

US0D1015677S

(12)

United States Design Patent

Burger et al.

(10) Patent No.: US D1,015,677 S

(45) Date of Patent: ** Feb. 27, 2024

(54) BUTTER STICK

(56) References Cited

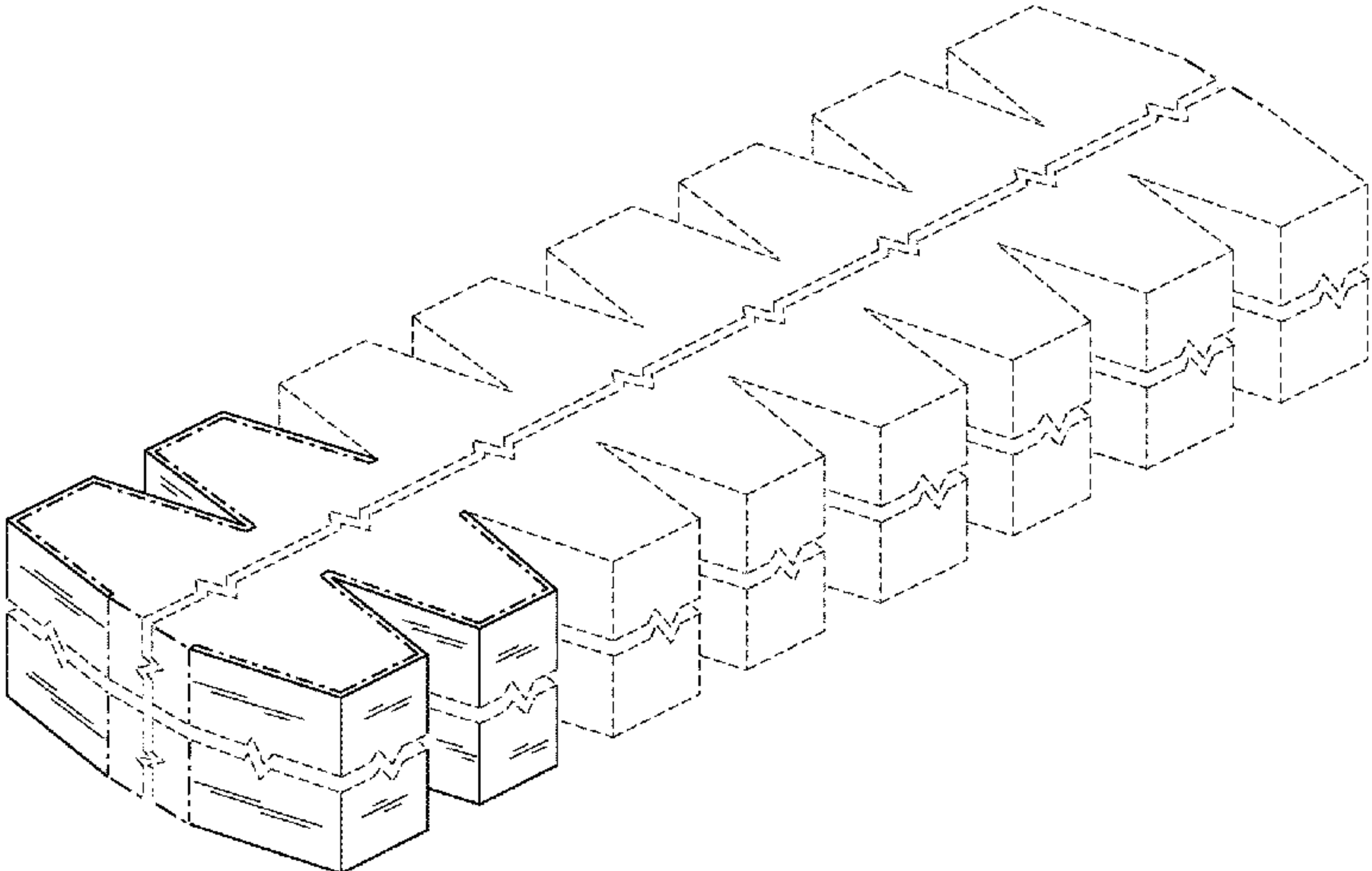
- (71) Applicant: Land O'Lakes, Inc., Arden Hills, MN (US)
- (72) Inventors: Joseph V. Burger, Apple Valley, MN (US); Sharon K. Cody, Maple Grove, MN (US); Jonathan Anderson, Minneapolis, MN (US); Lisa Ryan, Lakeville, MN (US)
- (73) Assignee: Land O'Lakes, Inc., Arden Hills, MN (US)
- (**) Term: 15 Years
- (21) Appl. No.: 29/869,505
- (22) Filed: Jan. 3, 2023

U.S. PATENT DOCUMENTS

44,342 A	9/1864	Sawyer	
147,877 A	2/1874	Spratt	
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	
2,593,606 A	4/1952	Price	
2,841,811 A	7/1958	Carroll	
2,972,407 A	2/1961	Taylor	
3,017,275 A	1/1962	Coulter	
3,071,476 A	1/1963	Werft et al.	
3,175,917 A	3/1965	Sivert	
3,267,512 A	8/1966	Wiley	
D206,036 S	10/1966	Meeker	D28/8.1
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	D25/113
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	
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.	
D429,866 S	8/2000	Zhang	D1/121

Related U.S. Application Data

- (62) Division of application No. 29/802,340, filed on Aug. 4, 2021, now Pat. No. Des. 978,478, which is a division of application No. 29/712,913, filed on Nov. 12, 2019, now Pat. No. Des. 929,696, which is a division of application No. 29/690,754, filed on May 10, 2019, now Pat. No. Des. 871,016.
- (51) LOC (14) Cl. 01-01
- (52) U.S. Cl.
USPC D1/100; D1/121
- (58) Field of Classification Search
USPC D1/100-130, 199; 426/104, 108, 138, 426/391, 549, 808, 94, 143, 559, 560; 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.



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	
D697,689	S *	1/2014	Krumholz	D1/127
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	Amico et al.	
D750,341	S *	3/2016	Baker	D1/127
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	
D809,240	S *	2/2018	Astheimer	D1/127
D813,321	S	3/2018	Zaki	
D814,727	S	4/2018	Wehrlie	
D815,461	S	4/2018	Christmas	
D831,925	S *	10/2018	Astheimer	D1/127
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.	
D929,696	S *	9/2021	Burger	D1/100
D954,386	S	6/2022	Cody et al.	
D962,586	S *	9/2022	Burger	D1/100
D977,218	S	2/2023	Cody et al.	
D982,878	S *	4/2023	Salamon	D1/120
2003/0017248	A1	1/2003	Gray	
2003/0082254	A1	5/2003	Shorey	
2003/0126831	A1	7/2003	Altvater 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	Buften et al.	
2017/0238572	A1	8/2017	Danenberg et al.	
2020/0060218	A1	2/2020	Burger et al.	
2022/0110292	A1	4/2022	Burger et al.	

FOREIGN PATENT DOCUMENTS

CN	301699053	10/2011
CN	104378996 A	2/2015
EP	0206674 A2	12/1986
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
JP	H08322413 A	12/1996
RU	2131097 C1	5/1999
WO	2013190265 A1	12/2013

OTHER PUBLICATIONS

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

Adekola, Kehinde A. “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.

Clextral, “Dies”, www.clextral.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 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, 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

Primary Examiner — Katie Jane Stofko
(74) Attorney, Agent, or Firm — Dorsey & Whitney LLP

(57) CLAIM

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

DESCRIPTION

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

FIG. 2 is a top plan view thereof, the bottom plan view being a mirror image thereof;

FIG. 3 is a front elevation view thereof, the rear elevation view being a mirror image thereof;

FIG. 4 is a left elevation view thereof; and,

FIG. 5 is a right elevation view thereof.

The evenly-spaced broken lines in FIGS. 1-5 illustrate portions of the butter stick that form no part of the claimed design. The dot-dash broken lines in FIGS. 1-4 illustrate the

boundary of the claimed design which forms no part thereof.
Any portion of the article between those breaks forms no
part of the claimed design.

1 Claim, 3 Drawing Sheets

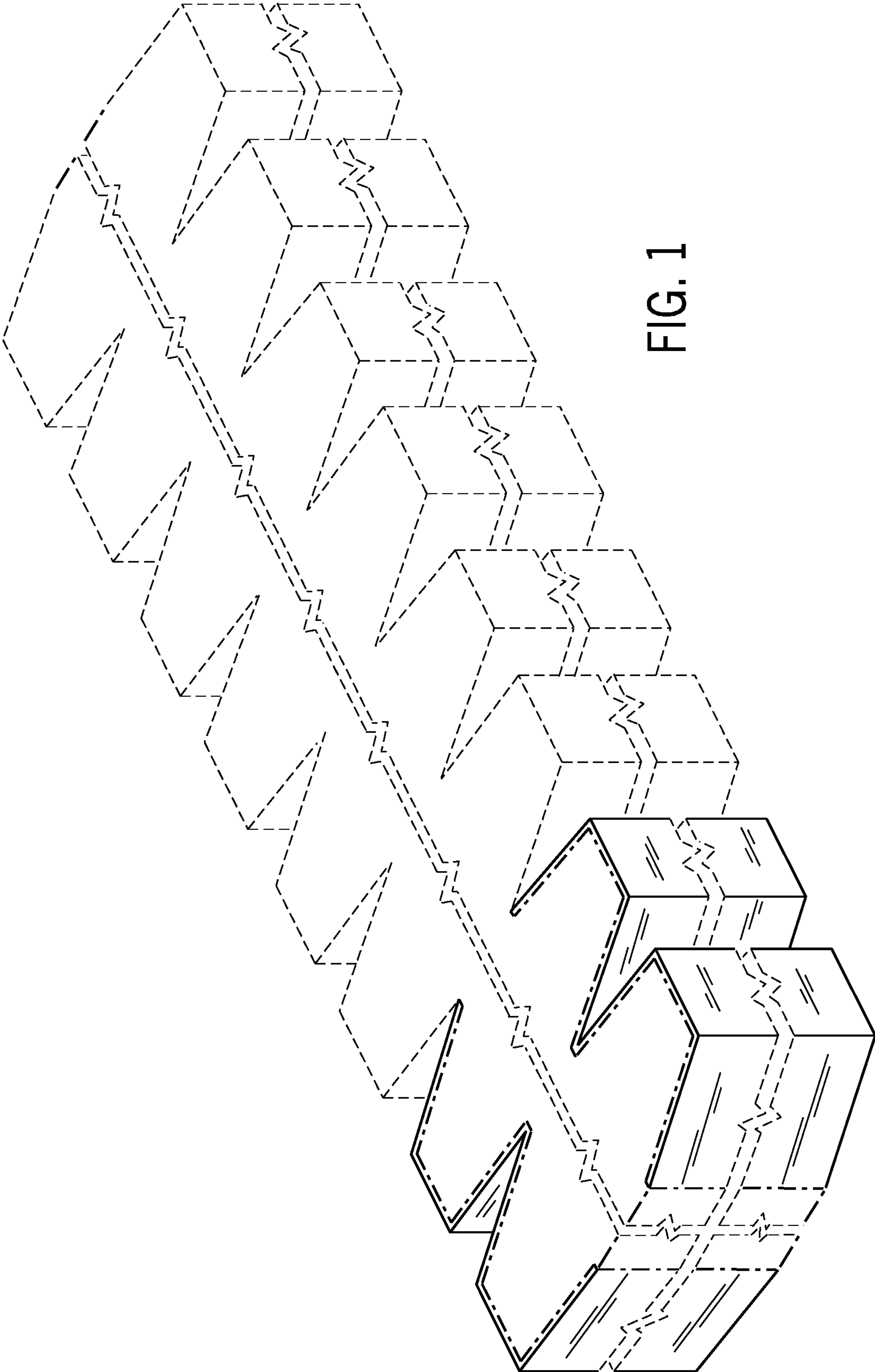


FIG. 1

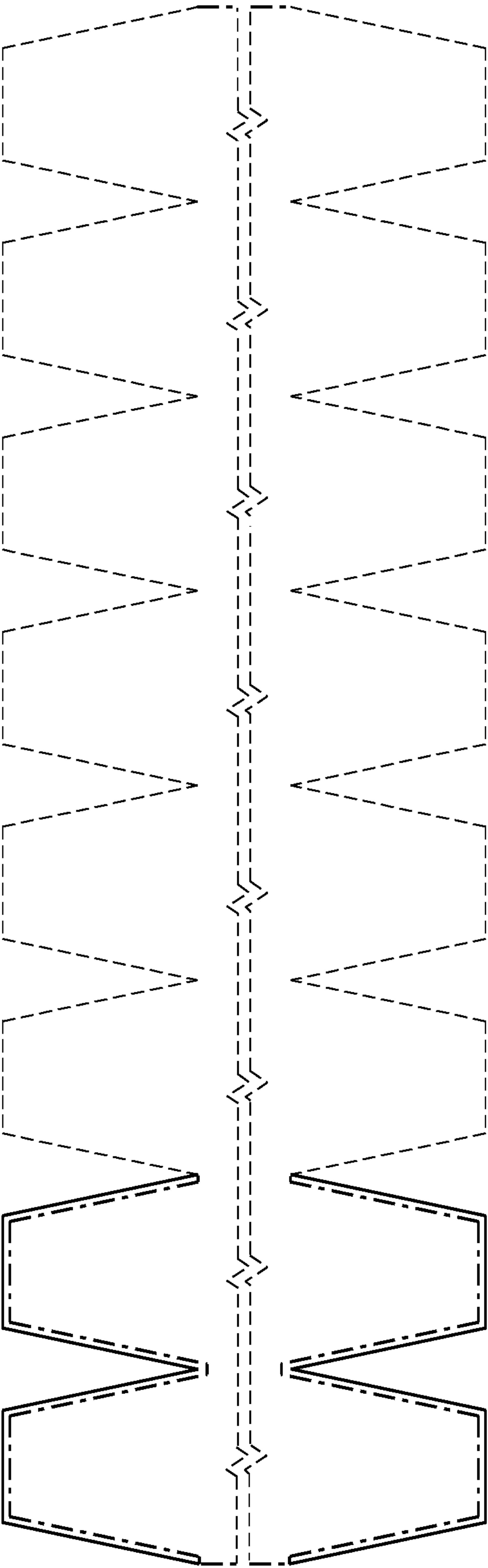


FIG. 2

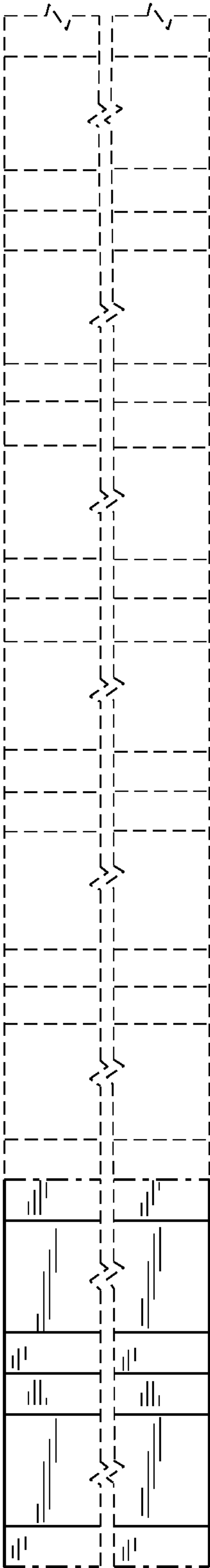


FIG. 3

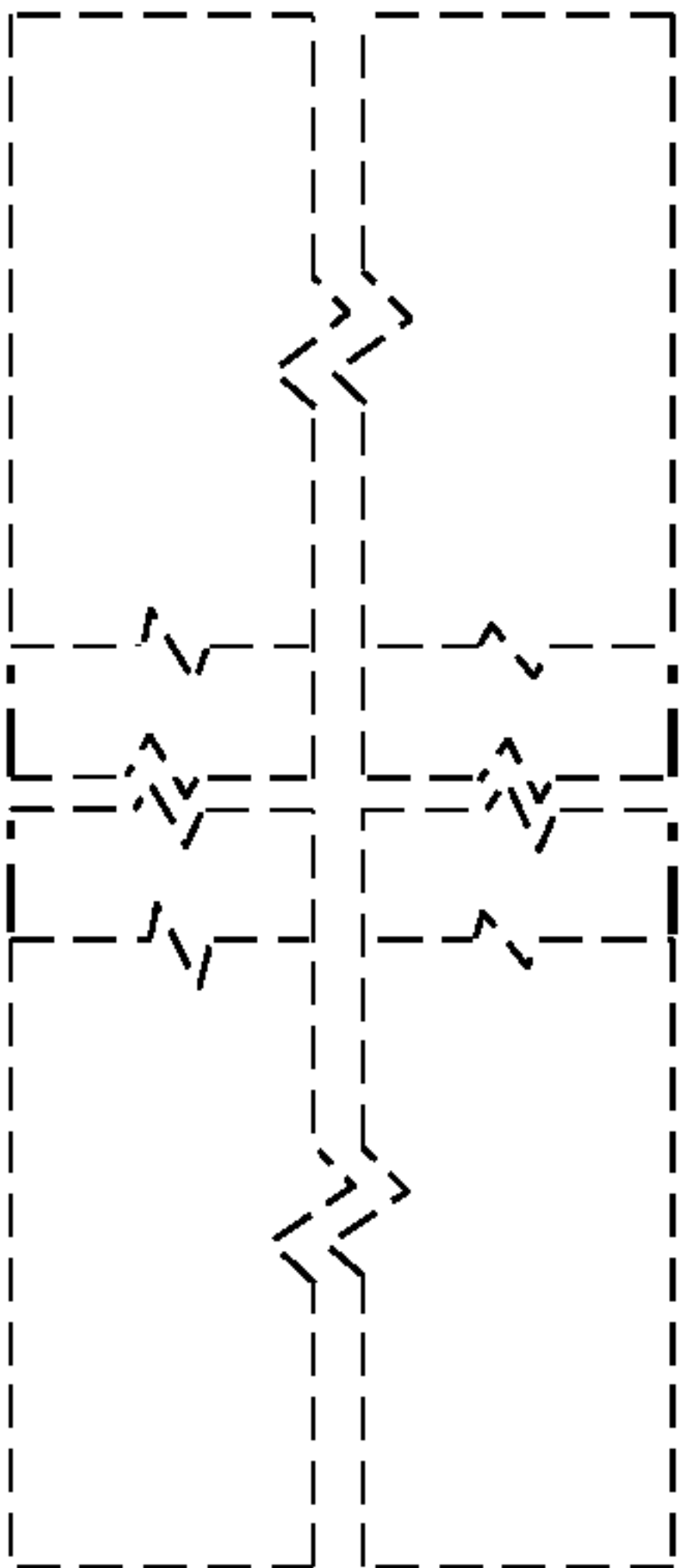


FIG. 5

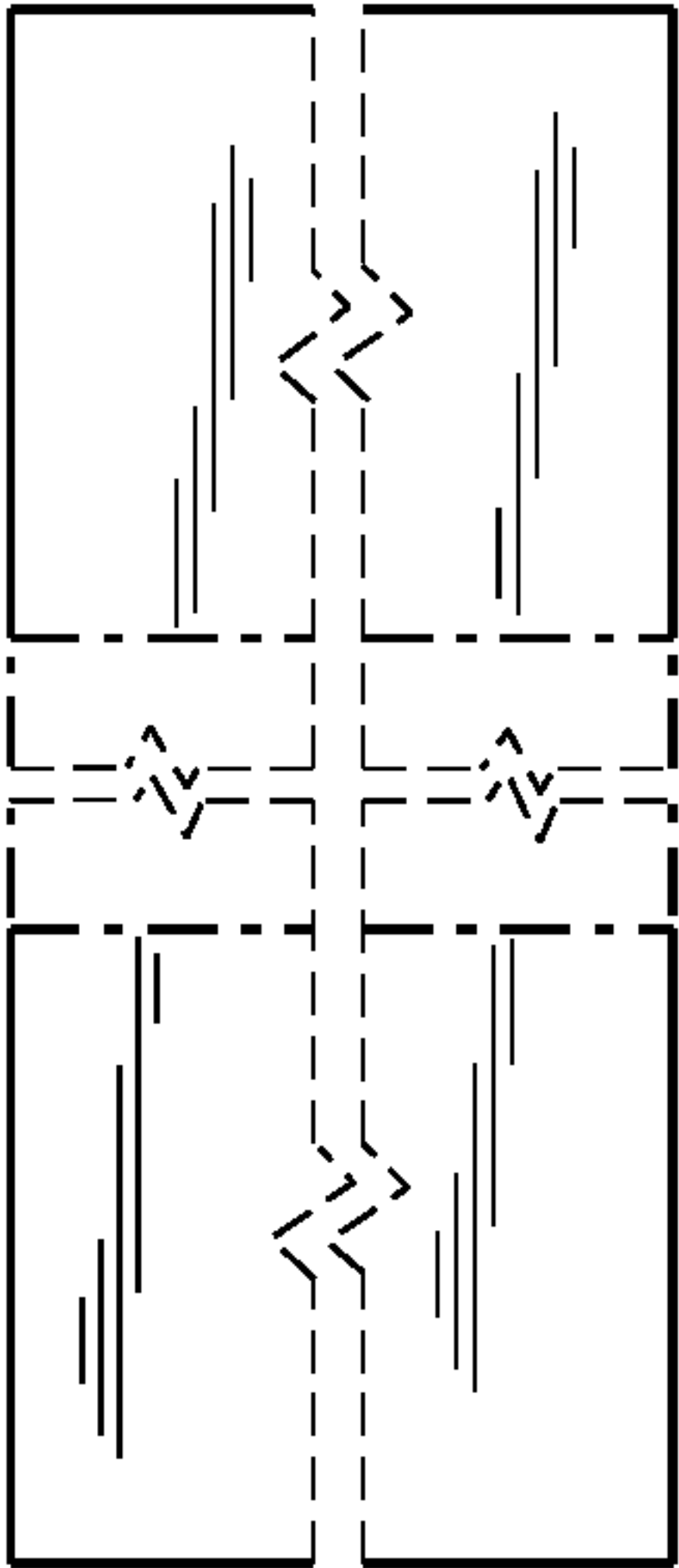


FIG. 4