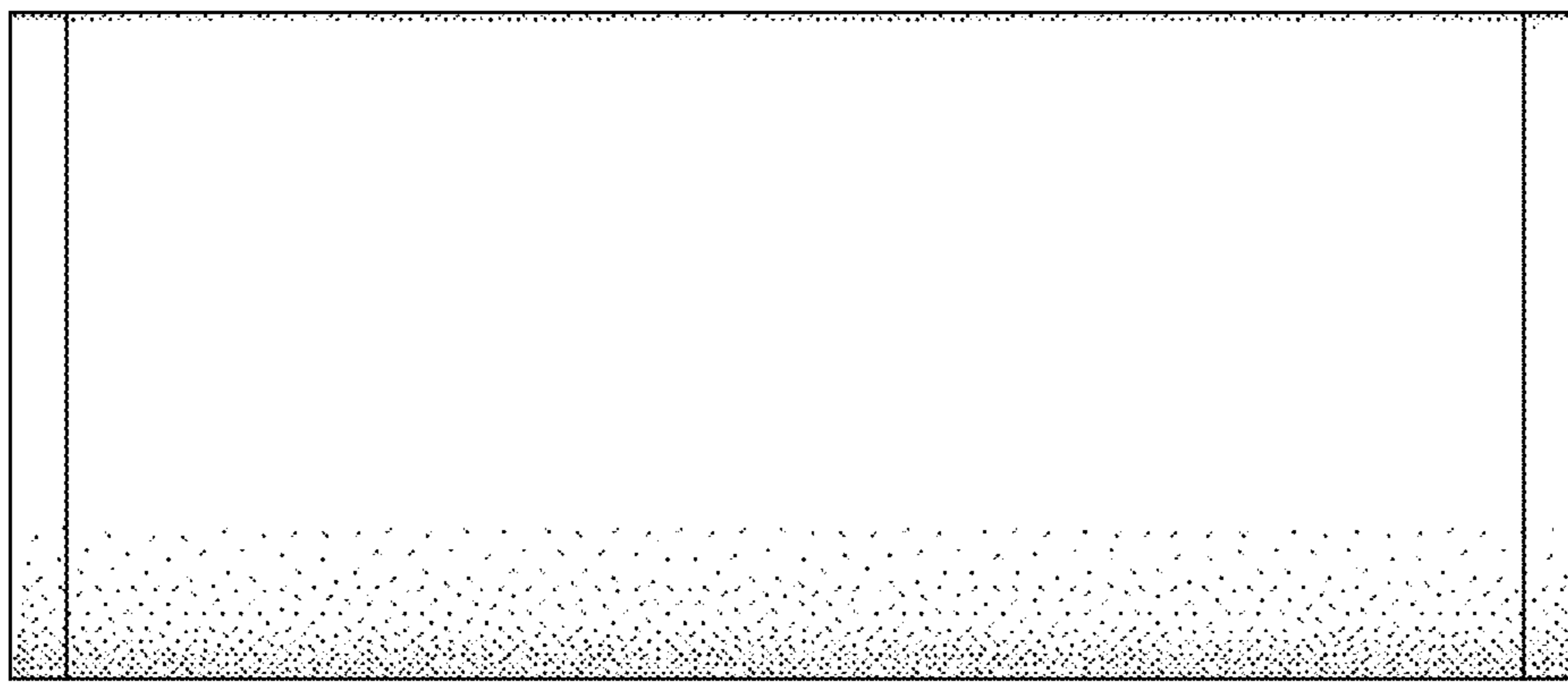


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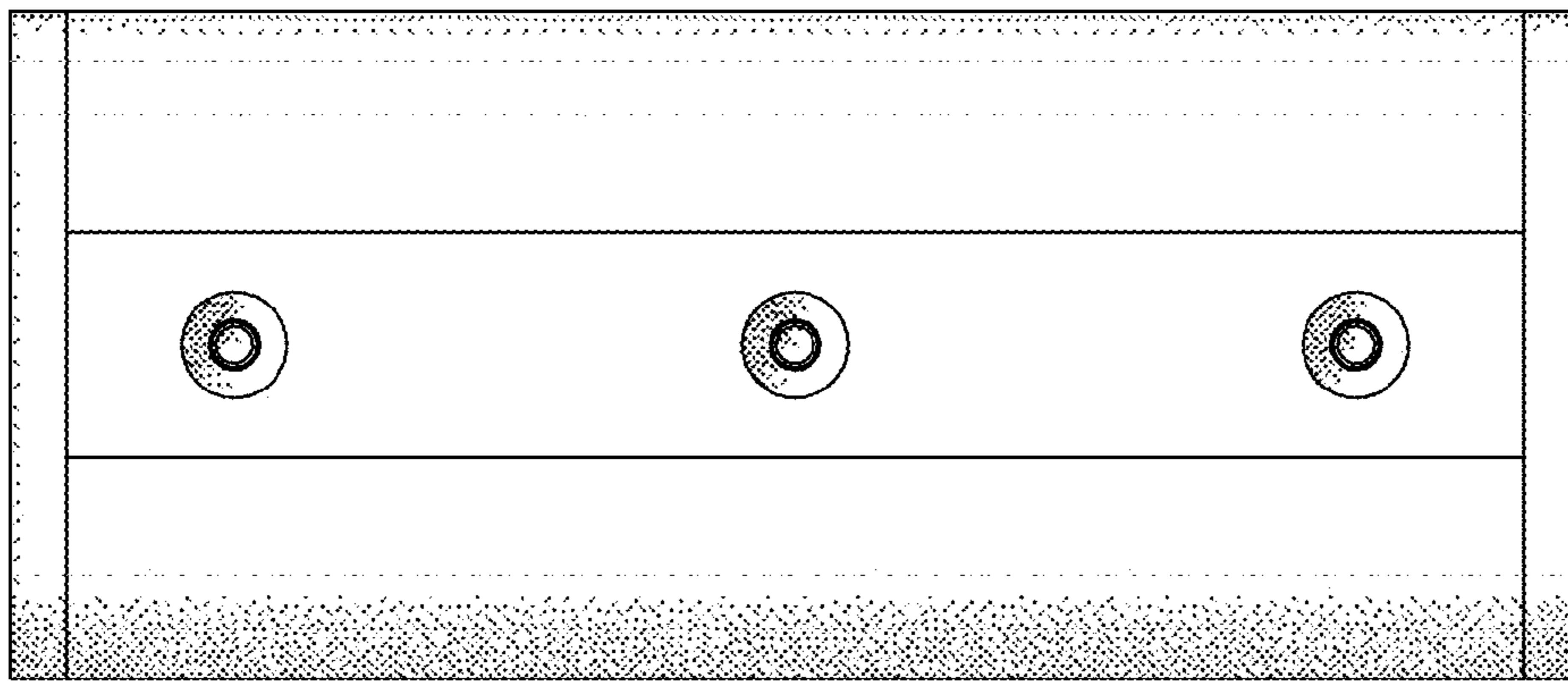


Figure 48

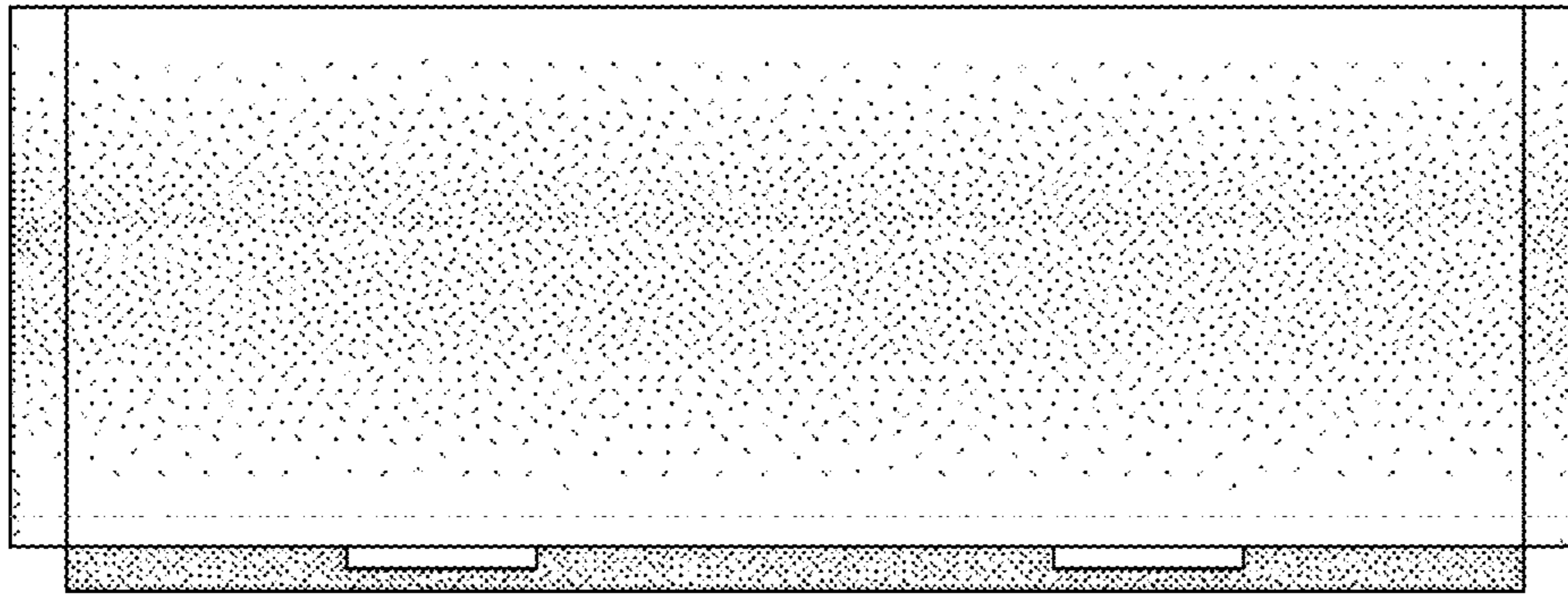


Figure 49

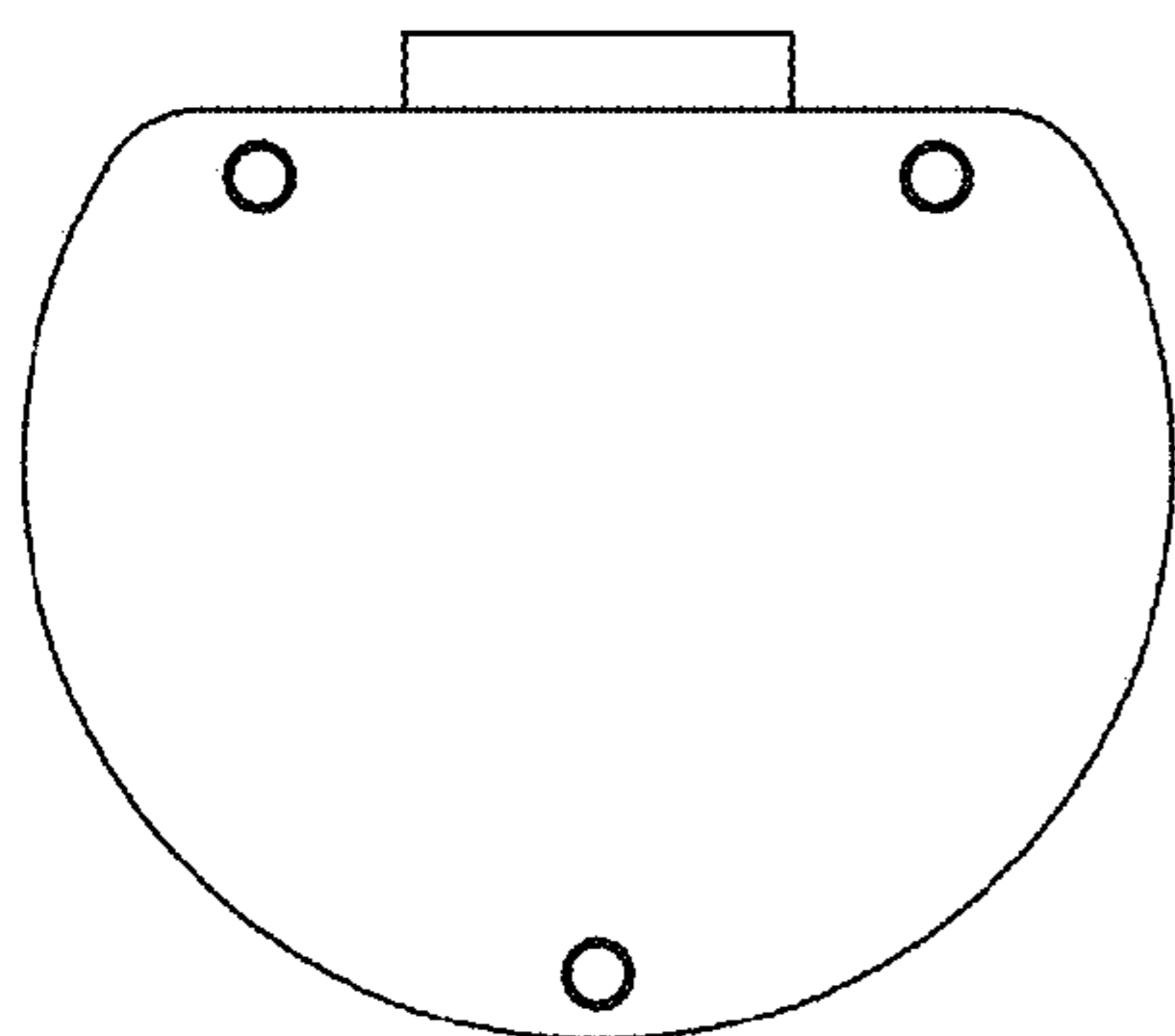


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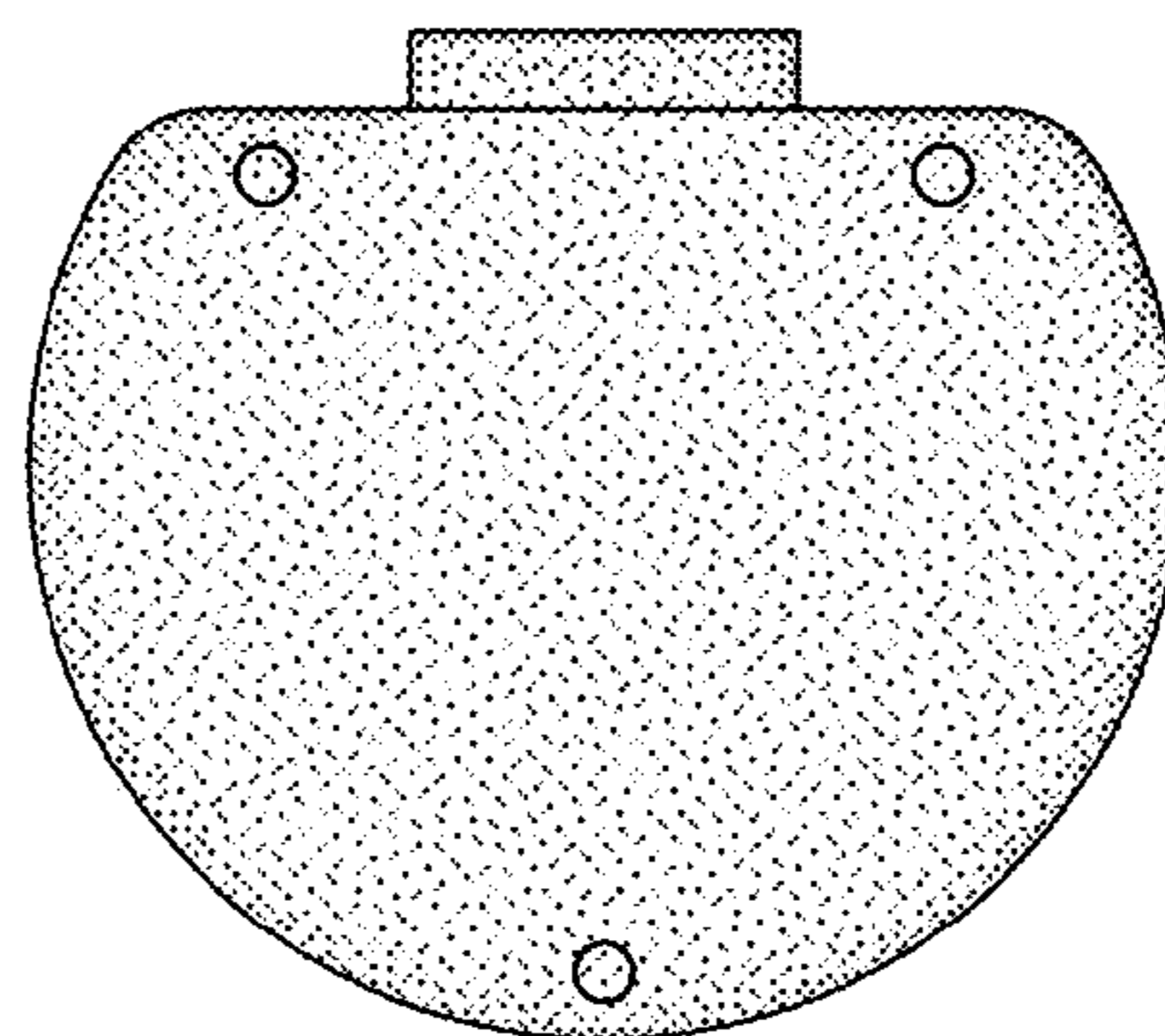


Figure 54

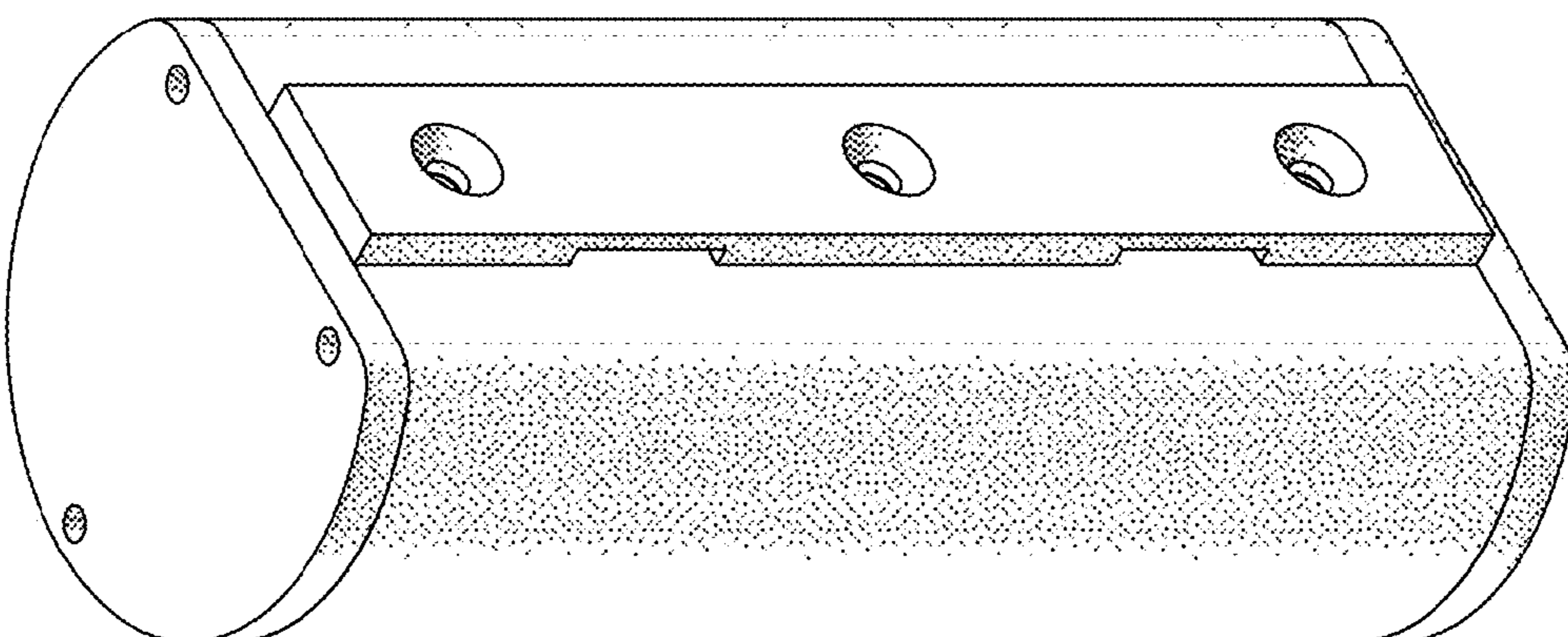


Figure 52

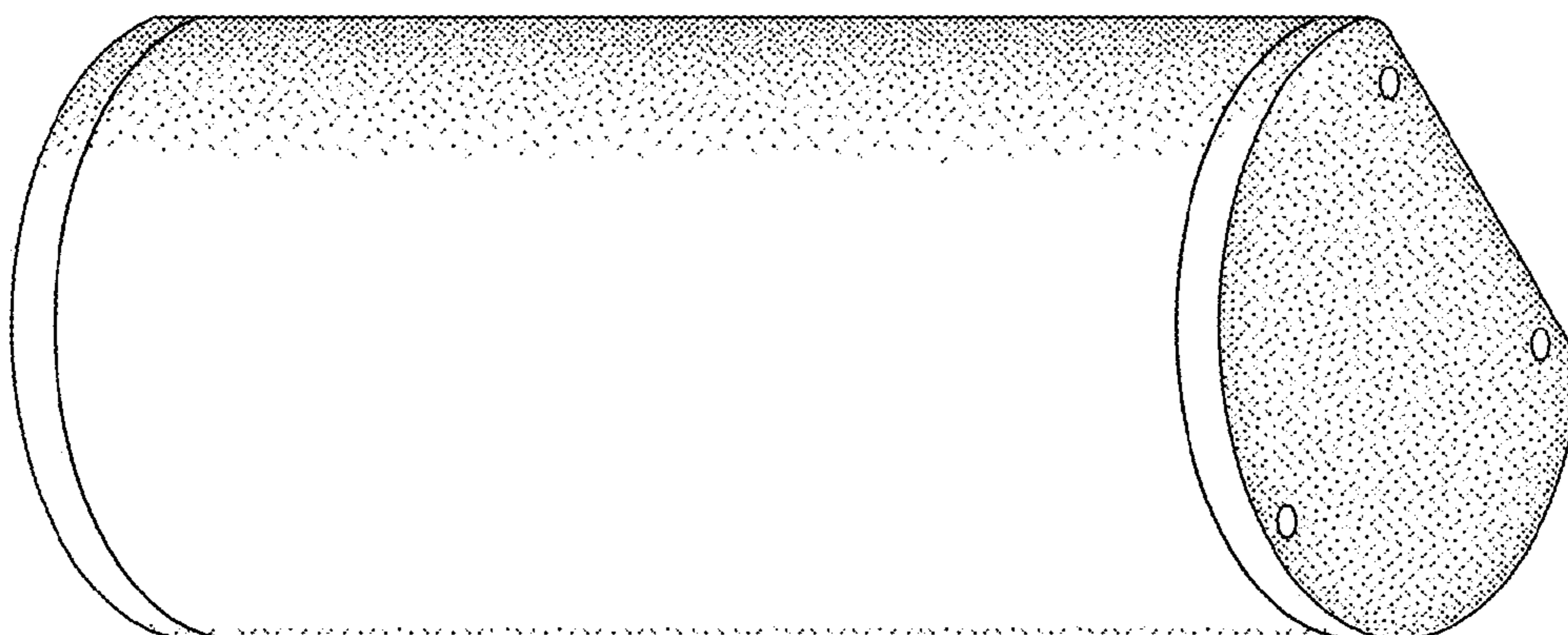


Figure 51

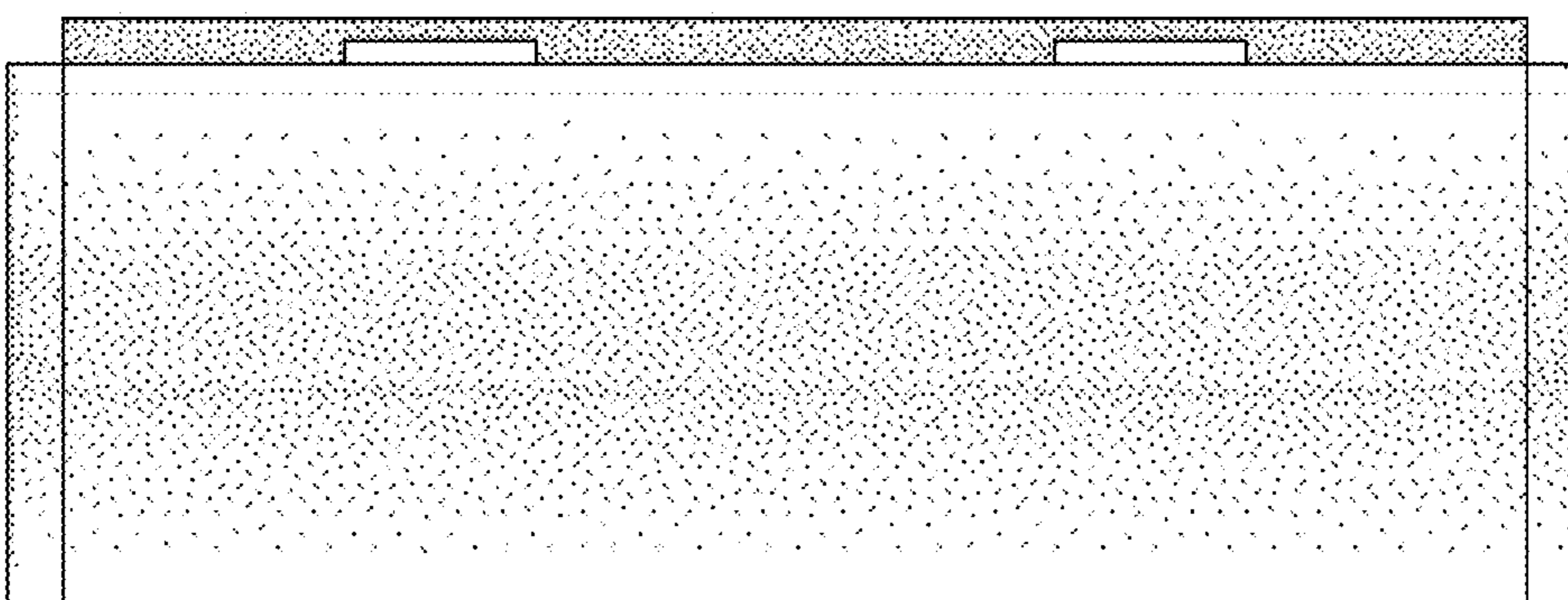


Figure 50

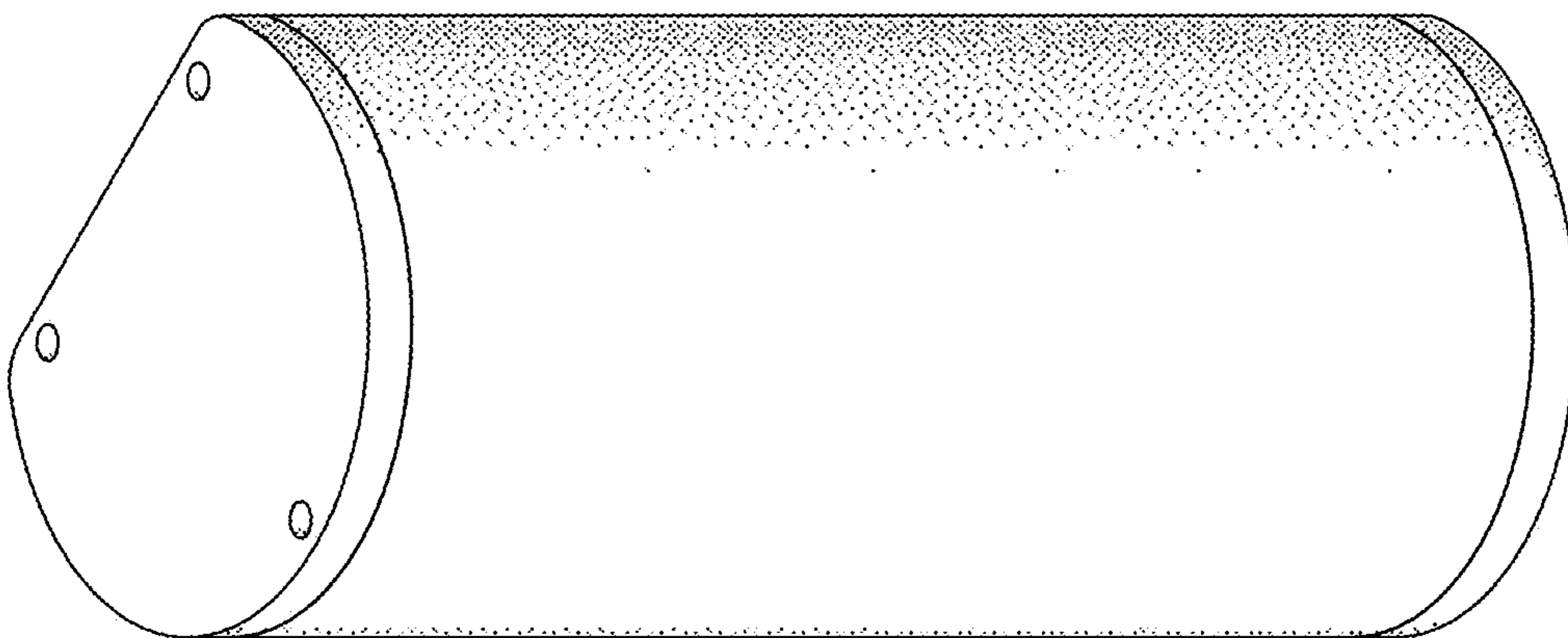


Figure 55

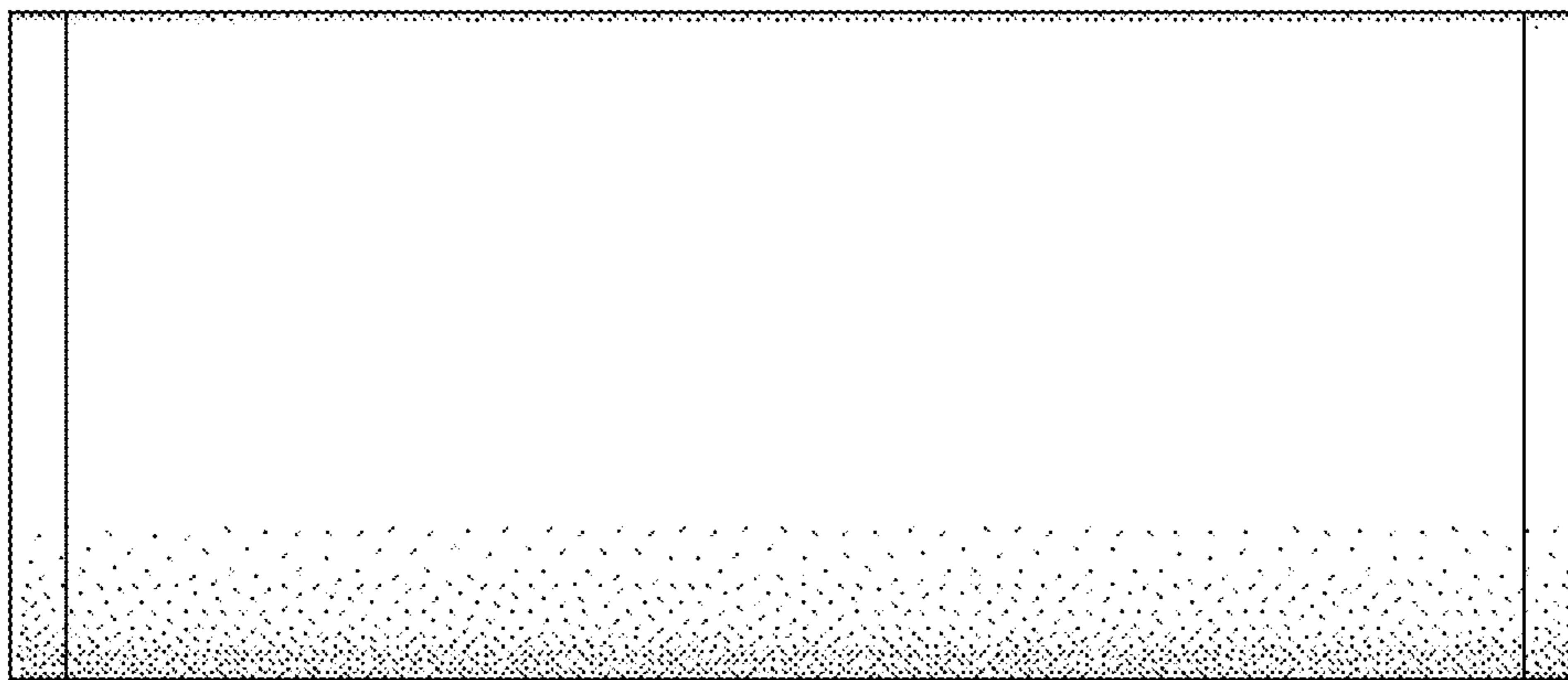


Figure 56

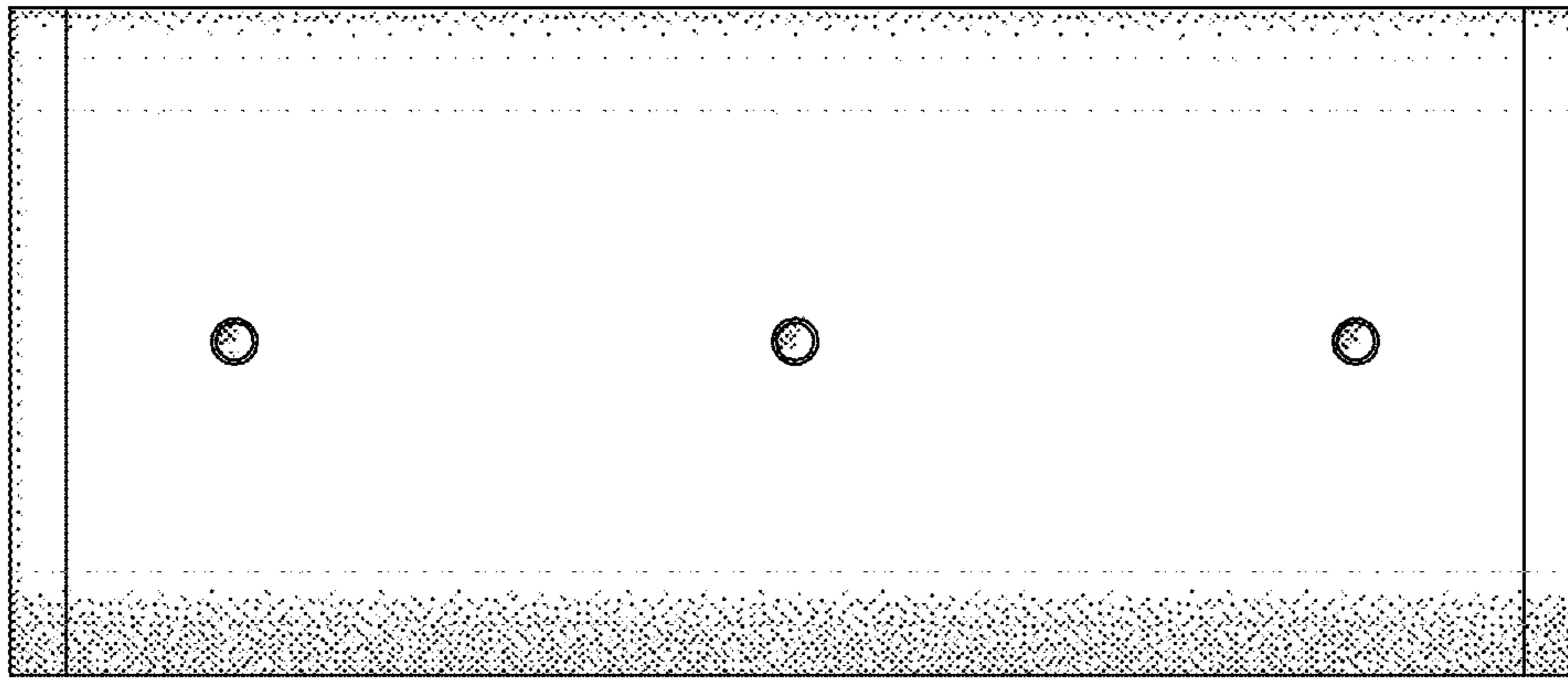


Figure 57

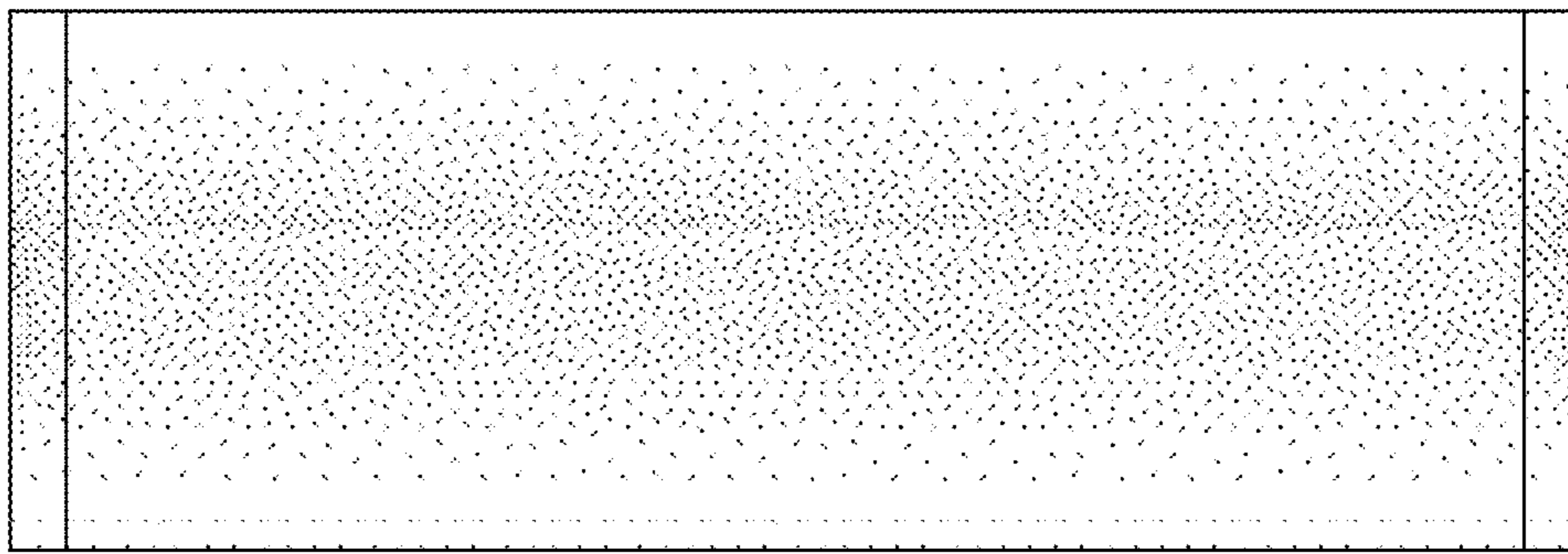


Figure 58

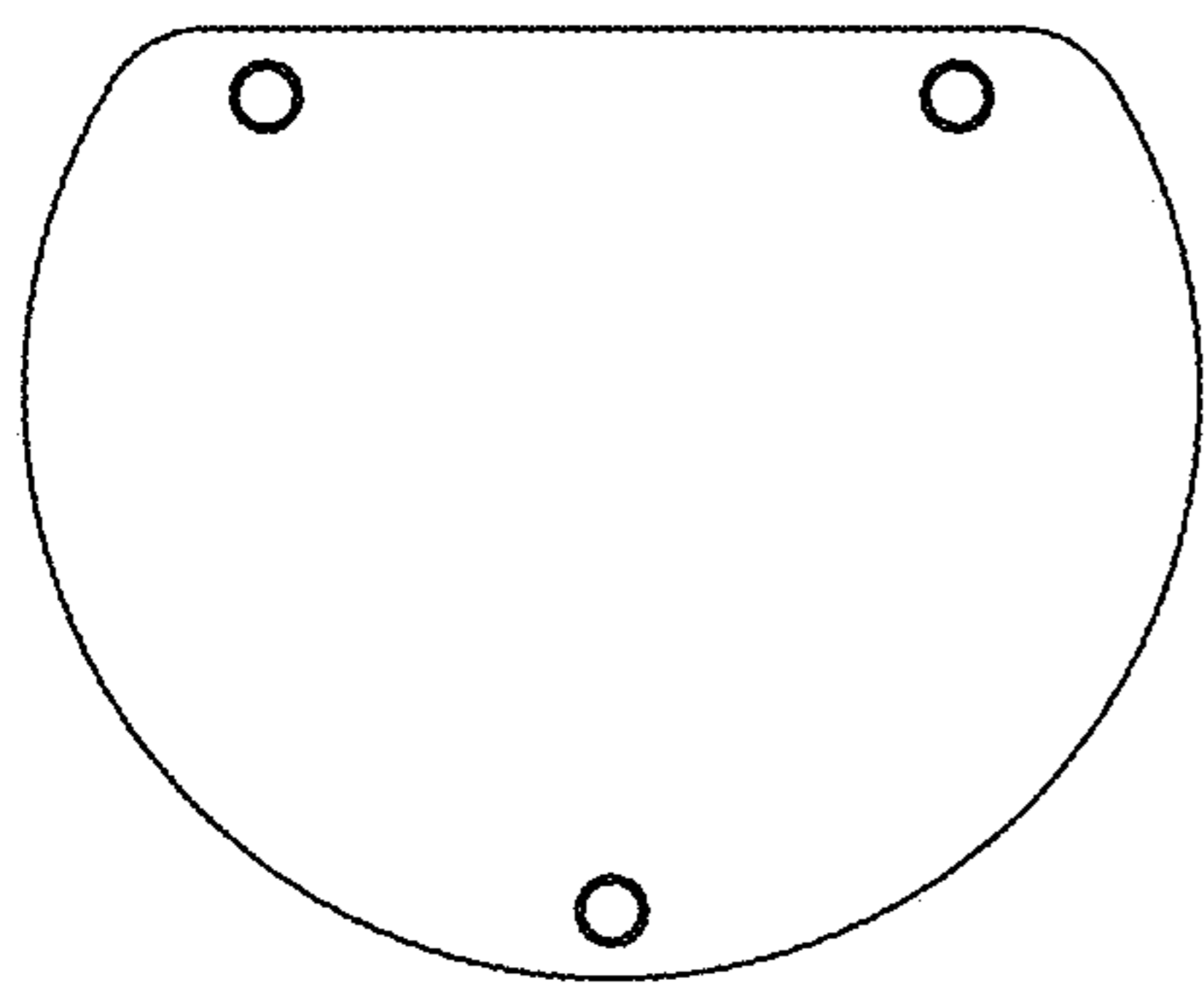


Figure 62

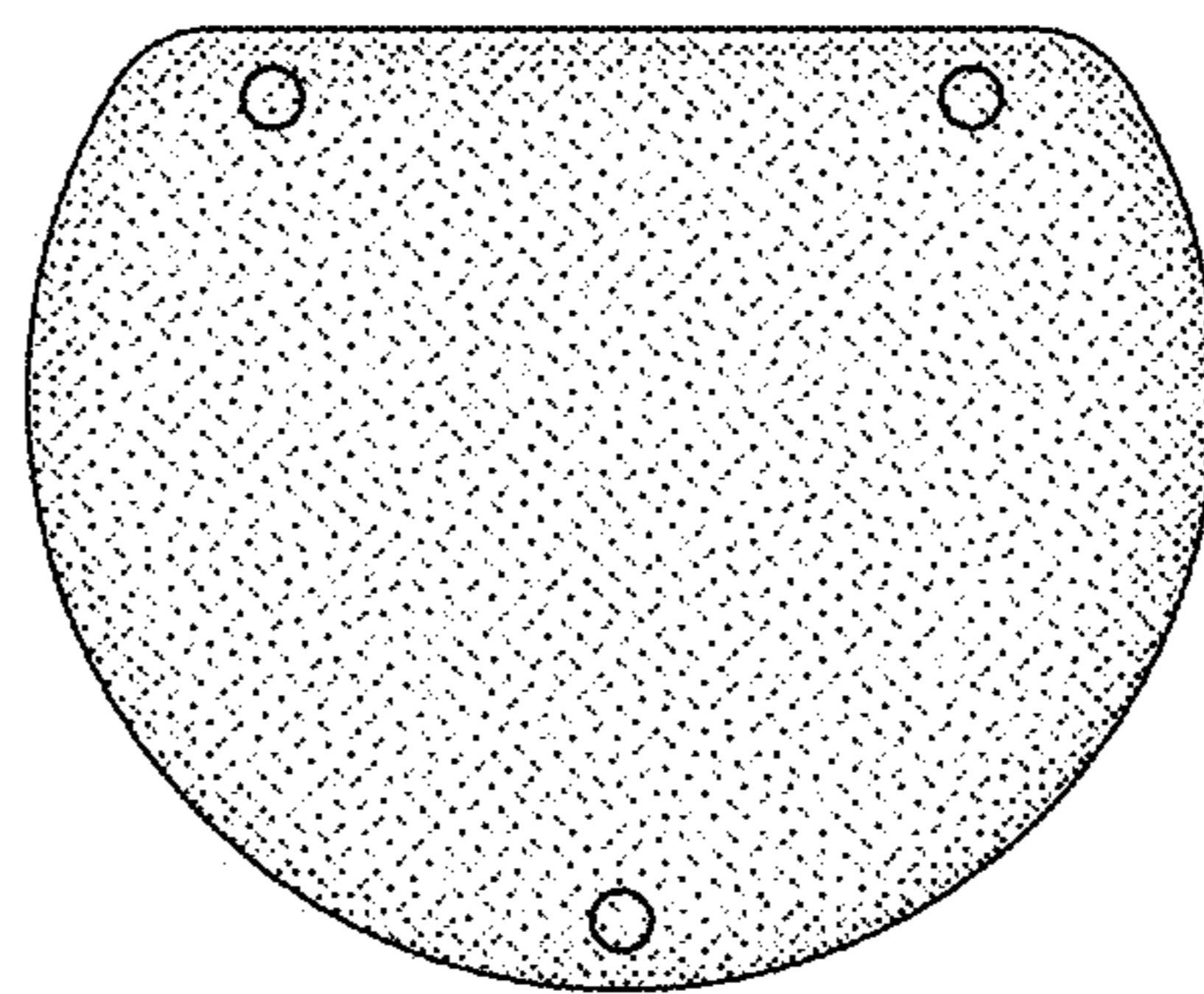


Figure 63

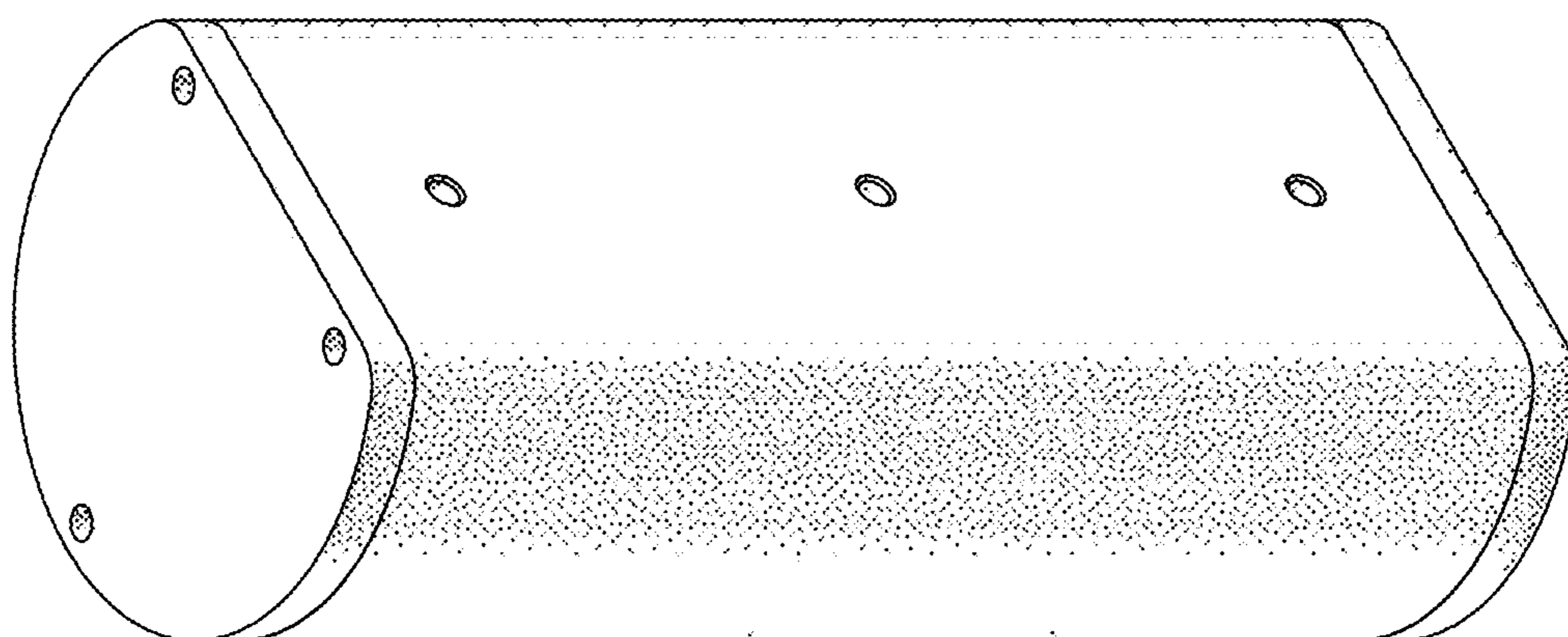


Figure 61

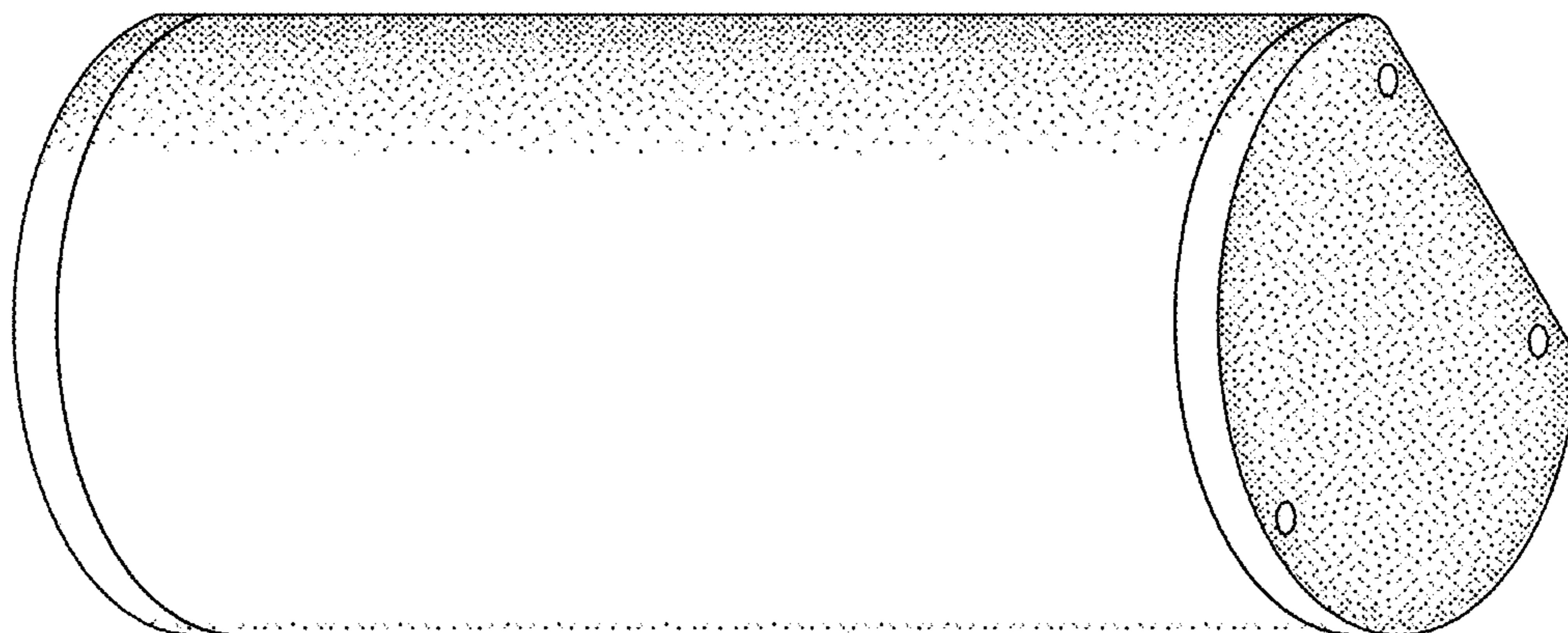


Figure 60

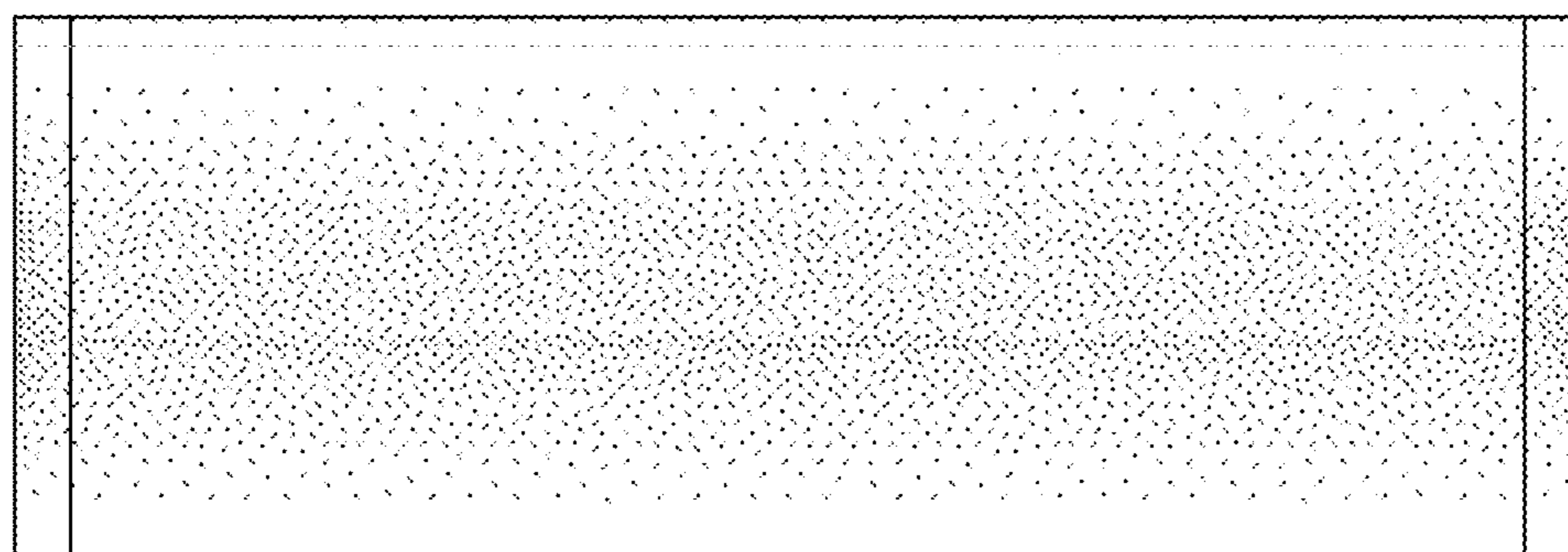


Figure 59