



US00D795449S

(12) **United States Design Patent** (10) **Patent No.:** **US D795,449 S**
Miller et al. (45) **Date of Patent:** **** *Aug. 22, 2017**

(54) **ELECTROPHORESIS WEDGE-WELL
RETAINER CASSETTE**

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(*) Notice: This patent is subject to a terminal dis-
claimer.

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

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Related U.S. Application Data

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1, 2012, now Pat. No. Des. 719,277.

(51) **LOC (10) Cl.** **24-02**

(52) **U.S. Cl.**
USPC **D24/233**

(58) **Field of Classification Search**
USPC D24/233; D10/81

(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,620,947 A 11/1971 Allen et al.
D231,609 S 5/1974 Broek et al.

(Continued)

FOREIGN PATENT DOCUMENTS

CA 2381962 3/2001
WO 96/013717 5/1996

(Continued)

OTHER PUBLICATIONS

Bio-Rad, "Automating electrophoresis with the new Experion (TM)
System", *BioRadiations*, No. 115, dated Jan. 1, 2005, 36 pages.

(Continued)

Primary Examiner — Wan Laymon

(57) **CLAIM**

The ornamental design for an electrophoresis wedge-well
retainer cassette, as shown and described.

DESCRIPTION

The present application claims priority to U.S. patent appli-
cation Ser. No. 12/862,333 filed Aug. 24, 2010 and to U.S.
patent application Ser. No. 12/862,460 filed Aug. 24, 2010
and to U.S. Design patent application Ser. No. 29/388,827
filed Apr. 1, 2011, the entire contents of which applications
are incorporated by reference herein.

FIG. 1 is a front, top and side perspective view of an
electrophoresis wedge-well retainer cassette according to
our design;

FIG. 2 is a back, top and side perspective view of the
electrophoresis wedge-well retainer cassette of FIG. 1;

FIG. 3 is a front view of the electrophoresis wedge-well
retainer cassette of FIG. 1;

FIG. 4 is a back view of the electrophoresis wedge-well
retainer cassette of FIG. 1;

FIG. 5 is a right side view of the electrophoresis wedge-well
retainer cassette of FIG. 1;

FIG. 6 is a left side view of the electrophoresis wedge-well
retainer cassette of FIG. 1;

FIG. 7 is a top view of the electrophoresis wedge-well
retainer cassette of FIG. 1; and,

(Continued)

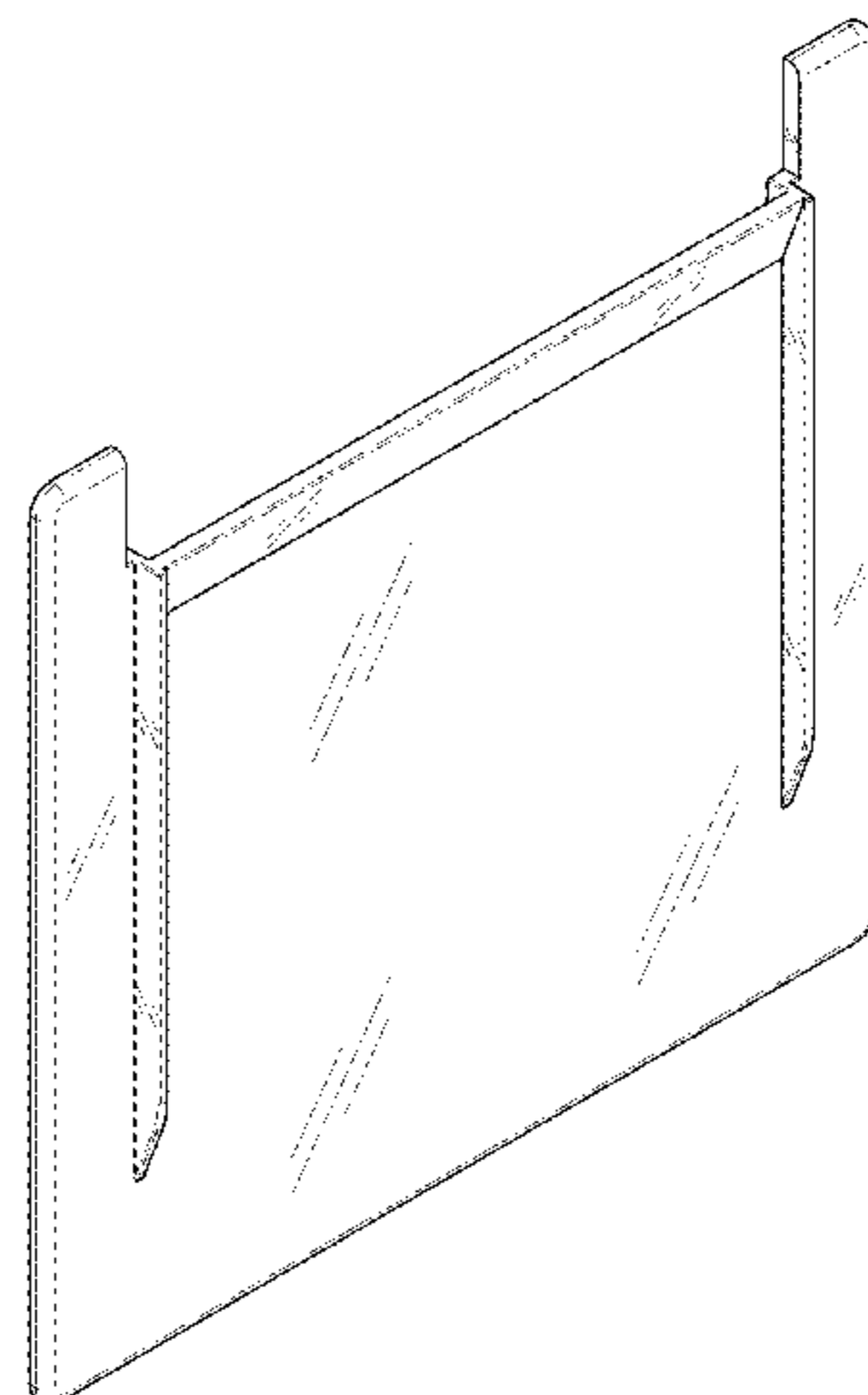
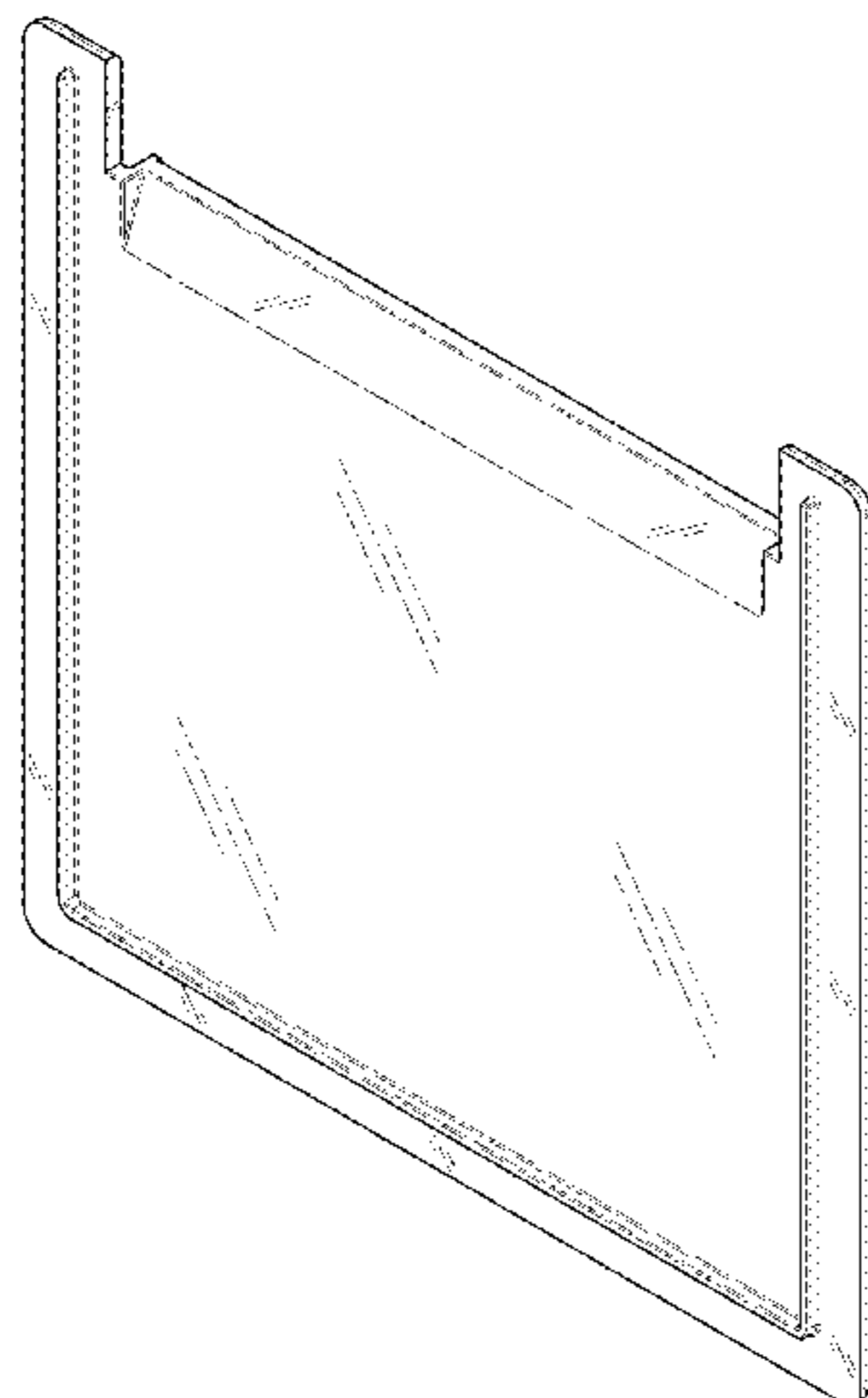


FIG. 8 is a bottom view of the electrophoresis wedge-well retainer cassette of FIG. 1.

1 Claim, 6 Drawing Sheets

(58) Field of Classification Search

CPC G01N 27/44704; G01N 27/44743; G01N 27/44747; G01N 27/44756; G01N 27/44778; C07K 1/26

See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

4,164,464	A	8/1979	Allington et al.	
4,294,684	A	10/1981	Sewer	
D282,352	S	1/1986	Hoefler et al.	
4,608,146	A	8/1986	Penaluna	
4,773,984	A	9/1988	Flesher et al.	
4,795,541	A	1/1989	Hurd et al.	
4,810,348	A	3/1989	Sarrine et al.	
4,830,725	A	5/1989	Berninger et al.	
D303,007	S	8/1989	Flesher et al.	
D315,952	S	4/1991	Berninger et al.	
5,073,246	A	12/1991	Chu et al.	
5,147,522	A	9/1992	Sarrine et al.	
5,284,565	A	2/1994	Chu et al.	
5,318,682	A	6/1994	Singer	
5,338,426	A	8/1994	Shigeura et al.	
5,407,552	A	4/1995	Lebacqz	
5,411,657	A *	5/1995	Leka	G01N 27/44704 204/612
D367,713	S	3/1996	La Motte	
5,514,255	A	5/1996	Gautsch	
5,569,369	A *	10/1996	Leffler	G01N 27/44704 204/616
5,618,399	A	4/1997	Gautsch et al.	
5,626,735	A	5/1997	Chu et al.	
5,627,022	A	5/1997	Renfrew et al.	
5,632,877	A	5/1997	Van Atta	
5,656,145	A	8/1997	Nguyen et al.	
5,685,967	A	11/1997	Manis et al.	
5,717,602	A	2/1998	Kenning	
5,785,835	A	7/1998	Saito et al.	
5,799,773	A	9/1998	Heffelfinger et al.	
5,800,691	A	9/1998	Kozulic	
5,891,314	A	4/1999	Heffelfinger et al.	
5,897,760	A	4/1999	Heffelfinger et al.	
5,938,906	A	8/1999	Moi et al.	
5,949,899	A	9/1999	Ng	
5,951,838	A	9/1999	Heffelfinger et al.	
5,972,188	A	10/1999	Rice et al.	
5,989,403	A	11/1999	Provonchee	
5,993,628	A	11/1999	Selby et al.	
6,063,250	A	5/2000	Becker	
RE36,826	E	8/2000	Fujimiya et al.	
D430,304	S	8/2000	Oonuma et al.	
6,110,344	A	8/2000	Renfrew et al.	
6,139,709	A	10/2000	Scott	
D443,068	S *	5/2001	Manusu	D24/233
6,231,813	B1	5/2001	Ally et al.	
6,413,402	B1 *	7/2002	Manusu	G01N 27/44704 204/618
6,521,111	B1	2/2003	Amshey	
6,544,395	B1	4/2003	Merchant et al.	

D516,733	S	3/2006	Pedraza et al.	
D524,948	S	7/2006	Pedraza et al.	
7,135,101	B2 *	11/2006	Atchison	G01N 27/44704 204/467
D564,378	S	3/2008	Kaushal et al.	
D564,924	S	3/2008	Kaushal et al.	
7,601,251	B2 *	10/2009	Rooney	G01N 27/44704 204/456
D667,134	S	9/2012	Updyke et al.	
8,480,874	B2 *	7/2013	Henry	G01N 27/44704 204/600
D719,277	S	12/2014	Miller et al.	
9,234,874	B2	1/2016	Panattoni et al.	
9,400,260	B2 *	7/2016	Suh	G01N 27/44756
2002/0079222	A1	6/2002	Sevigny et al.	
2003/0089607	A1	5/2003	Riveron Rojas et al.	
2003/0157720	A1	8/2003	Li	
2003/0168339	A1	9/2003	Audeh et al.	
2003/0207271	A1	11/2003	Holwitt et al.	
2004/0033591	A1	2/2004	Lubman et al.	
2004/0036036	A1	2/2004	Atkinson et al.	
2005/0089930	A1	4/2005	Schneider et al.	
2005/0103633	A1	5/2005	Tseng	
2005/0213093	A1	9/2005	Nordman et al.	
2006/0032747	A1	2/2006	Anderson et al.	
2006/0176461	A1	8/2006	Sekine	
2006/0176481	A1	8/2006	Forest et al.	
2007/0045118	A1	3/2007	Maruo et al.	
2007/0056854	A1	3/2007	Latham	
2007/0102298	A1	5/2007	Riveron Rojas et al.	
2007/0278102	A1	12/2007	Hayashida et al.	
2007/0284250	A1	12/2007	Magnant et al.	
2008/0142365	A1	6/2008	Kober et al.	
2008/0272002	A1	11/2008	Johansen et al.	
2011/0042213	A1	2/2011	Updyke et al.	
2011/0042217	A1	2/2011	Updyke et al.	
2011/0114487	A1	5/2011	Schmidt et al.	
2012/0247958	A1	10/2012	Updyke et al.	
2013/0175172	A1	7/2013	Updyke	
2014/0231260	A1 *	8/2014	Updyke	G01N 27/44778 204/620

FOREIGN PATENT DOCUMENTS

WO	98/016820	4/1998
WO	98/025136	6/1998
WO	99/054721	10/1999
WO	01/016589	3/2001
WO	2011/025781	3/2011
WO	2011/028532	3/2011

OTHER PUBLICATIONS

EP10814246.4; European Search Report dated Feb. 4, 2013, 11 pages.
 PCT/US10/46506; International Search Report and Written Opinion dated Oct. 15, 2010, 12 pages.
 PCT/US2010/046491; International Preliminary Report on Patentability dated Feb. 28, 2012, 5 pages.
 Phywe, "Electrophoresis chamber, Vertical. Product No. 35018-20", <http://www.phywe.com/461/apg/360/pid/27438/Elektrophorese-Kammer,-vertikal-htm>, Feb. 13, 2013, 1 page.
 Sigma-Aldrich Co. LLC, "TV 100 mini vertical electrophoresis unit for pre-case gels", <http://www.sigmaaldrich.com/catalog/product/sigma/z649759?lang=en®ion=US>, Feb. 13, 2013, 2 pages.

* cited by examiner

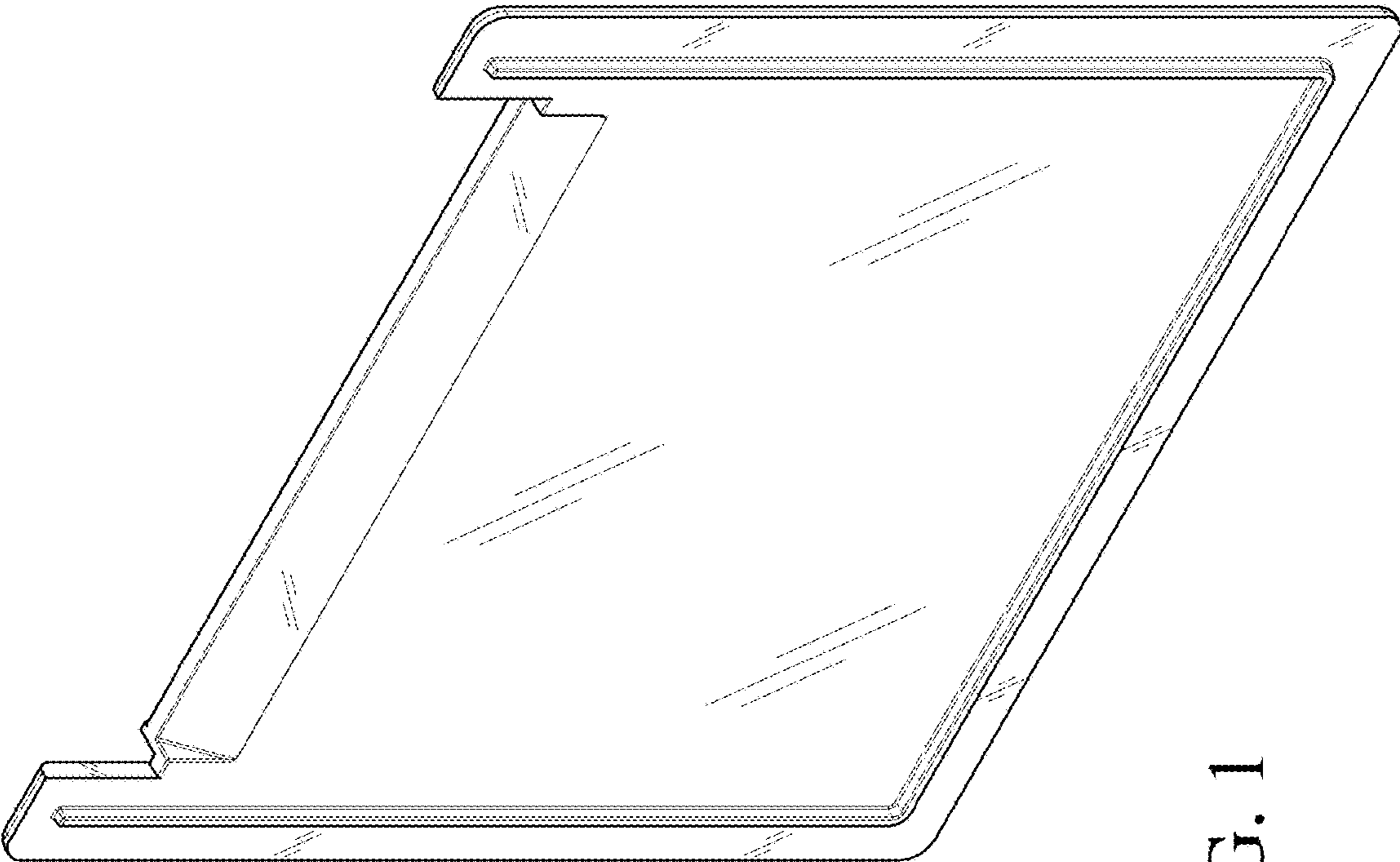


FIG. 1

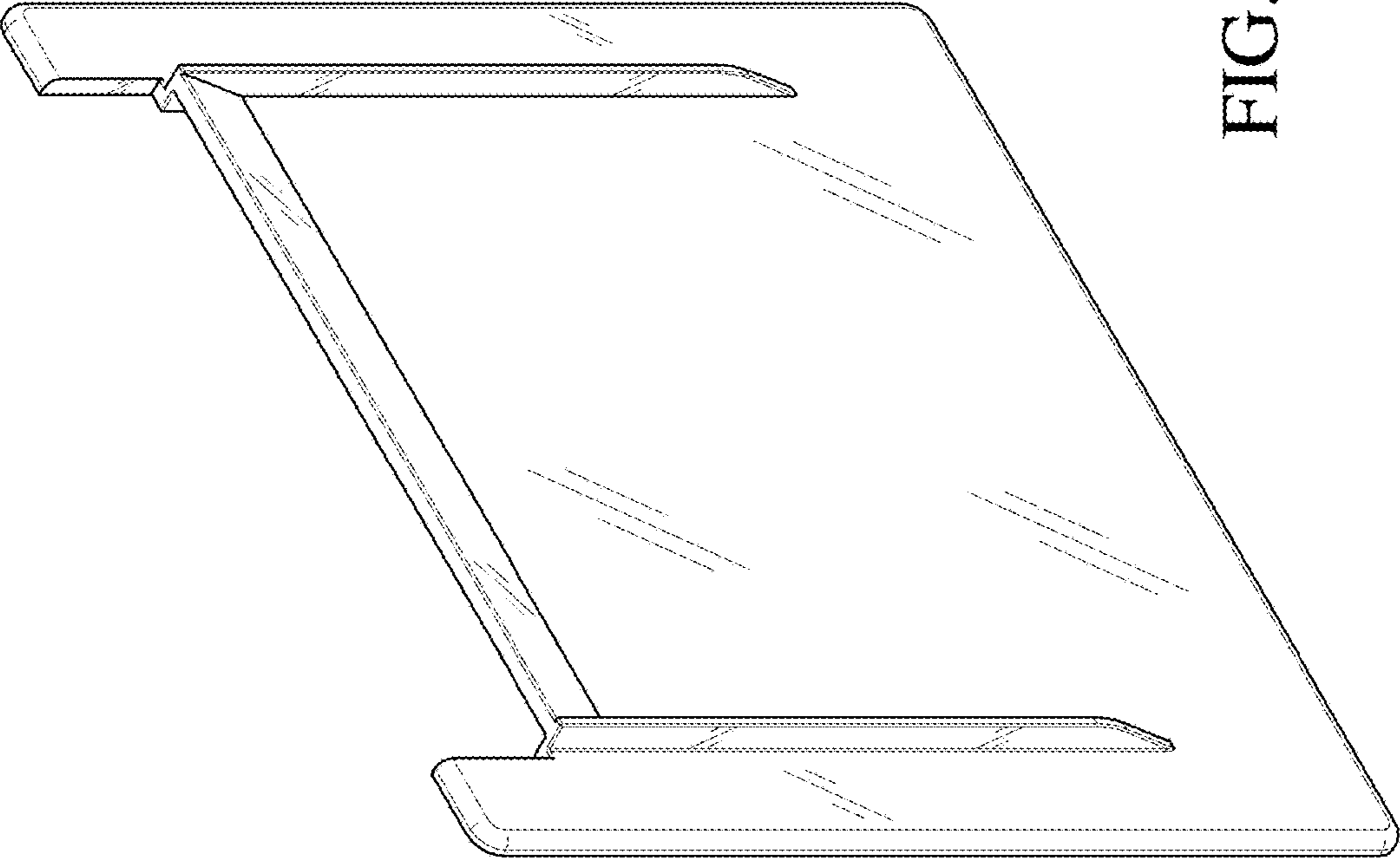


FIG. 2

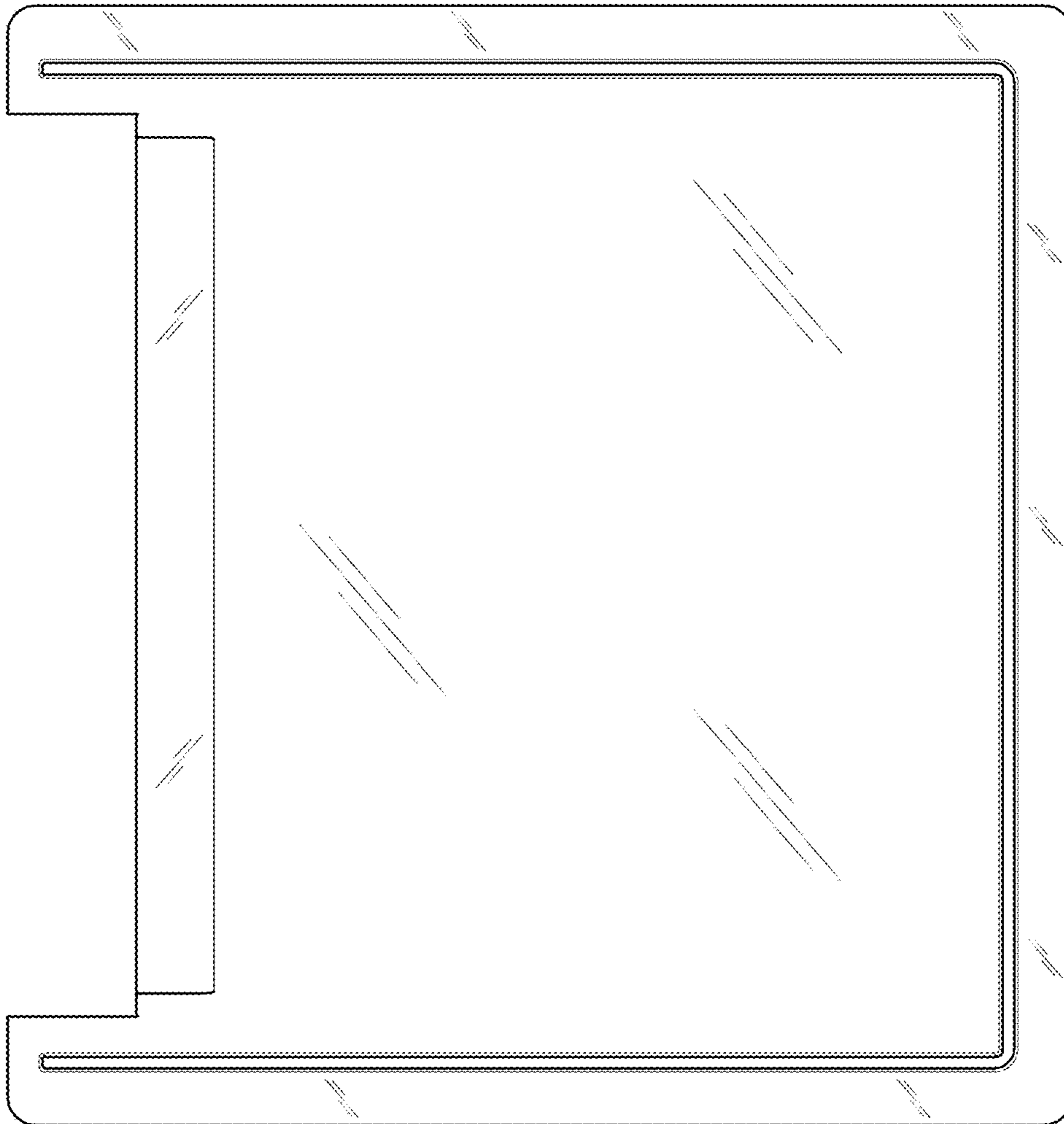


FIG. 3

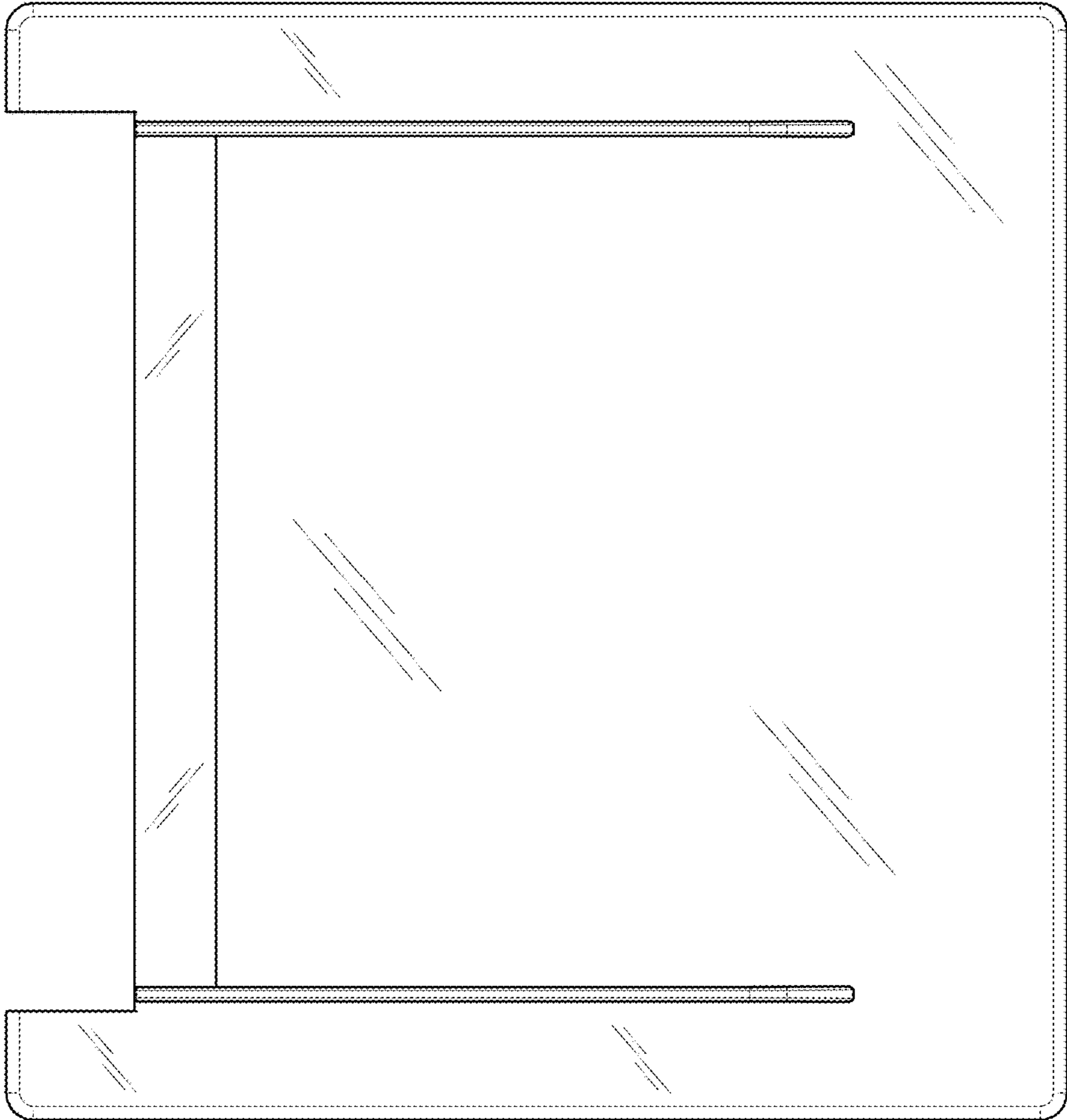


FIG. 4



FIG. 6



FIG. 5



FIG. 7

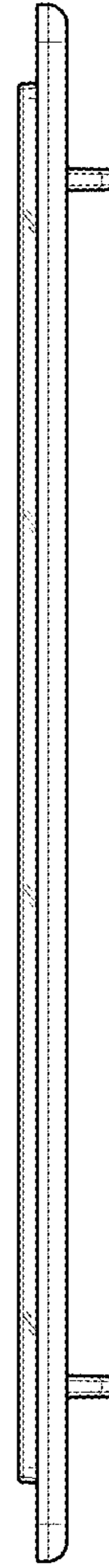


FIG. 8