



US00D978478S

(12) **United States Design Patent** (10) **Patent No.:** **US D978,478 S**
Burger et al. (45) **Date of Patent:** **** Feb. 21, 2023**

(54) **BUTTER STICK**

FOREIGN PATENT DOCUMENTS

(71) Applicant: **Land O'Lakes, Inc.**, Arden Hills, MN (US)

CN 301699053 10/2011
EP 0206674 A2 12/1986
(Continued)

(72) Inventors: **Joseph V. Burger**, Apple Valley, MN (US); **Sharon K. Cody**, Maple Grove, MN (US); **Jonathan Anderson**, Minneapolis, MN (US); **Lisa Ryan**, Lakeville, MN (US)

OTHER PUBLICATIONS

International Preliminary Report on Patentability received for International Application No. PCT/US2019/047534, dated Mar. 4, 2021.
(Continued)

(73) Assignee: **Land O'Lakes, Inc.**, Arden Hills, MN (US)

Primary Examiner — Katie Jane Stofko

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

(74) *Attorney, Agent, or Firm* — Dorsey & Whitney LLP

(21) Appl. No.: **29/802,340**

(57) **CLAIM**

The ornamental design for a butter stick, as shown and described.

(22) Filed: **Aug. 4, 2021**

DESCRIPTION

Related U.S. Application Data

(62) Division of application No. 29/712,913, filed on Nov. 12, 2019, now Pat. No. Des. 929,696, which is a
(Continued)

(51) **LOC (14) Cl.** **01-01**

(52) **U.S. Cl.**
USPC **D1/100**

(58) **Field of Classification Search**
USPC D1/100–130, 199; 426/104, 108, 138, 426/391, 549, 808, 94, 143, 559, 560;
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

44,342 A 9/1864 Sawyer
147,877 A 2/1874 Spratt
(Continued)

FIG. 1 is an illustration of a top, front, left side perspective view a butter stick;

FIG. 2 is an illustration of a top plan view of the butter stick of FIG. 1, with the bottom plan view being a mirror image thereof;

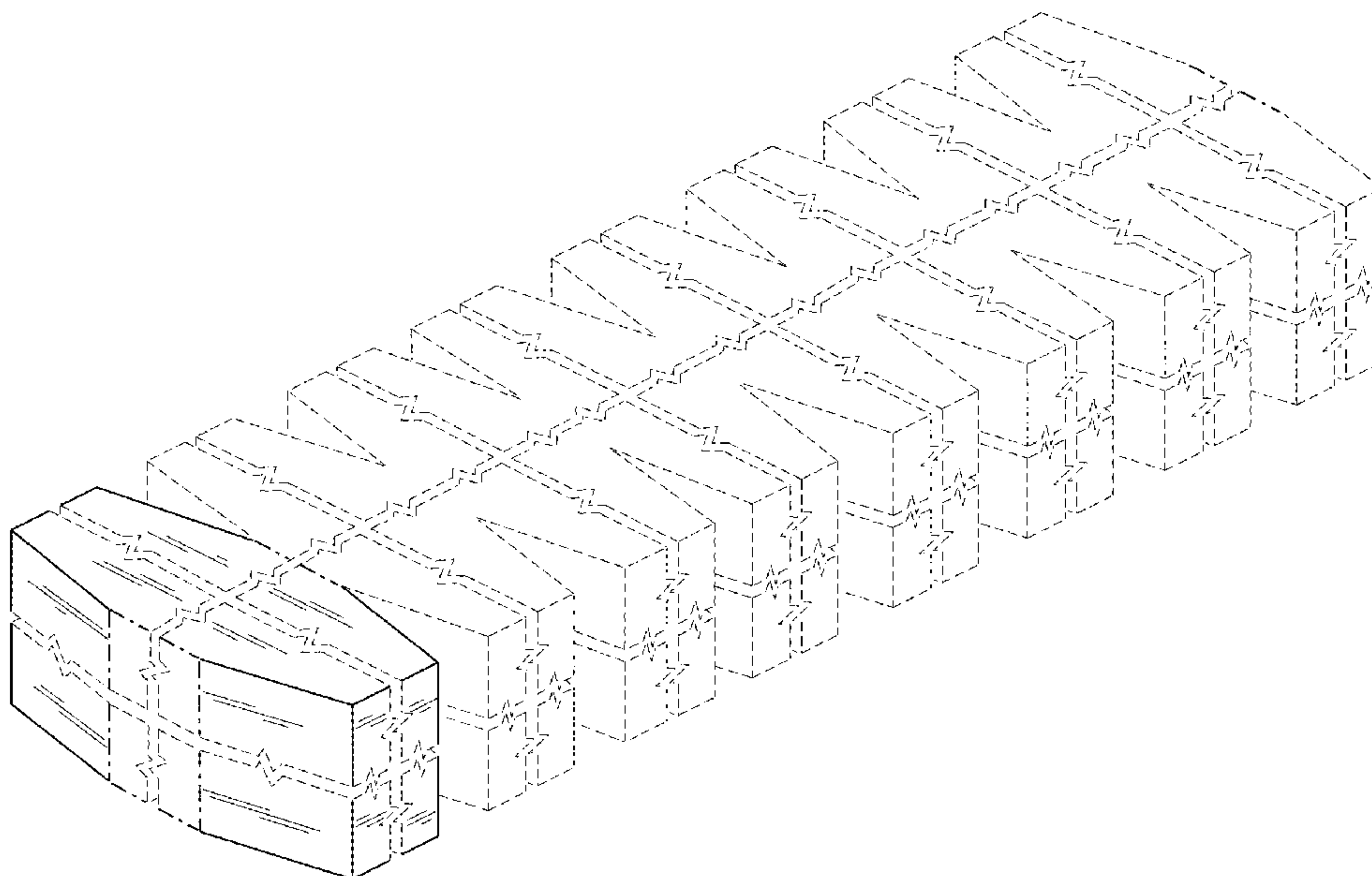
FIG. 3 is an illustration of a front elevation view of the butter stick of FIG. 1, with the back view being a mirror image thereof;

FIG. 4 is an illustration of a left side elevation view of the butter stick of FIGS. 1; and,

FIG. 5 is an illustration of a right side elevation view of the butter stick of FIG. 1.

The dot-dash broken lines illustrated in the butter stick surfaces define the bounds of the claim, forming no part thereof. The evenly-spaced broken lines at the breaks in the drawings illustrate portions of the butter stick that form no part of the claim. Any portion of the article between those breaks forms no part of the claimed design.

1 Claim, 3 Drawing Sheets



Related U.S. Application Data

division of application No. 29/690,754, filed on May 10, 2019, now Pat. No. Des. 871,016.

(58) Field of Classification Search

USPC D24/101–104; D28/8.1, 8.2, 63; D6/601;
D32/40, 43; D9/707, 756; D30/160;
D18/56; D25/113, 115; D23/366;
D7/502
CPC A23G 3/50; A23G 3/54; A23J 3/26; A23L
1/0067; B41J 2/17593

See application file for complete search history.

(56) References Cited**U.S. PATENT DOCUMENTS**

547,721	A	10/1895	Hazel	
1,690,784	A	11/1928	Wilhelm	
1,807,458	A	5/1931	Weland	
1,855,145	A	4/1932	Bartlett	
1,855,987	A	4/1932	Rammer	
1,952,698	A	3/1934	Willem	
D99,590	S	5/1936	Torongo	
D103,190	S	2/1937	Stanley	
D127,285	S	5/1941	Siemund	
D131,278	S	2/1942	Voorhis	
2,481,691	A	9/1949	Schaub	
3,017,275	A	1/1962	Coulter	
3,071,476	A	1/1963	Werft et al.	
3,267,512	A	8/1966	Wiley	
D206,036	S	10/1966	Meeker	
D206,429	S	12/1966	Eckelman et al.	
3,324,551	A	6/1967	Reinhold et al.	
3,410,699	A	11/1968	Leo	
D213,074	S	12/1968	Griffith et al.	
3,458,268	A	7/1969	Wozab et al.	
D224,077	S	7/1972	Duvall	
3,939,522	A	2/1976	Shimizu	
D239,215	S	3/1976	Miller	
3,976,796	A	8/1976	Peters	
4,149,815	A	4/1979	Kawam	
4,215,104	A	7/1980	David et al.	
4,353,887	A	10/1982	Hess et al.	
D296,193	S	6/1988	Grip et al.	
4,866,806	A	9/1989	Bedford	
D303,895	S	* 10/1989	Baus D6/559	
D310,130	S	8/1990	van	
D320,494	S	10/1991	Cederroth et al.	
5,088,136	A	2/1992	Stryker et al.	
D330,149	S	10/1992	Weimer	
5,312,197	A	5/1994	Abramson	
D361,077	S	8/1995	Jamison	
D366,380	S	1/1996	Kelly	
D372,486	S	8/1996	Morris	
D375,181	S	11/1996	Tourney et al.	
5,776,533	A	7/1998	Okamoto et al.	
5,855,937	A	1/1999	Okamoto et al.	
D411,111	S	6/1999	Damion et al.	
6,168,434	B1	1/2001	Boehm-van	
D485,942	S	1/2004	McLeish	
D506,587	S	6/2005	Armaly	
D540,182	S	4/2007	Weaver	
D545,844	S	7/2007	Kroeker	
D551,825	S	9/2007	Nutting	
D639,929	S	6/2011	Barford	
D659,470	S	5/2012	Narwankar et al.	
D666,286	S	8/2012	Chery	
8,273,399	B2	9/2012	Bartkowska et al.	
8,584,686	B2	11/2013	Polanish	
8,776,729	B2	7/2014	Koo et al.	
D713,741	S	9/2014	Wilmers	
D742,491	S	11/2015	Yamaguchi	
D742,497	S	11/2015	D'Amico et al.	
D748,770	S	2/2016	Hanna	
D749,203	S	2/2016	D'Amico et al.	
D760,886	S	7/2016	Peterson et al.	

D762,294	S	7/2016	Hanna
D768,946	S	10/2016	Anderson
D784,651	S	4/2017	Loacker
D785,466	S	5/2017	Son et al.
D792,193	S	7/2017	Ullbors
D793,868	S	8/2017	Kim et al.
D801,623	S	11/2017	Wang
D813,321	S	3/2018	Zaki
D814,727	S	4/2018	Wehrle
D815,461	S	4/2018	Christmas
D836,881	S	1/2019	Raub
D845,089	S	4/2019	Williams
D866,623	S	11/2019	Fenske
D869,116	S	12/2019	Burger et al.
D869,117	S	12/2019	Cody et al.
D871,016	S	12/2019	Burger et al.
D899,726	S	10/2020	Burger et al.
D902,939	S	11/2020	Chu
D918,526	S	5/2021	Cody et al.
2003/0017248	A1	1/2003	Gray
2003/0126831	A1	7/2003	Altwater et al.
2005/0123663	A1	6/2005	White et al.
2008/0306598	A1	12/2008	Hansen et al.
2009/0190866	A1	7/2009	Hughes
2012/0024887	A1	2/2012	Heinze
2012/0040078	A1	2/2012	Narwankar et al.
2012/0294663	A1	11/2012	Papavero et al.
2015/0274409	A1	10/2015	Nachbagauer et al.
2015/0320072	A1	11/2015	Button et al.
2017/0238572	A1	8/2017	Danenberg et al.
2020/0060218	A1	2/2020	Burger et al.

FOREIGN PATENT DOCUMENTS

EP	1114580	A2	7/2001
EP	2782441	B1	3/2017
FR	2690310	A1	10/1993
GB	190411615	A	4/1905
GB	190609218	A	6/1907
GB	514618	A	11/1939
JP	H03251142	A	11/1991
JP	H0723709	A	1/1995
RU	2131097	C1	5/1999
WO	2013190265	A1	12/2013

OTHER PUBLICATIONS

Adekola, "Influence of Food Extruder Die Dimensions on Extruded Products Expansion", Journal of Advances in Agricultural Science and Technology; <<http://watchpub.org/jaast/issues/2014/october/pdf/Adekola.pdf>>, Oct. 29, 2014, pp. 052-058.

BOC—A Member of the Linde Grp., "Beacuse we love good food. Frezihng and cooling technology for the food industry.", <https://www.boc-gas.com.au/en/images/BOC%20Freezing%20and%20Cooling%20brochure_tcm351-68091.pdf>, 2011, 8 pages.

Clay King, "North Star Dies", www.clay-king.com/clay_extruders/north_star_dies.html, Apr. 1, 2013, 1 page.

Clextal, "Dies", www.clextal.com/technologies-and-lines/equipment/the-die/, Oct. 29, 2013, 1 page.

Fennema, "Cryogenic Freezing of Foods", University of Wisconsin at Madison, Madison, Wisconsin; Plenum Press; Retrieved from Internet URL: <https://link.springer.com/content/pdf/10.1007/978-1-4613-4039-3_89.pdf>, 1978, 9 pages.

Japan, "Butter Stick", Jun. 28, 2018, 1 page.

Jeremiah, "Freezing Effects on Food Quality—Chapter 8—Freezing of Dairy Products", Boca Raton: CRC Press, <https://doi.org/10.1201/9780203755495>, 1996, 37 pages.

Krause, et al., "The Effect of Refrigerated and Frozen Storage on Butter Flavor and Texture", J. Dairy Sci. vol. 91 No. 2, 2008, pp. 455-465.

Marjon Ceramics, "Extruder", www.marjonceramics.com/pages/Product/EXTRUDERS.html, Oct. 6, 2011, 1 page.

Nahid, et al., "Modelling the Freezing of Butter", International Journal of Refrigeration. vol. 31, Issue 1, Retrieved from Internet

(56)

References Cited

OTHER PUBLICATIONS

URL: <<https://www.sciencedirect.com/science/article/pii/S0140700707001491>>, Jan. 2008, pp. 152-160.

PCT, “International Search Report and Written Opinion”, App. No. PCT/US2019/047534, dated Dec. 23, 2019, 10 pages.

Quora, “What is the Standard Weight of a Stick of Butter in the United States?” <<https://www.quora.com/What-is-the-standard-weight-of-a-stick-of-butter-in-the-United-States>>, Jun. 11, 2012, 4 pages.

Rahman, “Handbook of Food Preservation”, Second Edition; CRC Press; <http://www.cold.org.gr/library/downloads/Docs/Handbook%20of%20Food%20Preservation.PDF>, 2007, 33 pages.

SPX, “Cold Extrusion of Butter”, Gerstenberg Schroder; <http://www.spxflow.com/en/assets/pdf/GS_cold_extrusion_of_butter_07_12_gb.pdf>, Jul. 2012, 2 pages.

* cited by examiner

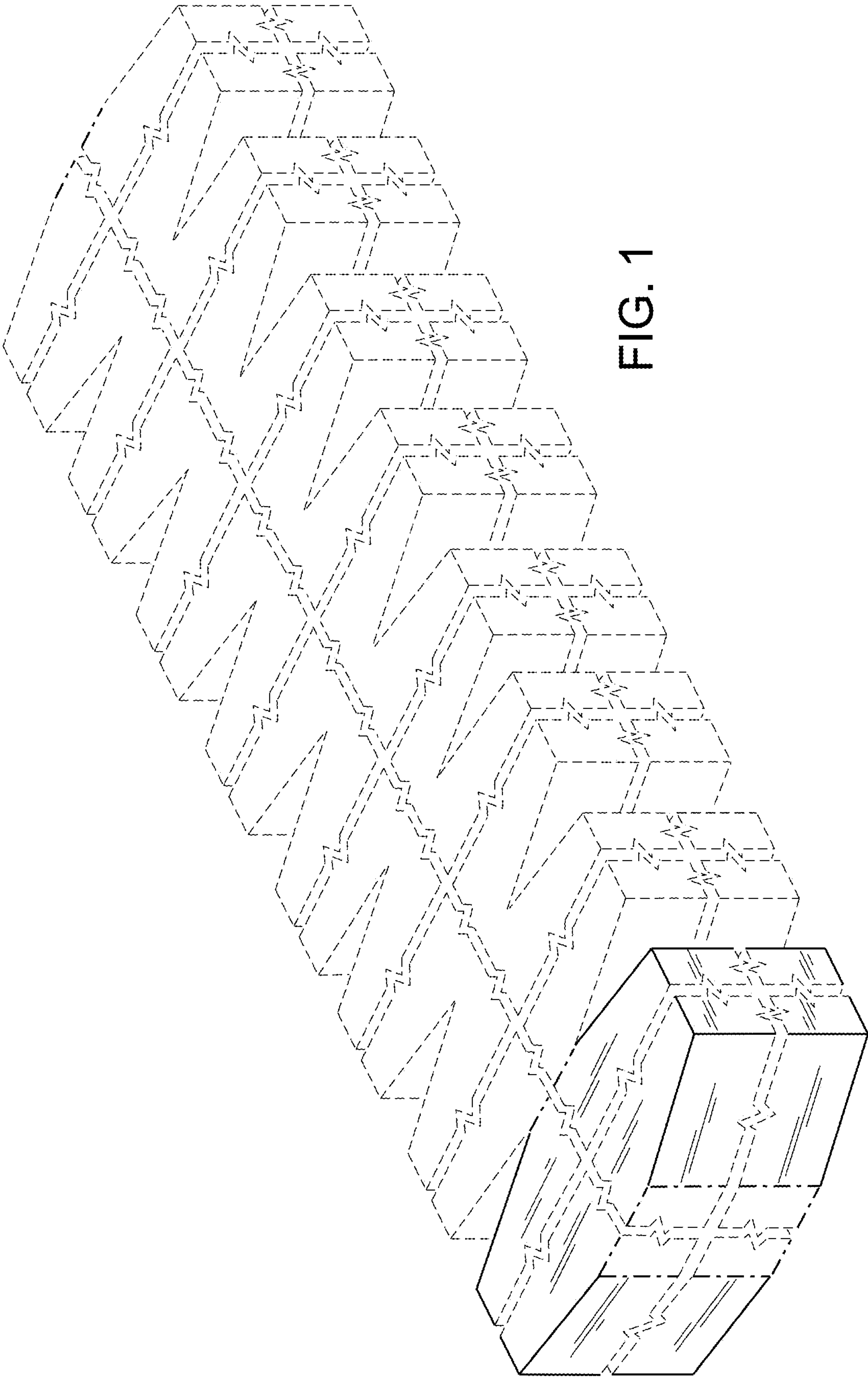


FIG. 1

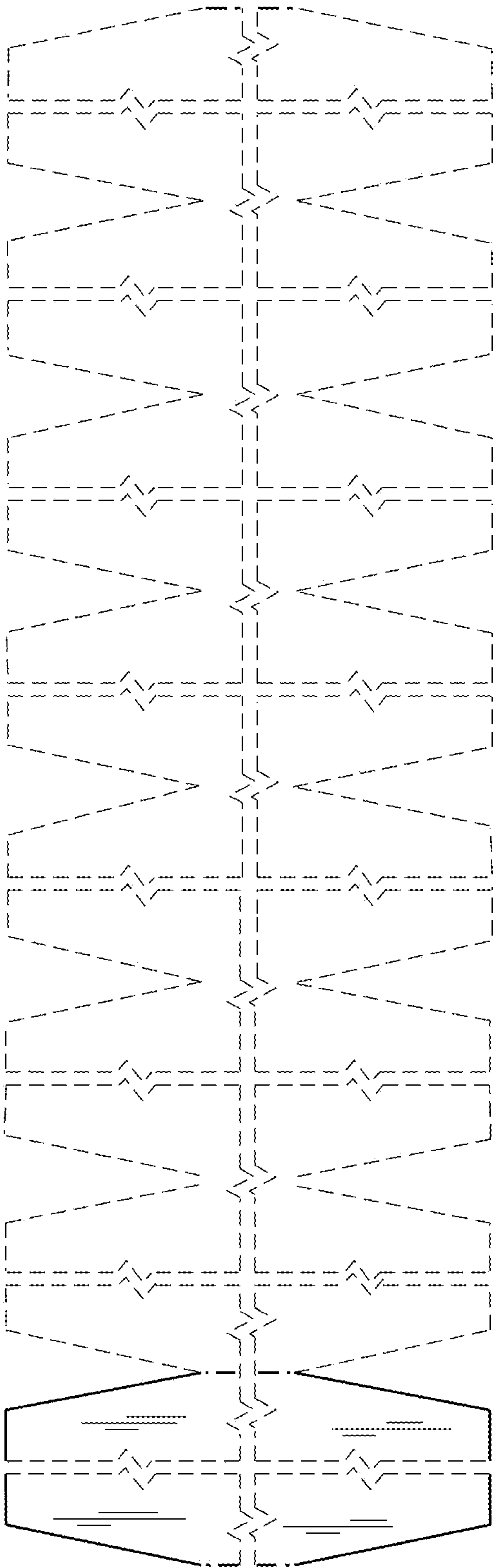


FIG. 2

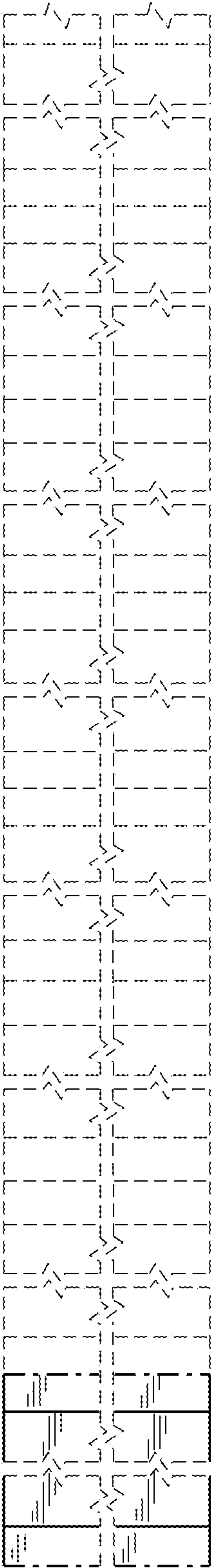


FIG. 3

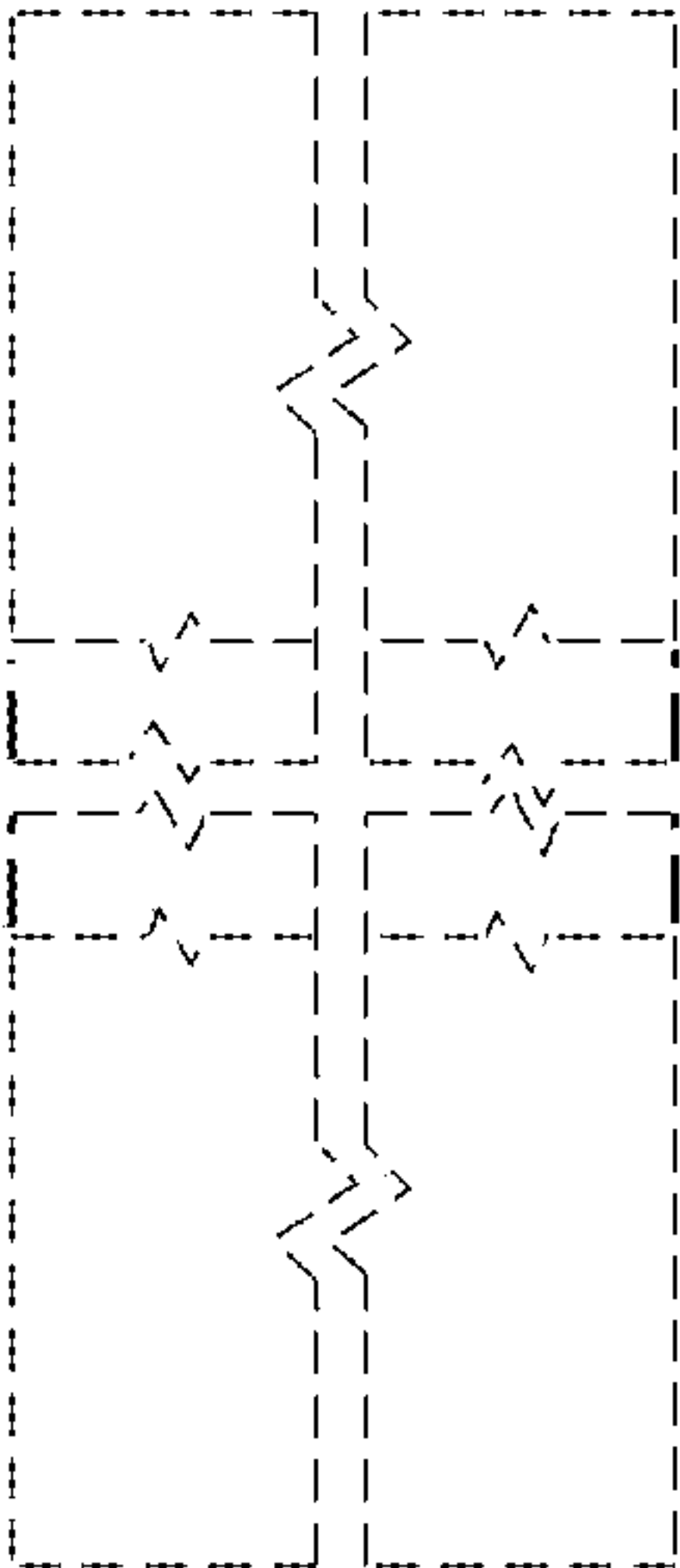


FIG. 5

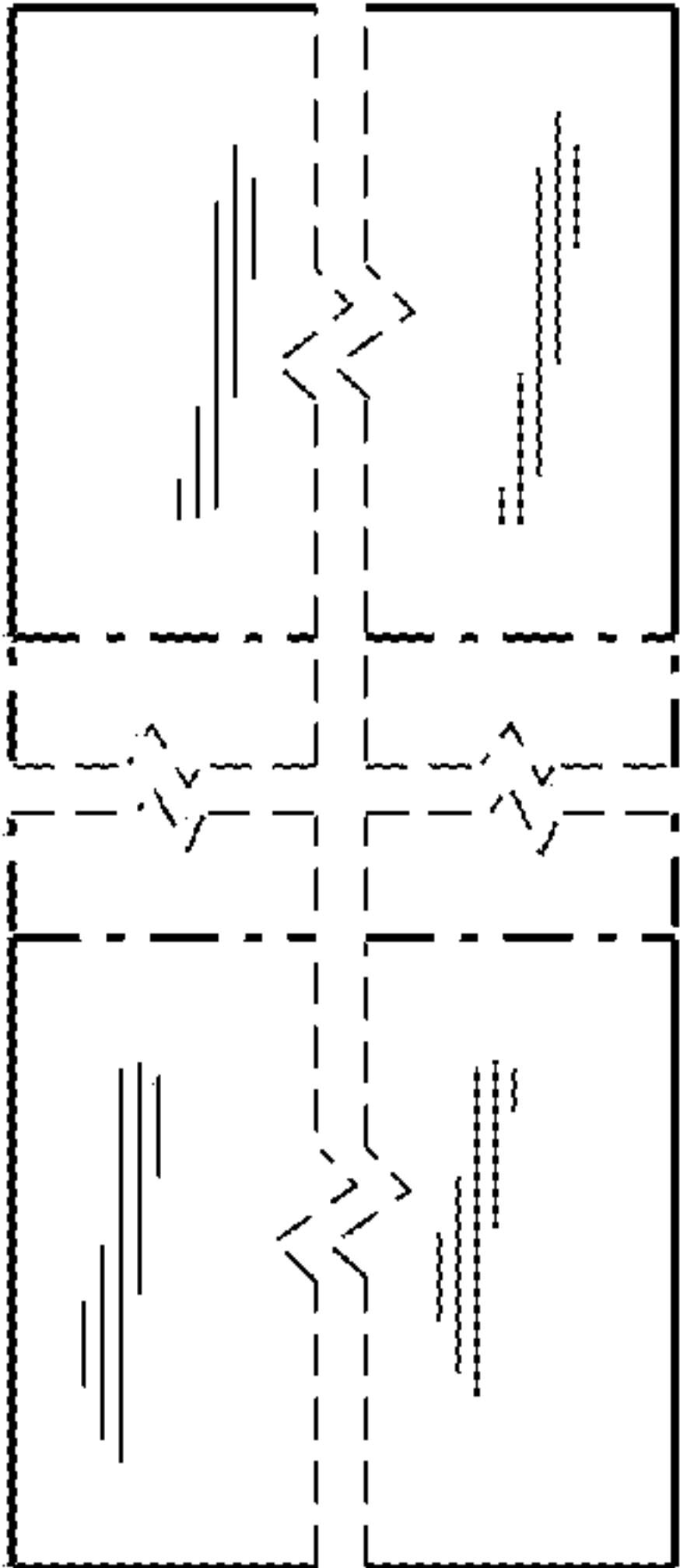


FIG. 4