



US00D772432S

(12) **United States Design Patent** (10) **Patent No.:** **US D772,432 S**
West (45) **Date of Patent:** **** Nov. 22, 2016**

(54) **PANEL FRAME**

4,155,346 A 5/1979 Aresty
4,215,677 A 8/1980 Erickson
4,217,825 A 8/1980 Bruckner

(71) Applicant: **SolarCity Corporation**, San Mateo, CA (US)

(Continued)

(72) Inventor: **Jack Raymond West**, San Rafael, CA (US)

FOREIGN PATENT DOCUMENTS

(73) Assignee: **SOLARCITY CORPORATION**, San Mateo, CA (US)

DE 3111969 A1 10/1982
DE 4444439 A1 4/1995

(Continued)

(**) Term: **14 Years**

OTHER PUBLICATIONS

(21) Appl. No.: **29/523,011**

US 5,819,447, 10/1998, Yamawaki (withdrawn)

(22) Filed: **Apr. 6, 2015**

(Continued)

Related U.S. Application Data

(63) Continuation of application No. 13/402,846, filed on Feb. 22, 2012, which is a continuation-in-part of application No. 12/830,249, filed on Jul. 2, 2010, now Pat. No. 8,919,052, application No. 29/523,011, which

Primary Examiner — Daniel Bui
Assistant Examiner — Gino Colan
(74) *Attorney, Agent, or Firm* — Sterne, Kessler, Goldstein & Fox P.L.L.C.

(Continued)

(51) **LOC (10) Cl.** **25-01**

(52) **U.S. Cl.**
USPC **D25/119**

(58) **Field of Classification Search**
USPC D25/119, 125, 136, 123
CPC ... E04F 19/062; E04F 19/022; E04F 19/061;
E04F 19/064; E04F 19/065; E04B 9/008
See application file for complete search history.

(57) **CLAIM**

The ornamental design for a panel frame, as shown and described.

DESCRIPTION

FIG. 1 is a top front perspective view of a panel frame showing our new design;
FIG. 2 is a front view thereof;
FIG. 3 is a rear view thereof;
FIG. 4 is a left side view thereof;
FIG. 5 is a right side view thereof;
FIG. 6 is a top view thereof;
FIG. 7 is a bottom view thereof;
FIG. 8 is a top front perspective view thereof in an environment in which it may be used; and,
FIG. 9 is a cross-sectional view thereof taken along line 9-9 of FIG. 8.

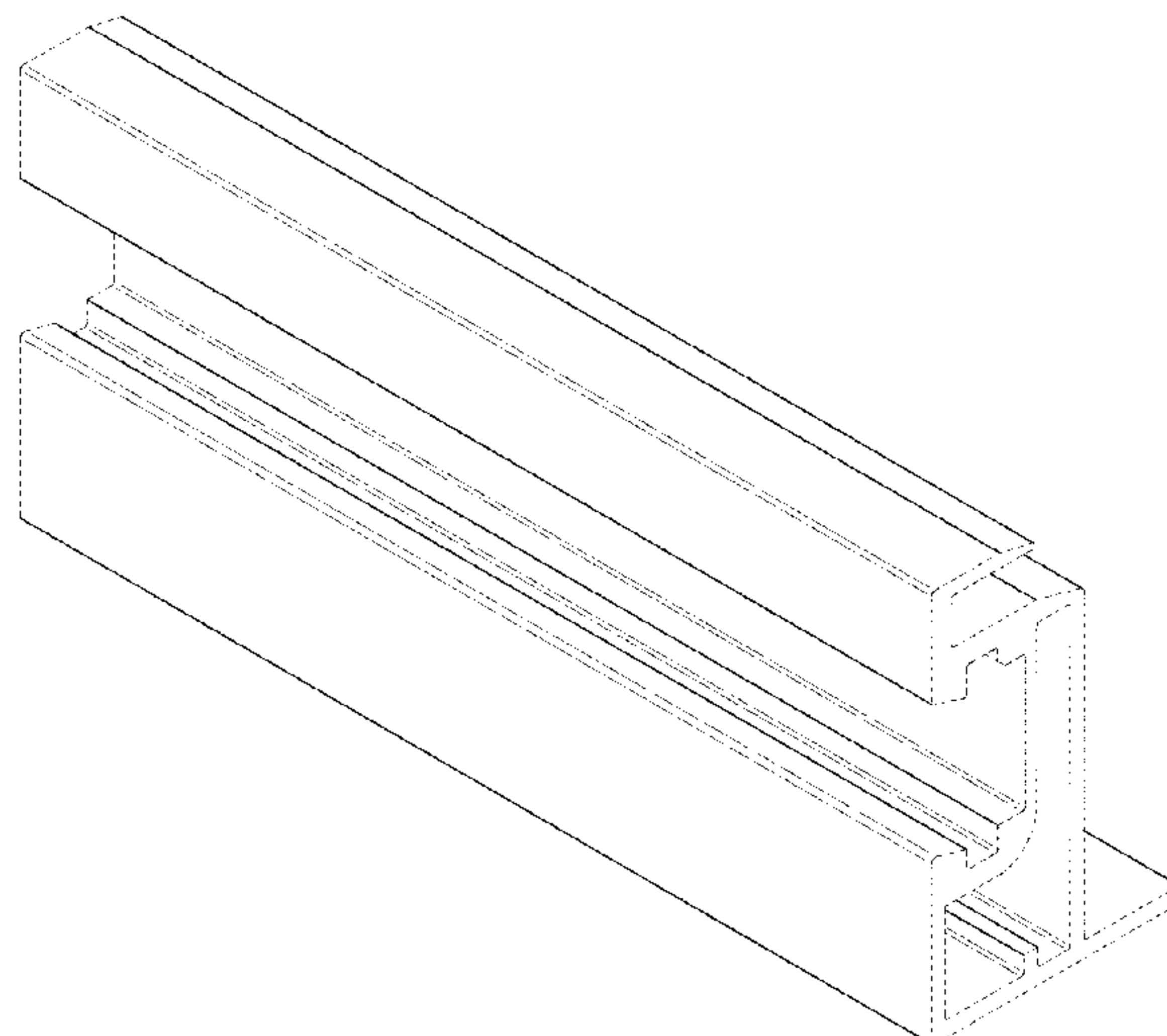
(56) **References Cited**

U.S. PATENT DOCUMENTS

3,630,253 A 12/1971 Russell
4,047,516 A 9/1977 Bruel et al.
4,112,922 A 9/1978 Skinner et al.
4,146,785 A 3/1979 Neale
4,154,223 A 5/1979 Lof

The broken lines in the Figures show portions of the panel frame and environment that form no part of the claimed design.

1 Claim, 9 Drawing Sheets



Related U.S. Application Data

is a continuation of application No. 14/504,168, filed on Oct. 1, 2014, which is a continuation of application No. 13/402,846, filed on Feb. 22, 2012, which is a continuation-in-part of application No. 12/830,249, filed on Jul. 2, 2010, application No. 29/523,011, which is a continuation of application No. 14/454,471, filed on Aug. 7, 2014, which is a continuation-in-part of application No. 12/830,249, filed on Jul. 2, 2010, application No. 29/523,011, which is a continuation of application No. 14/531,155, filed on Nov. 3, 2014, which is a continuation of application No. 12/830,249, filed on Jul. 2, 2010.

(56)

References Cited

U.S. PATENT DOCUMENTS

4,219,011 A	8/1980	Knoos	6,387,726 B1	5/2002	Verlinden et al.
4,271,825 A	6/1981	Schwob et al.	6,423,568 B1	7/2002	Verlinden et al.
4,308,858 A	1/1982	Skillman	6,465,724 B1	10/2002	Garvison et al.
4,310,182 A	1/1982	Vandenbossche	6,495,750 B1	12/2002	Dinwoodie
4,312,325 A	1/1982	Voges et al.	6,501,013 B1	12/2002	Dinwoodie
4,353,356 A	10/1982	Vandenbossche	6,523,320 B2	2/2003	Stoof
4,371,139 A	2/1983	Clark	6,534,702 B1	3/2003	Makita et al.
4,400,847 A	8/1983	Farber	6,534,703 B2	3/2003	Dinwoodie
4,429,872 A	2/1984	Capachi	6,568,873 B1	5/2003	Peterson
4,505,261 A	3/1985	Hunter	6,570,084 B2	5/2003	Dinwoodie
4,570,408 A	2/1986	Frascaroli et al.	6,586,668 B2	7/2003	Shugar et al.
4,691,818 A	9/1987	Weber	6,617,507 B2	9/2003	Mapes et al.
4,718,185 A	1/1988	Conlin et al.	6,634,077 B2	10/2003	Layfield
4,966,631 A	10/1990	Matlin et al.	6,670,541 B2	12/2003	Nagao et al.
D317,513 S *	6/1991	Miller D13/155	6,672,018 B2	1/2004	Shingleton
5,046,791 A	9/1991	Kooiman	6,675,545 B2	1/2004	Chen et al.
5,076,035 A	12/1991	Wright	6,675,580 B2	1/2004	Ansley et al.
5,127,762 A	7/1992	Havlovitz	6,676,326 B2	1/2004	Wu
5,134,827 A	8/1992	Hartman	6,722,357 B2	4/2004	Shingleton
5,143,556 A	9/1992	Matlin	6,761,008 B2	7/2004	Chen et al.
5,144,780 A	9/1992	Gieling et al.	6,784,360 B2	8/2004	Nakajima et al.
5,164,019 A	11/1992	Sinton	6,809,251 B2	10/2004	Dinwoodie
5,164,020 A	11/1992	Wagner et al.	6,809,253 B2	10/2004	Dinwoodie
5,203,135 A	4/1993	Bastian	6,935,623 B2	8/2005	Cook et al.
5,205,694 A	4/1993	Nagoshi et al.	D510,315 S	10/2005	Shugar et al.
5,232,518 A	8/1993	Nath et al.	D511,576 S	11/2005	Shingleton et al.
5,316,592 A	5/1994	Dinwoodie	6,959,517 B2	11/2005	Poddany et al.
5,333,602 A	8/1994	Huang	RE38,988 E	2/2006	Dinwoodie
5,338,369 A	8/1994	Rawlings	6,993,917 B2	2/2006	Unger et al.
5,460,660 A	10/1995	Albright et al.	7,043,884 B2	5/2006	Moreno
5,497,587 A	3/1996	Hirai et al.	D525,371 S *	7/2006	Levi-Senigaglia D25/119
5,505,788 A	4/1996	Dinwoodie	7,260,918 B2	8/2007	Liebendorfer
D374,169 S	10/1996	Kopish	7,297,867 B2	11/2007	Nomura et al.
5,571,338 A	11/1996	Kadonome et al.	7,328,534 B2	2/2008	Dinwoodie
5,596,981 A	1/1997	Soucy	7,339,110 B1	3/2008	Mulligan et al.
5,628,580 A	5/1997	Rinderer	D565,505 S	4/2008	Shugar et al.
D387,655 S	12/1997	Kopish	7,406,800 B2	8/2008	Cinnamon et al.
5,706,617 A	1/1998	Hirai et al.	7,435,134 B2	10/2008	Lenox
5,746,029 A	5/1998	Ullman	7,592,537 B1	9/2009	West
5,746,839 A	5/1998	Dinwoodie	7,600,349 B2	10/2009	Liebendorfer
5,787,653 A	8/1998	Sakai et al.	7,748,175 B2	7/2010	Liebendorfer
D402,062 S *	12/1998	Leonelli D25/119	7,774,998 B2	8/2010	Aschenbrenner
5,960,790 A	10/1999	Rich	7,806,377 B2	10/2010	Strizki
6,061,978 A	5/2000	Dinwoodie et al.	7,832,157 B2	11/2010	Cinnamon
6,093,884 A	7/2000	Toyomura et al.	7,866,098 B2	1/2011	Cinnamon
6,105,317 A	8/2000	Tomiuchi et al.	7,866,099 B2	1/2011	Komamine et al.
6,111,189 A	8/2000	Garvison et al.	7,915,519 B2	3/2011	Kobayashi
6,148,570 A	11/2000	Dinwoodie et al.	7,987,641 B2	8/2011	Cinnamon
6,201,180 B1	3/2001	Meyer et al.	8,109,048 B2	2/2012	West et al.
6,207,889 B1	3/2001	Toyomura et al.	8,316,590 B2	11/2012	Cusson
6,269,596 B1	8/2001	Ohtsuka et al.	D734,871 S *	7/2015	Wright D25/119
6,274,402 B1	8/2001	Verlinden et al.	D753,848 S *	4/2016	Gori D25/119
6,295,818 B1	10/2001	Ansley et al.	2002/0078991 A1	6/2002	Nagao et al.
6,313,395 B1	11/2001	Crane et al.	2002/0112435 A1	8/2002	Hartman
6,337,283 B1	1/2002	Verlinden et al.	2003/0015636 A1	1/2003	Liebendorfer
6,360,491 B1	3/2002	Ullman	2003/0015637 A1	1/2003	Liebendorfer
6,370,828 B1	4/2002	Genschorek	2003/0070368 A1	4/2003	Shingleton
			2003/0201009 A1	10/2003	Nakajima et al.
			2004/0007260 A1	1/2004	Dinwoodie
			2004/0063265 A1	4/2004	Noble
			2004/0163338 A1	8/2004	Liebendorfer
			2004/0179892 A1	9/2004	Du Preez
			2005/0115176 A1	6/2005	Russell et al.
			2005/0199278 A1	9/2005	Aschenbrenner
			2005/0257453 A1	11/2005	Cinnamon et al.
			2006/0042680 A1	3/2006	Korman et al.
			2006/0118163 A1	6/2006	Plaisted et al.
			2006/0156651 A1	7/2006	Genschorek
			2007/0074755 A1	4/2007	Eberspacher et al.
			2007/0102036 A1	5/2007	Cinnamon
			2007/0151594 A1	7/2007	Mascolo et al.
			2007/0157963 A1	7/2007	Metten et al.
			2007/0266672 A1	11/2007	Bateman et al.
			2008/0000173 A1	1/2008	Lenox et al.
			2008/0302407 A1	12/2008	Kobayashi
			2009/0025314 A1	1/2009	Komamine et al.
			2009/0064606 A1	3/2009	Ceria
			2009/0078299 A1	3/2009	Cinnamon et al.
			2009/0095280 A1	4/2009	Buller et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

2010/0147362 A1 6/2010 King et al.
 2010/0179678 A1 7/2010 Dinwoodie et al.
 2010/0218798 A1 9/2010 Cinnamon et al.
 2010/0236162 A1 9/2010 Tweedie
 2010/0269430 A1 10/2010 Haddock
 2011/0070765 A1 3/2011 Kobayashi
 2011/0100434 A1 5/2011 Van Walraven
 2011/0179727 A1 7/2011 Liu
 2011/0214365 A1 9/2011 Aftanas
 2011/0214368 A1 9/2011 Haddock et al.
 2011/0220180 A1 9/2011 Cinnamon et al.
 2012/0273029 A1 11/2012 Bragagna et al.

FOREIGN PATENT DOCUMENTS

DE 29703481 U1 11/1997
 DE 102005002828 A1 8/2006
 GB 2391704 A 2/2004
 JP 47023570 7/1971
 JP 47057885 5/1972
 JP S5777856 A 5/1982
 JP S5787561 A 6/1982
 JP S58133945 U 9/1983
 JP S59191748 U 12/1984
 JP H0242449 U 3/1990
 JP H0452367 A 2/1992
 JP H0641156 U 5/1994
 JP H07202242 A 8/1995
 JP H08296311 A 11/1996
 JP H10159284 A 6/1998
 JP H10176403 A 6/1998
 JP H10266499 A 10/1998
 JP H10317619 a 12/1998
 JP H10317621 A 12/1998
 JP H112004 A 1/1999
 JP H112011 A 1/1999
 JP H116262 A 1/1999
 JP H1140835 A 2/1999
 JP H11222991 A 8/1999
 JP 2000150947 A 5/2000
 JP 2000345664 A 12/2000
 JP 2001148493 A 5/2001
 JP 2001210853 A 8/2001
 JP 2002141541 A 5/2002
 JP 2002294957 A 10/2002
 JP 2003227207 A 8/2003
 JP 2008214875 A 9/2008
 WO WO-2005116359 A2 12/2005
 WO WO-2007103882 A2 9/2007
 WO WO-2008124158 A1 10/2008
 WO WO-2010074701 A1 7/2010

OTHER PUBLICATIONS

CI Solar Supplies Co. On-Line Catalog, [last modified: Mar. 13, 2010], Retrieved from the Internet: <URL: <http://www.cisolar.com/catSolarHotColl.htm>>.

Co-pending Application, U.S. Appl. No. 12/830,250, inventors John R. West, et al., filed Jul. 2, 2010 (published).

Co-pending Application, U.S. Appl. No. 12/830,252, inventors John R. West, et al., filed Jul. 2, 2010 (published).

Co-pending Application, U.S. Appl. No. 12/830,257, inventors John R. West, et al., filed Jul. 2, 2010 (published).

English Translation of Abstract for DE Publication No. 102005002828 published Aug. 3, 2006.

English Translation of Abstract for JP Publication No. 08296311 published Nov. 12, 1996.

English Translation of Abstract for JP Publication No. 10159284 published Jun. 16, 2008.

English Translation of Abstract for JP Publication No. 11222991 published Aug. 17, 1999.

English Translation of Abstract for JP Publication No. 2000345664 published Dec. 12, 2000.

English Translation of Abstract for JP Publication No. 2008214875 published Aug. 18, 2008.

English Translation of Abstract for Jp Publication No. 57087561 published Jun. 1, 1982.

English Translation of DE Publication No. 4444439 published Apr. 27, 1995.

Final Office Action mailed Feb. 17, 2009, in U.S. Appl. No. 11/053,524, John Raymond, filed Feb. 7, 2005.

International Search Report and Written Opinion for International Application No. PCT/US2010/040981, European Patent Office, Netherlands, mailed on Jul. 7, 2011.

International Search Report and Written Opinion for International Application No. PCT/US2010/040984, European Patent Office, Netherlands, mailed on Jun. 30, 2011.

International Search Report and Written Opinion for International Application No. PCT/US2010/040986, European Patent Office, Netherlands, mailed on Jul. 7, 2011.

Notice of Allowance and Fee(s) Due mailed Aug. 12, 2009, in U.S. Appl. No. 11/053,524, John Raymond, filed Feb. 7, 2005.

Notice of Non-Compliant Amendment mailed Sep. 23, 2008, in U.S. Appl. No. 11/053,524, John Raymond, filed Feb. 7, 2005.

Office Action mailed Apr. 26, 2011, in U.S. Appl. No. 12/830,252, John R. West, et al., filed Jul. 2, 2010.

Office Action mailed Apr. 26, 2011, in U.S. Appl. No. 12/830,257, John R. West, et al., filed Jul. 2, 2010.

Office Action mailed Apr. 4, 2008, in U.S. Appl. No. 11/053,524, John Raymond, filed Feb. 7, 2005.

Office Action mailed May 3, 2011, in U.S. Appl. No. 12/830,250, John R. West, et al., filed Jul. 2, 2010.

PanelClaw "Grizzly Bear Flat Roof Mounting System", accessed at <http://www.panelclaw.com/grizzly-bear.html>, pp. 1-2, accessed on May 6, 2014.

PanelClaw "Kodiak Bear Flat Roof Mounting System", accessed at <http://www.panelclaw.com/component/k2/item/41.html?Itemid=186>, pp. 1-2, accessed on May 6, 2014.

Preliminary Amendment filed Mar. 24, 2010 in U.S. Appl. No. 12/594,935.

Re-Exam Application No. 95/001,304 filed Apr. 2, 2010.

Response to Final Office Action mailed May 27, 2009, in U.S. Appl. No. 11/053,524, John Raymond, filed Feb. 7, 2005.

Response to Notice of Non-Compliant Amendment mailed Oct. 27, 2008, in U.S. Appl. No. 11/053,524, John Raymond, filed Feb. 7, 2005.

Response to Office Action mailed Jul. 5, 2011, in U.S. Appl. No. 12/830,250, John R. West, et al., filed Jul. 2, 2010.

Response to Office Action mailed Jul. 10, 2008, in U.S. Appl. No. 11/053,524, John Raymond, filed Feb. 7, 2005.

Response to Office Action mailed Jun. 27, 2011, in U.S. Appl. No. 12/830,252, John R. West, et al., filed Jul. 2, 2010.

Response to Office Action mailed Jun. 27, 2011, in U.S. Appl. No. 12/830,257, John R. West, et al., filed Jul. 2, 2010.

Sharp Product Brochure, "The On Energy Solar Racking System for Asphalt-Shingle Roofs with Flashing Attachment," 2008.

Solarex VLX PV Module, circa 1993.

Solyndra 200 Series datasheet, released Apr. 1, 2011.

Unirac Installation Manual 201, 2003.

Unirac Technical Bulletin 103, May 2002.

* cited by examiner

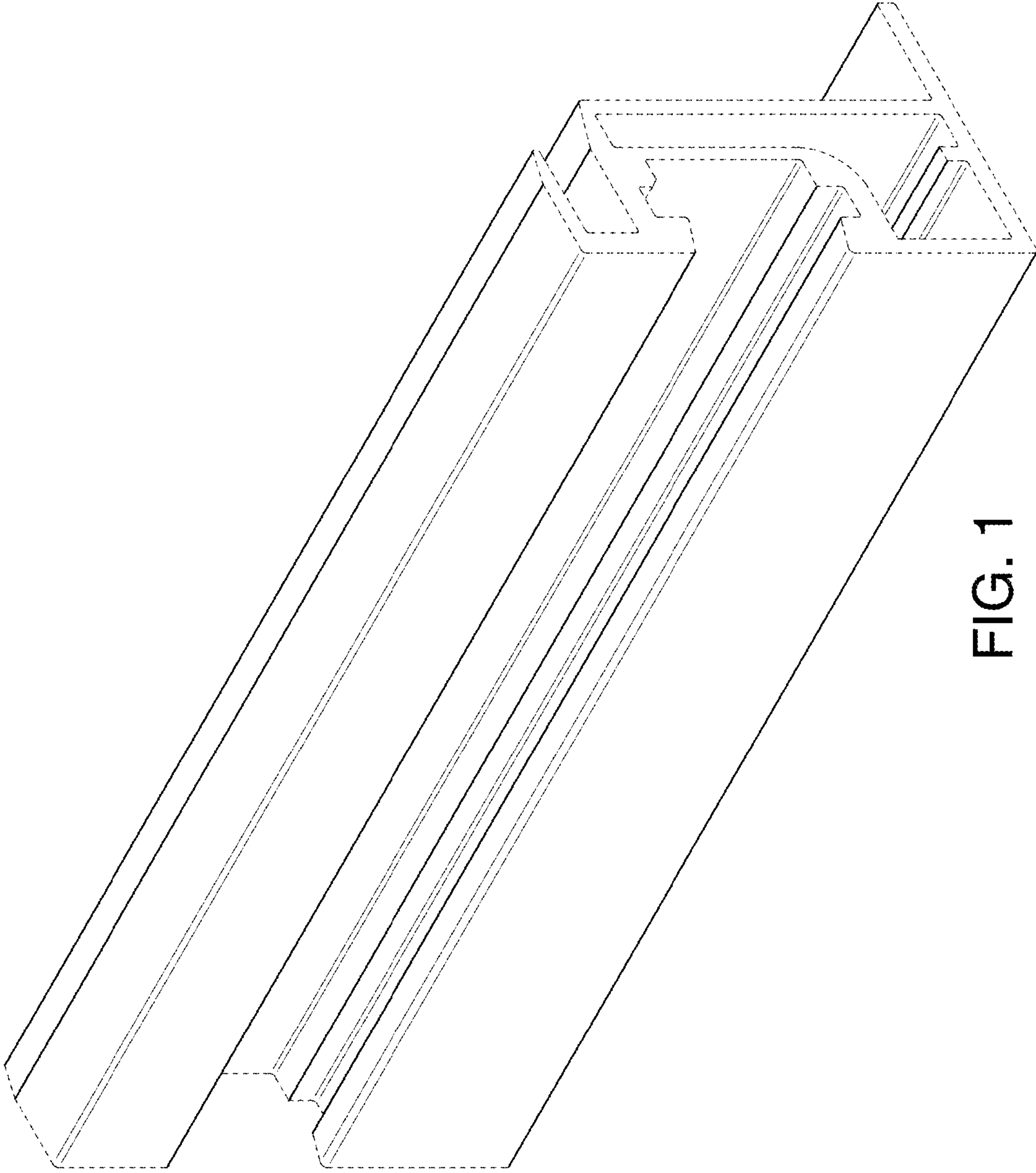


FIG. 1

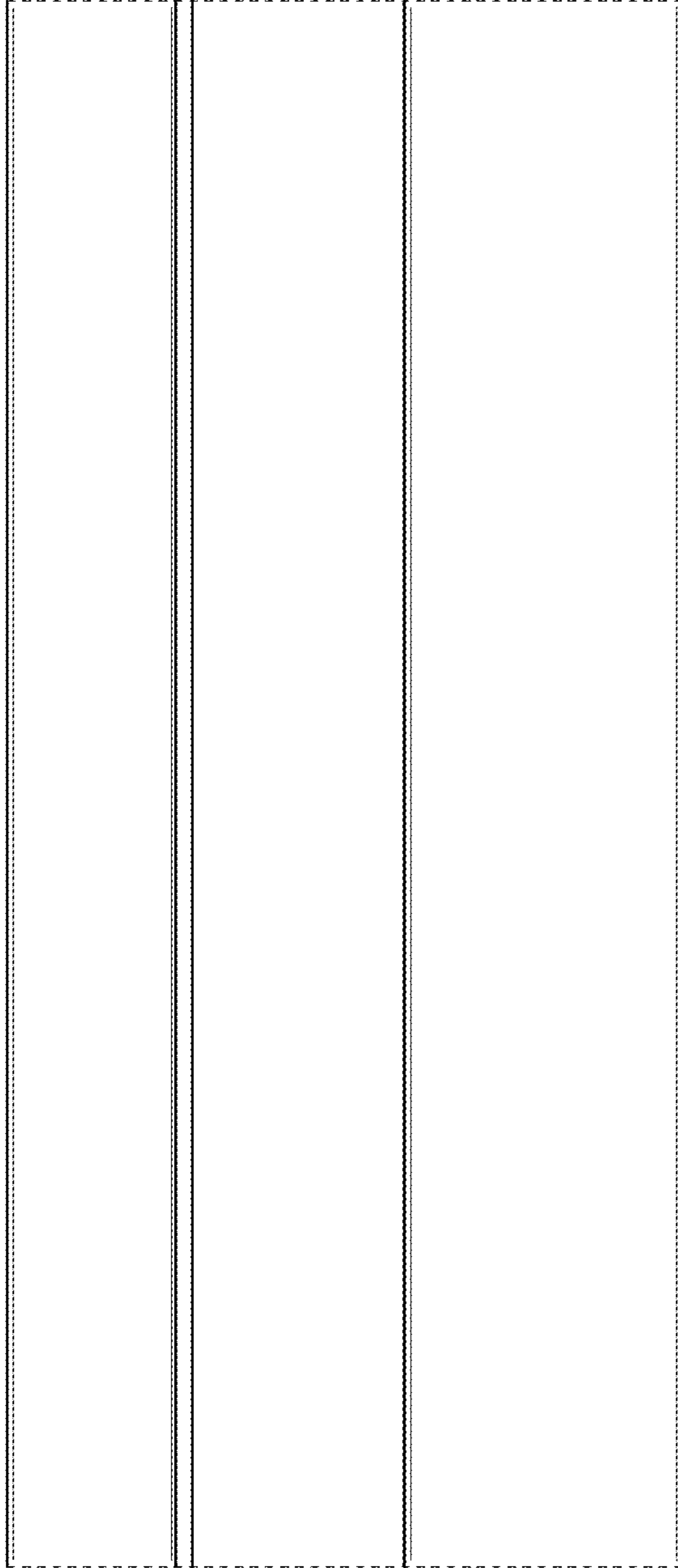


FIG. 2

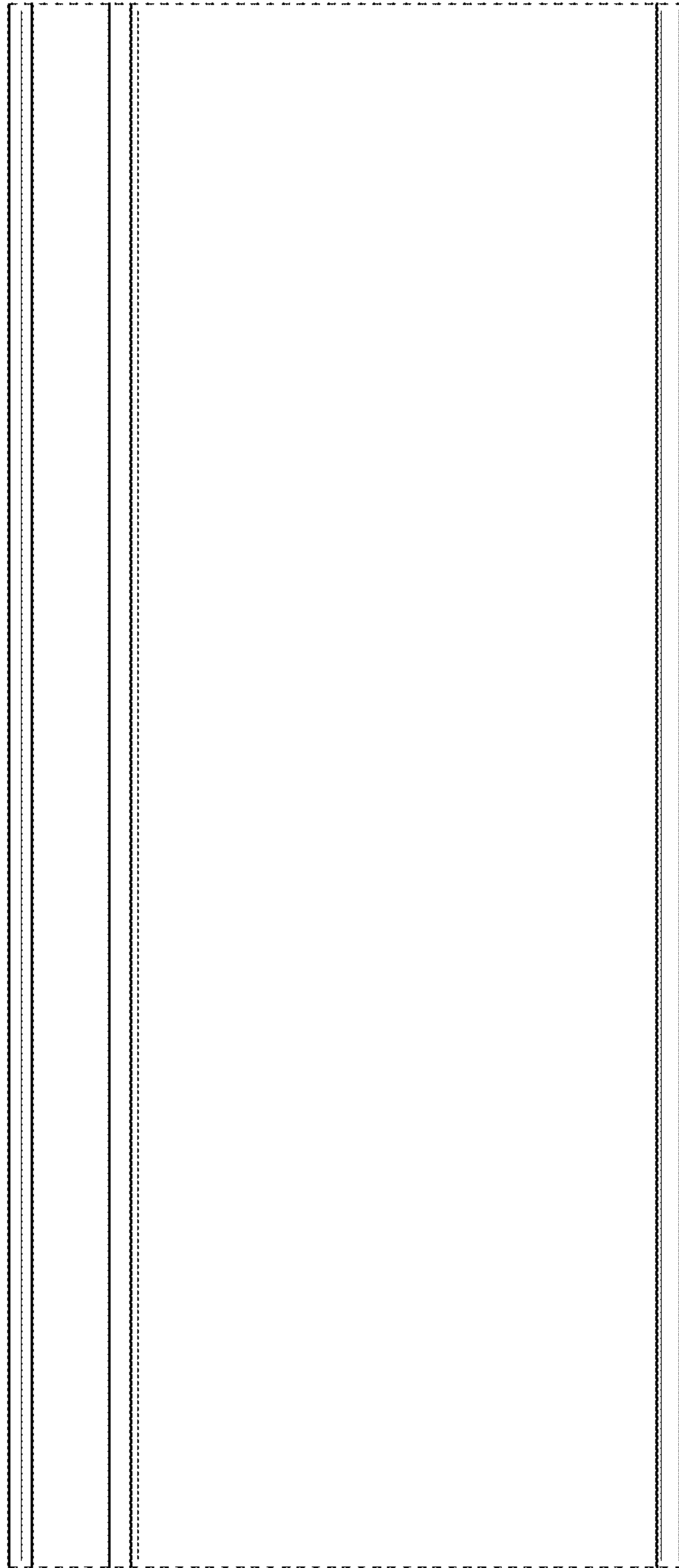


FIG. 3

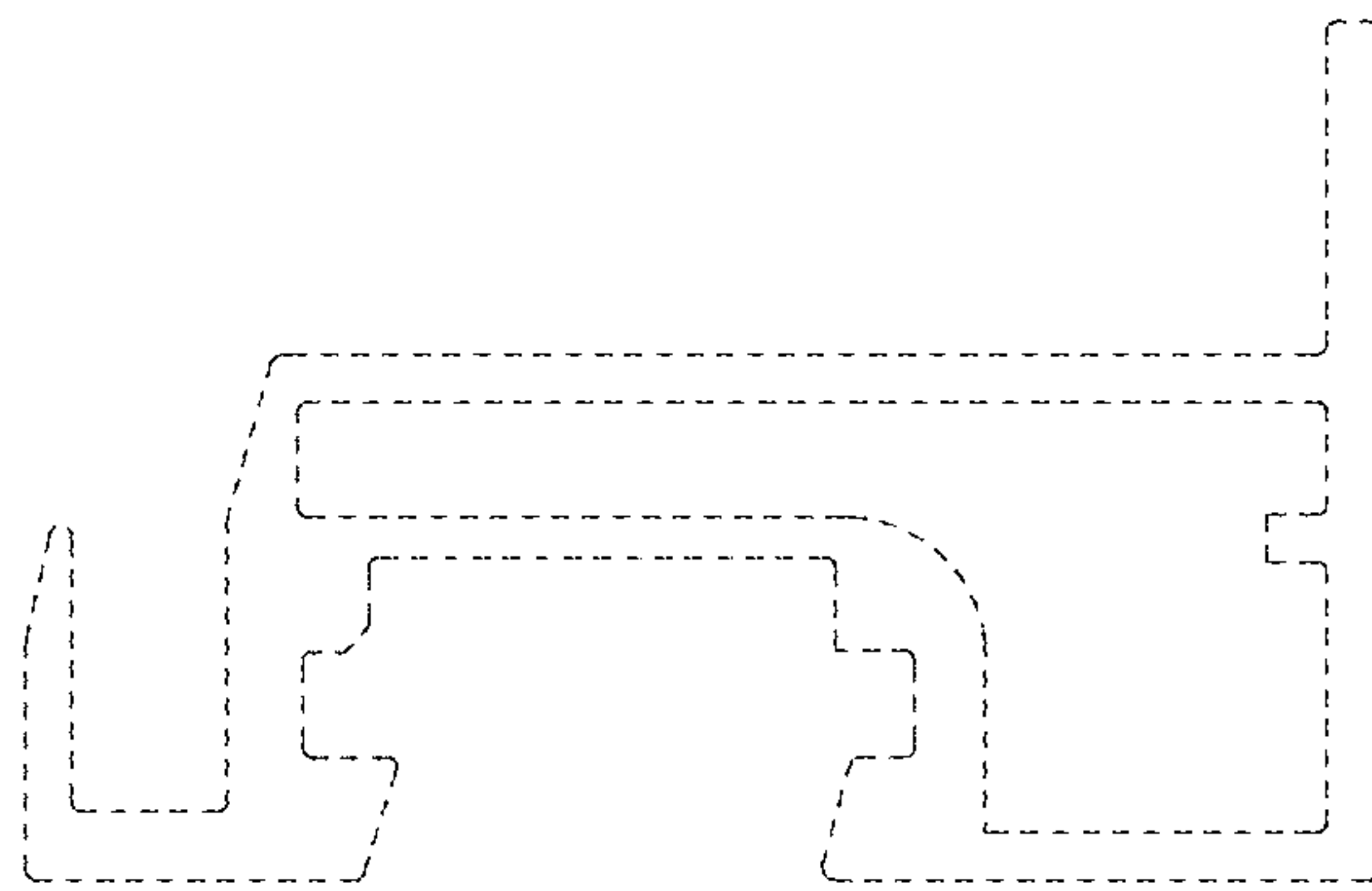


FIG. 4

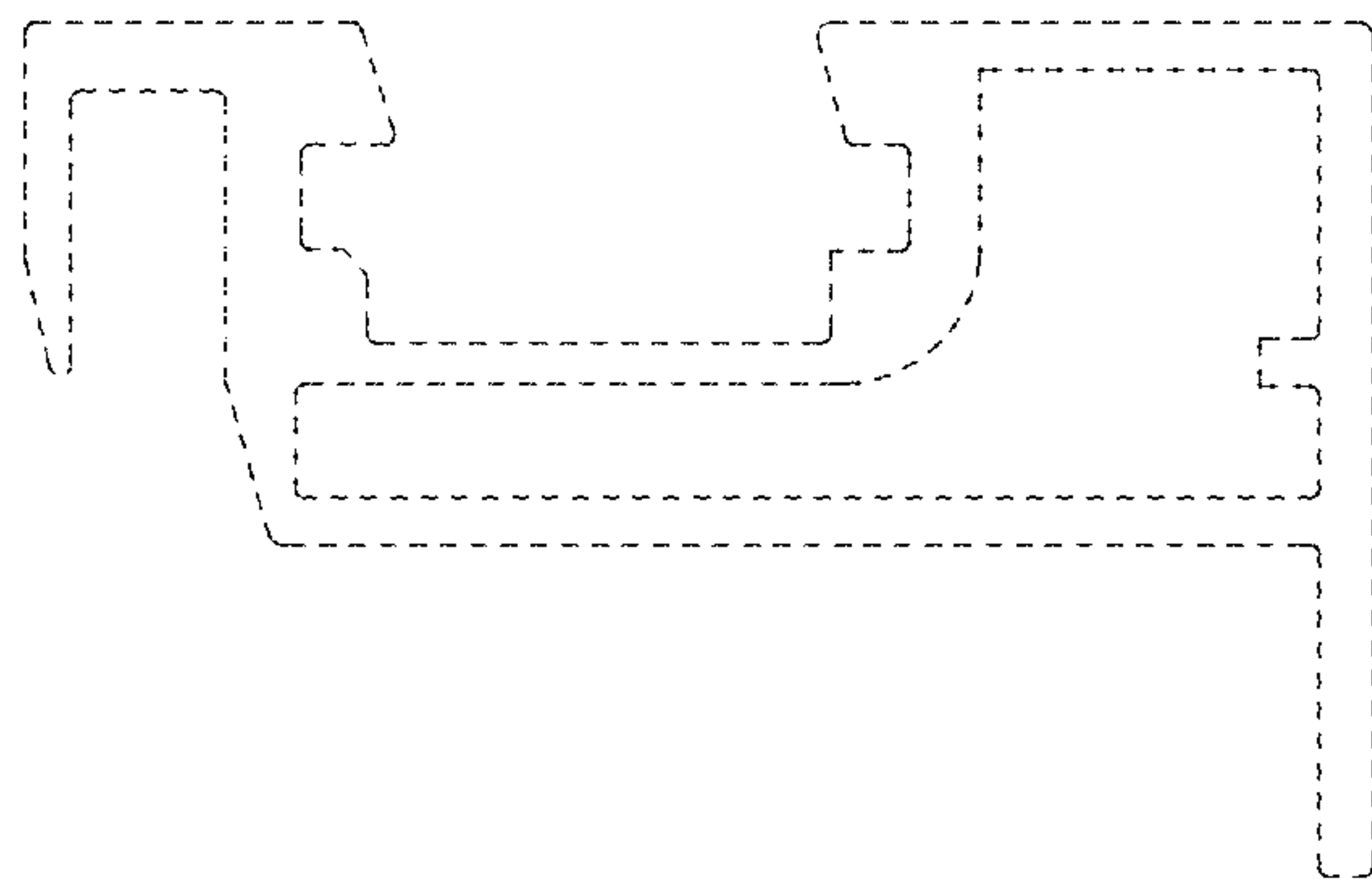


FIG. 5

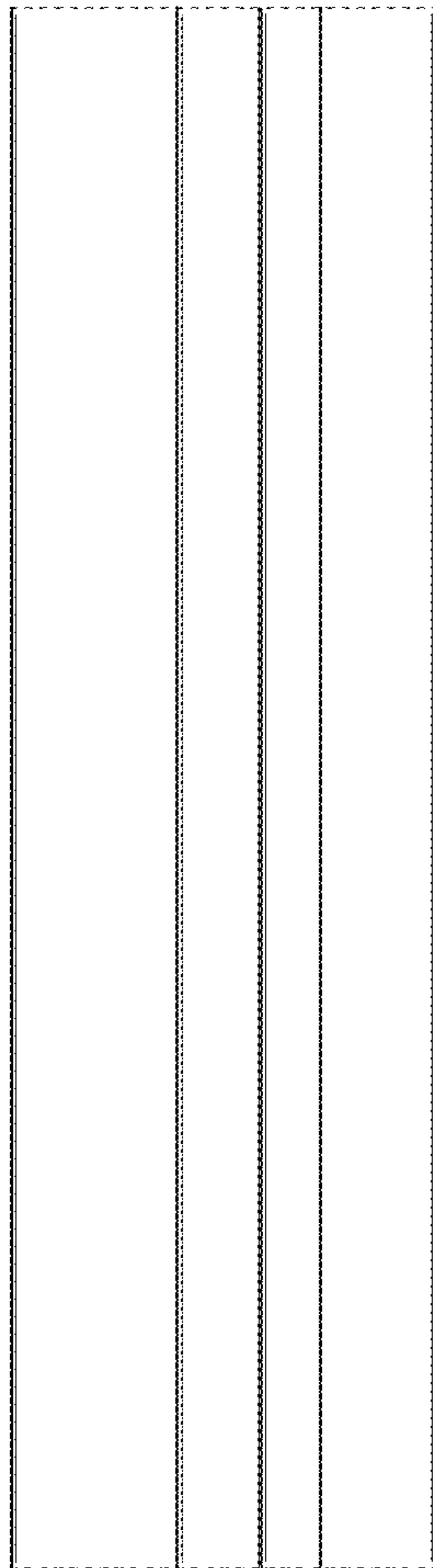


FIG. 6

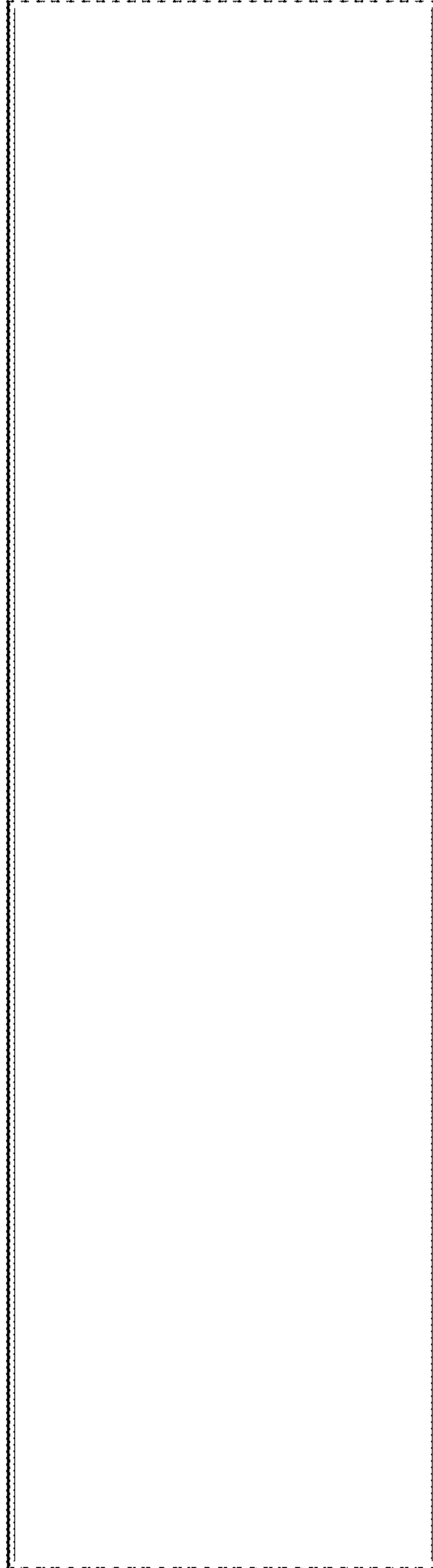


FIG. 7

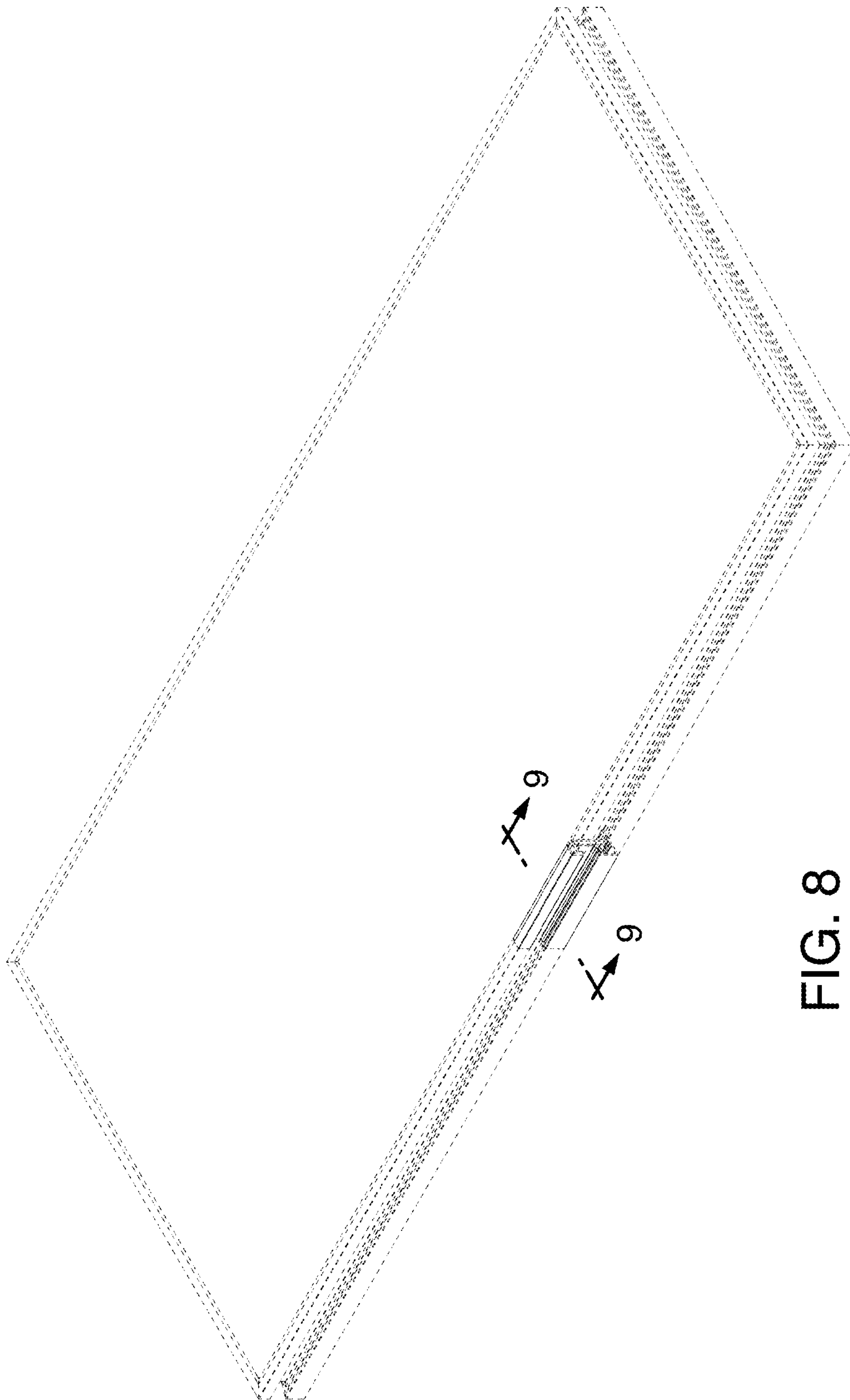


FIG. 8

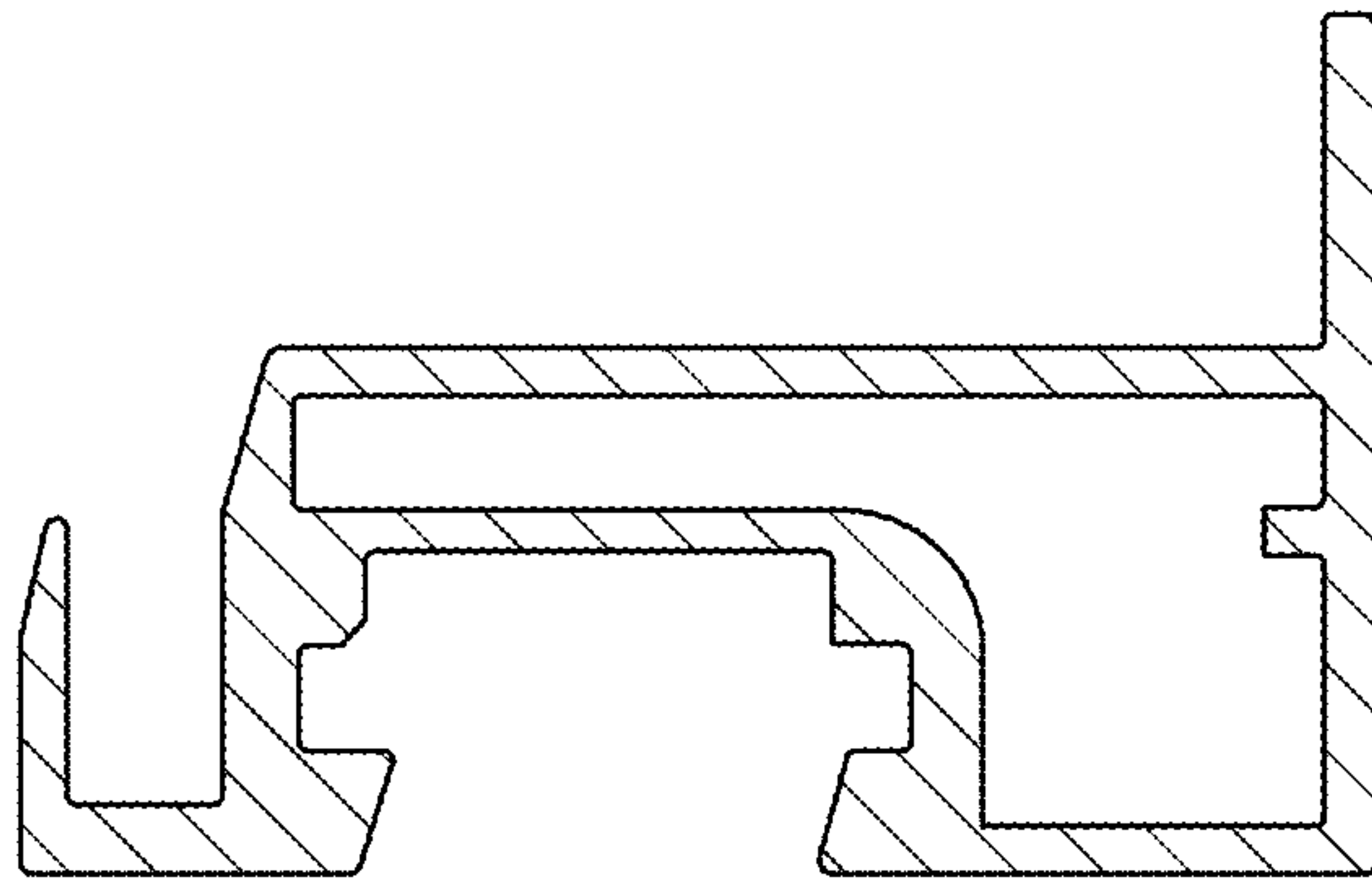


FIG. 9