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Hartman et al.

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(54) PLANT GROWING ENCLOSURE

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(**) Term: 15 Years

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D909,239 S * 2/2021 Choi D11/155

D954,596 S * 6/2022 Li A01G 7/045

D11/144

D979,451 S * 2/2023 Kim D11/143

(Continued)

FOREIGN PATENT DOCUMENTS

CN 104634284 A 5/2015

CN 108552029 A 9/2018

(Continued)

OTHER PUBLICATIONS

Home Plant Cultivator, available Mar. 19, 2024, online, site visited Mar. 19, 2024. Available online, URL: <https://www.shopclues.com/home-plant-cultivator-153354283.html> (Year: 2024).*

Jiangsu Skyplan Greenhouse Technology Co Commercial Hydroponics Systems, available Mar. 19, 2024, online, site visited Mar. 19, 2024. Available online, URL: <https://www.spgreenhouse.com/indoor-hydroponics-grow-kit/61499705.html> (Year: 2024).*

U.S. Appl. No. 62/617,538, filed Jan. 15, 2018.

(Continued)

Related U.S. Application Data

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(52) U.S. Cl.

USPC D11/144

CPC A01G 31/02 (2013.01); A01G 9/249 (2019.05)

(58) Field of Classification Search

USPC D11/143–145, 147, 152–156; D6/403, D6/405, 556; D8/1; D26/55, 58

CPC A01G 9/02; A01G 9/022; A01G 9/023; A01G 9/029; A01G 9/249; A01G 18/00

See application file for complete search history.

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(57)

CLAIM

We claim the ornamental design for a plant growing enclosure, as shown and described.

DESCRIPTION

FIG. 1 is a top perspective view of a plant growing enclosure, embodying our new design;

FIG. 2 is a bottom perspective view thereof;

FIG. 3 is a front elevation view thereof;

FIG. 4 is a back elevation view thereof;

FIG. 5 is a first end elevation view thereof;

FIG. 6 is a second end elevation view thereof;

FIG. 7 is a top view thereof; and,

FIG. 8 is a bottom view thereof.

The broken lines shown illustrate portions of the plant growing enclosure and form no part of the claimed design.

1 Claim, 8 Drawing Sheets

(56)

References Cited

U.S. PATENT DOCUMENTS

2,917,876 A 7/1956 Clapp

2,971,290 A 2/1961 Kyle

D323,441 S * 1/1992 Waldeck D6/682.2

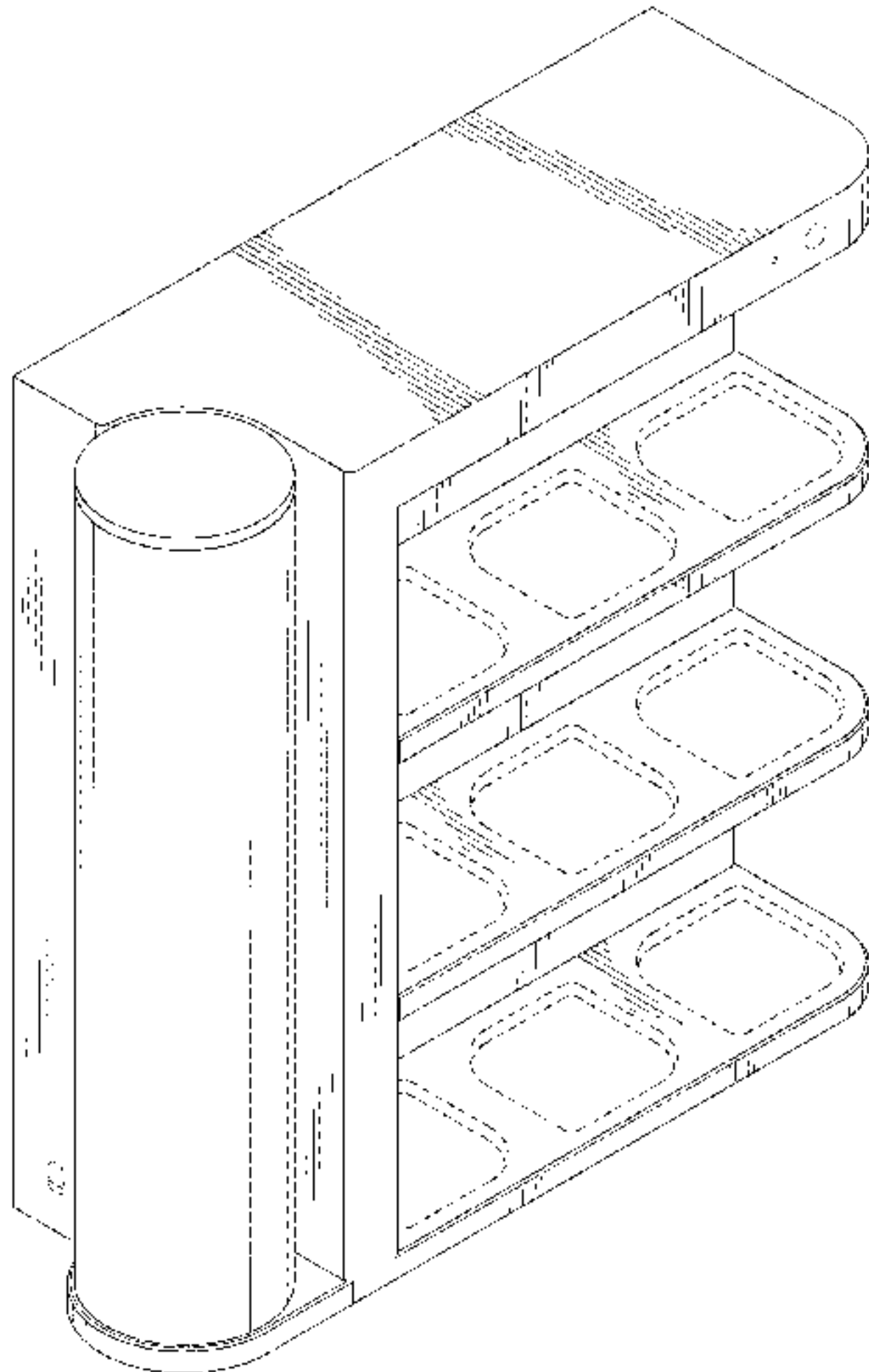
D440,335 S * 4/2001 Kuo D6/673

8,088,280 B2 1/2012 Pedersen

D688,071 S * 8/2013 Mount D6/677

D864,016 S * 10/2019 Woltz D11/143

D901,327 S * 11/2020 Choi D11/155



(56)

References Cited

OTHER PUBLICATIONS

U.S. PATENT DOCUMENTS

D986,763 S * 5/2023 Choi D11/155
D996,147 S * 8/2023 Park D7/602
D1,011,231 S * 1/2024 Pan D11/143
2010/0218423 A1 9/2010 Walhovd
2012/0227321 A1 9/2012 Furumura et al.
2013/0031833 A1 2/2013 MacKinnon
2013/0042524 A1 2/2013 Friton
2013/0180173 A1 7/2013 Caspar et al.
2013/0247461 A1 9/2013 Rolf et al.
2015/0319933 A1 11/2015 Li
2017/0094914 A1 * 4/2017 Paquette F21V 33/006
2017/0172082 A1 6/2017 Weiss et al.
2017/0188531 A1 7/2017 Daniels
2019/0223396 A1 * 7/2019 Loessl C02F 1/325
2019/0387660 A1 * 12/2019 Loessl A01G 24/44
2020/0260665 A1 * 8/2020 Yi A01G 27/003
2020/0275621 A1 * 9/2020 Maman A01C 23/007
2021/0185954 A1 * 6/2021 Xie A01G 9/0297
2022/0330502 A1 * 10/2022 Hartman A01G 9/16

FOREIGN PATENT DOCUMENTS

CN 109006040 A 12/2018
CN 109042590 A 12/2018
CN 308376660 * 12/2023
DE 3434367 A1 1/1986
IN 348854-001 * 7/2022
KR 1020120113318 A 10/2012
WO WO 2019/140289 7/2019

PCT International Patent Application No. PCT/US19/13336, International Search Report and Written Opinion of the International Searching Authority dated Apr. 19, 2019, 21 pages.
PCT International Patent Application No. PCT/US22/24595, International Search Report and Written Opinion of the International Searching Authority dated Aug. 1, 2022, 14 pages.
Amaranthus et al. Inoculate with Mycorrhizae: it's easy as A-B-Seeds. Acres, Jan. 2012, vol. 12, No. 1, 4 pages; accessed at <https://mycorrhizae.com/wp-content/uploads/2017/04/Inoculate-with-Mycorrhizae-PDF.pdf>, retrieved on Mar. 15, 2019.
Burrell. Garden Soil Tips. In: HowStuffWorks, <https://home.howstuffworks.com/gardening/garden-design/garden-soil-tips.htm>, published Apr. 3, 2007; retrieved on Mar. 18, 2019; 7 pages.
Instafarm. Website, <https://instafarm.ag>, originally downloaded Jul. 1, 2022, 13 pages.
Muraji et al. Effect of Alternating Magnetic Field on the Growth of the Primary Root of Corn. IEEE Transactions on Magnetism, Jul. 1992, 28(4):1996-2000.
Podlesny et al. Efficiency of the magnetic treatment of broad bean seeds cultivated under experimental plot conditions. Int. Agrophysics, Jan. 2004, 18(1):65-71.
Turker et al. The Effects of an Artificial and Static Magnetic Field on Plant Growth, Chlorophyll and Phytohormone Levels in Maize and Sunflower Plants. Phytion-Annales Rei Botanicae, Jun. 2007, 46(2):271-284.

* cited by examiner

FIG. 1

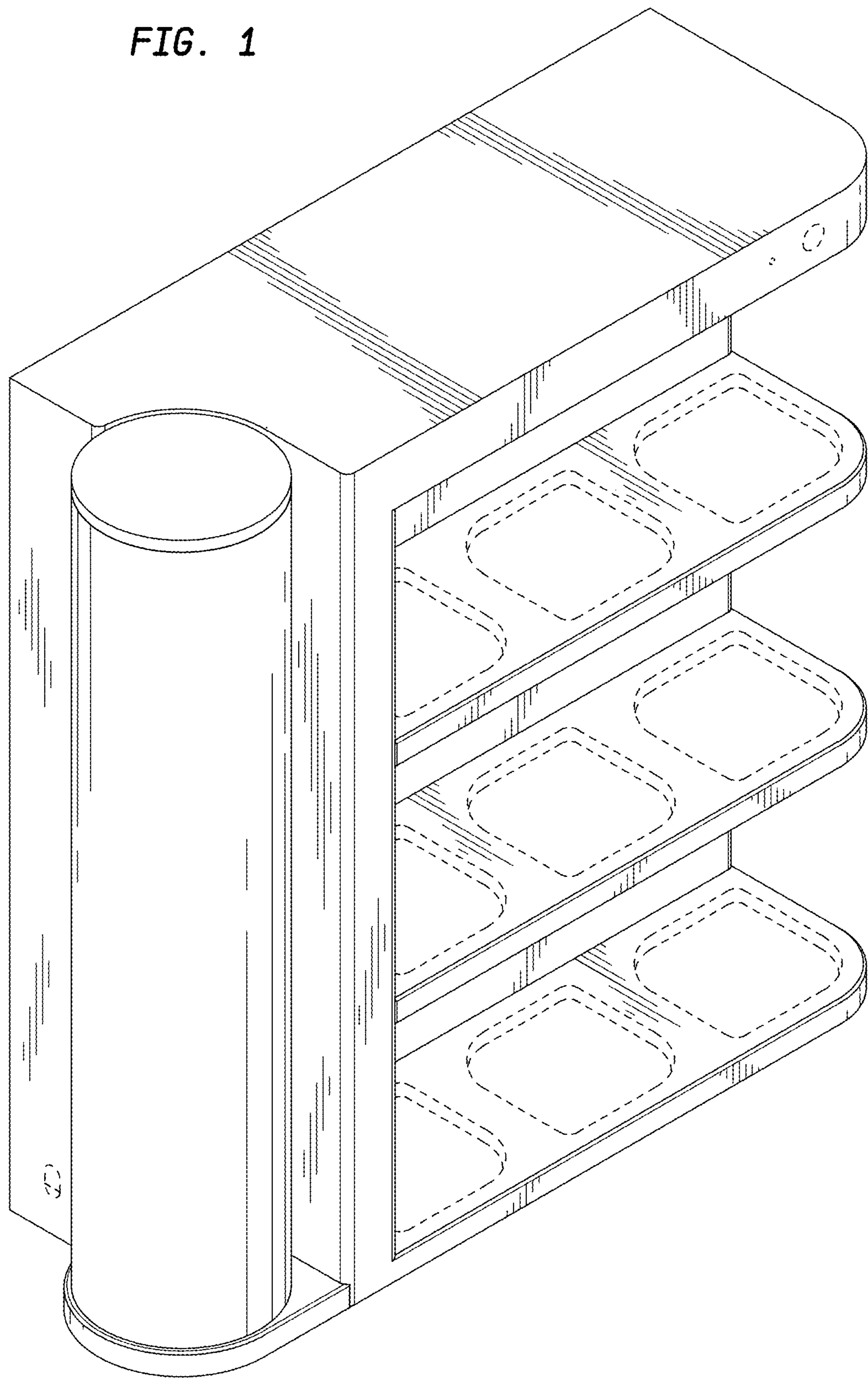


FIG. 2

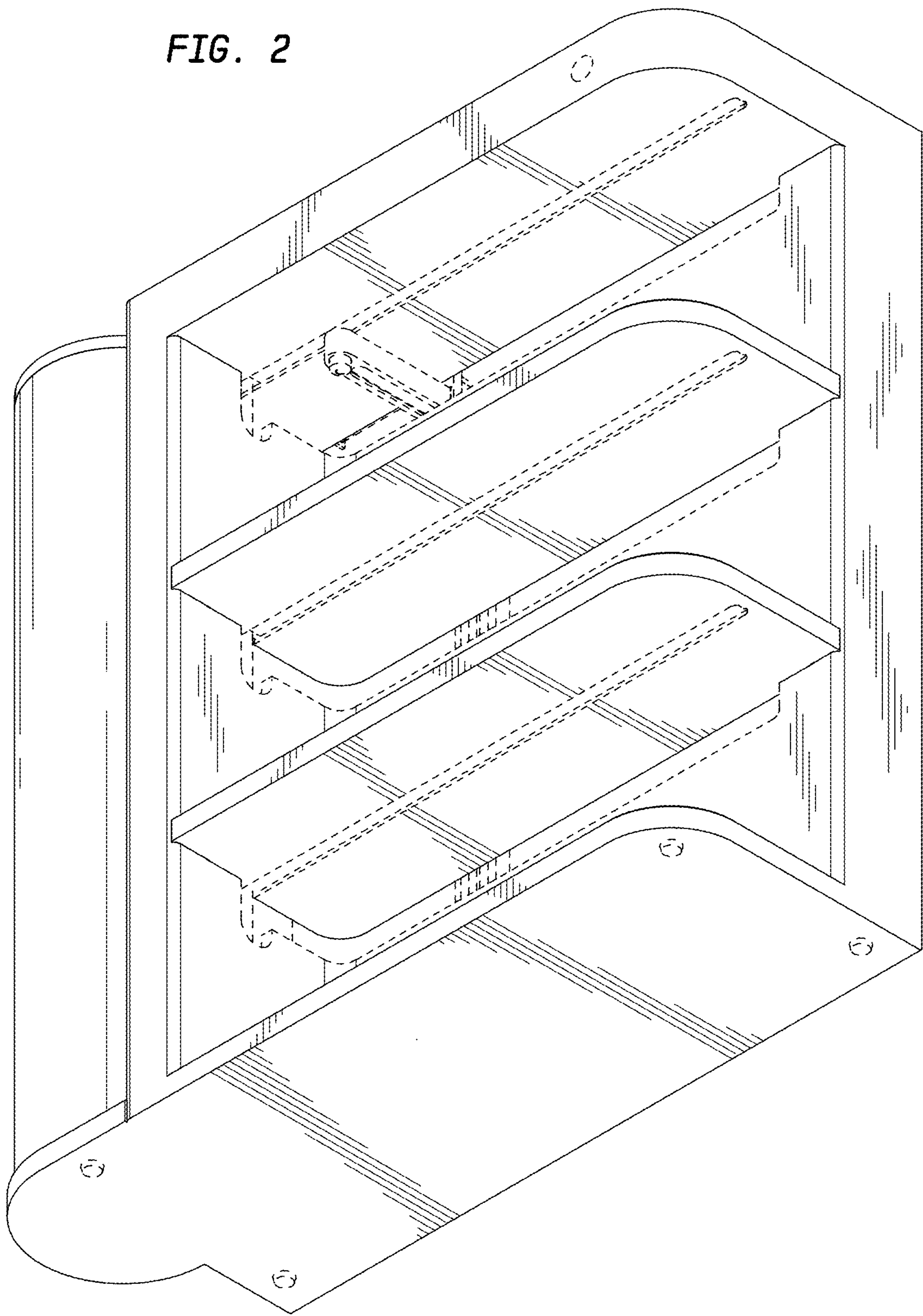


FIG. 3

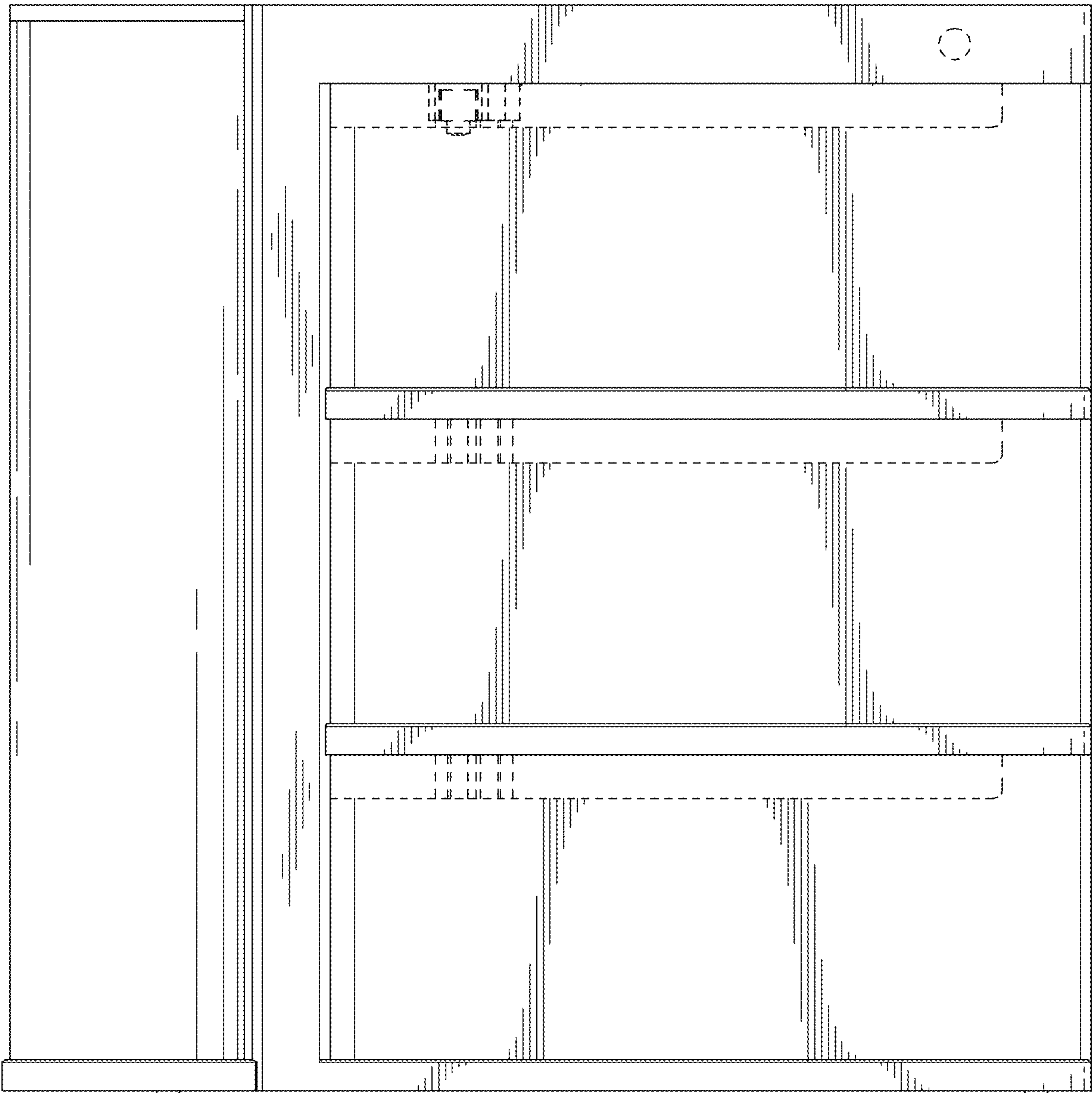


FIG. 4

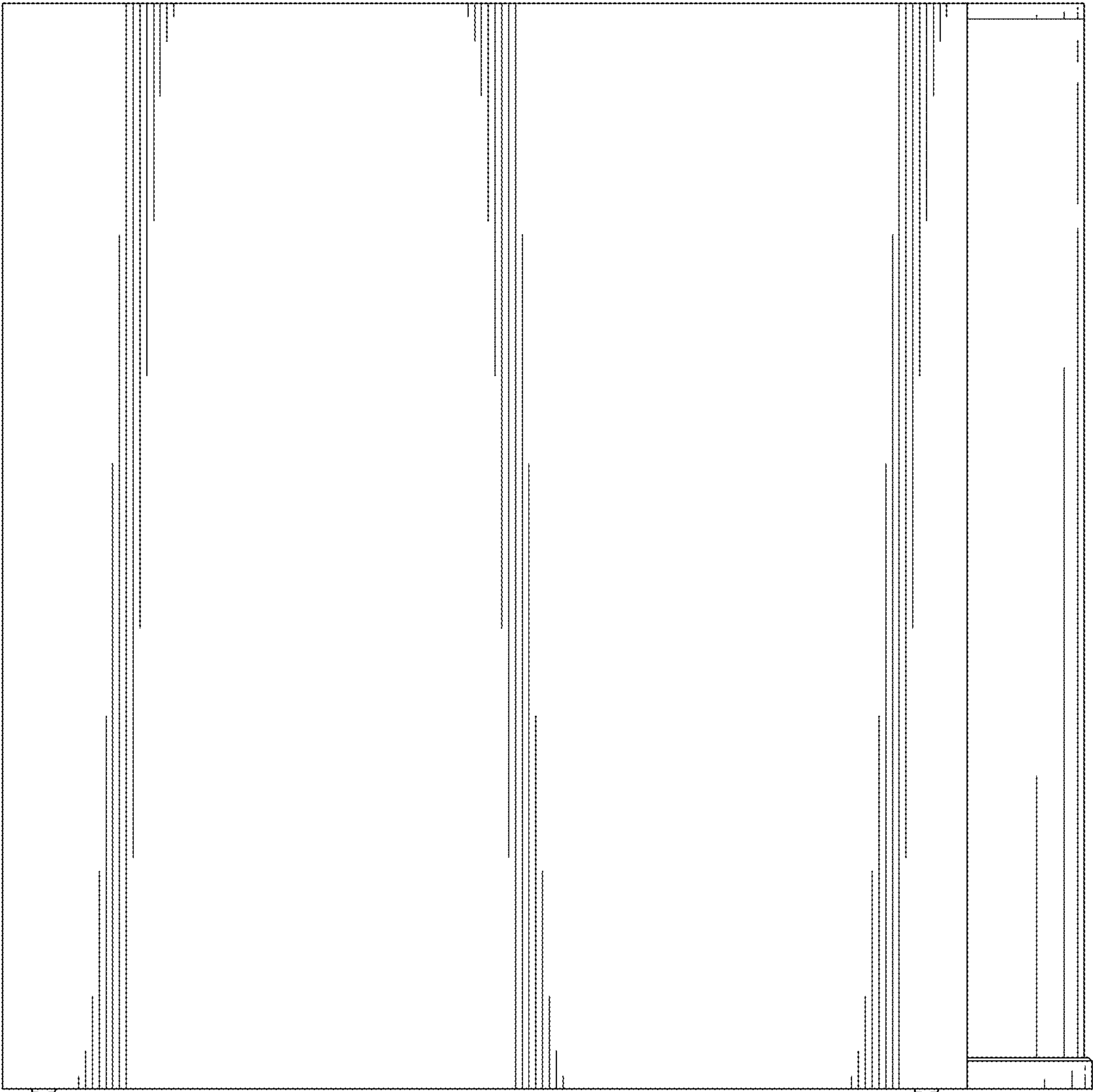


FIG. 5

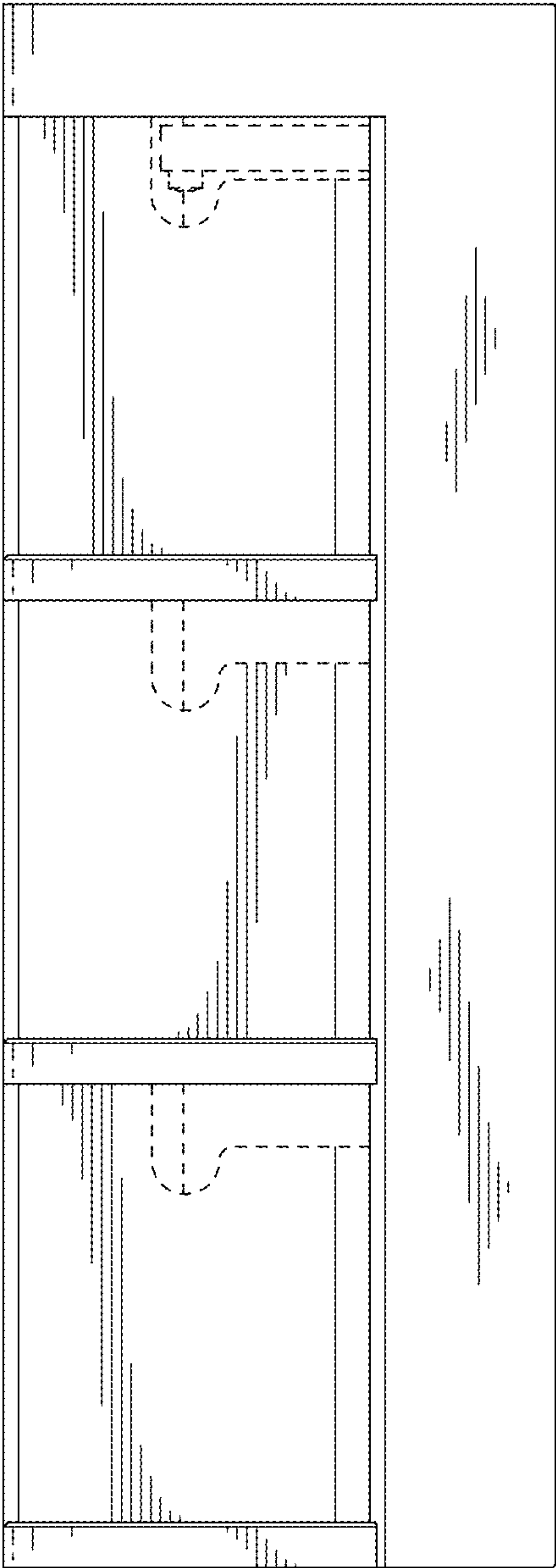


FIG. 6

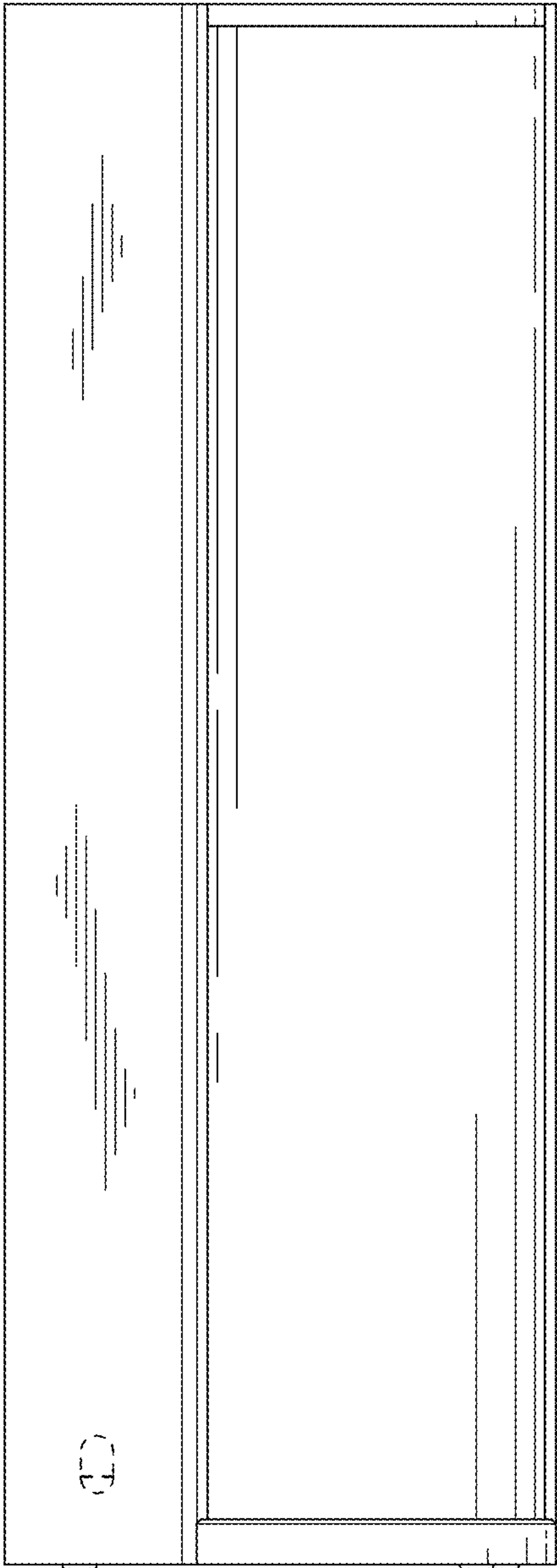


FIG. 7

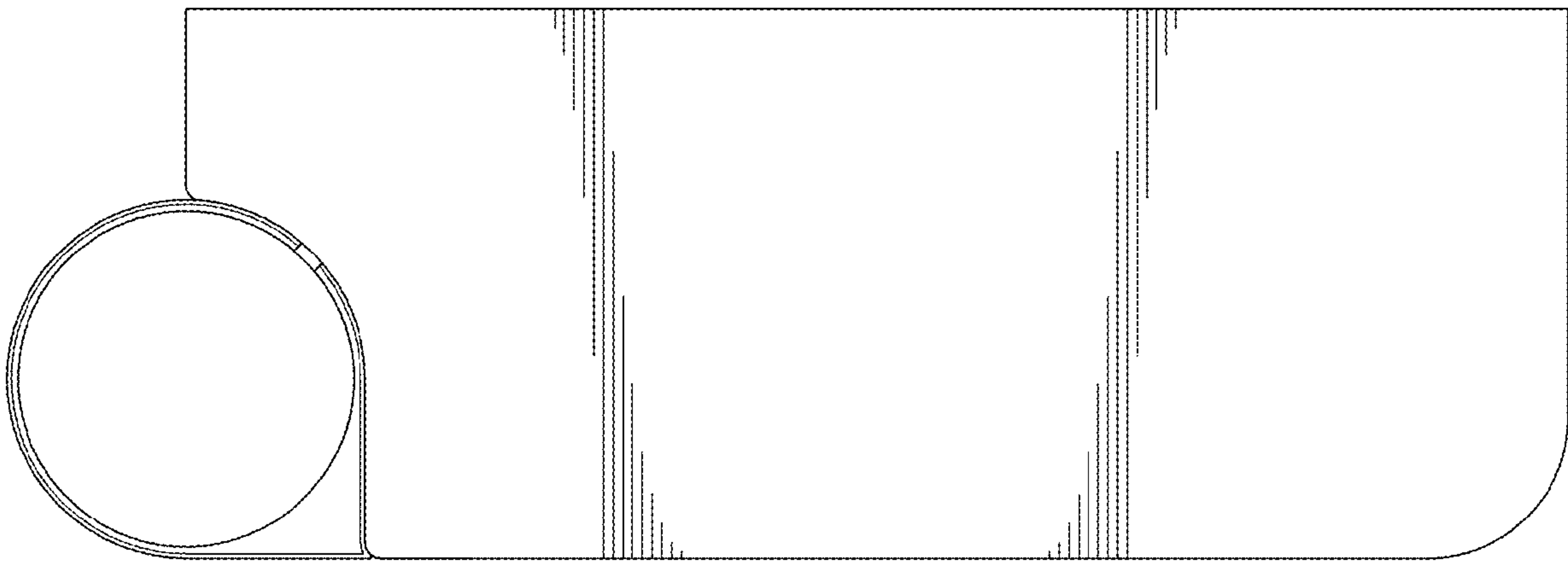


FIG. 8

