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

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(54) **TEMPORARY PROTECTIVE FILM FOR MANUFACTURING SEMICONDUCTOR DEVICES**

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(*) Notice: This patent is subject to a terminal disclaimer.

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

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(52) **U.S. Cl.**
USPC **D13/199**

(58) **Field of Classification Search**
USPC D13/182, 180; D19/69, 67; D24/189

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(57) **CLAIM**

The ornamental design for a temporary protective film for manufacturing semiconductor devices, as shown and described.

DESCRIPTION

Temporary protective film for manufacturing semiconductor devices

FIG. 1.1 is a perspective view of a temporary protective film for manufacturing semiconductor devices showing my design;

FIG. 1.2 is another perspective view thereof;

FIG. 1.3 is another perspective view thereof;

FIG. 1.4 is a front view thereof;

FIG. 1.5 is a back view thereof;

FIG. 1.6 is a top view thereof;

FIG. 1.7 is a bottom view thereof;

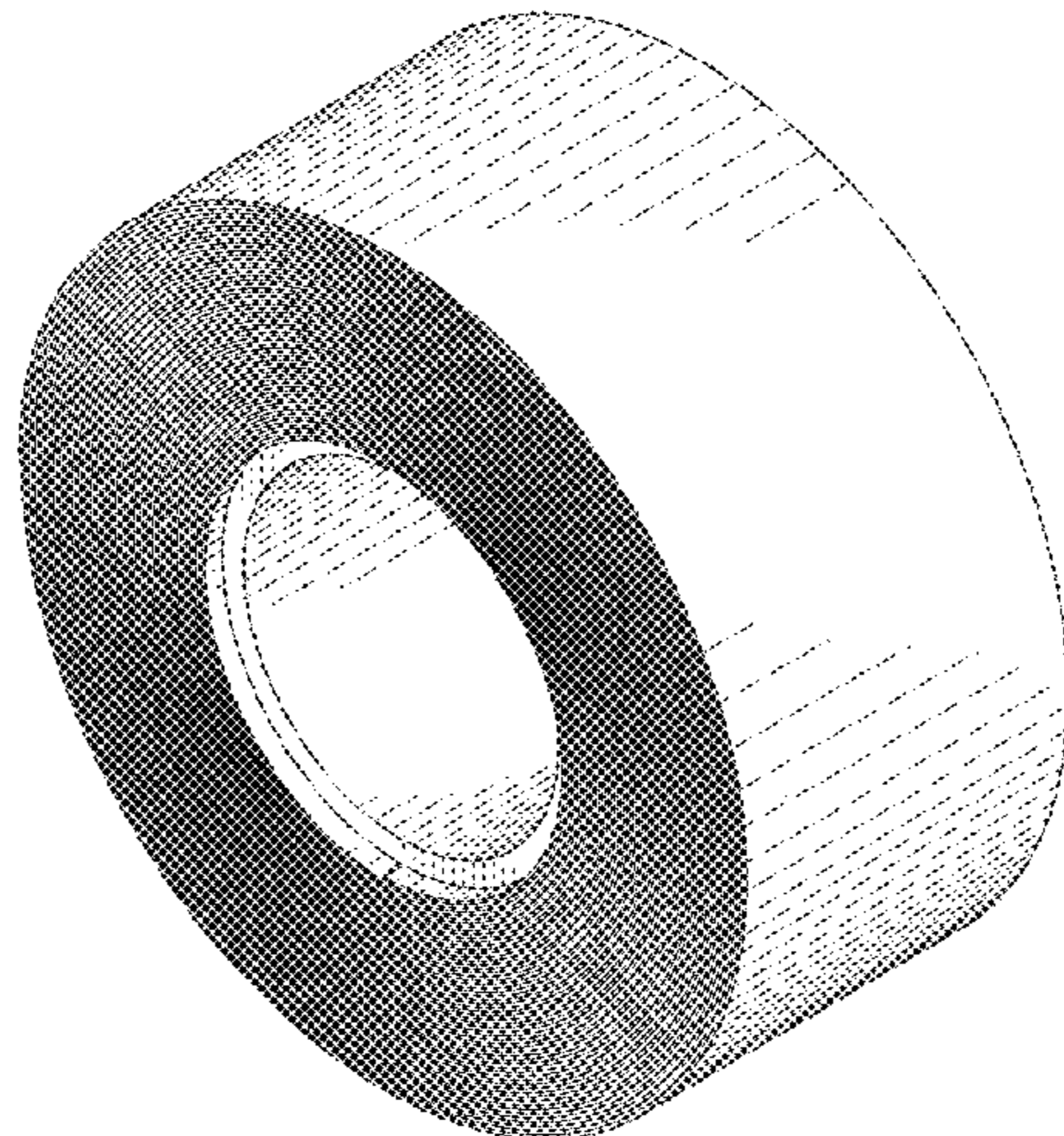
FIG. 1.8 is a left side view thereof;

FIG. 1.9 is a right side view thereof;

FIG. 1.10 is a sectional view thereof along lines A-A in FIG. 1.8.

The article includes a core part and a film part, and is characterized by the fact that the width of the core part is smaller than the width of the film part, and the film part is wound while partially protruding from the core part; each article is temporarily attached to a back of a lead frame when manufacturing a semiconductor device with only one side encapsulated and the lead frame on the back side exposed; the film part of each article has an adhesive layer on one side; since the core part does not protrude from the film part, each article can be easily positioned when set to equipment for manufacturing semiconductor devices, and it is possible

(Continued)



to prevent the article from being misaligned when it is temporarily adhered to the back surface of the lead frame. The parallel thin lines in the representation represent contours only and do not illustrate an ornamentation or decoration on the surface of the product.

1 Claim, 10 Drawing Sheets

(58) **Field of Classification Search**

CPC B65H 35/0033; B65H 35/0026; B65H 35/008; A61F 15/002; B42F 21/00; B65D 85/672; G11C 11/06; H05K 7/209; C09J 7/385; C09J 133/068

See application file for complete search history.

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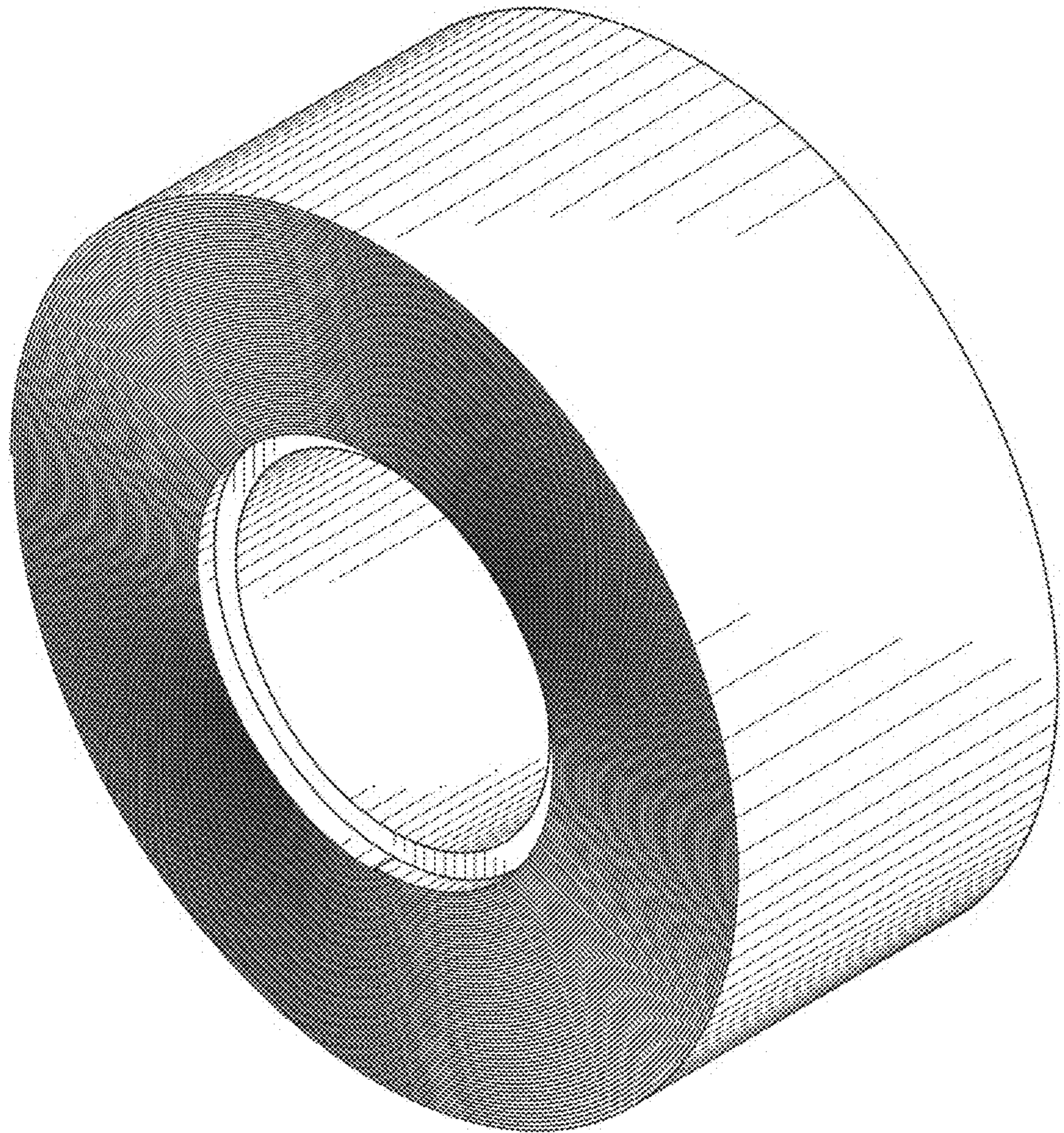
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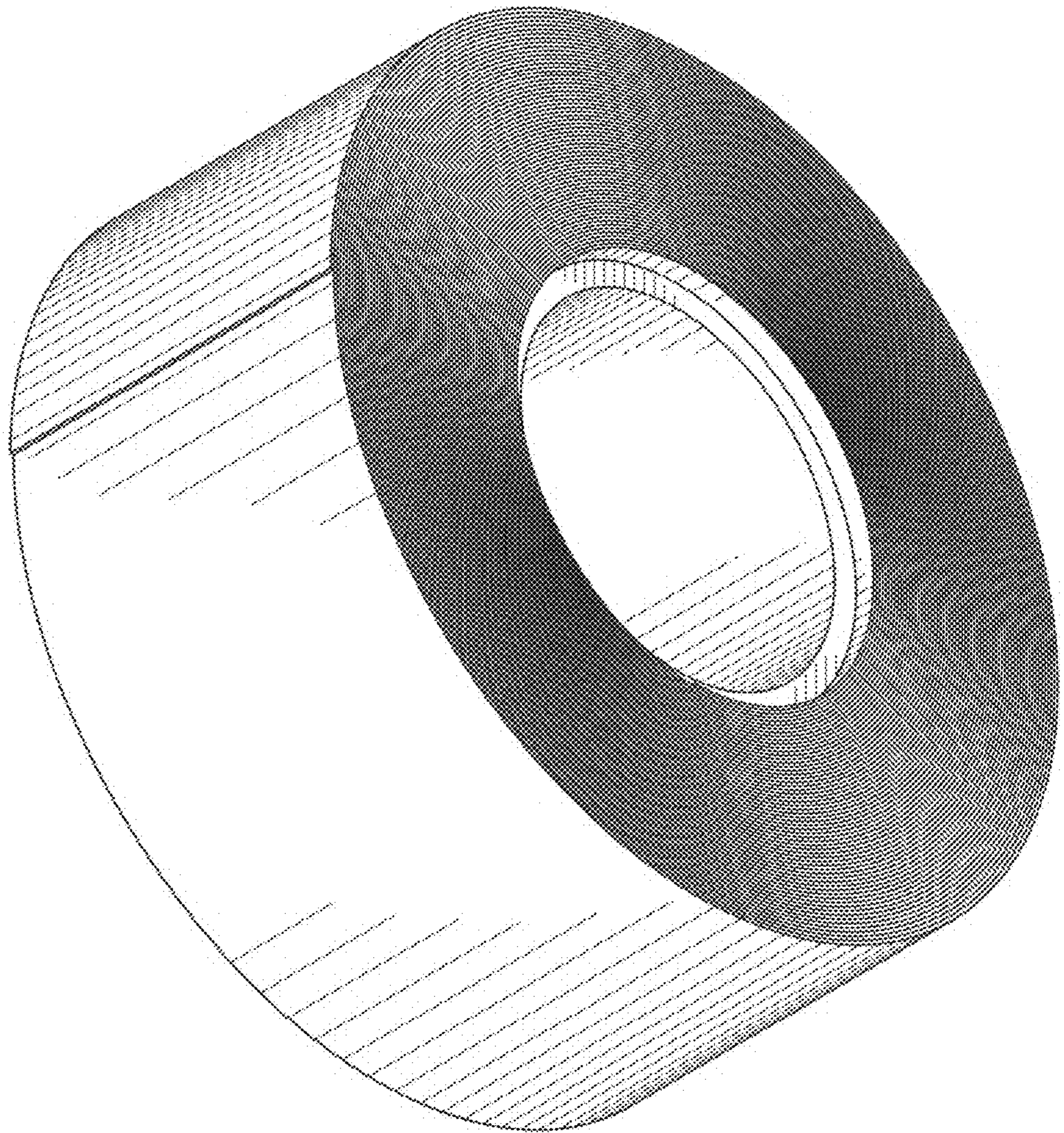
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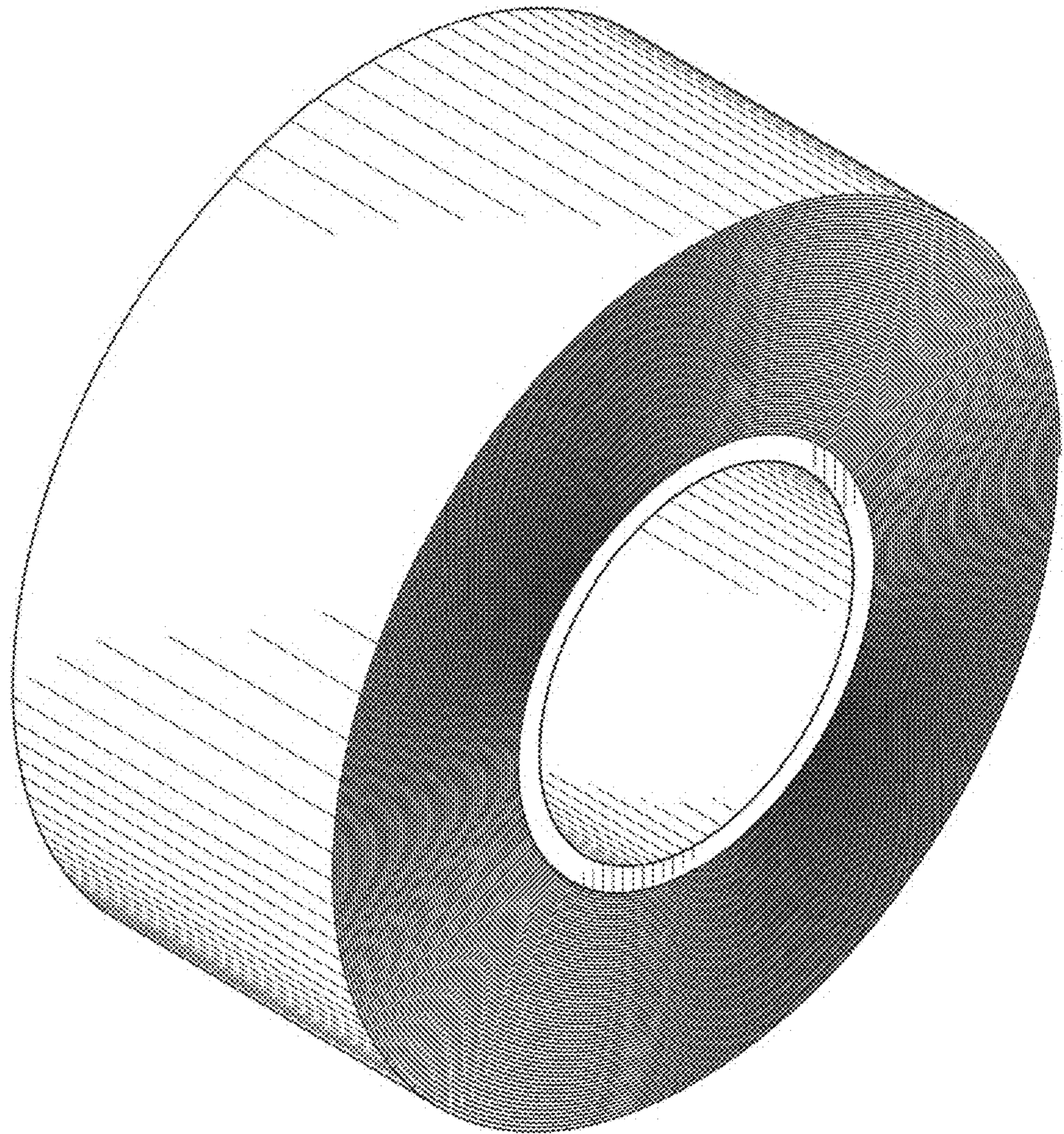
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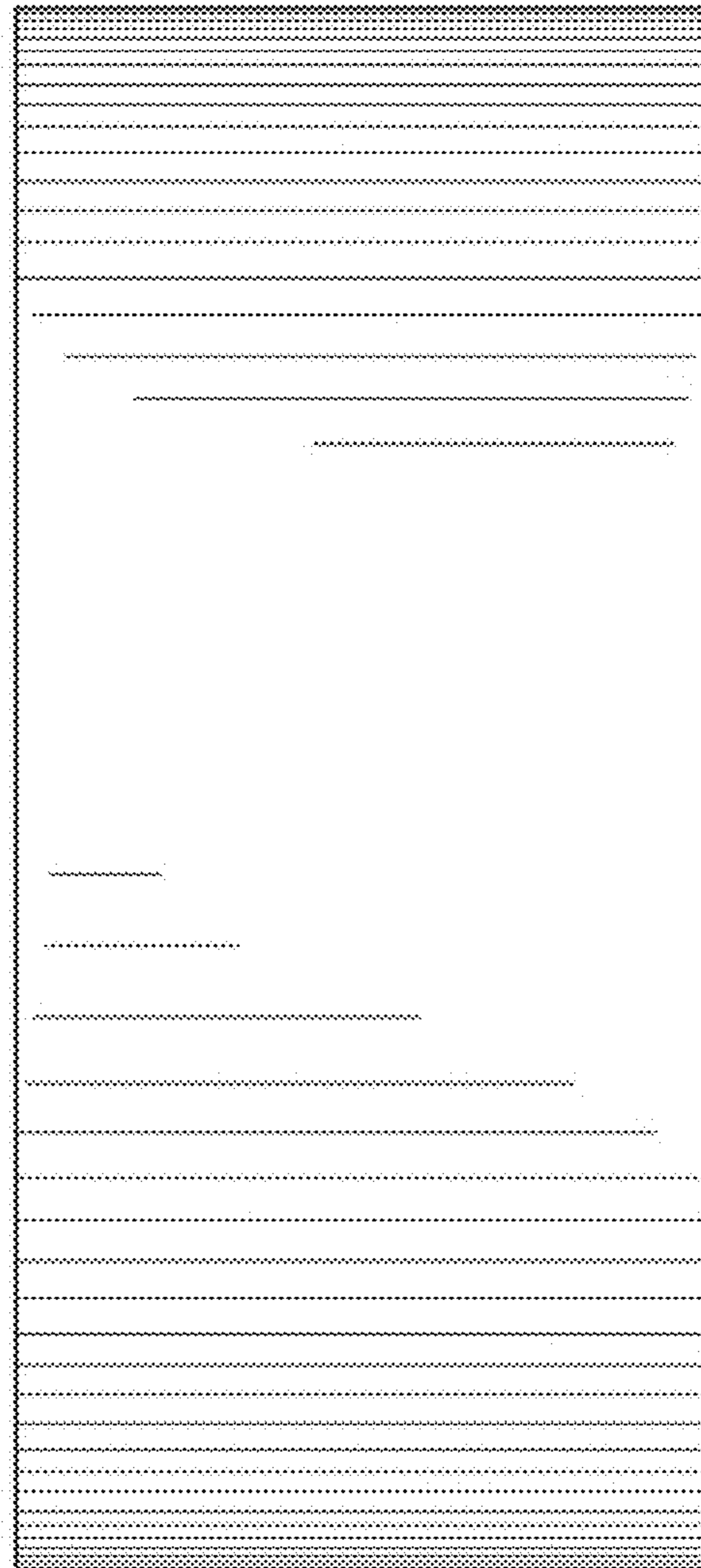
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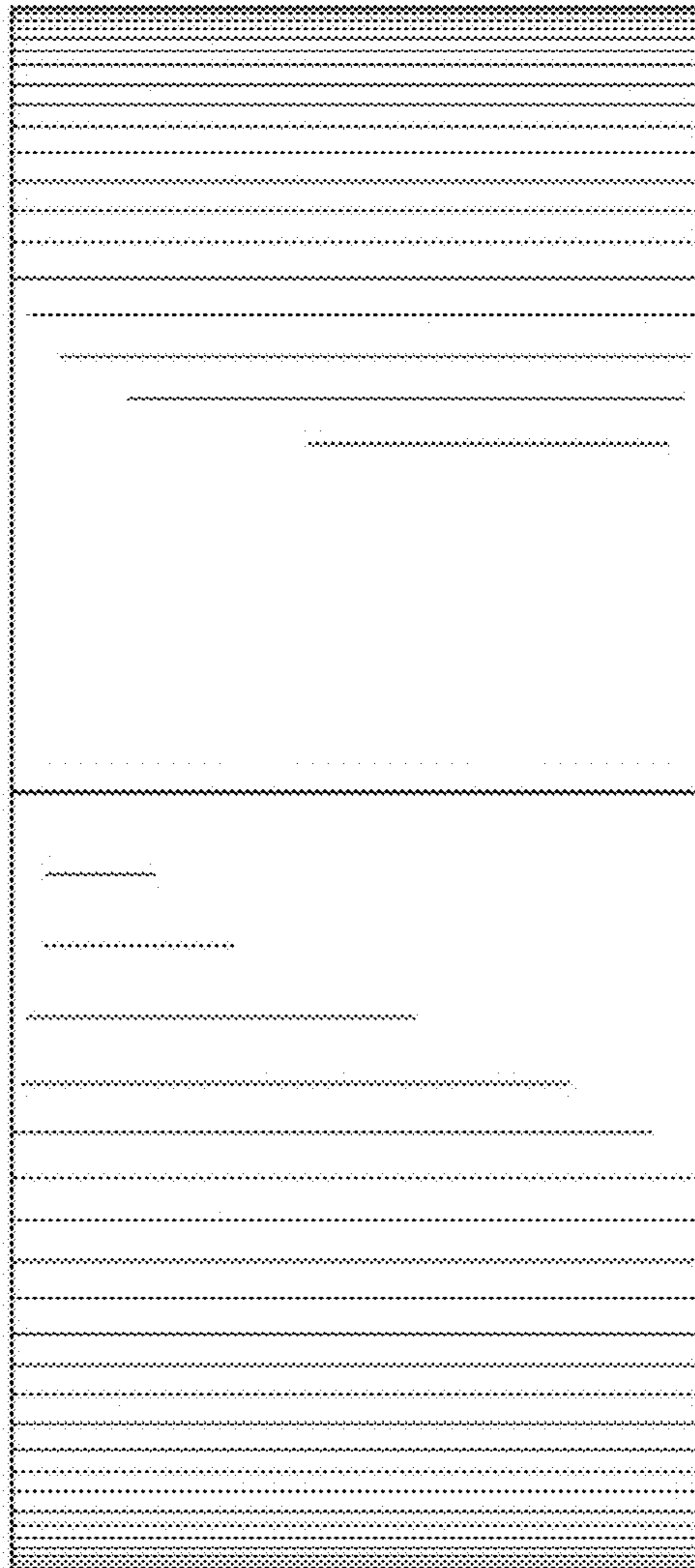
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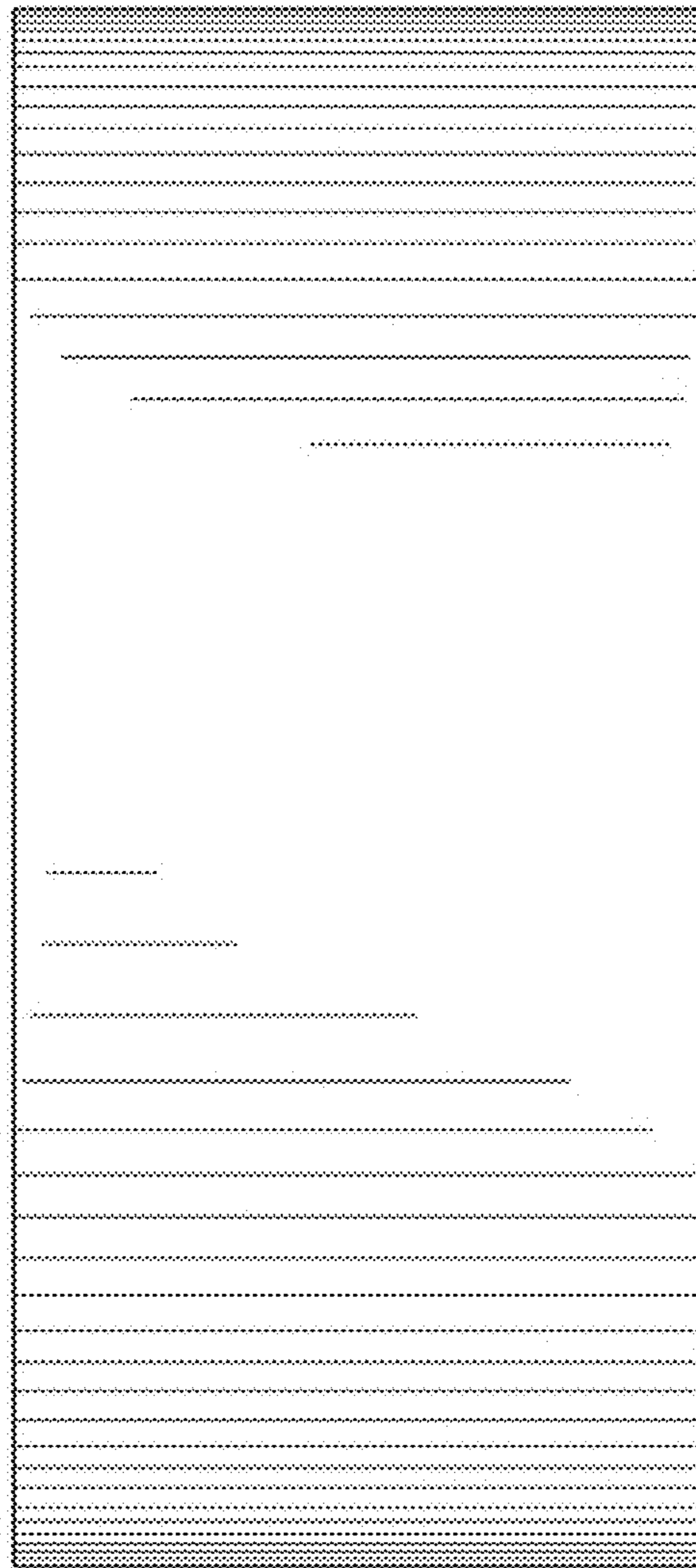
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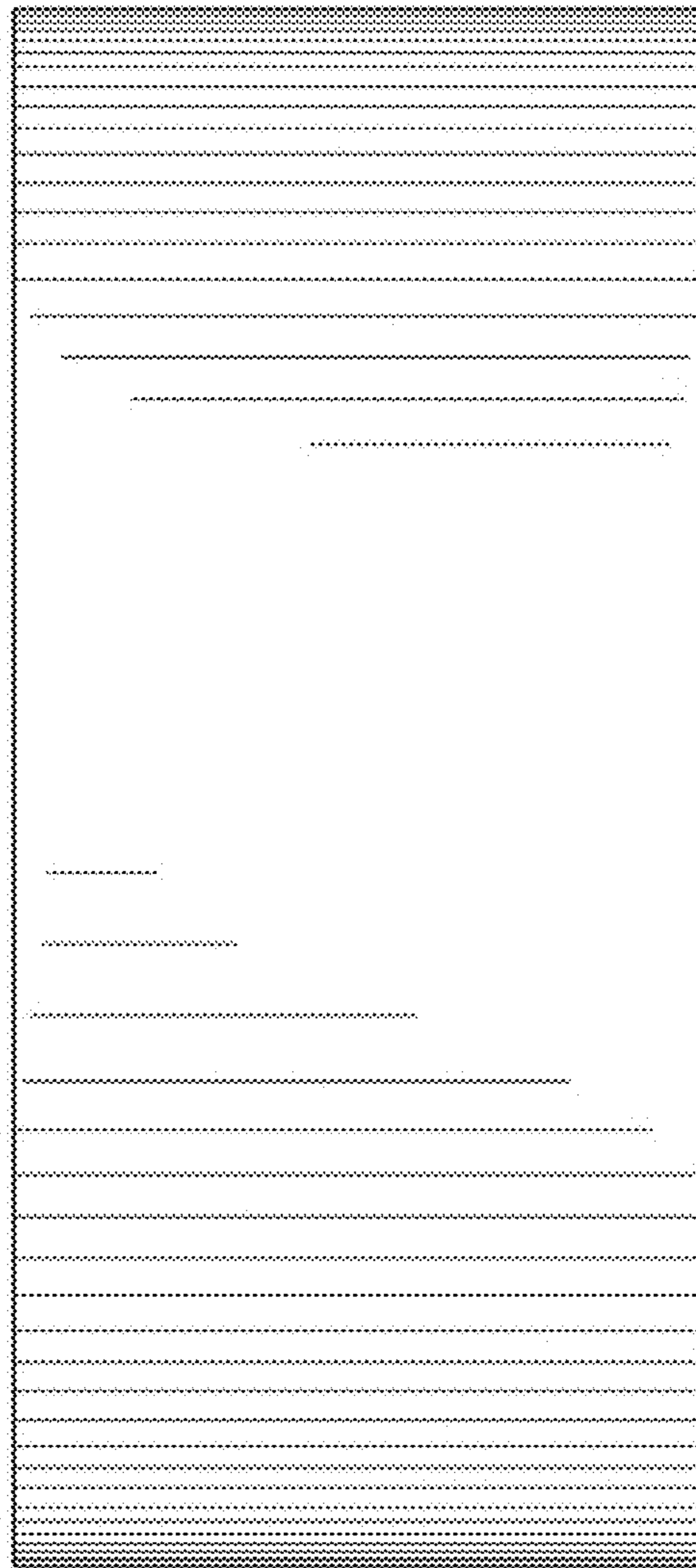
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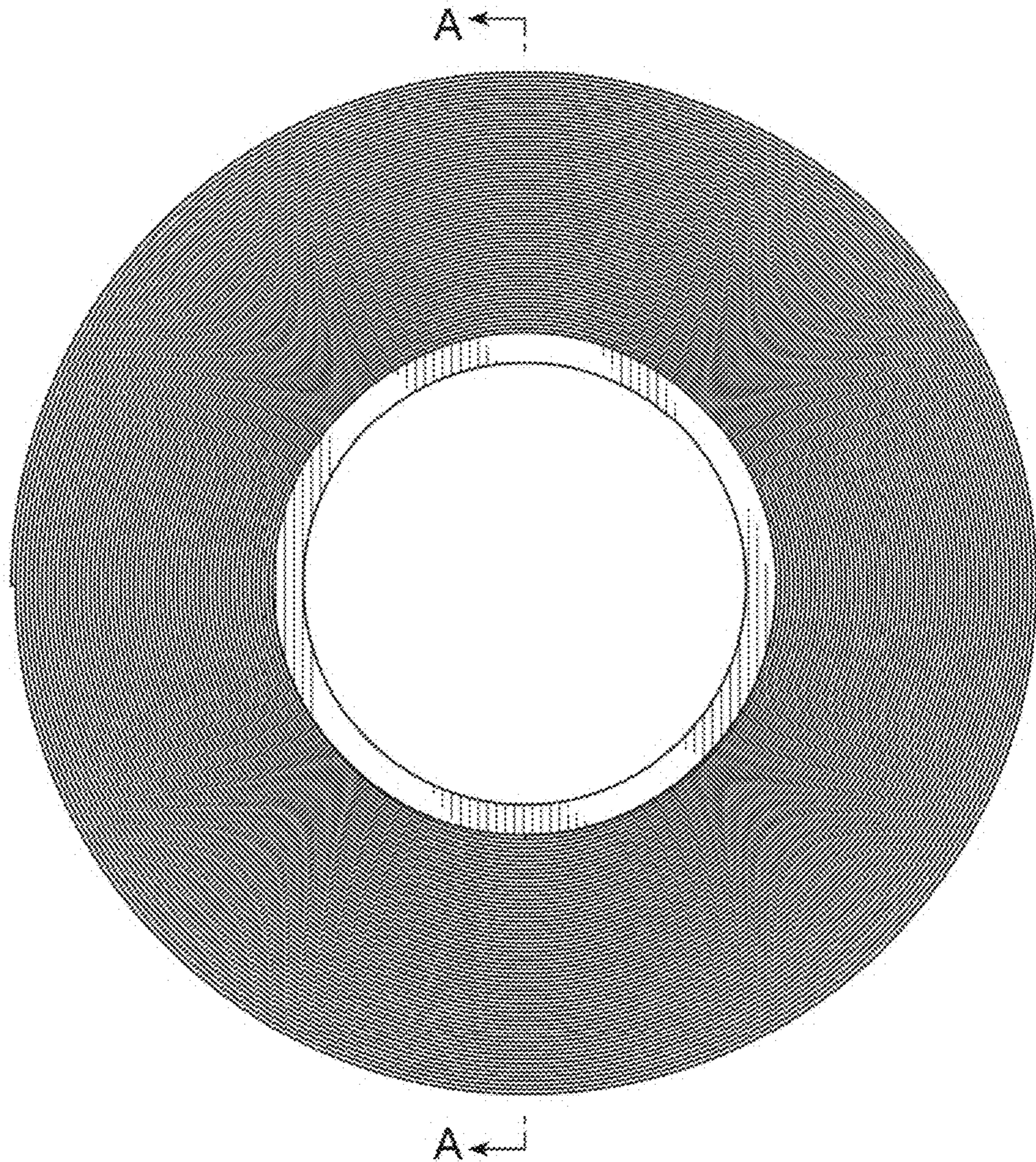
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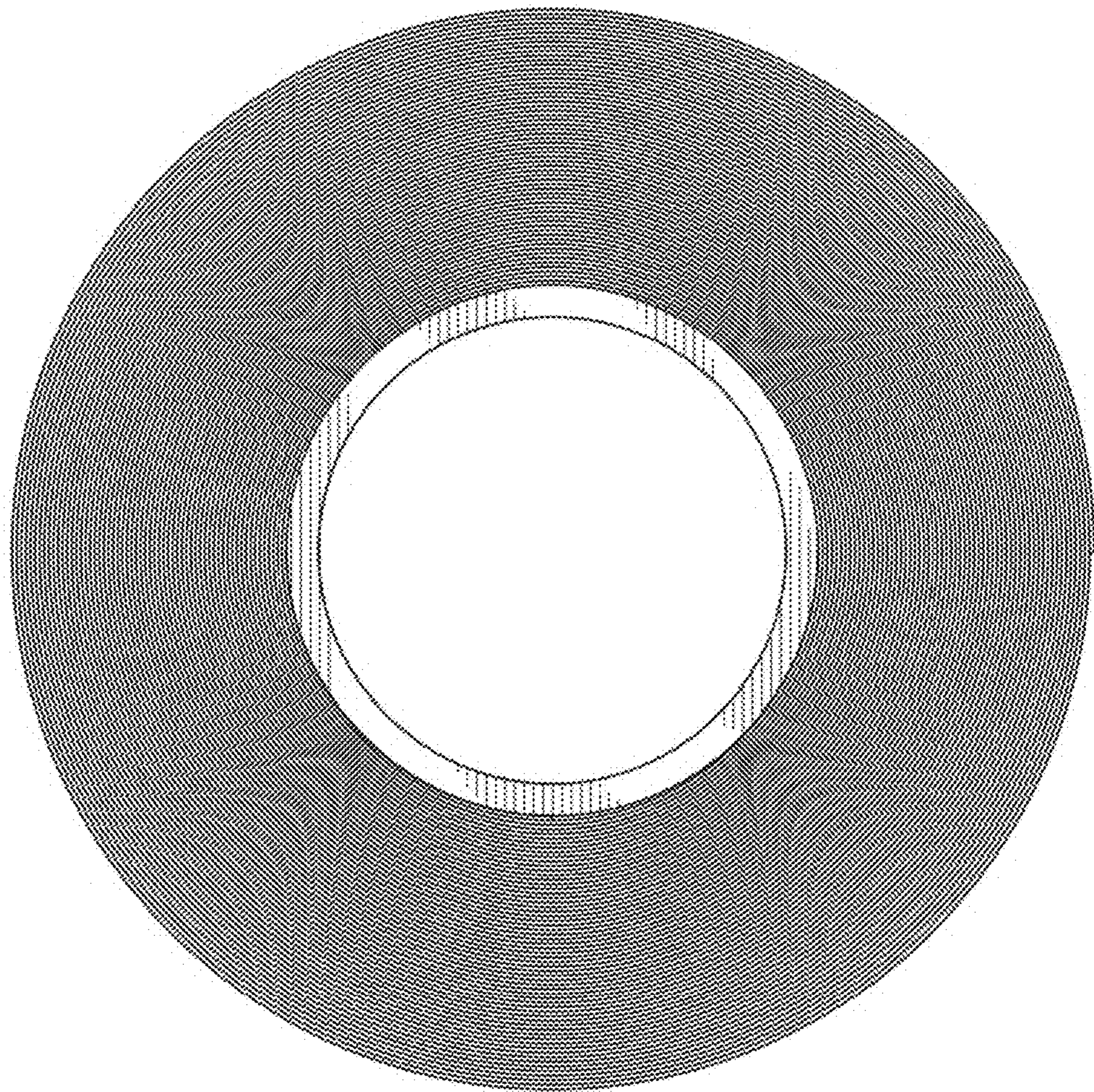
1.7



1.8



1.9



1.10

