



US00D749502S

(12) **United States Design Patent**
West et al.

(10) **Patent No.:** **US D749,502 S**
(45) **Date of Patent:** **** Feb. 16, 2016**

(54) **COMBINED PANEL SKIRT AND PHOTOVOLTAIC PANELS**

2/06; H02S 20/00; H02S 20/23; H02S 20/24;
H02S 40/32; H02S 40/34; H02S 40/36;
Y02B 10/20

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

See application file for complete search history.

(72) Inventors: **Jack Raymond West**, San Rafael, CA (US); **Tyrus Hawkes Hudson**, San Rafael, CA (US); **Emil Johansen**, San Rafael, CA (US)

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,630,253 A 12/1971 Russell
4,047,516 A 9/1977 Bruel et al.

(Continued)

FOREIGN PATENT DOCUMENTS

CN 301573700 S 6/2011
DE 3111969 A1 10/1982

(Continued)

OTHER PUBLICATIONS

US 5,819,447, 10/1998, Yamawaki (withdrawn)

Primary Examiner — Derrick Holland

(74) *Attorney, Agent, or Firm* — Sterne, Kessler, Goldstein & Fox P.L.L.C.

(73) Assignee: **SolarCity Corporation**, San Mateo, CA (US)

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

(21) Appl. No.: **29/525,415**

(22) Filed: **Apr. 29, 2015**

Related U.S. Application Data

(63) Continuation of application No. 13/316,450, filed on Dec. 9, 2011, and a continuation of application No. 13/960,835, filed on Aug. 7, 2013.

(51) **LOC (10) Cl.** **13-02**

(52) **U.S. Cl.**
USPC **D13/102**

(58) **Field of Classification Search**

USPC D13/102, 101, 118, 177, 184, 199;
D8/349, 353, 382; D25/60, 136;
52/173.3; 126/569, 621, 622, 623, 704;
136/243, 244, 246, 247, 251, 252, 256,
136/258; 438/64; 248/237
CPC H01L 31/0504; H01L 31/0508; H01L
31/0512; H01L 31/0516; H01L 31/0232;
H01L 31/052; H01L 31/05; H01L 31/048;
H01L 31/0422; H01L 31/02008; H01L 21/00;
Y02E 10/44; Y02E 10/47; Y02E 10/50;
Y02E 10/52; F24J 2/4614; F24J 2/4636;
F24J 2/5211; F24J 2/5233; F24J 2/5239;
F24J 2/5249; F24J 2/5254; F24J 2/5262;
F24J 2/4607; F24J 2/464; F24J 2/541; F24J

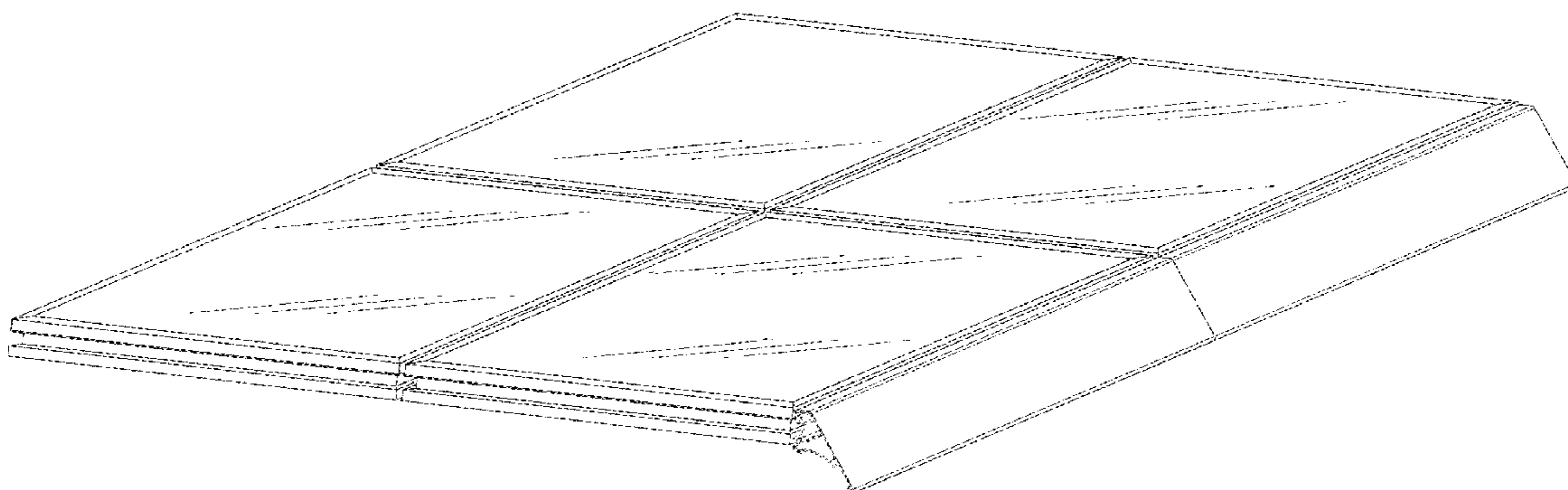
(57) **CLAIM**

The ornamental design for a combined panel skirt and photovoltaic panels, as shown and described.

DESCRIPTION

FIG. 1 is a top front perspective view of a combined panel skirt and photovoltaic panels showing our new design; FIG. 2 is a top view thereof; FIG. 3 is a front view thereof; FIG. 4 is a right side view thereof; and, FIG. 5 is a left side view thereof. The broken lines in the figures show portions of the panel skirt and photovoltaic panels that form no part of the claimed design.

1 Claim, 5 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

4,112,922 A	9/1978	Skinner et al.	6,570,084 B2	5/2003	Dinwoodie
4,146,785 A	3/1979	Neale	6,586,668 B2	7/2003	Shugar et al.
4,154,223 A	5/1979	Lof	6,634,077 B2	10/2003	Layfield
4,155,346 A	5/1979	Aresty	6,670,541 B2	12/2003	Nagao et al.
4,215,677 A	8/1980	Erickson	6,672,018 B2	1/2004	Shingleton
4,217,825 A	8/1980	Bruckner	6,675,545 B2	1/2004	Chen et al.
4,219,011 A	8/1980	Knoos	6,675,580 B2	1/2004	Ansley et al.
4,271,825 A	6/1981	Schwob et al.	6,676,326 B2	1/2004	Wu
4,308,858 A	1/1982	Skillman	6,722,357 B2	4/2004	Shingleton
4,310,182 A	1/1982	Vandenbossche	6,761,008 B2	7/2004	Chen et al.
4,312,325 A	1/1982	Voges et al.	6,784,360 B2	8/2004	Nakajima et al.
4,353,356 A	10/1982	Vandenbossche	6,809,251 B2	10/2004	Dinwoodie
4,371,139 A	2/1983	Clark	6,809,253 B2	10/2004	Dinwoodie
4,429,872 A	2/1984	Capachi	6,935,623 B2	8/2005	Cook et al.
4,505,261 A	3/1985	Hunter	D510,315 S	10/2005	Shugar et al.
4,570,408 A	2/1986	Frascaroli et al.	D511,576 S	11/2005	Shingleton et al.
D288,956 S *	3/1987	Wadleigh D13/102	6,959,517 B2	11/2005	Poddany et al.
4,680,905 A	7/1987	Rockar	6,968,654 B2 *	11/2005	Moulder F24J 2/464 126/623
4,691,818 A	9/1987	Weber	RE38,988 E	2/2006	Dinwoodie
4,718,185 A	1/1988	Conlin et al.	D516,017 S	2/2006	Mascolo
4,738,247 A	4/1988	Moore	6,993,917 B2	2/2006	Unger et al.
4,966,631 A	10/1990	Matlin et al.	D519,444 S	4/2006	Mascolo
5,046,791 A	9/1991	Kooiman	7,043,884 B2	5/2006	Moreno
5,127,762 A	7/1992	Havlovitz	7,260,918 B2	8/2007	Liebendorfer
5,134,827 A	8/1992	Hartman	7,297,867 B2	11/2007	Nomura et al.
5,143,556 A	9/1992	Matlin	7,328,534 B2	2/2008	Dinwoodie
5,144,780 A	9/1992	Gielsing et al.	7,339,110 B1	3/2008	Mulligan et al.
5,164,019 A	11/1992	Sinton	D565,505 S	4/2008	Shugar et al.
5,164,020 A	11/1992	Wagner et al.	7,406,800 B2	8/2008	Cinnamon et al.
5,203,135 A	4/1993	Bastian	7,435,134 B2	10/2008	Lenox
5,205,694 A	4/1993	Nagoshi et al.	7,592,537 B1	9/2009	West
5,228,924 A *	7/1993	Barker F24J 2/541 136/246	D611,895 S *	3/2010	Plaisted D13/102
5,232,518 A	8/1993	Nath et al.	7,774,998 B2	8/2010	Aschenbrenner
5,316,592 A	5/1994	Dinwoodie	7,797,889 B2	9/2010	McClintock et al.
5,333,602 A	8/1994	Huang	7,806,377 B2	10/2010	Strizki
5,338,369 A	8/1994	Rawlings	7,832,157 B2	11/2010	Cinnamon
5,367,843 A	11/1994	Hirai et al.	7,866,098 B2	1/2011	Cinnamon
5,460,660 A	10/1995	Albright et al.	7,866,099 B2	1/2011	Komamine et al.
5,497,587 A	3/1996	Hirai et al.	7,915,519 B2	3/2011	Kobayashi
5,505,788 A	4/1996	Dinwoodie	7,956,281 B2	6/2011	O'Brien et al.
D374,169 S	10/1996	Kopish	7,987,641 B2	8/2011	Cinnamon
5,571,338 A	11/1996	Kadonome et al.	8,039,733 B2	10/2011	Kobayashi
5,596,981 A	1/1997	Soucy	D653,201 S *	1/2012	Sillett D13/102
5,628,580 A	5/1997	Rinderer	D653,611 S *	2/2012	Lee D13/102
D387,655 S	12/1997	Kopish	8,109,048 B2	2/2012	West et al.
5,706,617 A	1/1998	Hirai et al.	8,234,824 B2	8/2012	Botkin et al.
5,746,029 A	5/1998	Ullman	8,272,176 B2	9/2012	Wallgren
5,746,839 A	5/1998	Dinwoodie	8,558,101 B2	10/2013	Mascolo et al.
5,787,653 A	8/1998	Sakai et al.	D697,022 S *	1/2014	Truthseeker D13/102
5,960,790 A	10/1999	Rich	8,635,818 B2	1/2014	Wildes
6,000,393 A	12/1999	Moore	8,748,733 B2	6/2014	Leary
6,061,978 A	5/2000	Dinwoodie et al.	2002/0078991 A1	6/2002	Nagao et al.
6,093,884 A	7/2000	Toyomura et al.	2002/0112435 A1	8/2002	Hartman
6,105,317 A	8/2000	Tomiuchi et al.	2003/0010374 A1	1/2003	Dinwoodie
6,111,189 A	8/2000	Garvison et al.	2003/0015636 A1	1/2003	Liebendorfer
6,148,570 A	11/2000	Dinwoodie et al.	2003/0015637 A1	1/2003	Liebendorfer
6,201,180 B1	3/2001	Meyer et al.	2003/0201009 A1	10/2003	Nakajima et al.
6,207,889 B1	3/2001	Toyomura et al.	2004/0063265 A1	4/2004	Noble
6,269,596 B1	8/2001	Ohtsuka et al.	2004/0163338 A1	8/2004	Liebendorfer
6,274,402 B1	8/2001	Verlinden et al.	2004/0179892 A1	9/2004	Du
6,295,918 B1	10/2001	Simmons et al.	2005/0115176 A1	6/2005	Russell
6,313,395 B1	11/2001	Crane et al.	2005/0126621 A1	6/2005	Dinwoodie et al.
6,337,283 B1	1/2002	Verlinden et al.	2005/0199278 A1	9/2005	Aschenbrenner
6,360,491 B1	3/2002	Ullman	2005/0257453 A1	11/2005	Cinnamon
6,370,828 B1	4/2002	Genschorek	2006/0042680 A1	3/2006	Korman et al.
6,387,726 B1	5/2002	Verlinden et al.	2006/0118163 A1	6/2006	Plaisted et al.
6,423,568 B1	7/2002	Verlinden et al.	2007/0074755 A1	4/2007	Eberspacher et al.
6,465,724 B1	10/2002	Garvison et al.	2007/0102036 A1	5/2007	Cinnamon
6,495,750 B1	12/2002	Dinwoodie	2007/0131273 A1	6/2007	Kobayashi
6,501,013 B1	12/2002	Dinwoodie	2007/0157963 A1	7/2007	Metten et al.
6,523,320 B2	2/2003	Stoof	2007/0199561 A1	8/2007	Soucy
6,534,702 B1	3/2003	Makita et al.	2008/0000173 A1	1/2008	Lenox et al.
6,534,703 B2	3/2003	Dinwoodie	2008/0302407 A1	12/2008	Kobayashi
6,568,873 B1	5/2003	Peterson	2009/0025314 A1	1/2009	Komamine et al.
			2009/0078299 A1	3/2009	Cinnamon et al.
			2009/0095280 A1	4/2009	Buller et al.
			2009/0217964 A1	9/2009	Gilmore et al.
			2009/0320906 A1	12/2009	Botkin et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

2010/0147362 A1 6/2010 King et al.
 2010/0154199 A1 6/2010 Kobayashi
 2010/0155547 A1 6/2010 Kobayashi
 2010/0179678 A1 7/2010 Dinwoodie et al.
 2010/0206297 A1 8/2010 Wilkinson
 2010/0218798 A1 9/2010 Cinnamon et al.
 2010/0243023 A1 9/2010 Patton et al.
 2011/0070765 A1 3/2011 Kobayashi
 2011/0198304 A1 8/2011 Wallgren
 2011/0214368 A1 9/2011 Haddock et al.
 2011/0220180 A1 9/2011 Cinnamon et al.
 2011/0232715 A1 9/2011 Lenox et al.
 2012/0031472 A1 2/2012 Chan et al.
 2012/0031473 A1 2/2012 Chan et al.
 2014/0000916 A1 1/2014 Ryba-White et al.
 2014/0069485 A1* 3/2014 Rawlings H01L 31/0422
 136/251

FOREIGN PATENT DOCUMENTS

DE 4444439 A1 4/1995
 DE 29703481 U1 11/1997
 DE 40300505-0002 S 4/2003
 DE 102005002828 A1 8/2006
 EM 000056510-0001 S 12/2003
 EM 001629700-0001 S 10/2009
 GB 2050769 3/1996
 GB 2050770 3/1996
 GB 2050771 3/1996
 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 2000147262 A 5/2000
 JP 2000150947 A 5/2000
 JP 2000345664 A 12/2000
 JP 2001148493 A 5/2001
 JP 2001210853 A 8/2001
 JP 2001291890 A 10/2001
 JP 2002141541 A 5/2002
 JP 2002294957 A 10/2002
 JP 2003227207 A 8/2003
 WO WO-2005116359 A2 12/2005
 WO WO-2007103882 A2 9/2007
 WO WO-2010074701 A1 7/2010

* cited by examiner

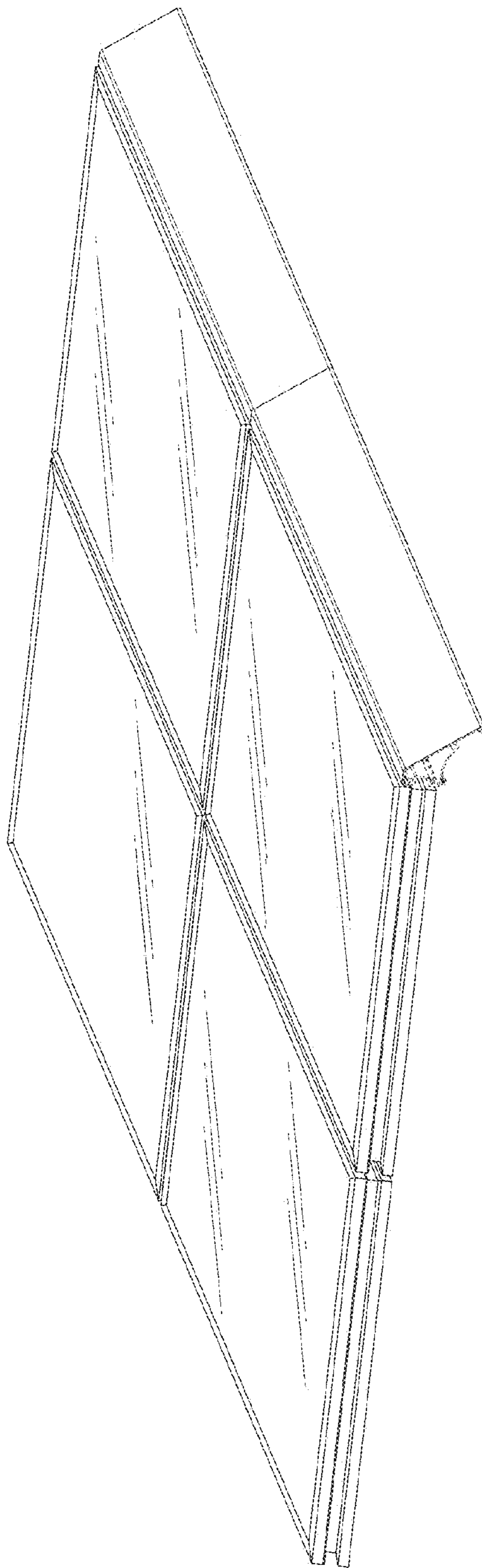


FIG. 1

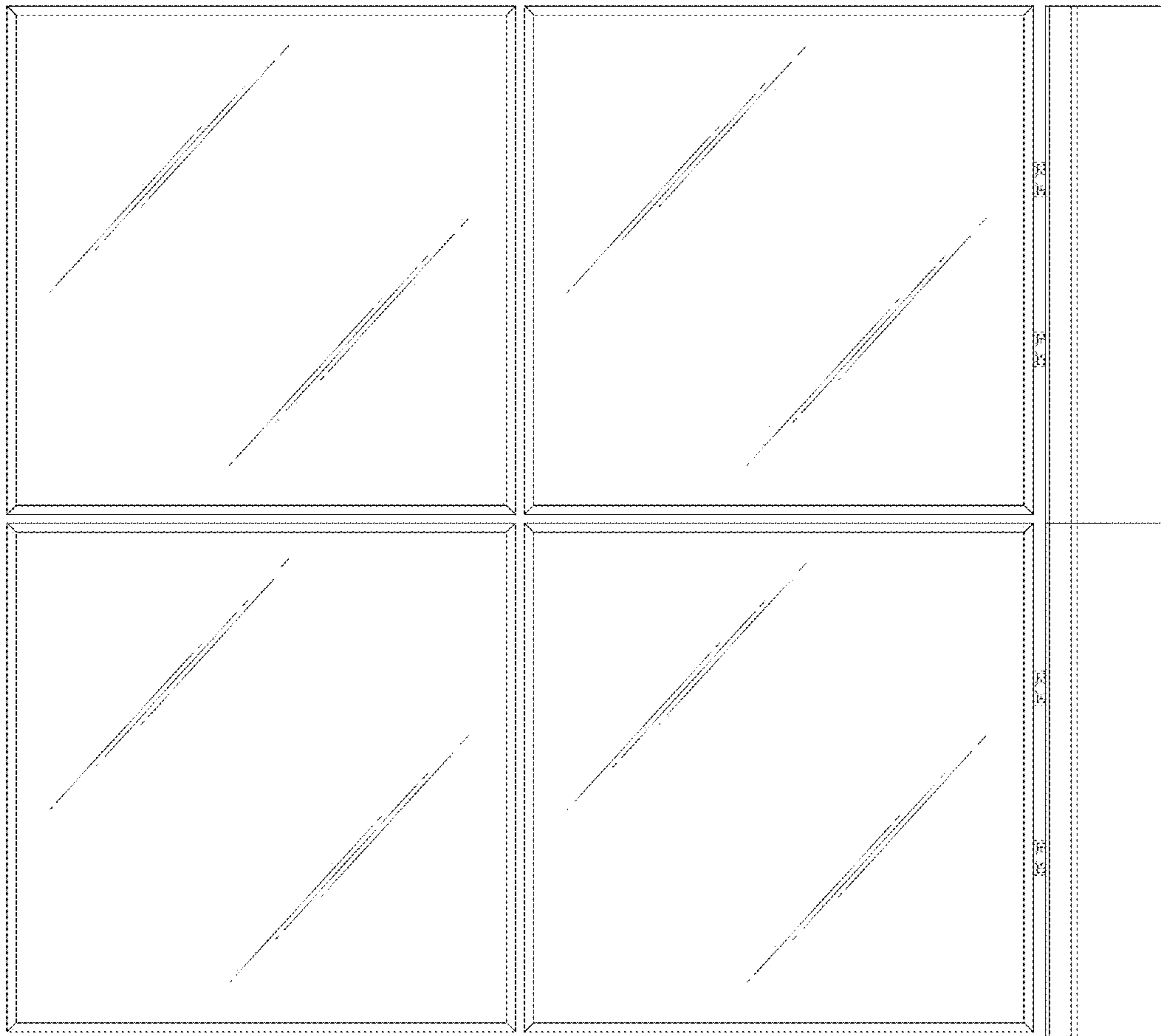


FIG. 2

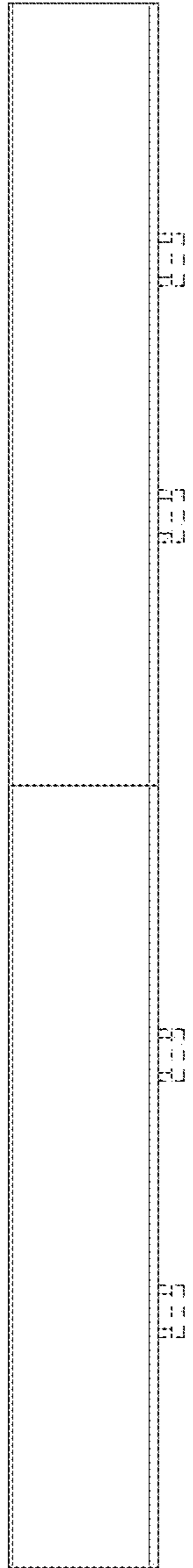


FIG. 3

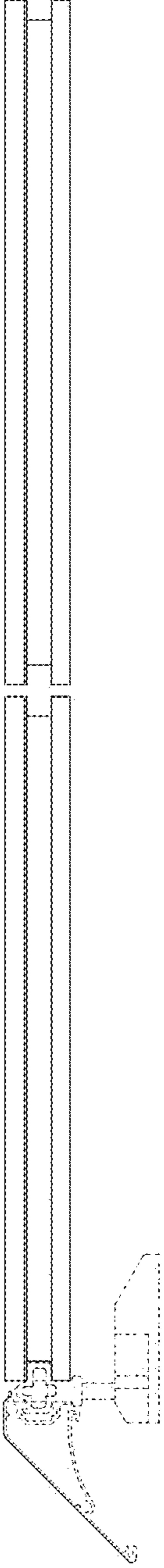


FIG. 4

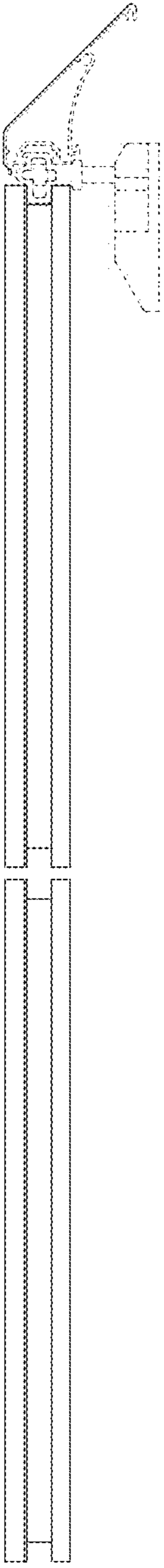


FIG. 5