



US00D843013S

(12) **United States Design Patent** (10) **Patent No.:** **US D843,013 S**
Ito et al. (45) **Date of Patent:** **** Mar. 12, 2019**

(54) **SUBSTRATES FOR SPECTROSCOPIC ANALYSIS**

Primary Examiner — Rhea Shields

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Kazuto Ofuji, Hamamatsu (JP);
Yoshihiro Maruyama, Hamamatsu (JP)

(57) **CLAIM**

The ornamental design for a substrate for spectroscopic analysis, as shown and described.

(73) Assignee: **HAMAMATSU PHOTONICS K.K.**,
Hamamatsu-shi, Shizuoka (JP)

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

DESCRIPTION

(21) Appl. No.: **35/504,264**

1.-2. Substrates for spectroscopic analysis

(22) Filed: **Jul. 5, 2017**

1.1 : Perspective

(80) **Hague Agreement Data**

Int. Filing Date: **Jul. 5, 2017**

1.2 : Front

Int. Reg. No.: **DM/097061**

1.3 : Back

Int. Reg. Date: **Jul. 5, 2017**

1.4 : Top

Int. Reg. Pub. Date: **Jan. 5, 2018**

1.5 : Bottom

1.6 : Left

1.7 : Right

1.8 is a sectional view taken along the vertical center of **1.2**;

1.9 is a sectional view taken along the vertical upper part of

1.2;

(30) **Foreign Application Priority Data**

Jan. 25, 2017 (JP) 2017-001202

Jan. 25, 2017 (JP) 2017-001203

(51) **LOC (11) Cl.** **24-02**

(52) **U.S. Cl.**
USPC **D24/225**

(58) **Field of Classification Search**
USPC D24/225, 216, 126, 189, 155; D10/81;
D19/26; 356/41, 246, 301, 328;
(Continued)

1.10 : Perspective view without the cover part

1.11 : Reference view showing the state in use

2.1 : Perspective

2.2 : Front

2.3 : Back

2.4 : Top

2.5 : Bottom

2.6 : Left

2.7 : Right

2.8 is a sectional view taken along the vertical center of **2.2**;

2.9 is a sectional view taken along the vertical upper part of

2.2;

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,856,656 A * 12/1974 Brink G01N 27/447
204/616

4,227,810 A * 10/1980 Sandrock G01N 21/03
250/576

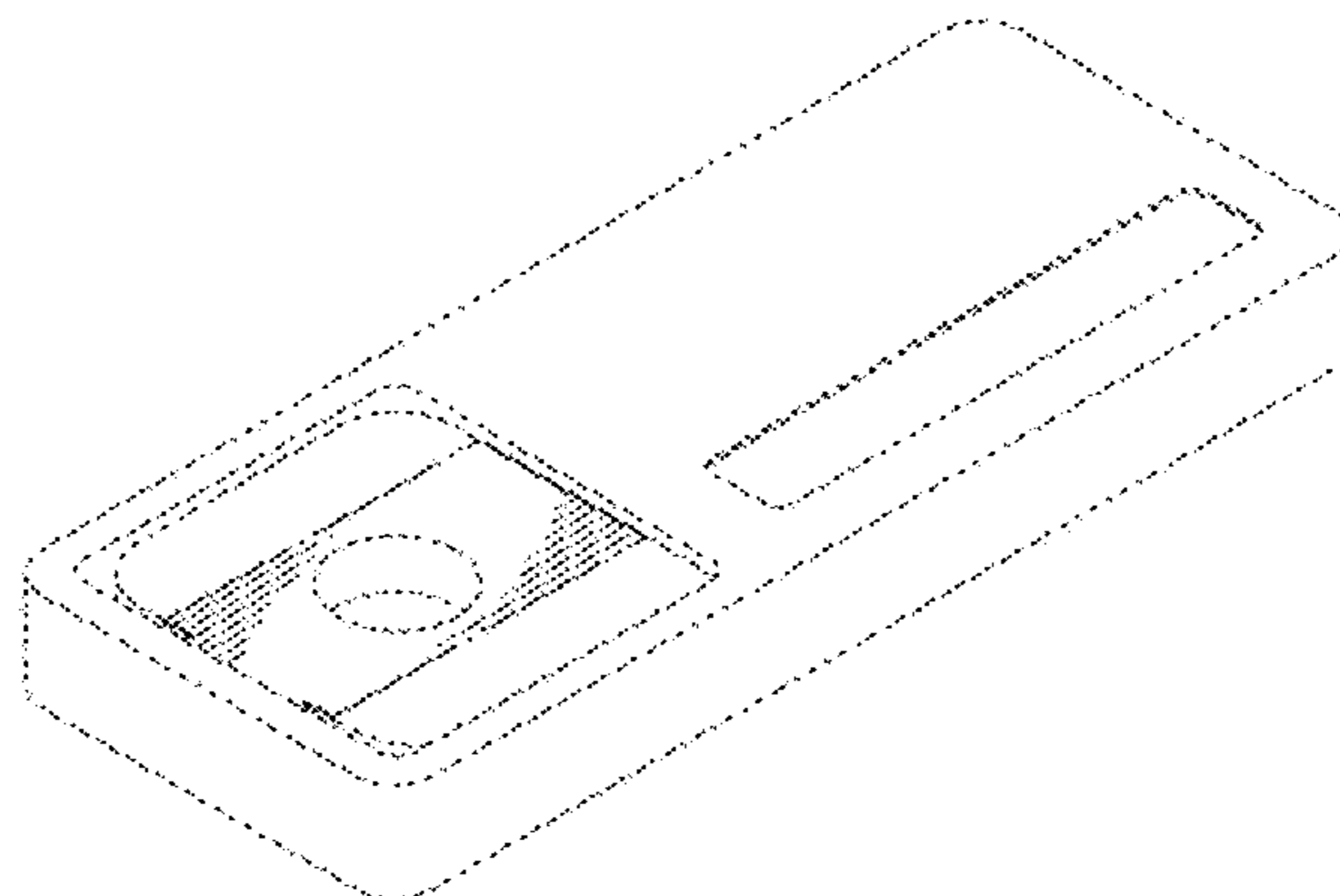
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2.10 : Perspective view without the cover part

2.11 : Reference view showing the state in use

In the reproductions, the broken lines are for the purpose of illustrating environment only and form no part of the claimed design. The dot-dash broken lines are for the purpose of showing the boundaries of the claim and form no part of the claimed design.

1 Claim, 22 Drawing Sheets



(58) **Field of Classification Search**

USPC 206/569, 362, 616, 558, 456; 422/412,
422/537, 420, 408, 534; 435/7.92;
211/74; 600/509; 250/576; 359/396;
400/212
CPC A61B 10/0045; A61B 5/0404; A47J
27/21158; A61M 5/3205; G01N 21/658;
G01N 1/30; G01N 21/03; G01N
33/54366; B65D 85/48; B01L 3/5085;
B01L 3/502738; B01L 9/06; G01J 3/02;
B41J 32/00; C12Q 1/16

See application file for complete search history.

(56) **References Cited**

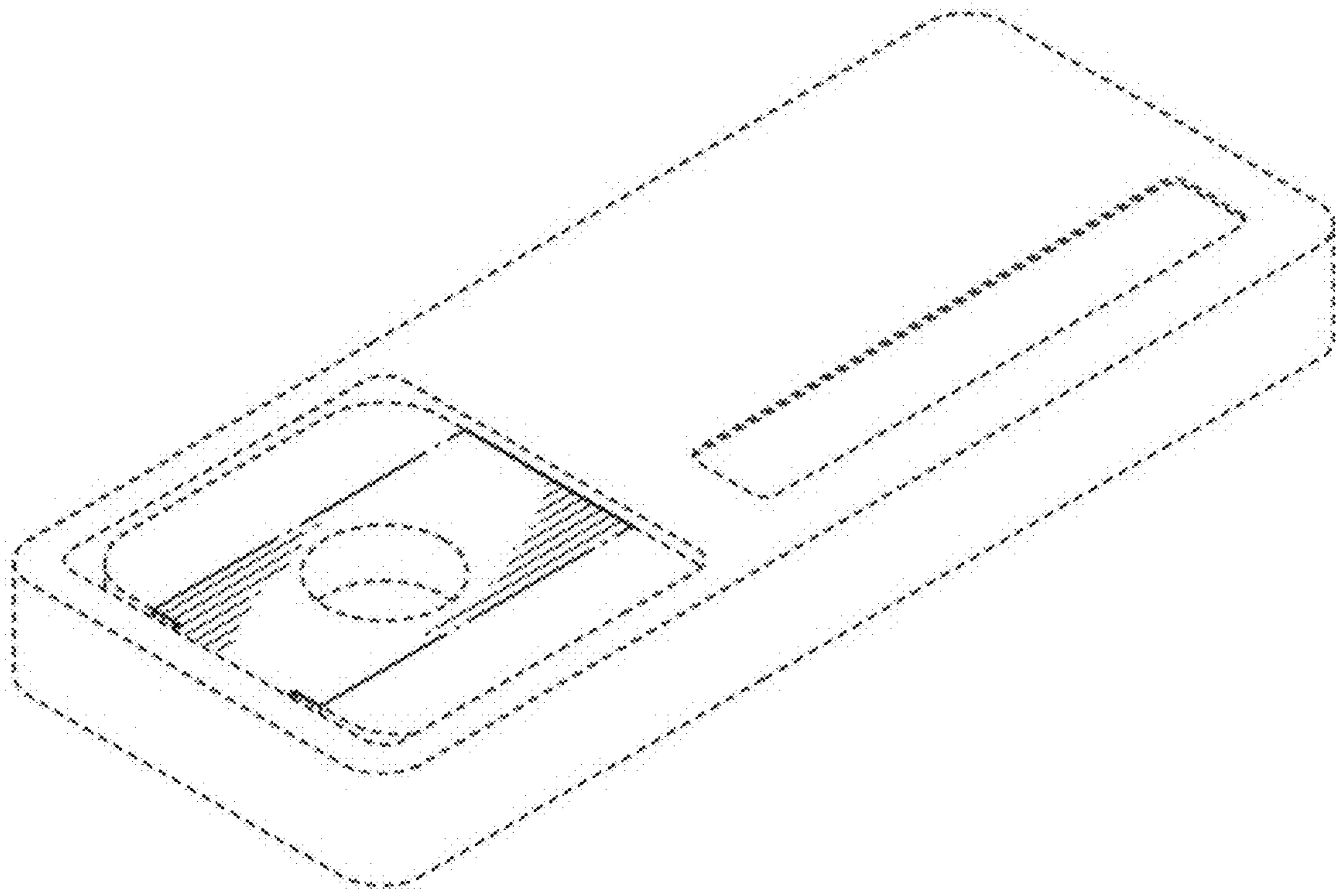
U.S. PATENT DOCUMENTS

4,294,931 A * 10/1981 Levin C12Q 1/16
206/362
D273,898 S * 5/1984 Valencia D24/225
D290,042 S * 5/1987 Ford D24/225
4,761,381 A * 8/1988 Blatt B01L 3/502738
356/246
4,777,964 A * 10/1988 Briggs A61B 5/150022
206/569
4,819,804 A * 4/1989 Levy B65D 85/48
206/456
4,857,453 A * 8/1989 Ullman G01N 33/54366
435/7.92
4,943,522 A * 7/1990 Eisinger G01N 33/54386
422/537
4,981,786 A * 1/1991 Dafforn G01N 33/5302
422/412
5,002,062 A * 3/1991 Suzuki A61B 5/0404
600/509
5,075,078 A * 12/1991 Osikowicz G01N 33/54366
422/420
5,217,012 A * 6/1993 Young A61B 5/02427
356/41
5,451,112 A * 9/1995 Ito B41J 32/00
400/212

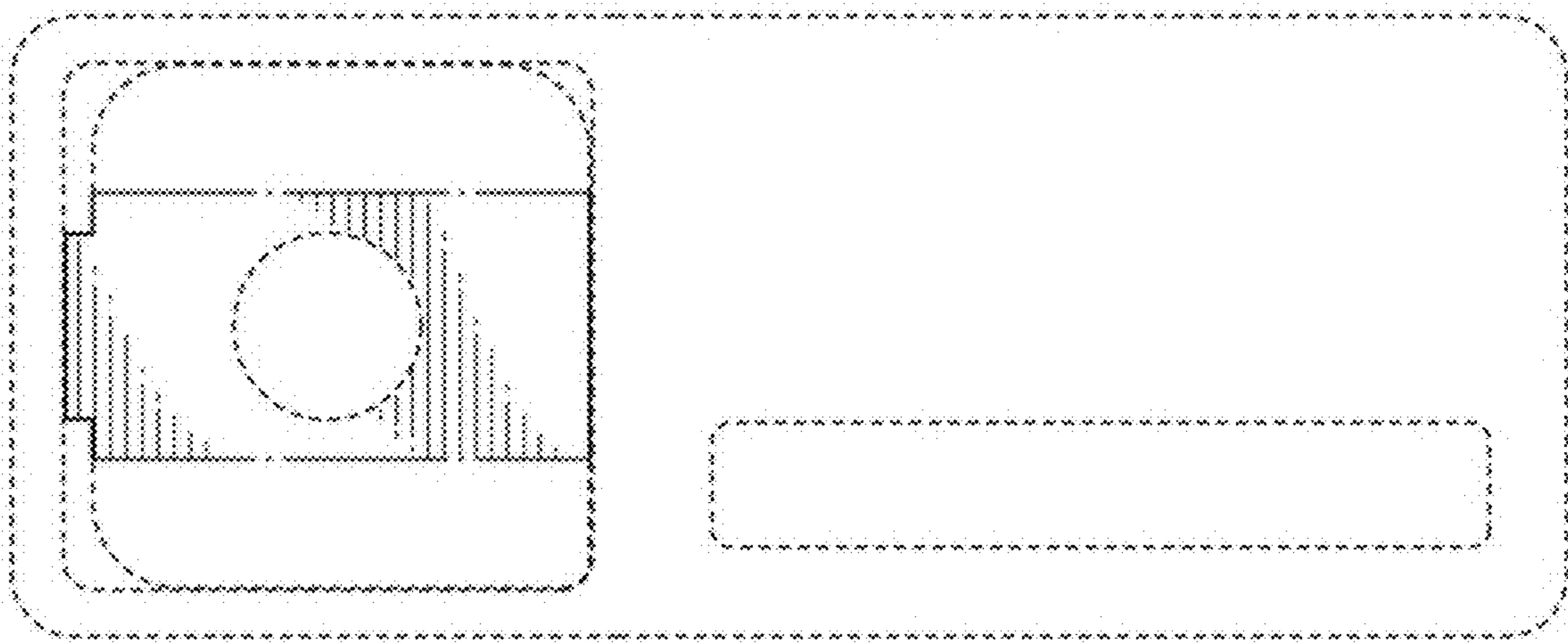
5,484,572 A * 1/1996 Katakura A61B 10/0045
422/534
5,484,731 A * 1/1996 Stevens B01L 3/5085
206/558
5,525,304 A * 6/1996 Matsson B01L 9/06
211/74
D383,215 S * 9/1997 Levy D19/26
5,812,312 A * 9/1998 Lorincz G01N 1/30
359/396
D418,228 S * 12/1999 Fisch D24/225
D431,300 S * 9/2000 Fisch D24/225
6,372,514 B1 * 4/2002 Lee G01N 33/54366
422/408
D500,142 S * 12/2004 Crisanti D24/216
D530,826 S * 10/2006 Rich D24/225
D531,321 S * 10/2006 Godfrey D24/225
D569,990 S * 5/2008 Fisch D24/225
D631,166 S * 1/2011 Leffew D24/189
D692,578 S * 10/2013 Kikuhara D24/216
D733,911 S * 7/2015 Ito D24/225
D733,912 S * 7/2015 Ito D24/225
D733,913 S * 7/2015 Ito D24/225
D735,878 S * 8/2015 Chang D24/216
D739,954 S * 9/2015 Ito D24/225
D740,439 S * 10/2015 Ito D24/225
D740,440 S * 10/2015 Ito D24/225
D750,799 S * 3/2016 Ito D24/225
D750,800 S * 3/2016 Ito D24/225
D754,871 S * 4/2016 Morrell-Falvey D24/225
D762,874 S * 8/2016 Ito D24/225
D772,424 S * 11/2016 Kram D24/216
D774,189 S * 12/2016 Wolfe D24/126
D800,912 S * 10/2017 Uzri D24/216
D812,502 S * 3/2018 Yokino D10/81
D819,209 S * 5/2018 DaCosta D24/155
D825,360 S * 8/2018 Ito D10/81
D829,117 S * 9/2018 Hirose D10/81
D829,582 S * 10/2018 Hirose D10/81
2011/0141469 A1 * 6/2011 Shibayama G01J 3/02
356/328
2016/0061736 A1 * 3/2016 Ito G01N 21/658
356/301
2018/0136134 A1 * 5/2018 Shibayama G01N 21/658

* cited by examiner

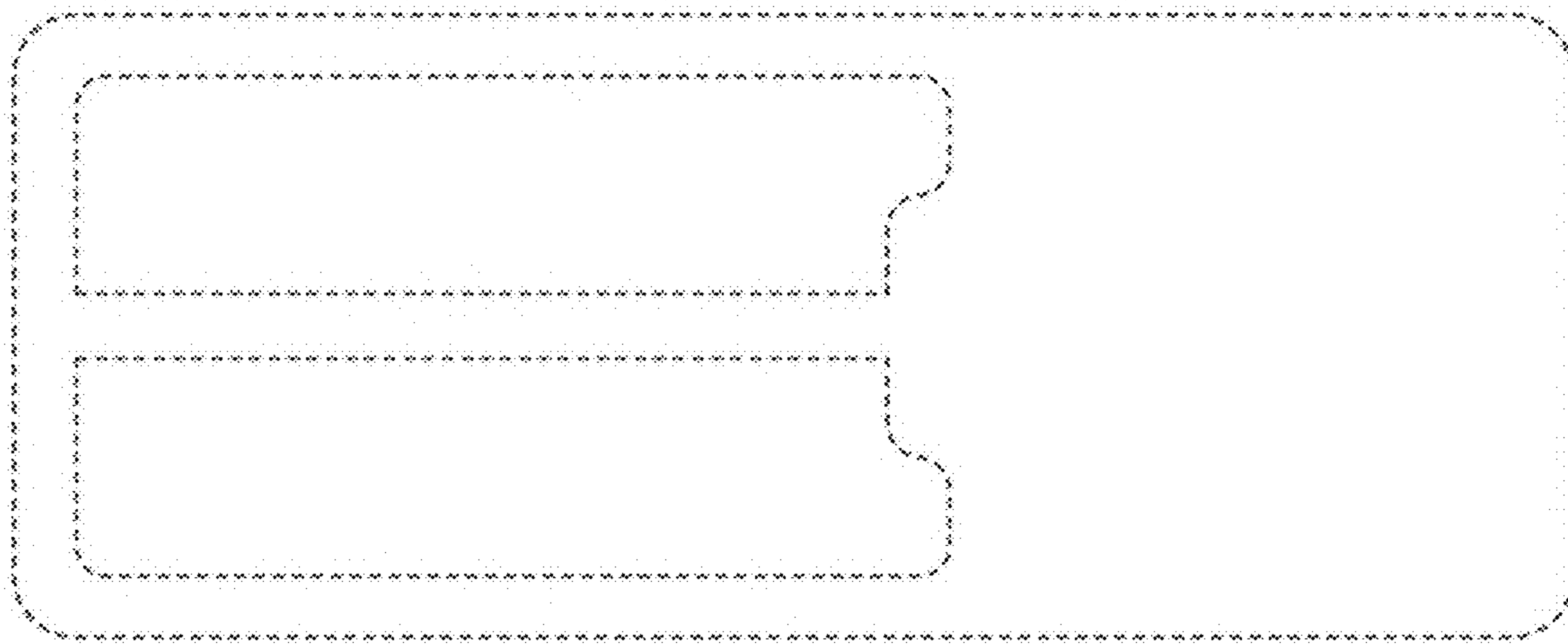
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1.3



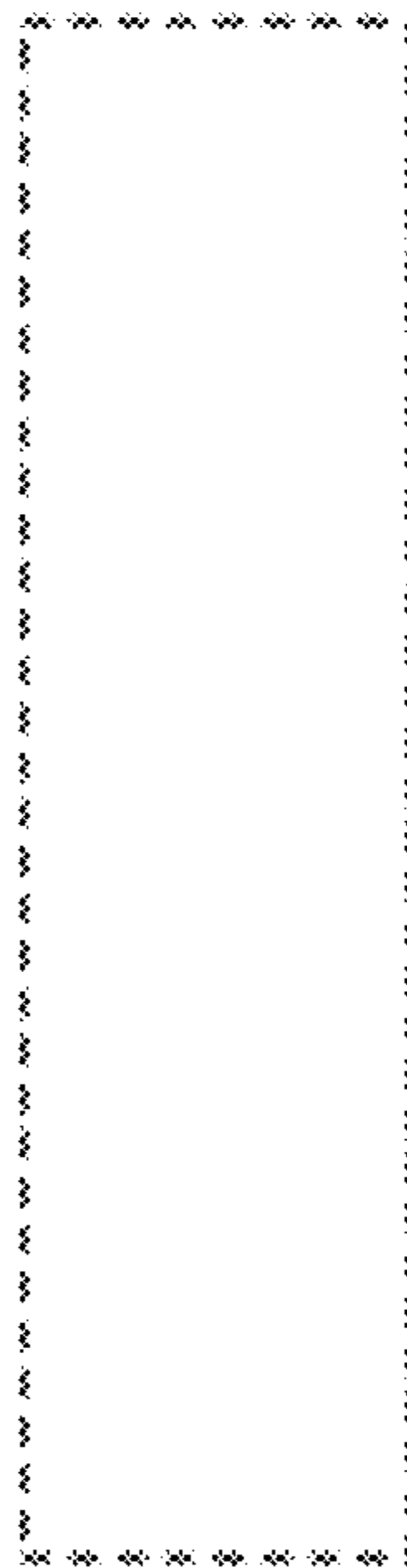
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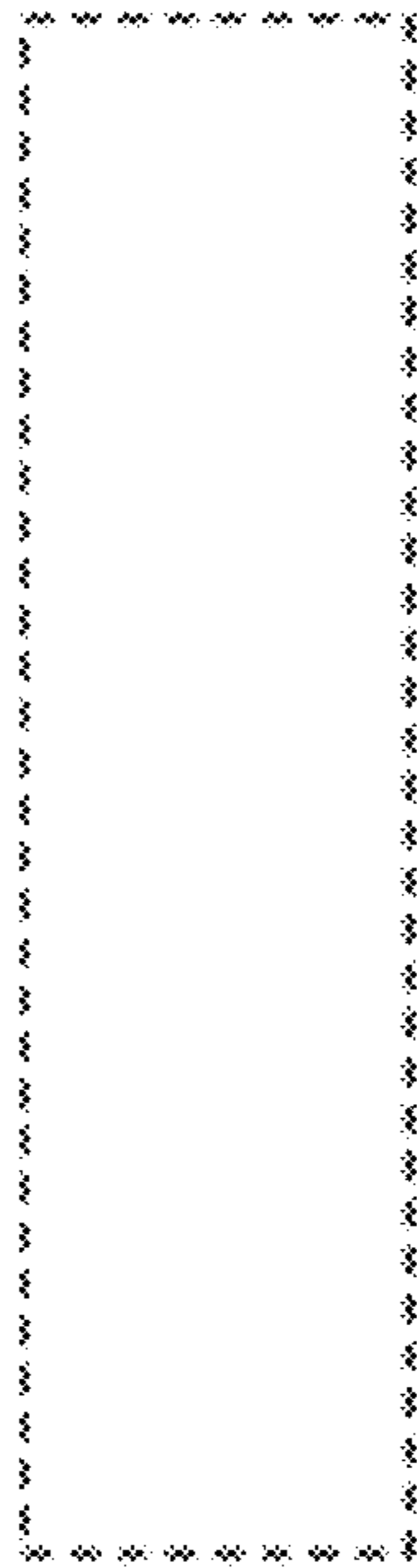
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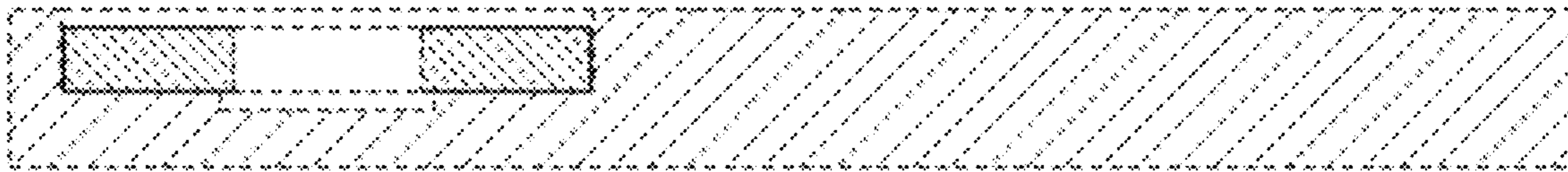
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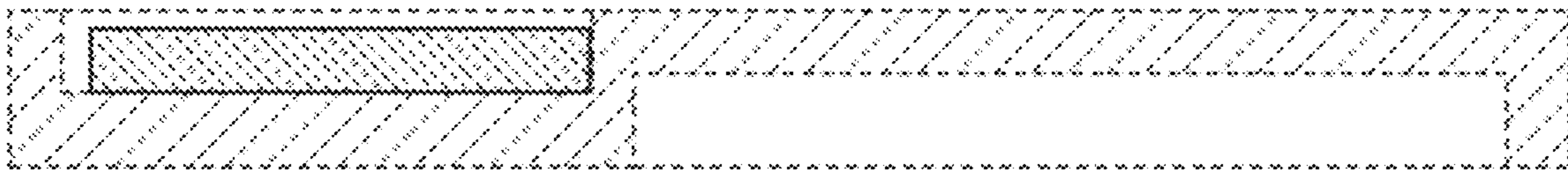
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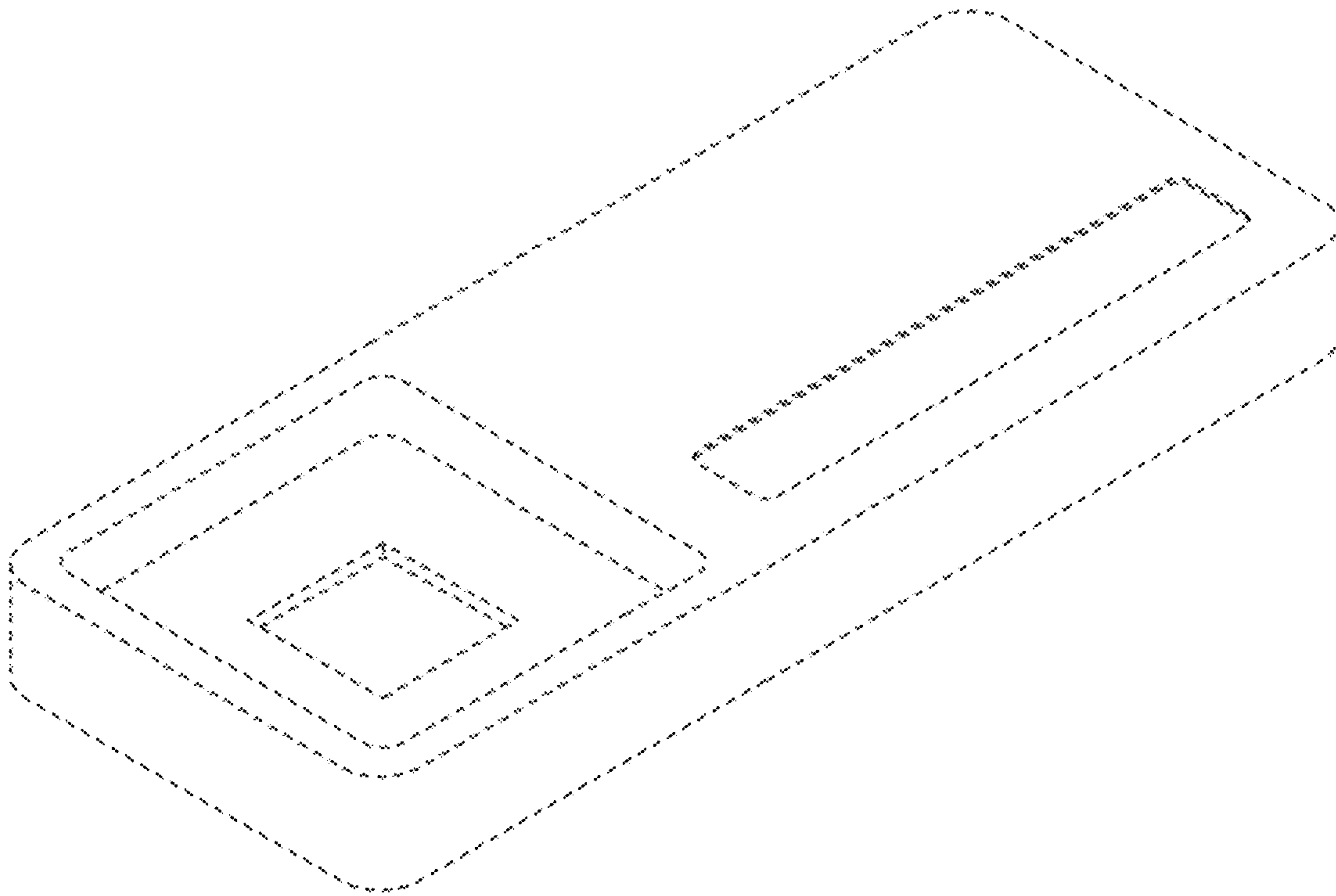
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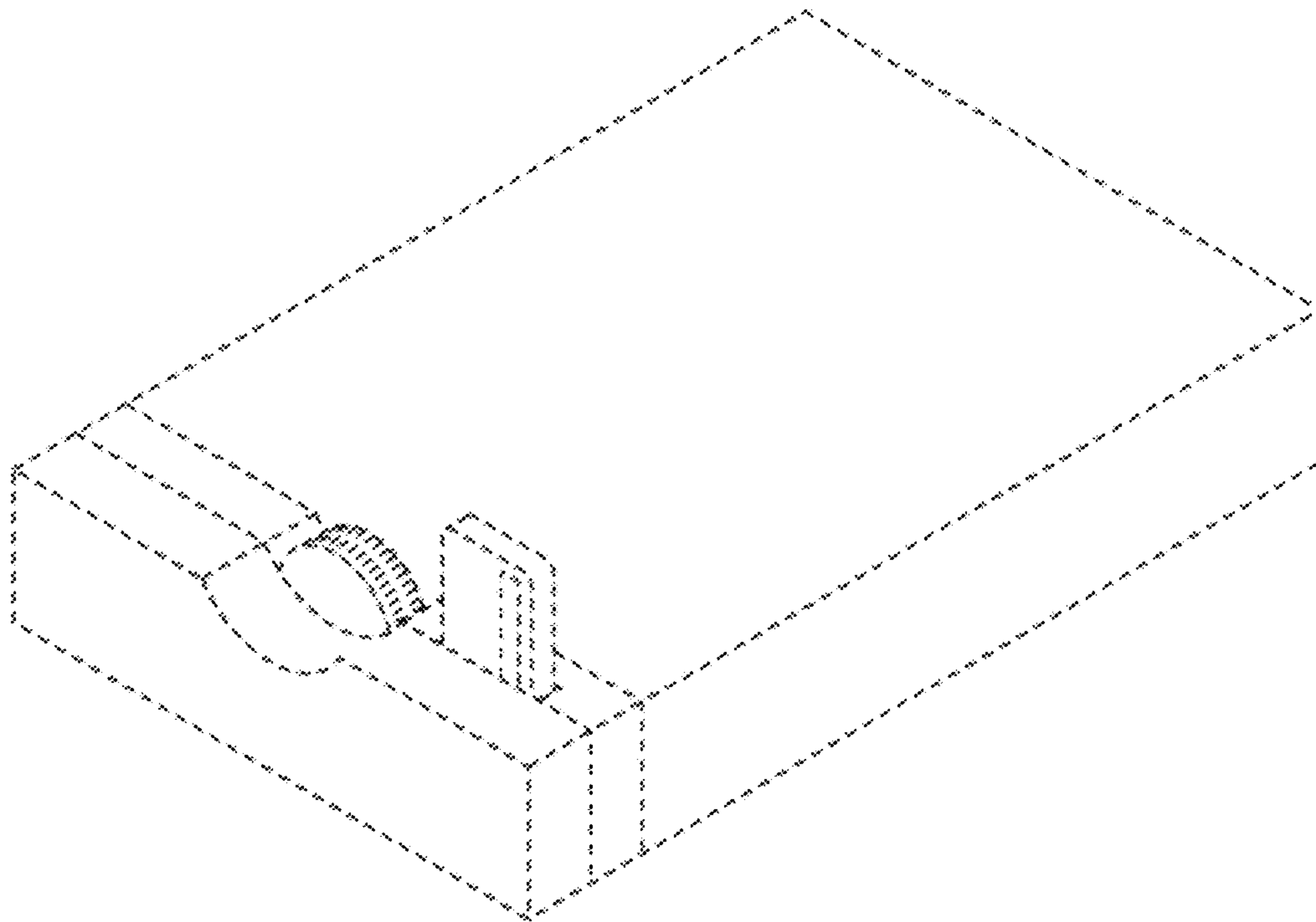
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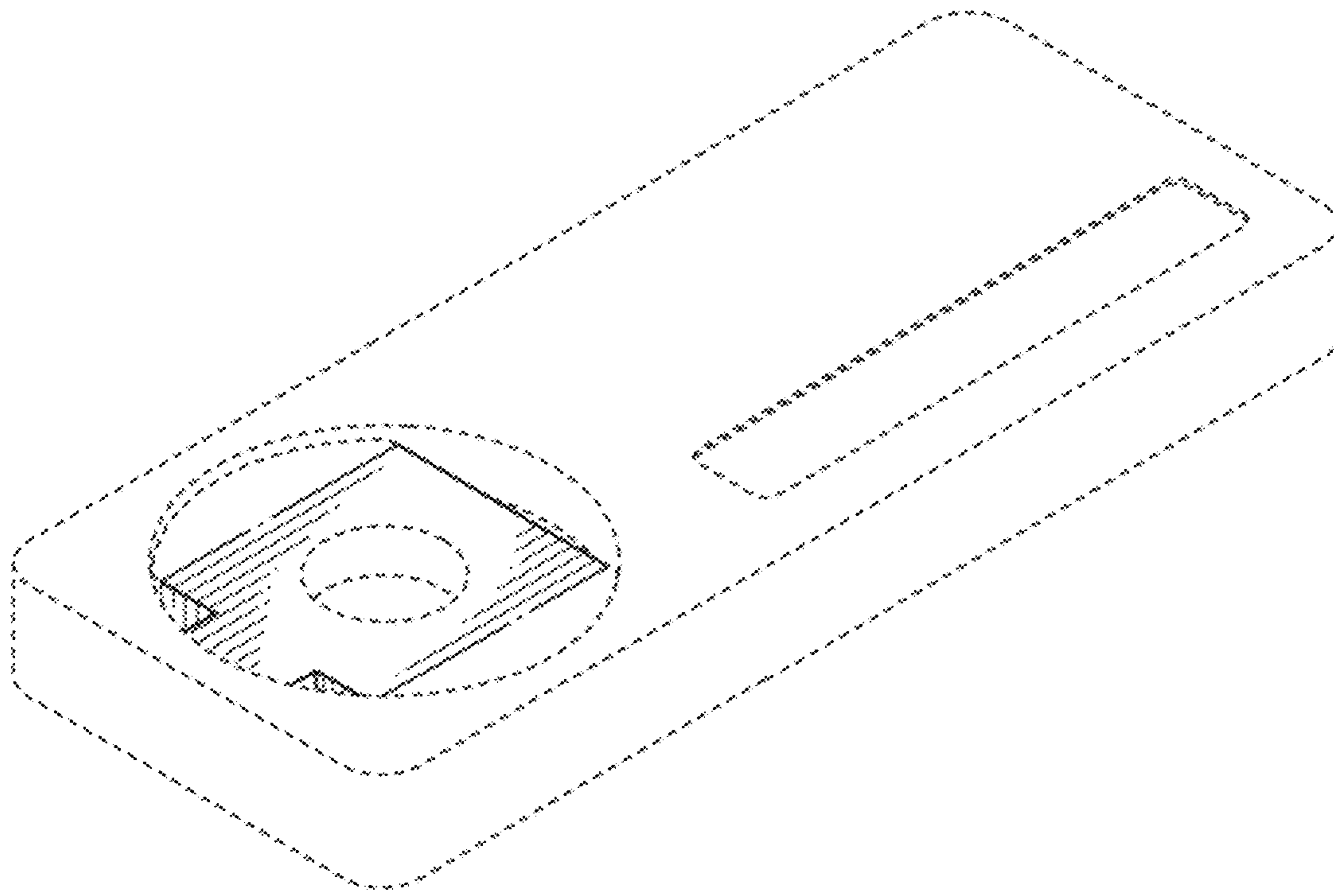
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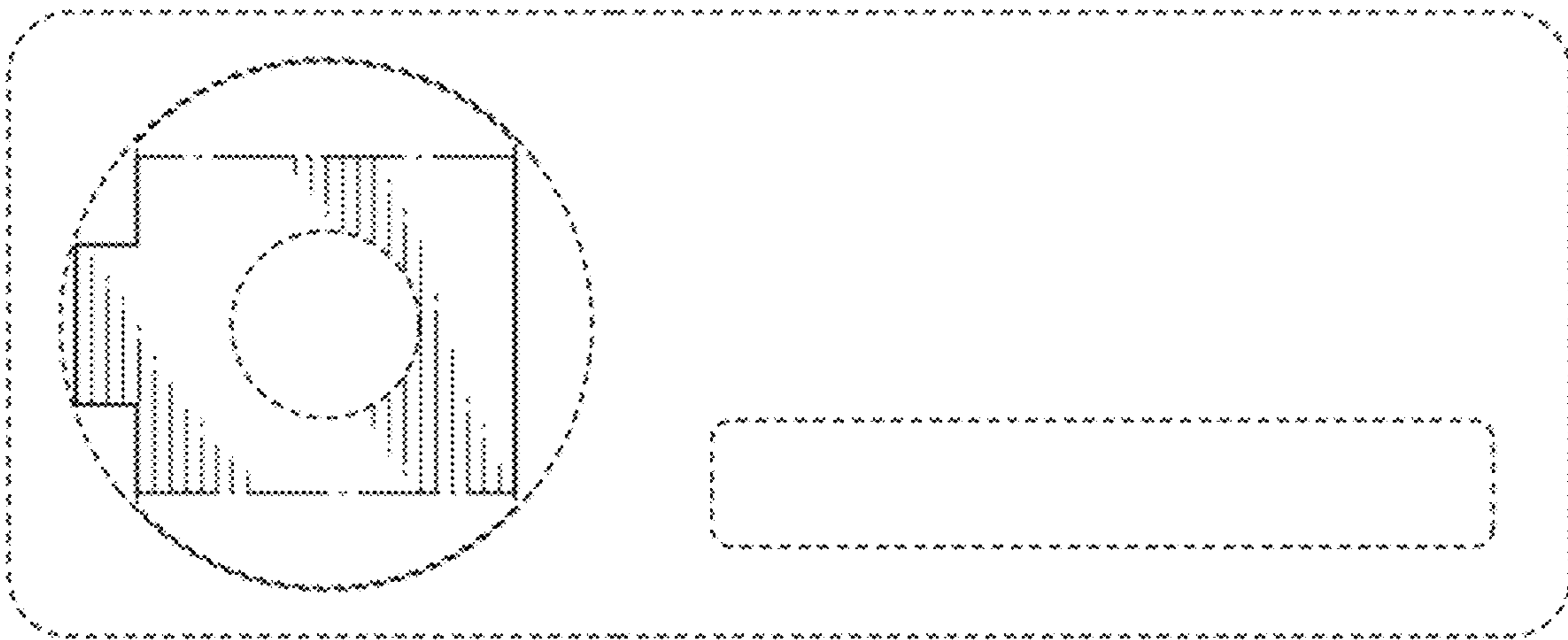
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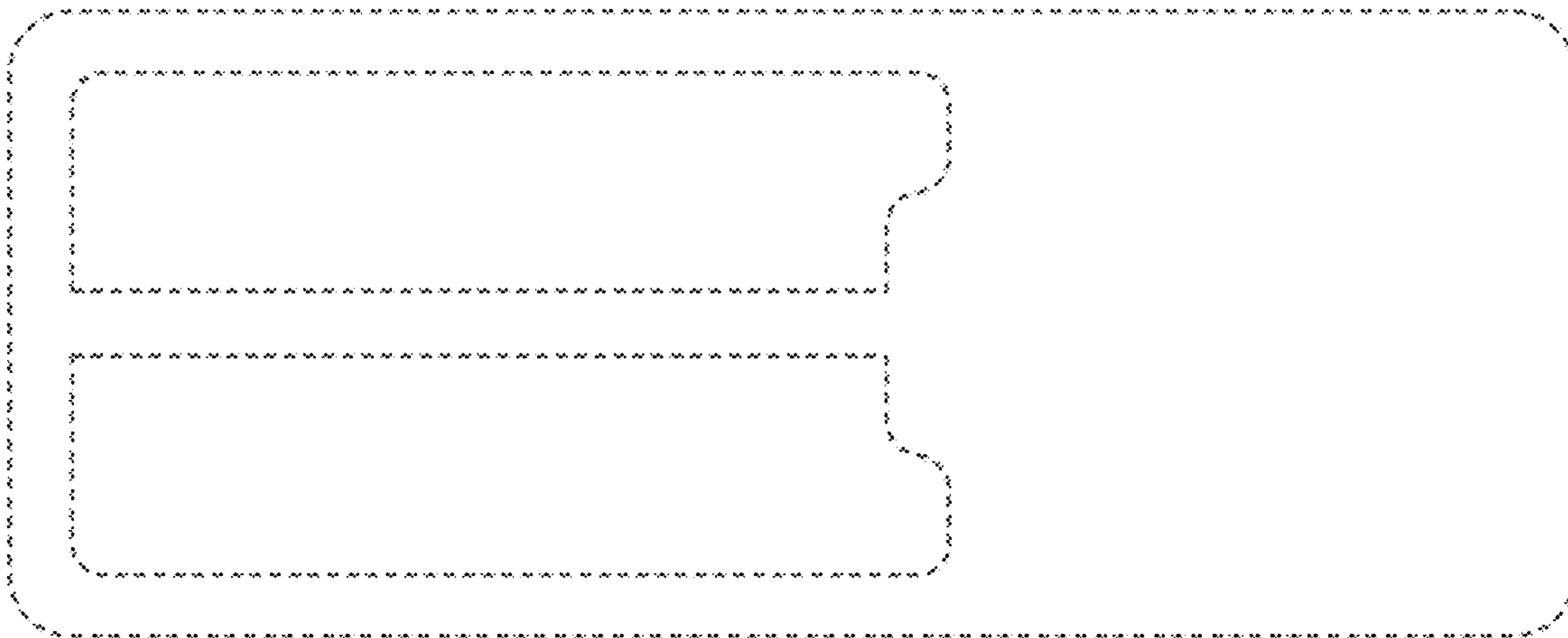
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2.2



2.3



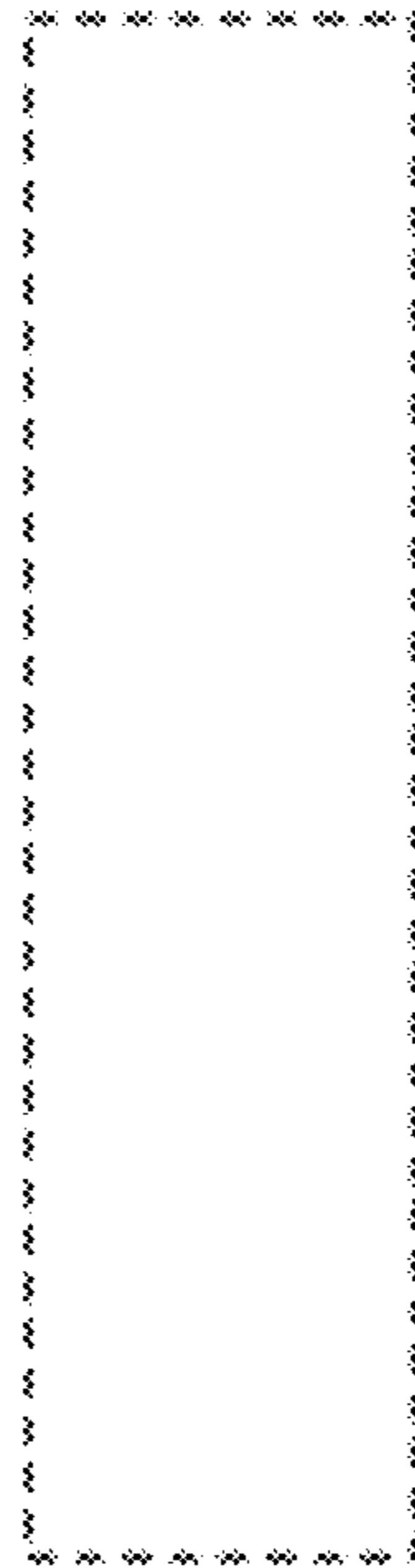
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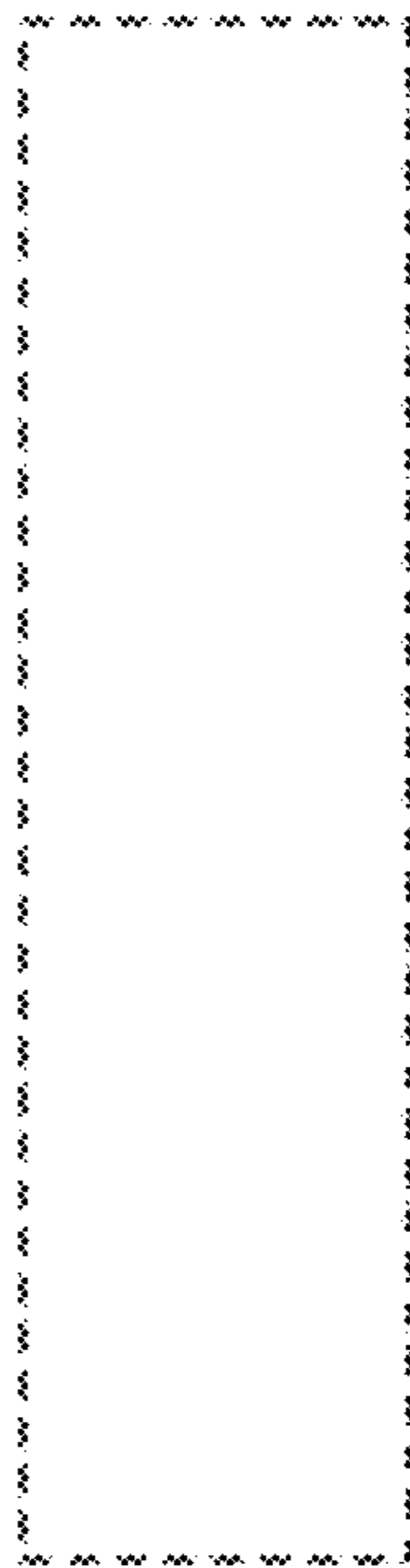
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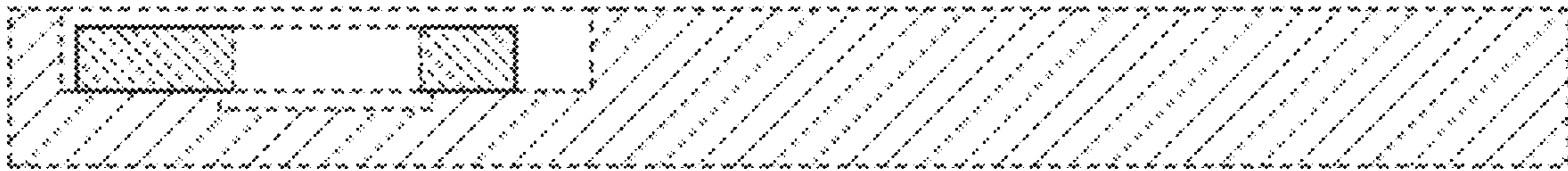
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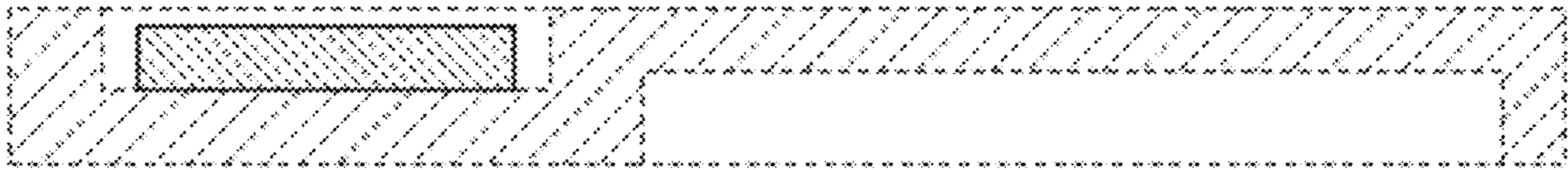
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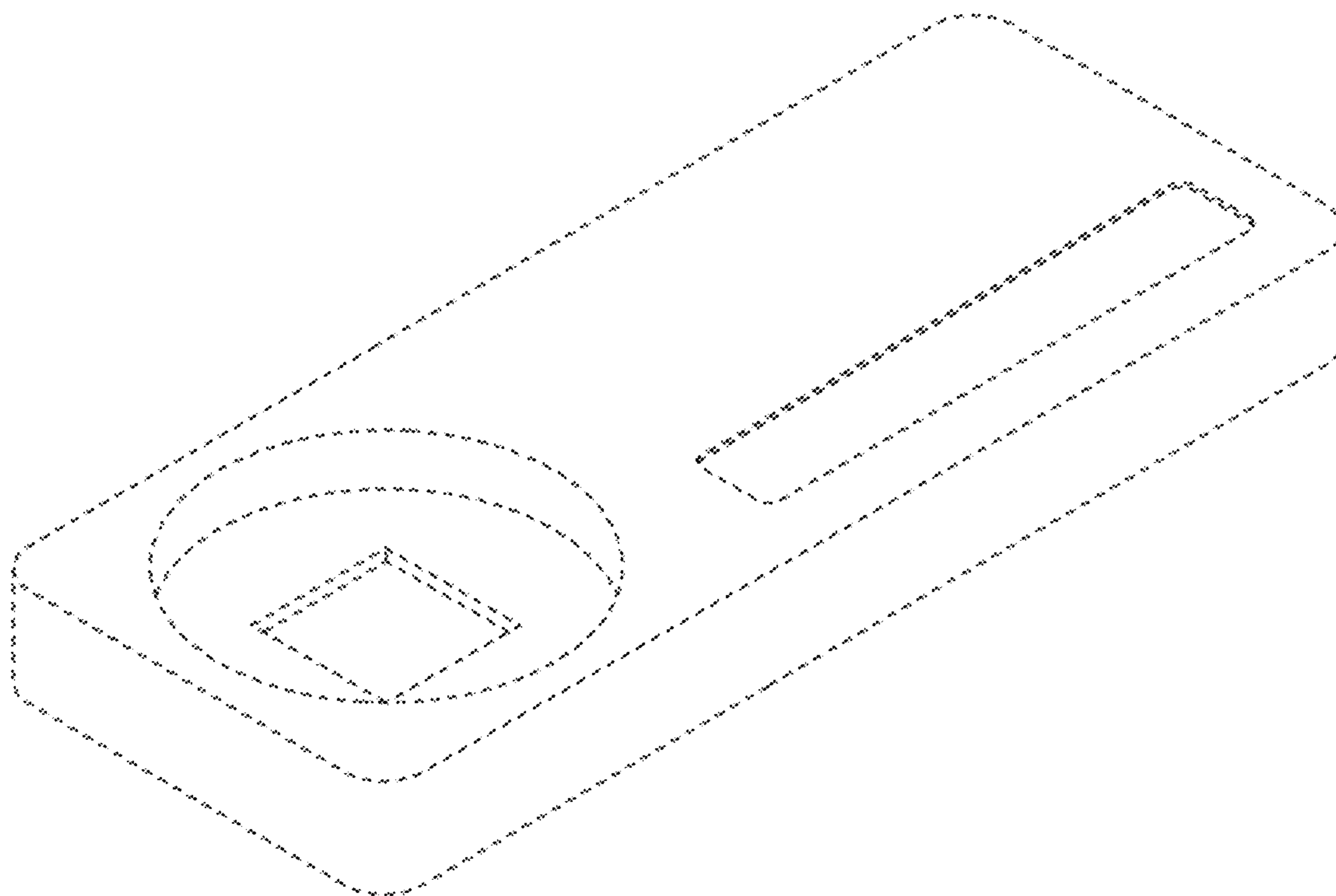
2.8



2.9



2.10



2.11

