



US0D1007239S

(12) **United States Design Patent** (10) **Patent No.:** **US D1,007,239 S**  
**Ott et al.** (45) **Date of Patent:** **\*\* Dec. 12, 2023**

(54) **LIQUID AND STEAM SEPARATOR**

(71) Applicant: **Voith Patent GmbH**, Heidenheim (DE)

(72) Inventors: **Elmar Ott**, Ravensburg (DE); **Sven Eisenhauer**, Bad Wurzach (DE)

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

(21) Appl. No.: **35/515,501**

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(80) **Hague Agreement Data**

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(51) **LOC (14) Cl.** ..... **31-00**

(52) **U.S. Cl.**  
USPC ..... **D7/412; D7/372; D7/376; D7/378; D7/384**

(58) **Field of Classification Search**

USPC ..... **D7/372, 376-386, 412-413, 590, 602, D7/629, 630, 665-666, 669, 679, D7/693-694**

CPC .... **A21C 1/02; A21C 1/04; A23N 1/00; A23N 1/02; A47J 43/04; A47J 43/25; A47J 43/27; A47J 43/28; A47J 43/042; A47J 43/044; A47J 43/046; A47J 43/075; A47J 43/0716; A47J 43/0722; A47J 43/0727; A47J**

(Continued)

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(Continued)

*Primary Examiner* — **Ricky Pham**

(57) **CLAIM**

The ornamental design for a liquid and steam separator, as shown and described.

**DESCRIPTION**

The patent or application file contains at least one drawing executed in color. Copies of this patent or patent application

publication with color drawing(s) will be provided by the Office upon request and payment of the necessary fee.

- 1. Liquid and steam separator
- 2. Liquid and steam separator
- 3. Liquid and steam separator
- 4. Liquid and steam separator
- 5. Liquid and steam separator

1.1: Front

1.2: Perspective

1.3: Top

1.4: Bottom

2.1: Front

2.2: Perspective

2.3: Top

2.4: Bottom

3.1: Front

3.2: Perspective

3.3: Top

3.4: Bottom

4.1: Front

4.2: Perspective

4.3: Top

4.4: Bottom

5.1: Front

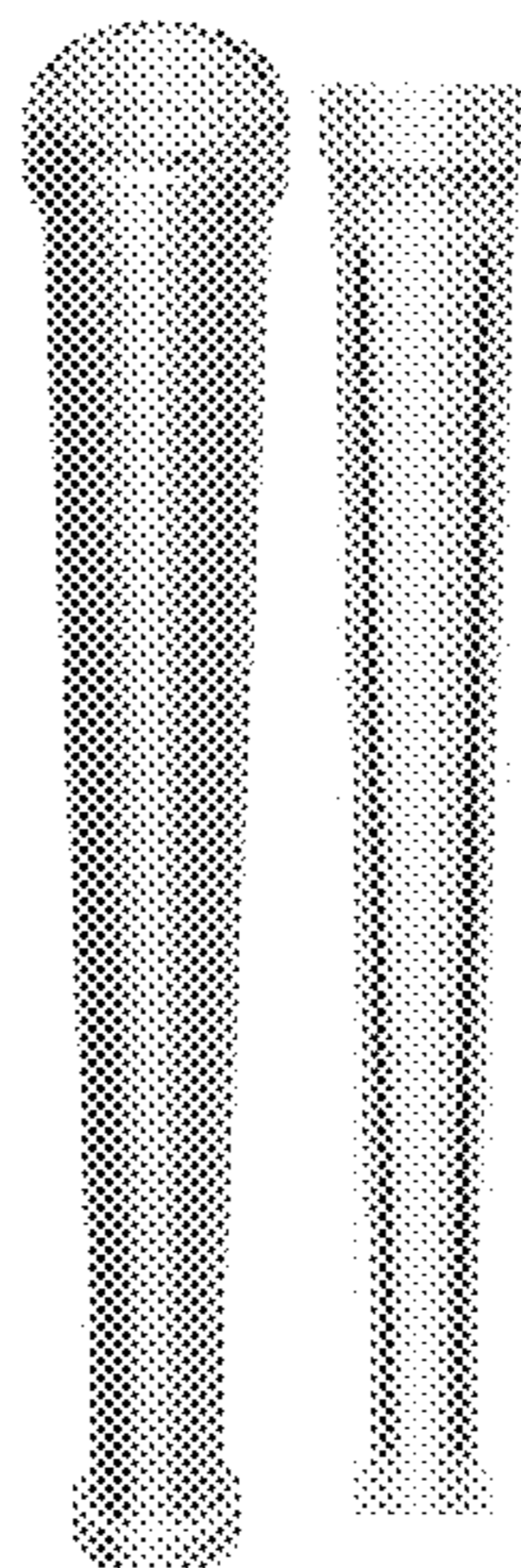
5.2: Perspective

5.3: Top

5.4: Bottom

This design patent belongs to the field of cleaning systems for cleaning a suspension, especially suspensions containing fibers; the design patent is directed on a transparent cone element, wherein the cone element contains grooves or paint markings extending in direction of the narrowing cone.

**1 Claim, 20 Drawing Sheets**  
**(16 of 20 Drawing Sheet(s) Filed in Color)**



(58) **Field of Classification Search**

CPC ..... 43/0794; A47J 43/085; B01F 3/00; B01F  
3/0807; B01F 3/0853; B01F 13/0059;  
B01F 13/0064; B01F 35/00; B02C 1/08;  
B02C 2/04; B02C 4/42; B02C 4/142;  
B02C 4/143; B02C 4/423; B02C 13/1835;  
B26D 7/2628; B28C 5/10; B28C 5/12;  
B28C 5/14; B28C 5/16

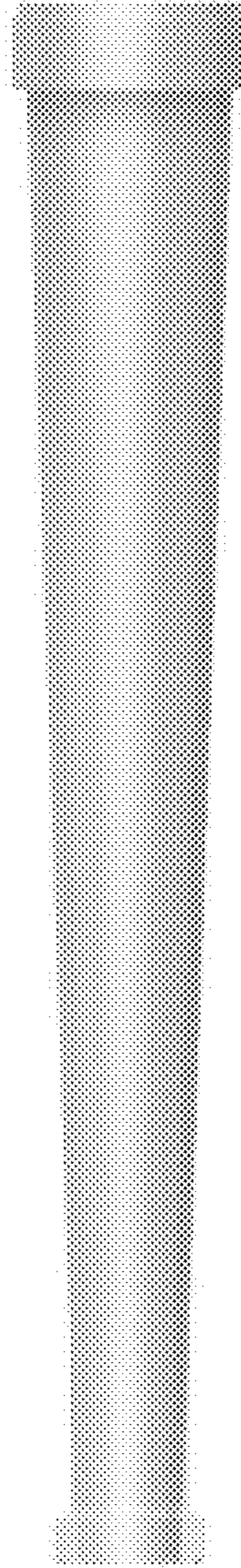
See application file for complete search history.

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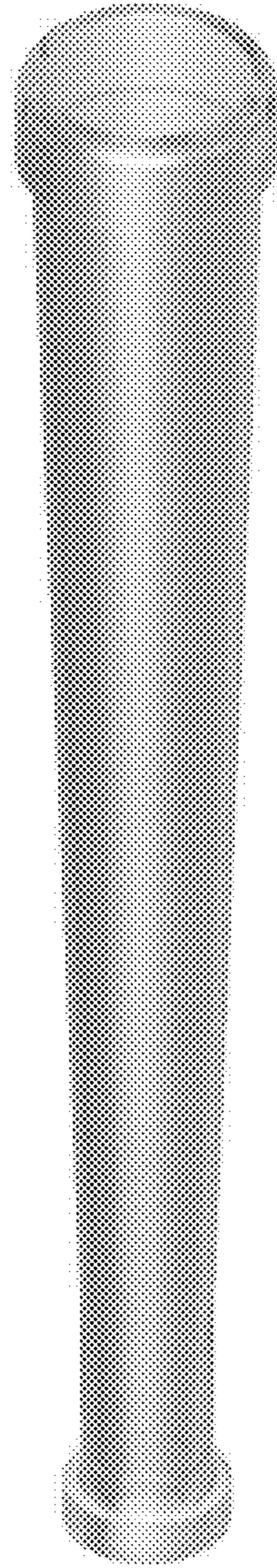
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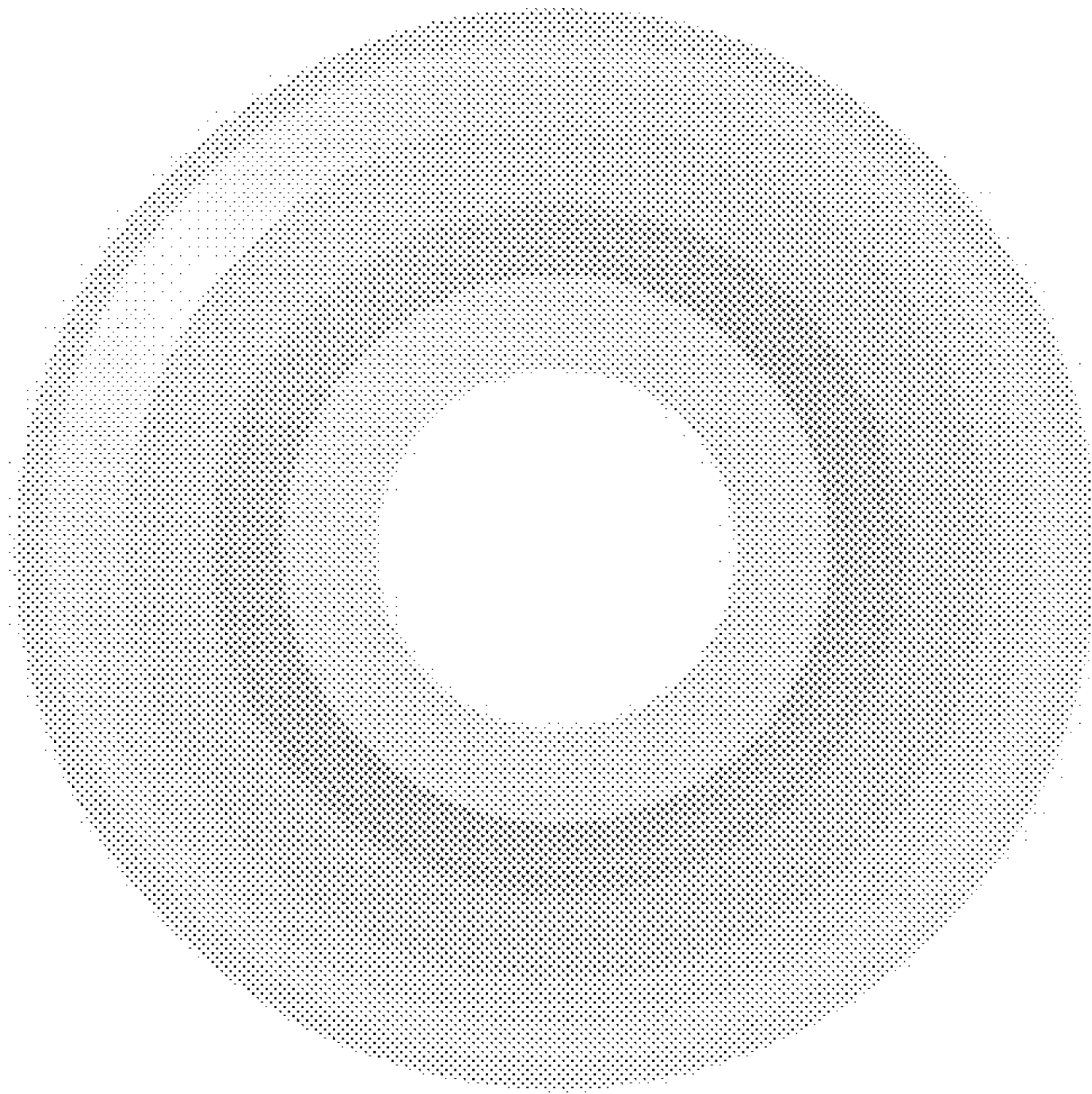
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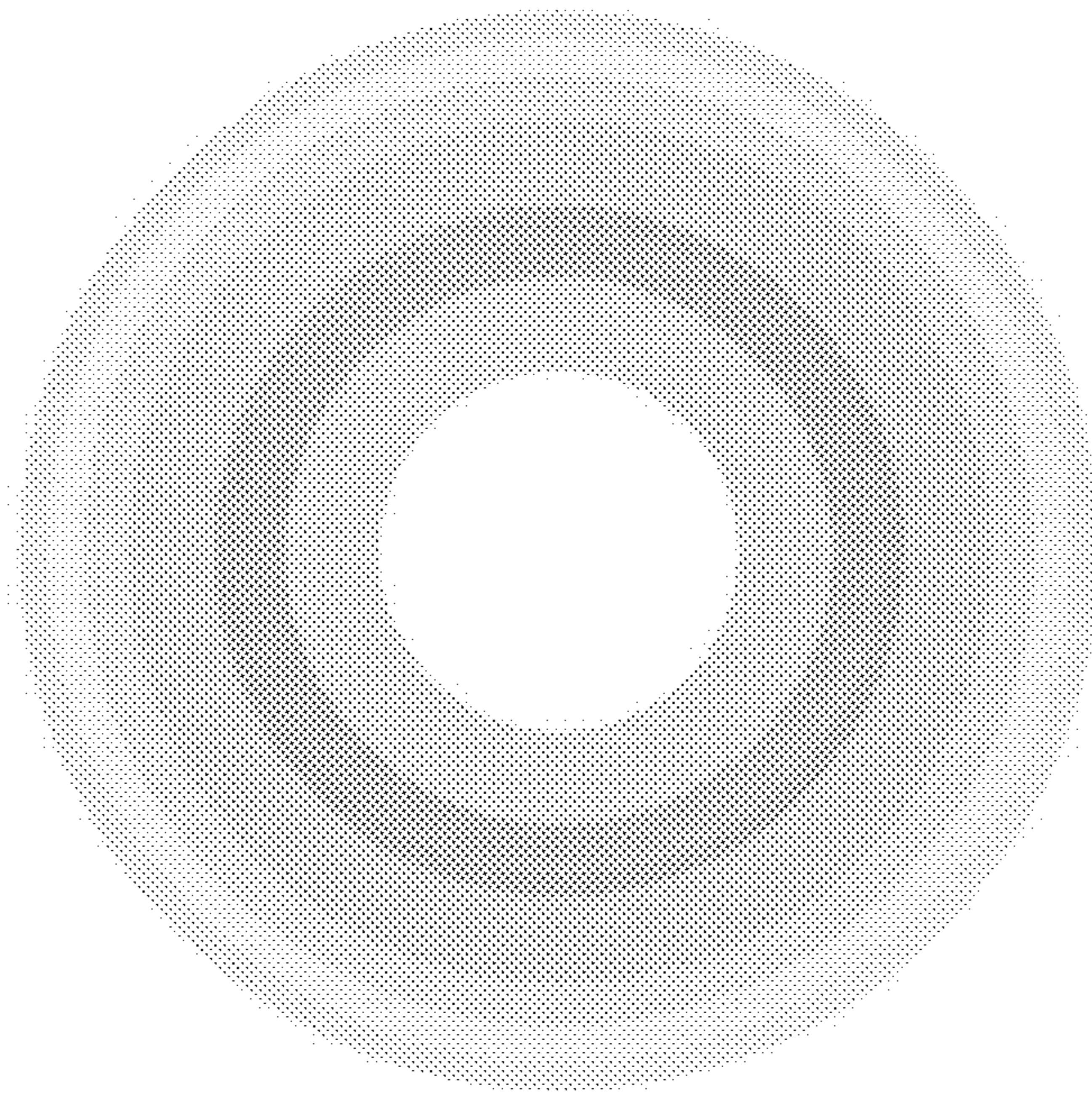
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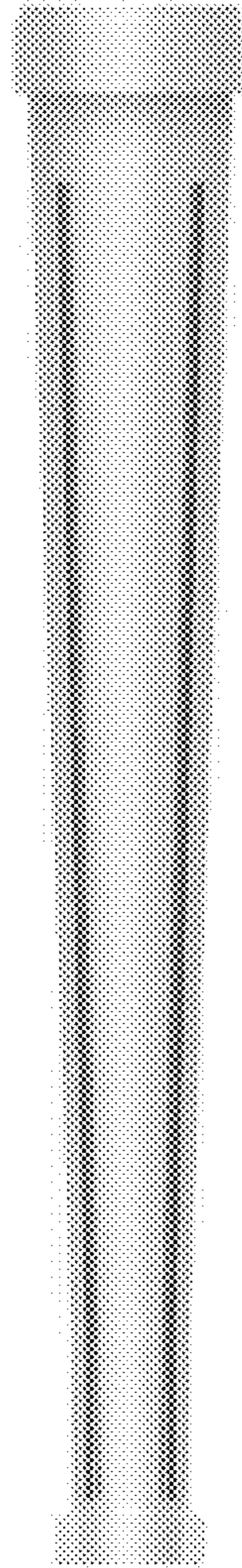


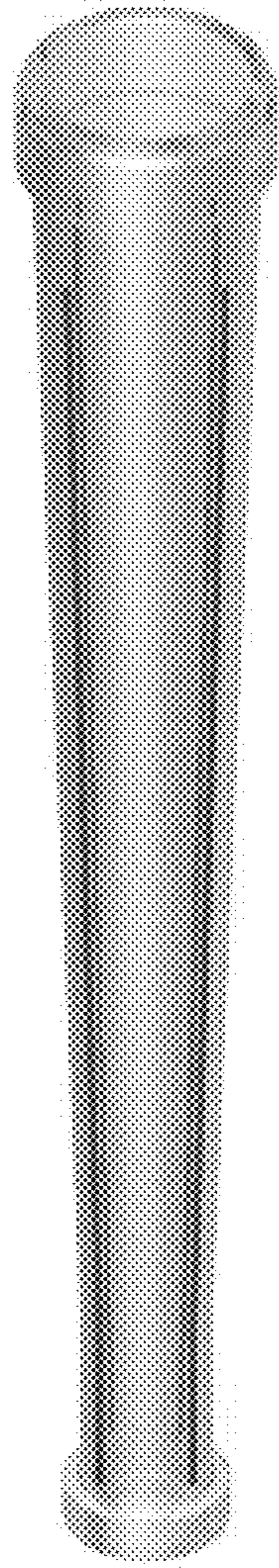
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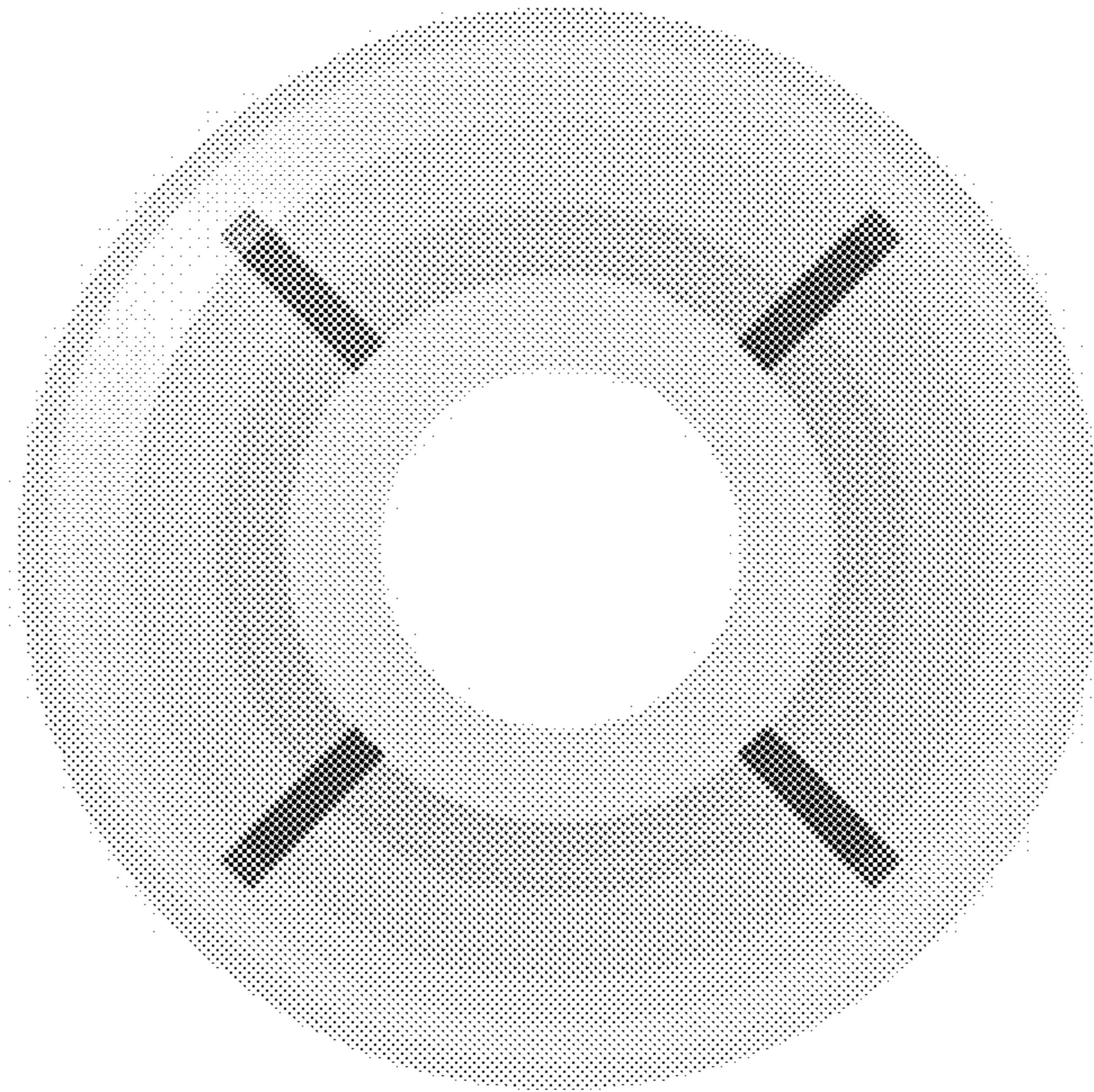
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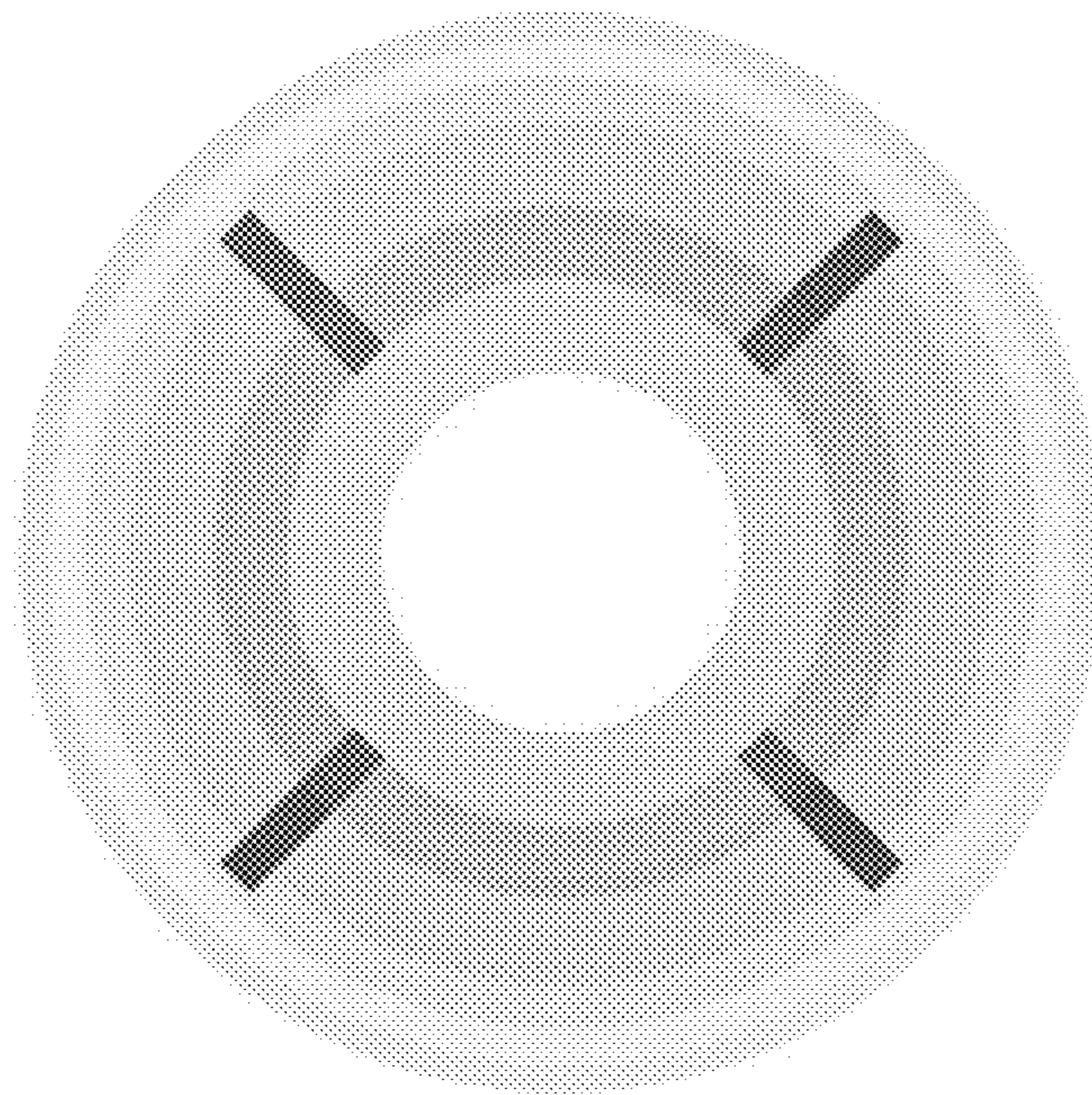


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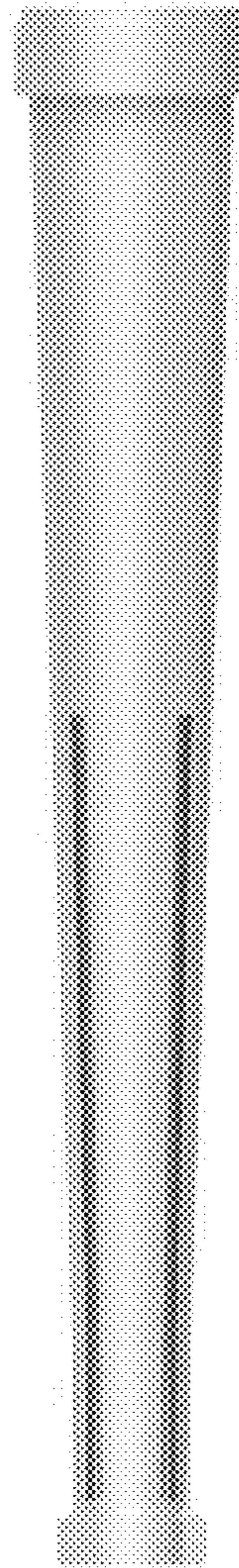




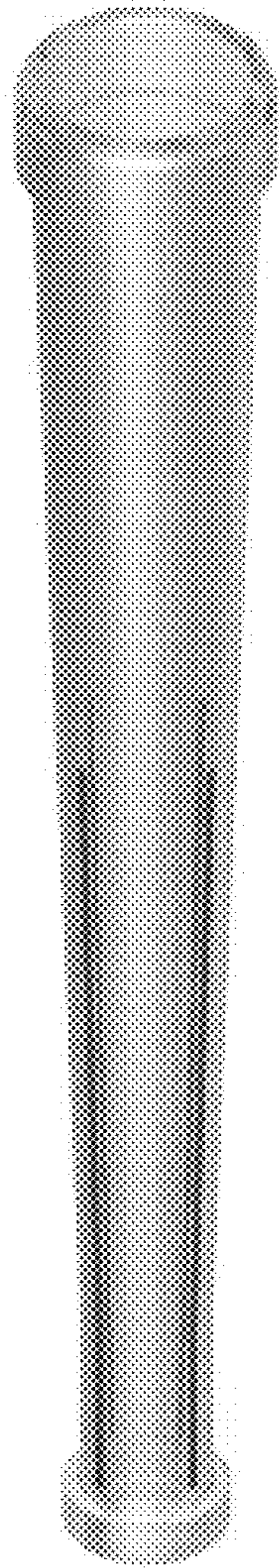
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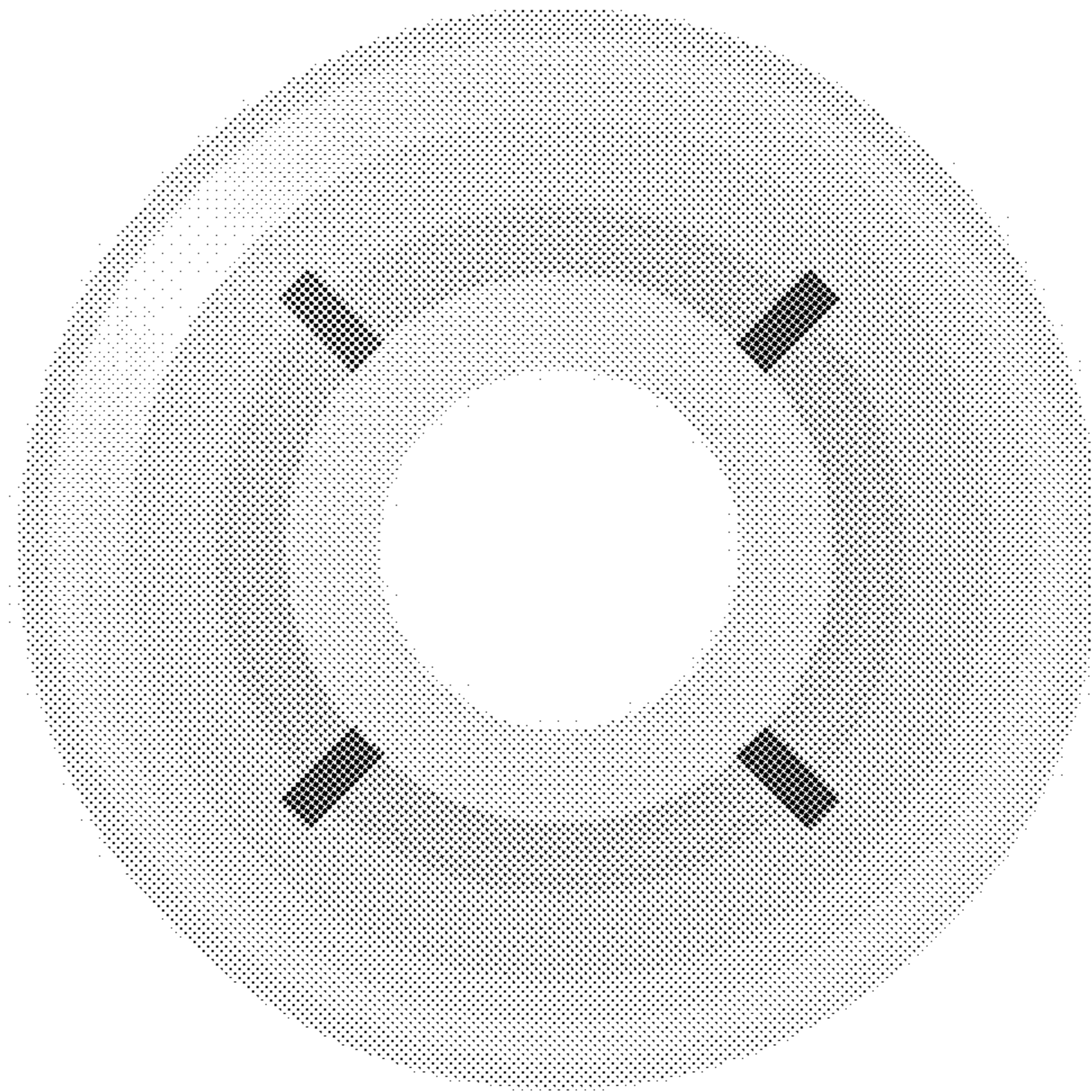
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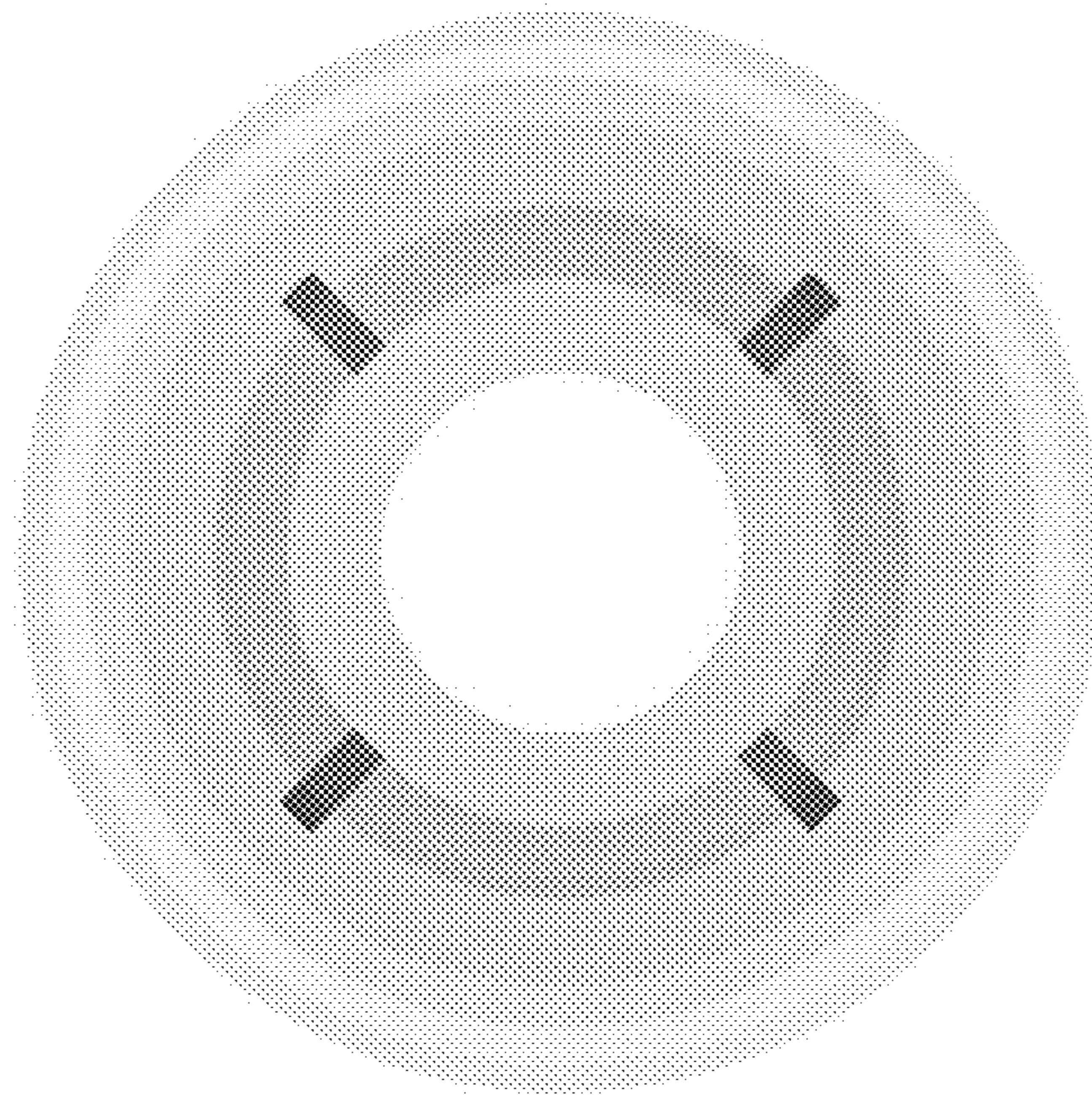
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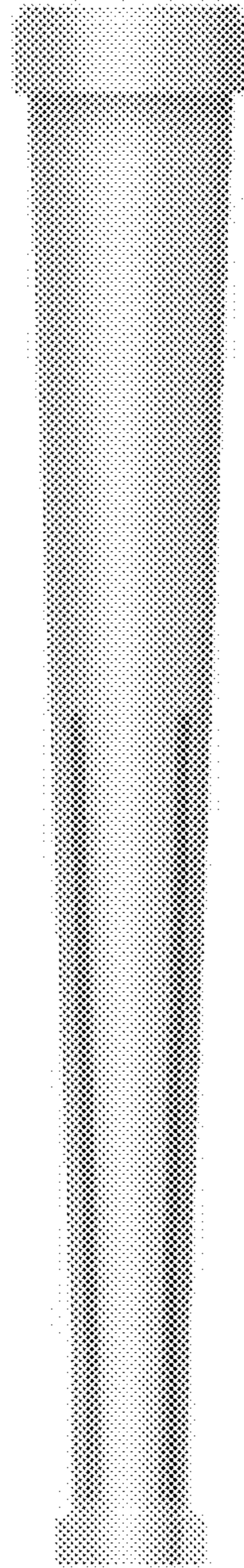
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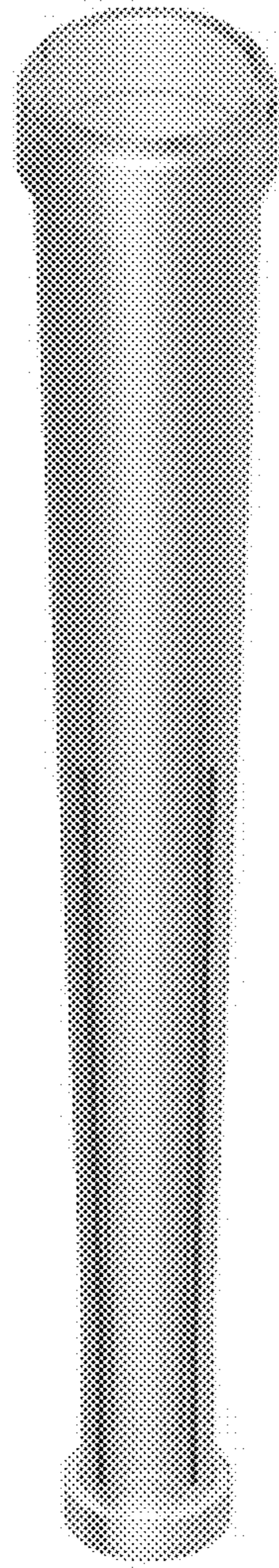
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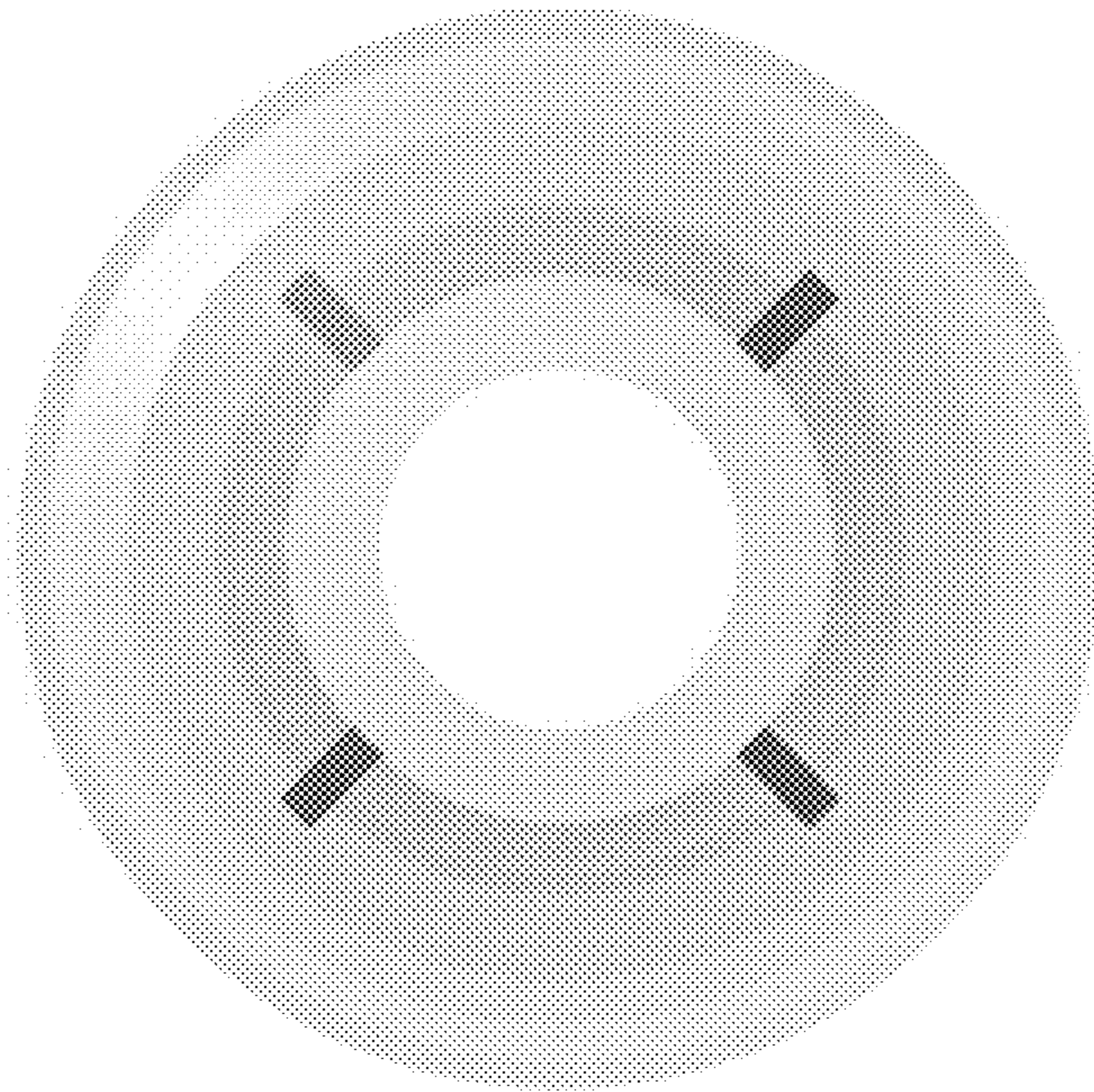


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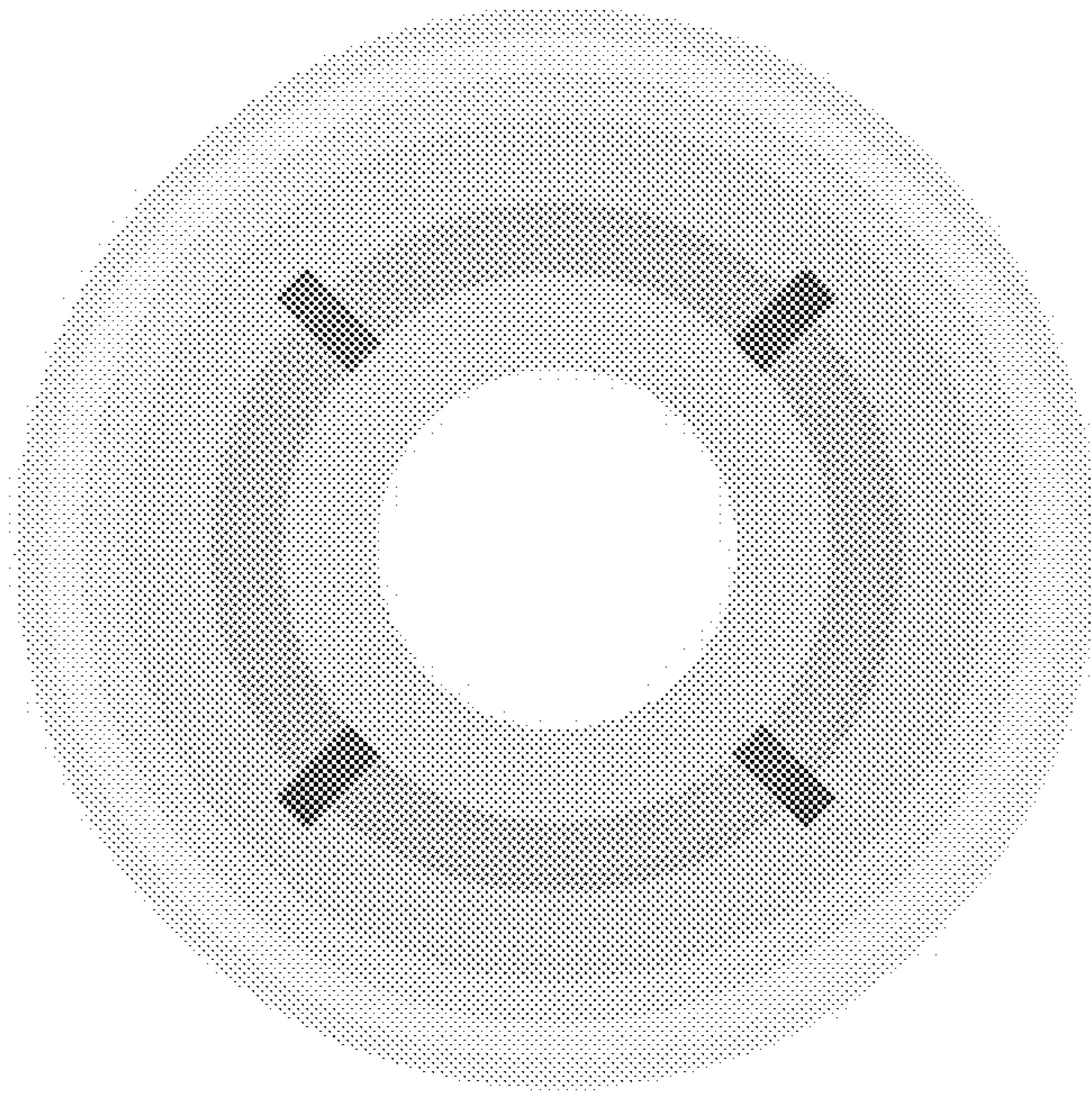


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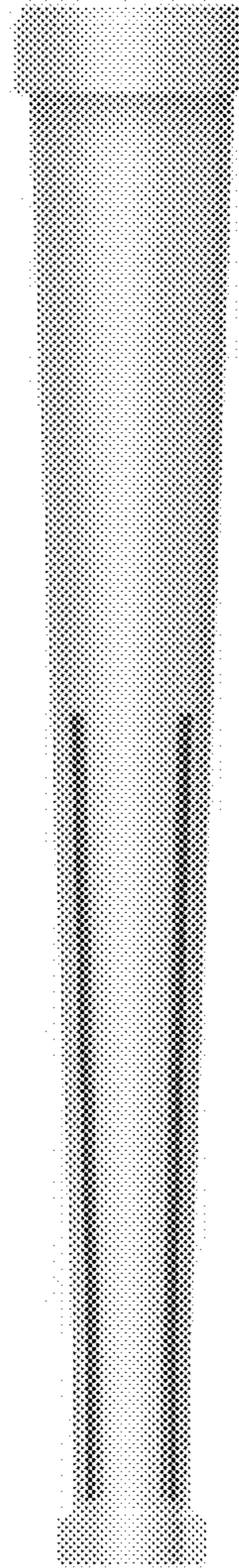


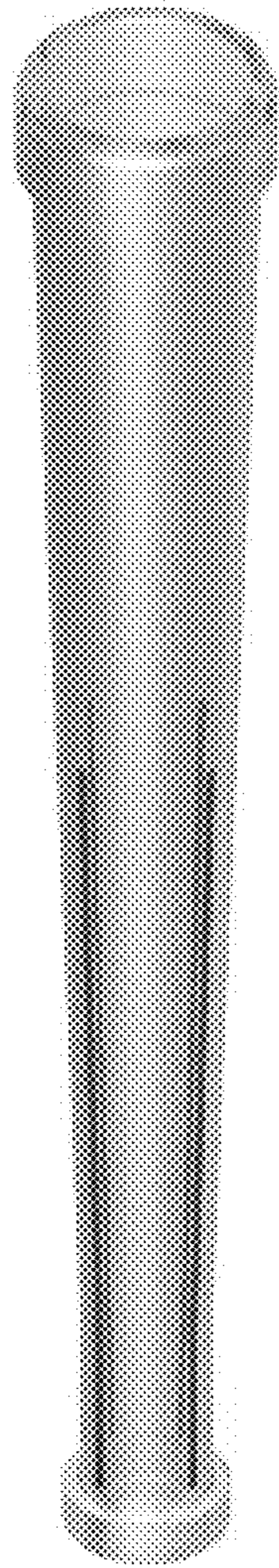
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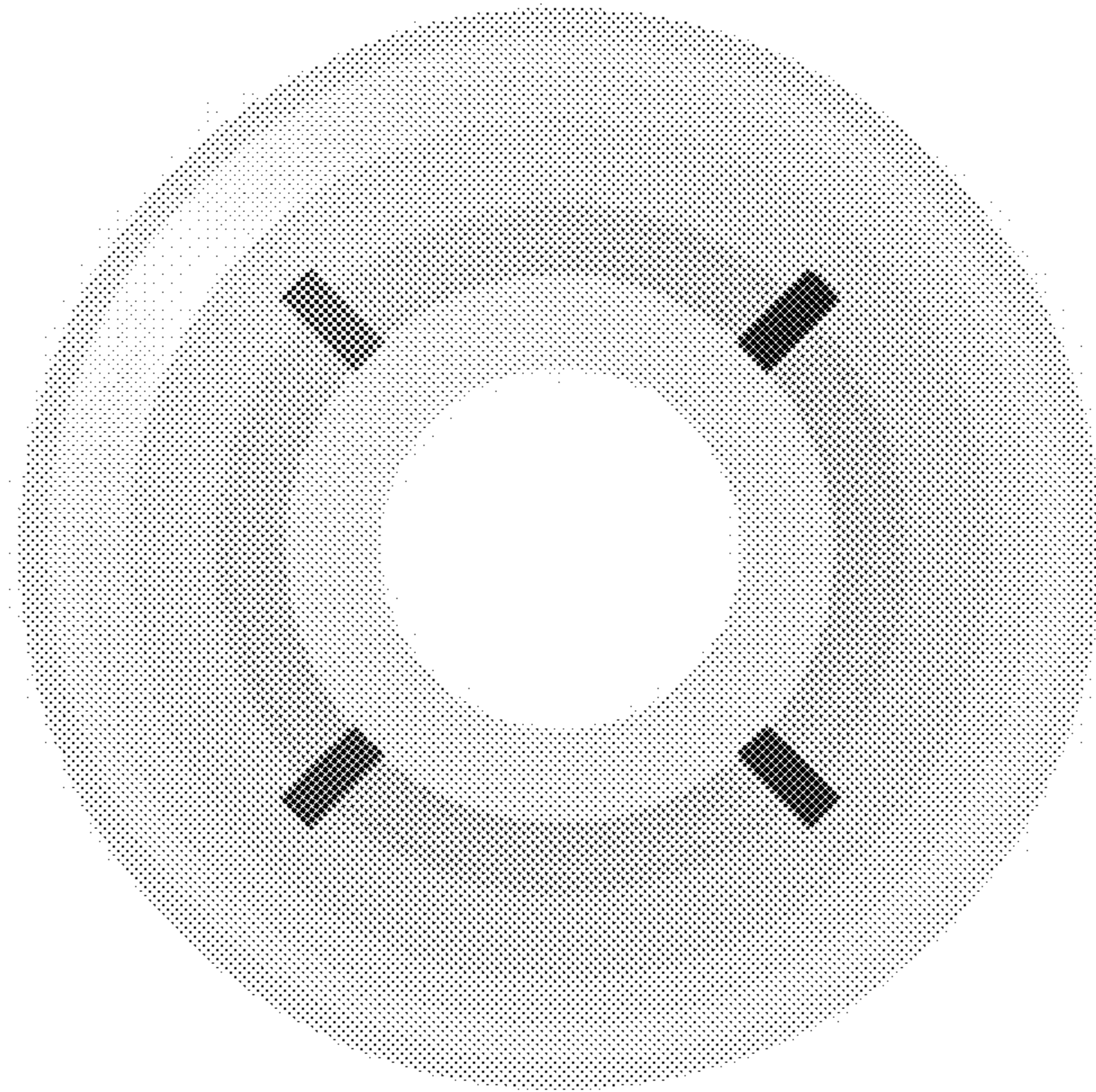
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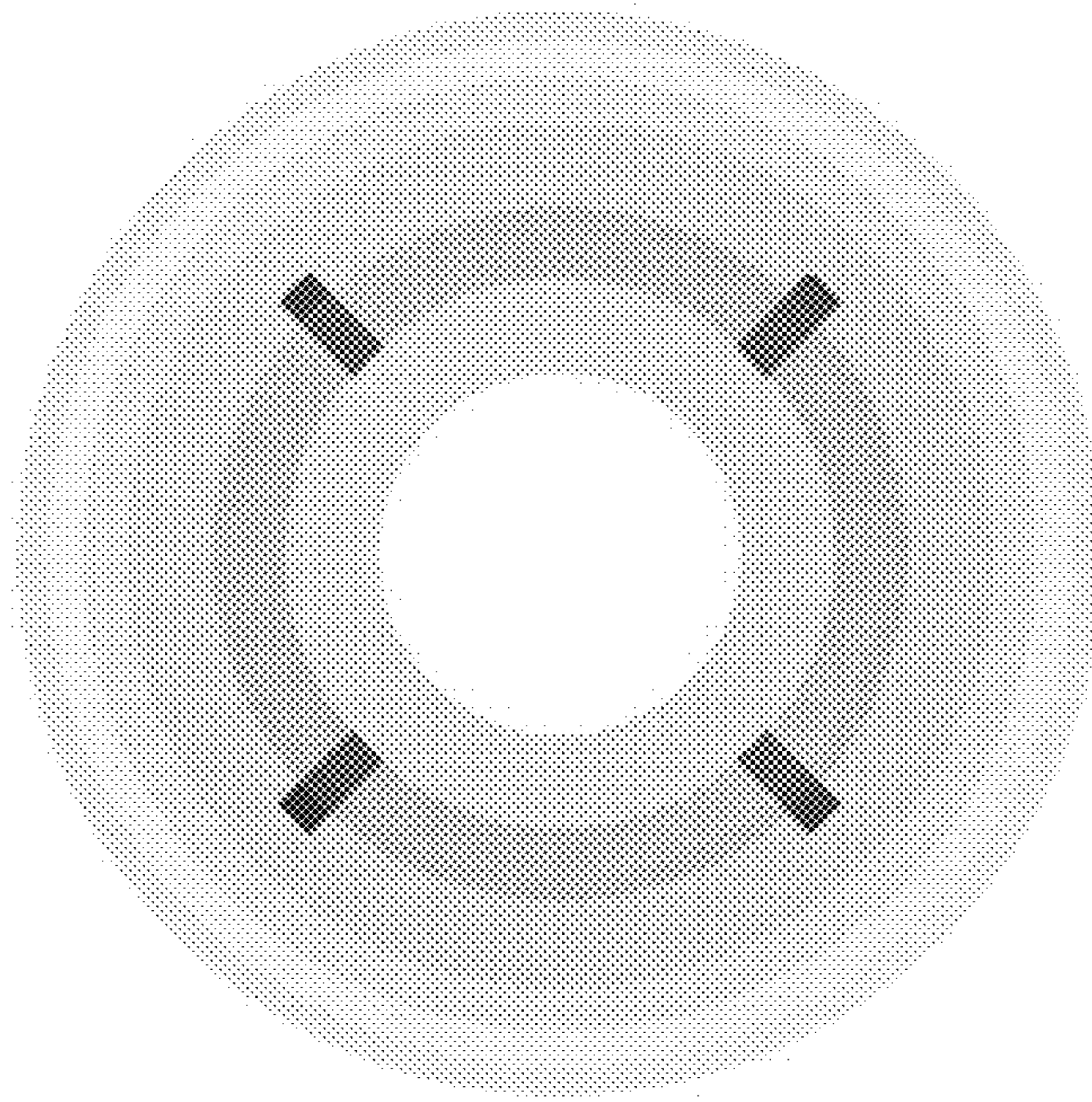




5.2



5.3



5.4