



US00D902153S

(12) **United States Design Patent** (10) **Patent No.:** **US D902,153 S**  
**Bobokov** (45) **Date of Patent:** **\*\* Nov. 17, 2020**

(54) **INSERT FOR ACCUMULATOR RECIRCULATION**

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

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(52) **U.S. Cl.**  
USPC ..... **D13/110**

(58) **Field of Classification Search**  
USPC ..... **D13/110, 133, 108**

(Continued)

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(57) **CLAIM**

The ornamental design for an insert for accumulator recirculation, as shown.

**DESCRIPTION**

1. Insert for accumulator recirculation

**1.1** : Perspective

**1.2** : Front

**1.3** : Right

**1.4** : Left

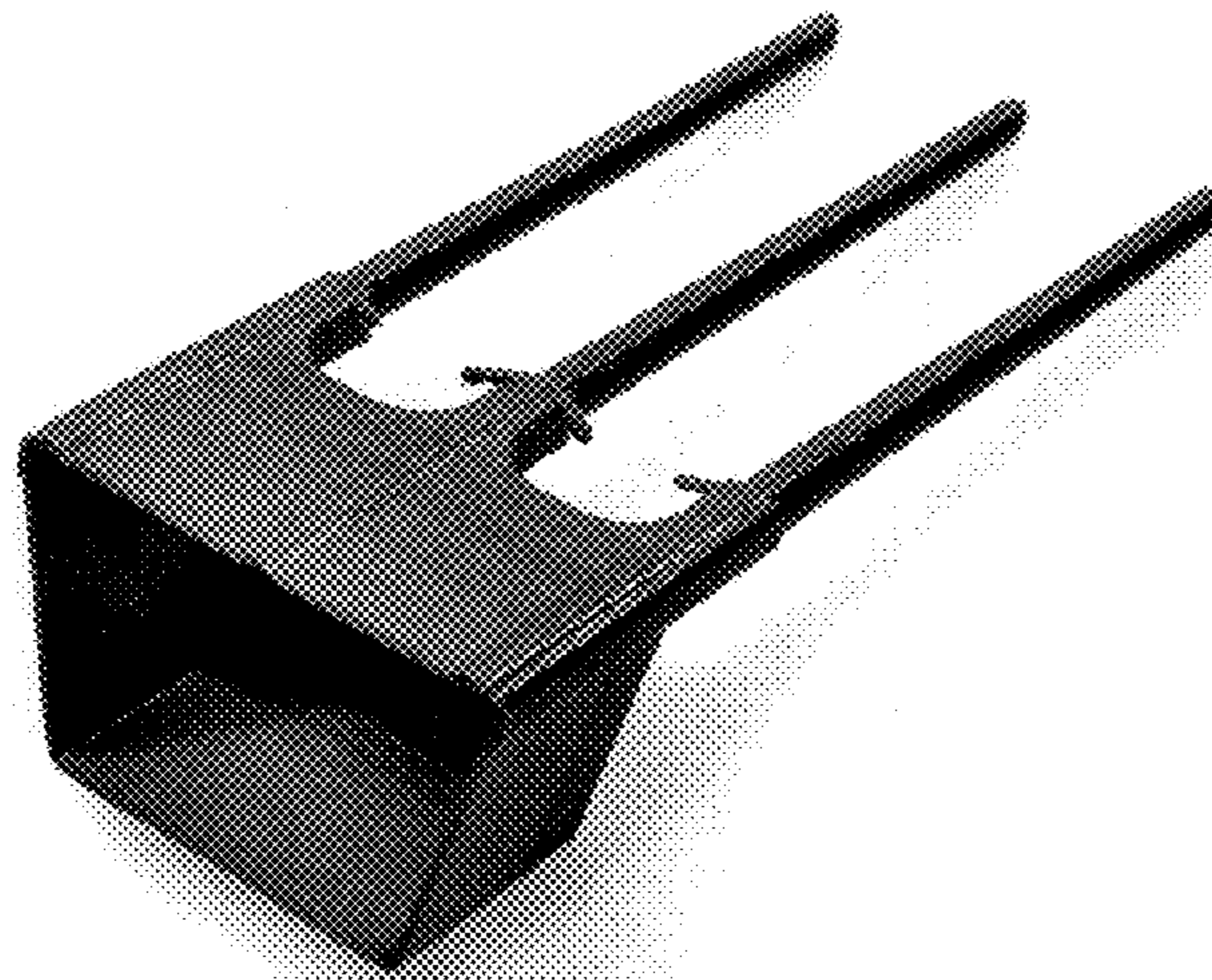
**1.5** : Back

**1.6** : Top

**1.7** : Bottom

The product, proposed for the registration of an industrial design, bearing the name “insert for accumulator recirculation”, represents a three-dimensional body which is intended to be mounted inside the accumulators. Since the latter are disposable monolithic products, the objective of any manufacturer is to achieve a longer period of use, at the maximum of the levels concerning the indicative technical data sheets for this type of product. The purpose of this industrial design is to extend the period of use of the accumulator by increasing the circulation of the electrolyte in the accumulator box, and at the same time, it contributes to the recirculation being carried out in parallel in the electrolyte itself. The circulation and recirculation of the electrolyte are directly related to the duration of use of the entire accumulator, i.e. its actual “lifetime” for use. The object of protection of the product proposed as an industrial design is its shape and configuration. In its upper part, the industrial design has the shape of an open trapezoidal prism, because its upper trapezoidal base is absent, the three vertical walls of the prismatic body have a rectangular shape, the particularities being concentrated in the finishing of the fourth vertical wall. A specificity is noted concerning the two rounded shapes on the edges of the vertical wall of the prismatic body, adjacent to the large part of the trapezoidal base, which correspond to the external diameters of the tubes, starting from the places of the orifices arranged on the lower trapezoidal base of the body, ending in a bevel at an exactly defined angle. Over the entire height of this large vertical wall, there is also a rounded shape corresponding to the middle tube, starting from the middle orifice, placed on the lower base of the prismatic body and coinciding with the tube orifice. The large vertical wall of the prismatic body is characterized by the fact that the edge of the lower trapezoidal base is not completely a straight horizontal line, because in the places from which the three vertical tubes start there are rounded shapes between the horizontal edge and the tangential to the surrounding cylindrical surface of the tubes. On the length of the three tubes, in immediate

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proximity to the trapezoidal lower base of the open prismatic body there is a specifically shaped expansion, at the end of which branches begin, arranged at a given angle and oriented to the left and respectively to the right. On the two outer tubes in the same places there is only one branch for each of them, for one of the outer tubes the branch is oriented to the right, and for the other, the branch is arranged in the left direction, both branches oriented towards the vertical tube in the middle. The entire three-dimensional body is represented in 7 copies of reproductions, the orientation of the photographs being in accordance with the main rules of the rotation of the projections in the machine drawing.

**1 Claim, 7 Drawing Sheets**

(58) **Field of Classification Search**

CPC ..... E21B 34/16; F15B 1/106; F15B 1/165;  
F15B 1/14; H01M 2/38; G06Q 30/0603;  
F25D 11/00; F16F 9/43

See application file for complete search history.

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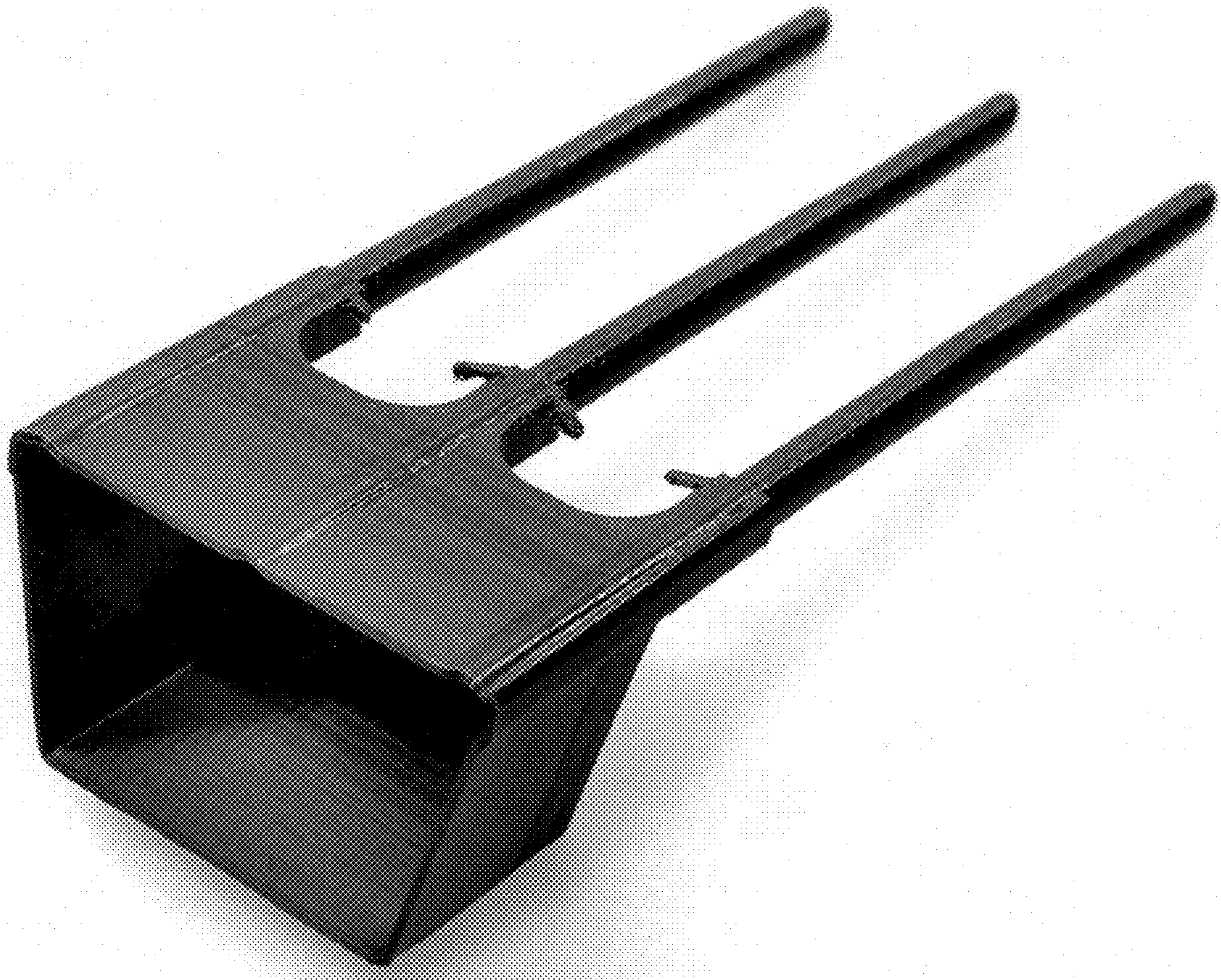
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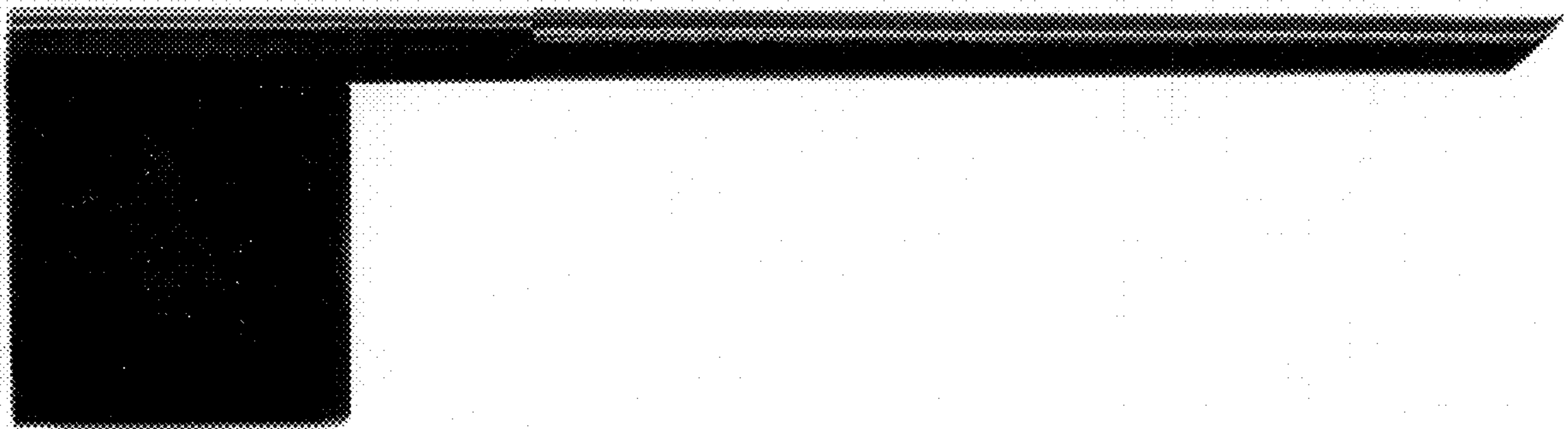
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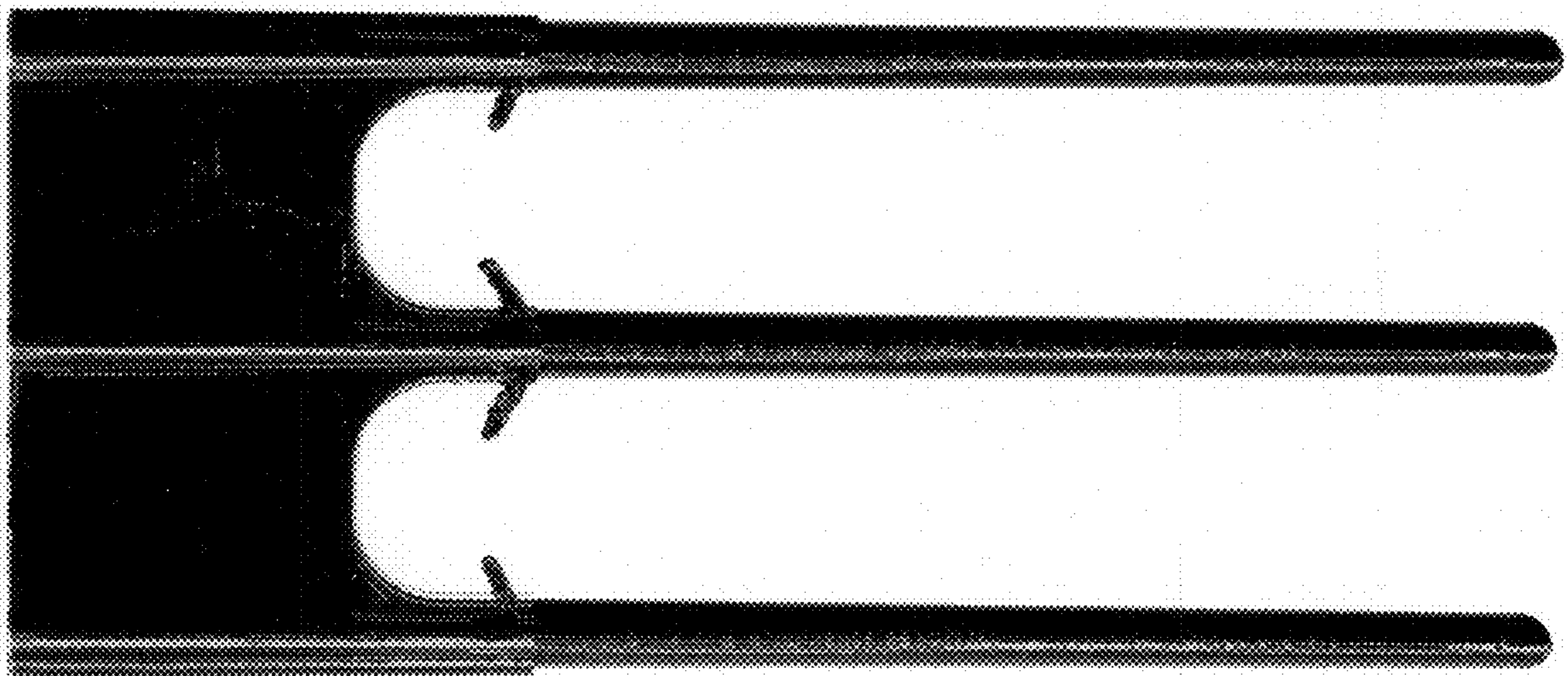
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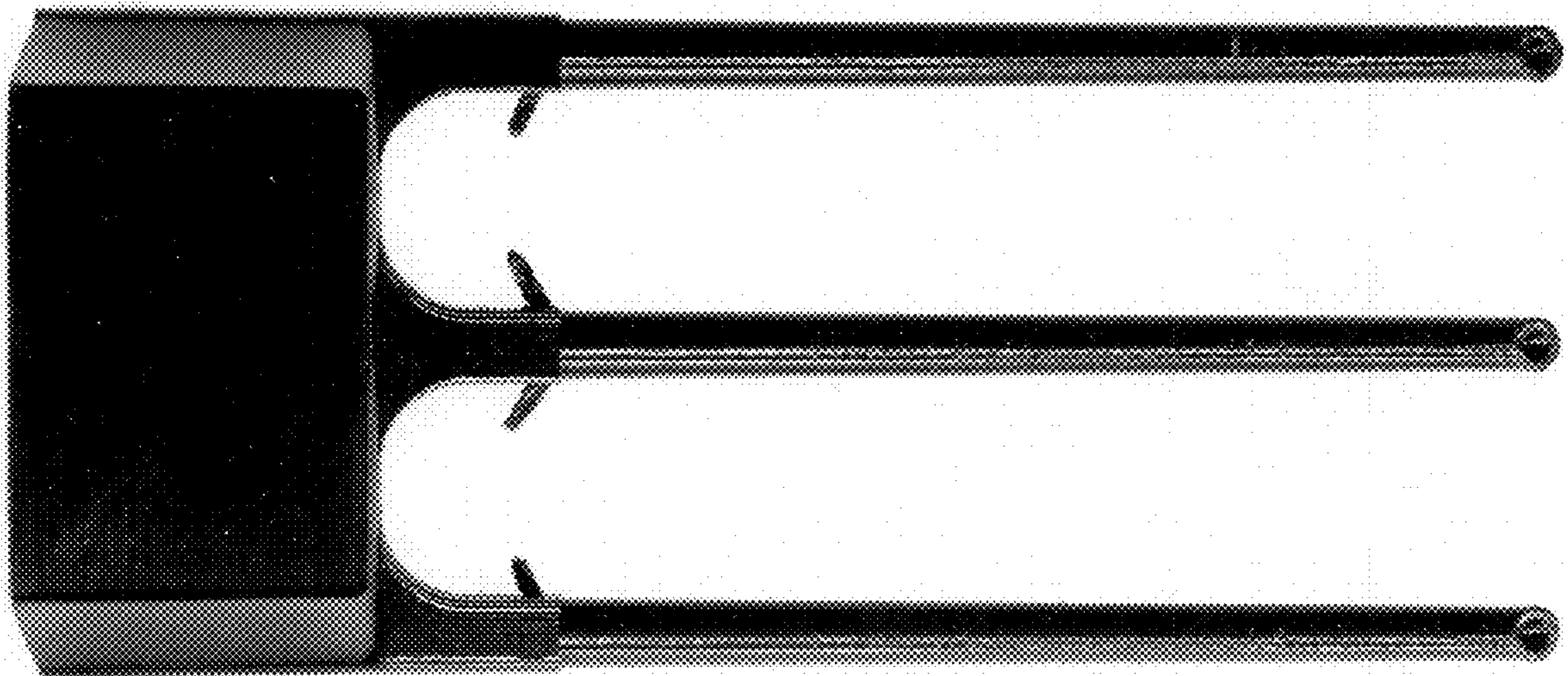
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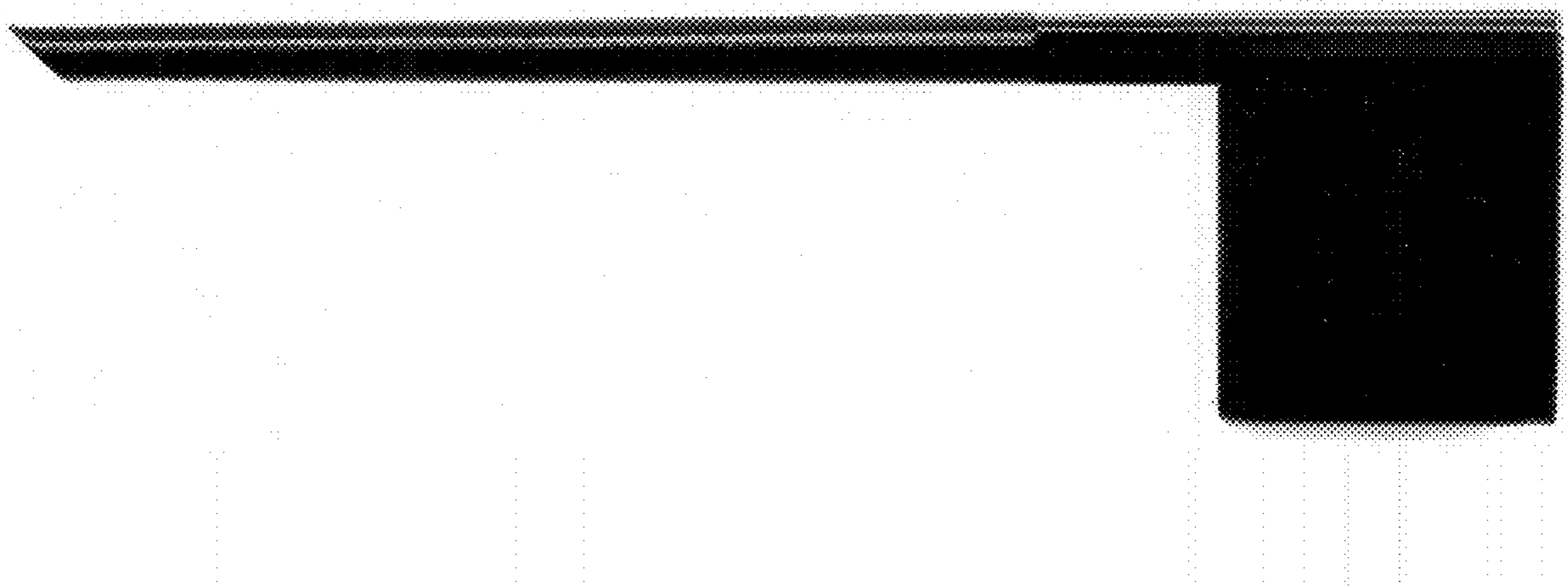
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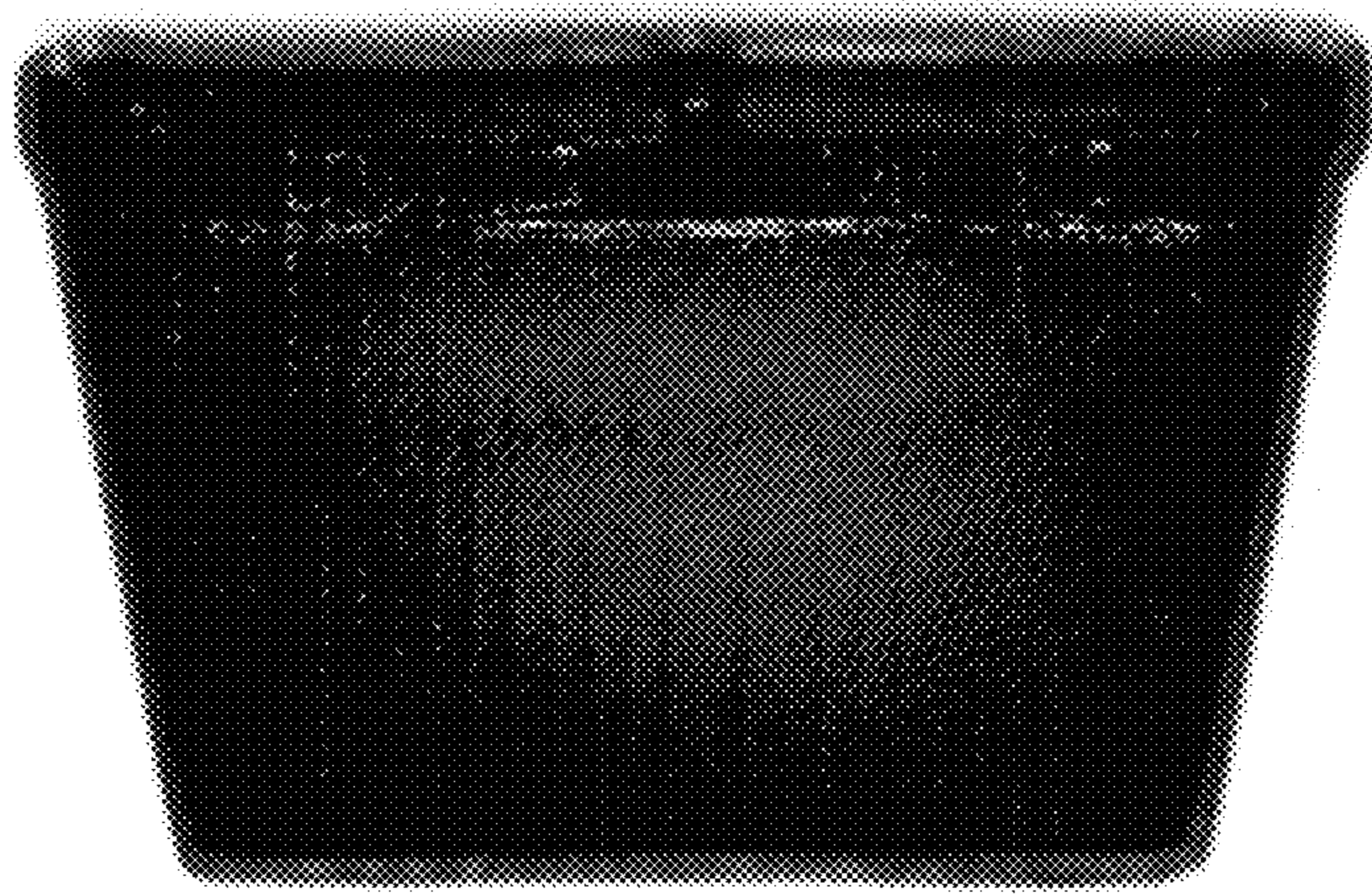
1.4



1.5



1.6





1.7

