



US00RE47162E

(19) **United States**
(12) **Reissued Patent**
Oren et al.

(10) **Patent Number:** **US RE47,162 E**
(45) **Date of Reissued Patent:** **Dec. 18, 2018**

- (54) **PROPPANT VESSEL**
- (71) Applicant: **Oren Technologies, LLC**, Houston, TX (US)
- (72) Inventors: **John Oren**, Houston, TX (US); **Joshua Oren**, Houston, TX (US)
- (73) Assignee: **OREN TECHNOLOGIES, LLC**, Houston, TX (US)
- (21) Appl. No.: **29/500,681**
- (22) Filed: **Aug. 27, 2014**

1,573,664 A	2/1926	Wetherill
1,807,447 A	5/1931	Smith
1,850,000 A	3/1932	Fernand
1,932,320 A	10/1933	Steward
1,973,312 A	9/1934	Hardinge
2,020,628 A	11/1935	Woodruff
2,233,005 A	2/1941	Garlinghouse
2,255,448 A	9/1941	Morris
2,293,160 A	8/1942	Miller et al.
2,368,672 A	2/1945	McNamara
2,381,103 A	8/1945	Frank
2,385,245 A	9/1945	Willoughby
2,413,661 A	12/1946	Stokes
2,423,879 A	7/1947	De Frees
2,563,470 A	8/1951	Kane
2,564,020 A	8/1951	Mengel
2,603,342 A	7/1952	Martinson
2,616,758 A	11/1952	Meyers
2,622,771 A	12/1952	Tulou
2,652,174 A	9/1953	Shea et al.
2,670,866 A	3/1954	Glesby
2,678,145 A	5/1954	Ejuzwiak et al.
2,693,282 A	11/1954	Sensibar
2,700,574 A	1/1955	Tourneau
2,792,262 A	4/1955	Hathom
2,774,515 A	12/1956	Johansson et al.
2,791,973 A	5/1957	Dorey
2,801,125 A	7/1957	Page et al.
2,808,164 A	10/1957	Glendinning
2,812,970 A	11/1957	Martinson
2,837,369 A	6/1958	Stopp
2,865,521 A	12/1958	Fisher et al.
2,873,036 A	2/1959	Noble
2,894,666 A	7/1959	Campbell, Jr.
2,988,235 A	6/1961	Ronyak
2,994,460 A	8/1961	Matthews
3,041,113 A	6/1962	Sackett
3,049,248 A	8/1962	Heltzel et al.
3,064,832 A	11/1962	Heltzel
3,083,879 A	4/1963	Coleman
3,090,527 A	5/1963	Rensch
3,109,389 A	11/1963	Karlsson
3,122,258 A	2/1964	Raymond
3,134,606 A	5/1964	Oyler
3,135,432 A	6/1964	McKinney
3,163,127 A	12/1964	Gutridge et al.
3,187,684 A	6/1965	Ortner
3,198,494 A	8/1965	Curran et al.
3,199,585 A	8/1965	Cronberger
3,248,026 A	4/1966	Kemp
3,255,927 A	6/1966	Ruppert et al.
3,265,443 A	8/1966	Simas
3,270,921 A	9/1966	Nadolske et al.

Related U.S. Patent Documents

Reissue of:

- (64) Patent No.: **Des. 688,351**
- Issued: **Aug. 20, 2013**
- Appl. No.: **29/436,170**
- Filed: **Nov. 2, 2012**

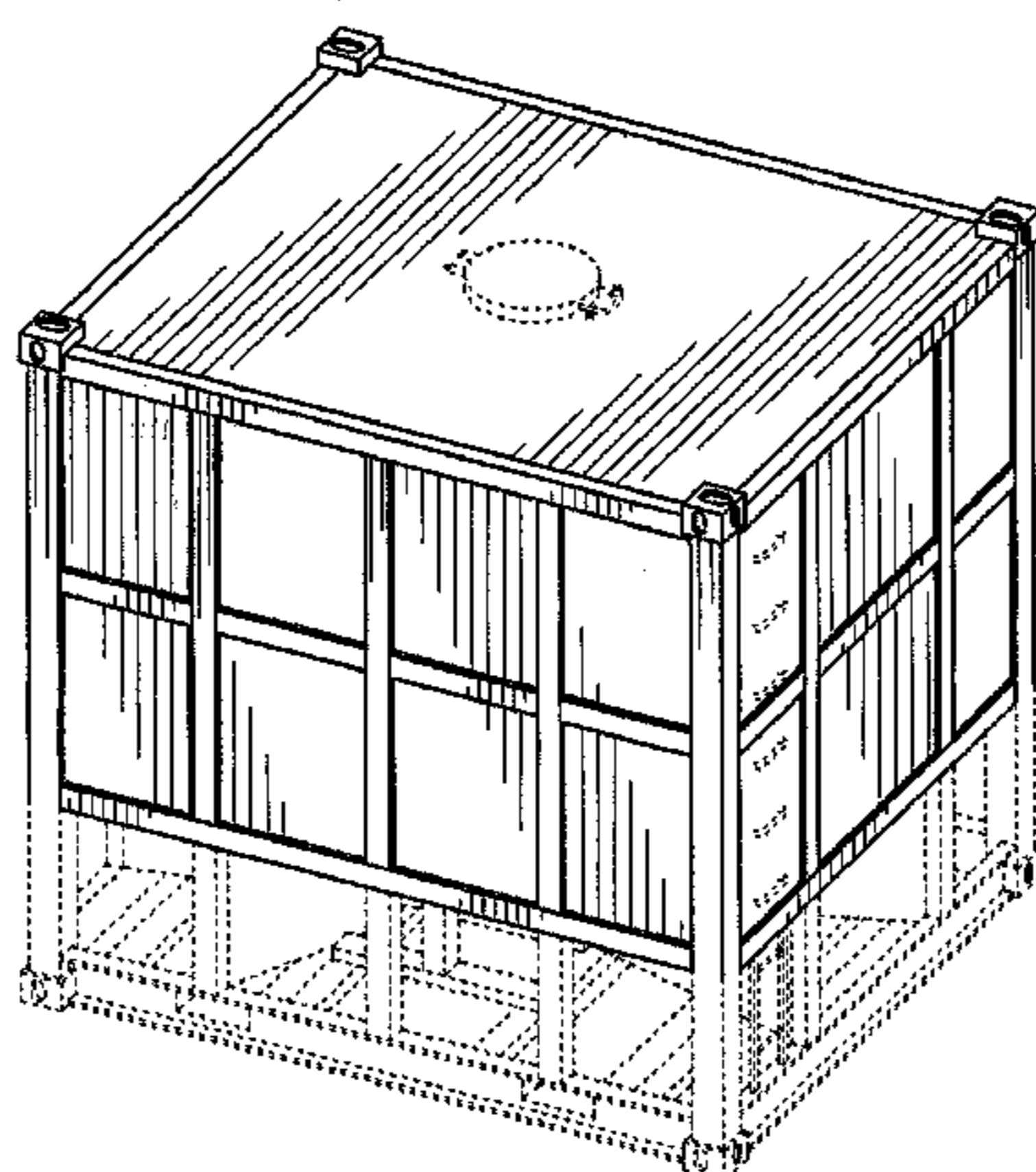
- (51) **LOC (11) Cl.** **23-01**
- (52) **U.S. Cl.**
USPC **D23/202**

- (58) **Field of Classification Search**
USPC D23/202-206; 222/185.1, 460; 206/386, 206/600; 414/813; 220/581
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

137,871 A	4/1873	Worsley
150,894 A	5/1874	Safely
384,443 A	6/1888	Hoover
448,238 A	3/1891	Johnson
710,611 A	10/1902	Ray
711,632 A	10/1902	Johnson
917,649 A	4/1909	Otto
1,143,641 A	6/1915	McGregor
1,331,883 A	2/1920	Stuart
1,344,768 A	6/1920	Messiter
1,434,488 A	11/1922	Forsythe et al.
1,520,560 A	12/1923	Burno
1,506,936 A	9/1924	Lea
1,526,527 A	2/1925	Butler



US RE47,162 E

3,281,006 A	10/1966	Wei	4,329,106 A	5/1982	Adler
3,294,306 A	12/1966	Areddy	4,350,241 A	9/1982	Wenzel
3,318,473 A	5/1967	Jones et al.	4,359,176 A	11/1982	Johnson
3,326,572 A	6/1967	Murray	4,363,396 A	12/1982	Wolf et al.
3,343,688 A	9/1967	Ross	4,397,406 A	8/1983	Croley
3,353,599 A	11/1967	Swift	4,398,653 A	8/1983	Daloisio
3,354,918 A	11/1967	Coleman	4,402,392 A	9/1983	Fabian et al.
3,378,152 A	4/1968	Warner	4,407,202 A	10/1983	McCormick
3,387,570 A	6/1968	Pulcrano et al.	4,408,886 A	10/1983	Sampson et al.
3,396,675 A	8/1968	Stevens	4,410,106 A	10/1983	Kierbow et al.
3,397,654 A	8/1968	Snyder	4,420,285 A	12/1983	Loyer et al.
3,406,995 A	10/1968	McCarthy	4,427,133 A	1/1984	Kierbow et al.
3,407,971 A	10/1968	Oehler	4,428,504 A	1/1984	Bassett et al.
3,425,599 A	2/1969	Sammarco et al.	4,449,861 A	5/1984	Saito et al.
3,455,474 A	7/1969	Truncali	4,453,645 A	6/1984	Usui et al.
3,476,270 A	11/1969	Cox et al.	4,474,204 A	10/1984	West
D216,511 S *	1/1970	Coleman D23/202	4,475,672 A	10/1984	Whitehead
3,499,694 A	3/1970	Coppel	4,478,155 A	10/1984	Cena et al.
3,508,762 A	4/1970	Pratt	4,483,462 A	11/1984	Heintz
3,524,567 A	8/1970	Coleman	4,513,755 A	4/1985	Baroni
3,528,570 A	9/1970	Pase	4,525,071 A	6/1985	Horowitz
3,587,834 A	6/1971	Dugge	4,526,353 A	7/1985	Stomp
3,596,609 A	8/1971	Ortner	4,532,098 A	7/1985	Campbell
3,601,244 A	8/1971	Ort et al.	4,552,573 A	11/1985	Weis
3,602,400 A	8/1971	Cooke	4,569,394 A	2/1986	Sweatman et al.
3,650,567 A	3/1972	Danielson	4,571,143 A	2/1986	Hellerich
3,653,521 A	4/1972	Bridge	4,588,605 A	5/1986	Frei et al.
3,661,293 A	5/1972	Gerhard et al.	4,608,931 A	9/1986	Ruhmann et al.
3,692,363 A	9/1972	Tenebaum et al.	4,619,531 A	10/1986	Dunstan
3,704,797 A	12/1972	Suykens	4,624,729 A	11/1986	Bresciani et al.
3,721,199 A	3/1973	Hassenauer	4,626,155 A	12/1986	Hlinsky et al.
3,729,121 A	4/1973	Cannon	4,626,166 A	12/1986	Jolly
3,734,215 A	5/1973	Smith	4,628,825 A	12/1986	Taylor et al.
3,738,511 A	6/1973	Lemon et al.	4,648,584 A	3/1987	Wamser
3,752,511 A	8/1973	Racy	4,660,733 A	4/1987	Snyder et al.
3,777,909 A	12/1973	Rheinfrank	4,701,095 A	10/1987	Berryman et al.
3,785,534 A	1/1974	Smith	4,714,010 A	12/1987	Smart
3,800,712 A	4/1974	Krug, Jr.	4,715,754 A	12/1987	Scully
3,802,584 A	4/1974	Sackett	4,741,273 A	5/1988	Sherwood
3,817,261 A	6/1974	Rogge	4,761,039 A	8/1988	Hilaris
3,820,762 A	6/1974	Bostrom et al.	4,798,039 A	1/1989	Deglise
3,827,578 A	8/1974	Hough	4,801,389 A	1/1989	Brannon et al.
3,840,141 A	10/1974	Allom et al.	4,819,830 A	4/1989	Schultz
3,854,612 A	12/1974	Snape	4,836,510 A	6/1989	Weber et al.
3,861,716 A	1/1975	Baxter et al.	4,836,735 A	6/1989	Dennehy
3,883,005 A	5/1975	Stevens	4,848,605 A	7/1989	Wise
3,909,223 A	9/1975	Schmidt	4,882,784 A	11/1989	Tump
3,933,100 A	1/1976	Dugge	4,889,219 A	12/1989	Key
3,963,149 A	6/1976	Fassauer	4,901,649 A	2/1990	Fehrenbach et al.
3,970,123 A	7/1976	Poulton et al.	4,909,378 A	3/1990	Webb
3,986,708 A	10/1976	Hellzel et al.	4,909,556 A	3/1990	Koskinen
3,997,089 A	12/1976	Clarke et al.	4,917,019 A	4/1990	Hesch et al.
4,003,301 A	1/1977	Norton	4,919,583 A	4/1990	Speakman, Jr.
4,004,700 A	1/1977	Empey	4,923,358 A	5/1990	Van Mill
4,057,153 A	11/1977	Weaver	4,946,068 A	8/1990	Erickson et al.
4,058,239 A	11/1977	Van Mill	4,947,760 A	8/1990	Dawson et al.
4,063,656 A	12/1977	Lambert	4,949,714 A	8/1990	Orr
4,073,410 A	2/1978	Melcher	4,954,975 A	9/1990	Kalata
4,125,195 A	11/1978	Sasadi	4,956,821 A	9/1990	Fenelon
4,138,163 A	2/1979	Calvert et al.	4,964,243 A	10/1990	Reiter
4,178,117 A	12/1979	Brugler	4,975,205 A	12/1990	Sloan
4,204,773 A	5/1980	Bates	4,975,305 A	12/1990	Biginelli
4,210,273 A	7/1980	Hegele	4,988,115 A	1/1991	Steinke
4,210,963 A	7/1980	Ricciardi et al.	4,995,522 A	2/1991	Barr
RE30,358 E	8/1980	Sensibar	5,004,400 A	4/1991	Handke
4,222,498 A	9/1980	Brock	5,028,002 A	7/1991	Whitford
4,227,732 A	10/1980	Kish	5,042,538 A	8/1991	Wiese
4,245,820 A	1/1981	Muryn	5,080,259 A	1/1992	Hadley
4,247,228 A	1/1981	Gray et al.	5,082,304 A	1/1992	Preller
4,247,370 A	1/1981	Nijhawan et al.	5,102,281 A	4/1992	Handke
4,258,953 A	3/1981	Johnson	5,102,286 A	4/1992	Fenton
4,265,266 A	5/1981	Kierbow et al.	5,105,858 A	4/1992	Levinson
4,278,190 A	7/1981	Oory et al.	5,131,524 A	7/1992	Uehara
4,282,988 A	8/1981	Hulbert, Jr.	5,167,719 A	12/1992	Tamaki
4,287,921 A	9/1981	Sanford	5,190,182 A	3/1993	Copas et al.
4,287,997 A	9/1981	Rolfe et al.	5,195,861 A	3/1993	Handke
4,289,353 A	9/1981	Merritt	5,199,826 A	4/1993	Lawrence
4,299,597 A	11/1981	Oetiker et al.	5,201,546 A	4/1993	Lindsay
4,306,895 A	12/1981	Thompson et al.	5,224,635 A	7/1993	Wise

US RE47,162 E

5,253,746 A	10/1993	Friesen et al.	6,328,156 B1	12/2001	Otsman
5,253,776 A	10/1993	Decroix et al.	6,328,183 B1	12/2001	Coleman
5,265,763 A	11/1993	Heinrici et al.	6,374,915 B1	4/2002	Andrews
5,280,883 A	1/1994	Ibar	6,382,446 B1	5/2002	Hinkle et al.
5,286,158 A	2/1994	Zimmerman	6,390,742 B1	5/2002	Breeden
5,286,294 A	2/1994	Ebi et al.	6,401,983 B1	6/2002	McDonald et al.
5,290,139 A	3/1994	Hedrick	6,412,422 B2	7/2002	Dohr et al.
5,317,783 A	6/1994	Williamson	6,415,909 B1	7/2002	Mitchell et al.
5,320,046 A	6/1994	Hesch	6,416,271 B1	7/2002	Pigott et al.
5,324,097 A	6/1994	DeCap	6,422,413 B1	7/2002	Hall et al.
5,339,996 A	8/1994	Dubbert	6,425,725 B1	7/2002	Ehlers
5,345,982 A	9/1994	Nadeau et al.	6,450,522 B1	9/2002	Yamada et al.
5,358,137 A	10/1994	Shuert et al.	6,457,291 B2	10/2002	Wick
5,373,792 A	12/1994	Pileggi et al.	6,498,976 B1	12/2002	Ehlbeck et al.
5,392,946 A	2/1995	Holbrook et al.	6,505,760 B1	1/2003	Werner
5,402,915 A	4/1995	Hogan	6,508,387 B1	1/2003	Simon et al.
5,413,154 A	5/1995	Hurst et al.	6,508,615 B2	1/2003	Taylor
5,441,321 A	8/1995	Karpisek	6,523,482 B2	2/2003	Wingate
5,465,829 A	11/1995	Kruse	6,537,002 B2	3/2003	Gloystein
5,470,175 A	11/1995	Jensen et al.	6,575,614 B2	6/2003	Tosco et al.
5,470,176 A	11/1995	Corcoran et al.	6,660,693 B2	12/2003	Miller et al.
5,493,852 A	2/1996	Stewart	6,663,373 B2	12/2003	Yoshida
5,498,119 A	3/1996	Faivre	6,666,573 B2	12/2003	Grassi
5,507,514 A	4/1996	Jacques	6,675,066 B2	1/2004	Moshgbar
5,538,286 A	7/1996	Hoff	6,675,073 B2	1/2004	Kieman et al.
5,549,278 A	8/1996	Sidler	6,705,449 B2	3/2004	Wagstaffe
5,564,599 A	10/1996	Barber et al.	6,720,290 B2	4/2004	England et al.
5,570,743 A	11/1996	Padgett et al.	6,772,912 B1	8/2004	Schall et al.
5,590,976 A	1/1997	Kilheffer et al.	6,774,318 B2	8/2004	Beal et al.
5,601,181 A	2/1997	Lindhorst	6,776,235 B1	8/2004	England
5,602,761 A	2/1997	Spoerre et al.	6,783,032 B2	8/2004	Fons
5,613,446 A	3/1997	DiLuigi et al.	6,828,280 B2	12/2004	England et al.
5,617,974 A	4/1997	Sawyer	6,835,041 B1	12/2004	Albert
5,647,514 A	7/1997	Toth et al.	6,882,960 B2	4/2005	Miller
RE35,580 E	8/1997	Heider et al.	6,902,061 B1	6/2005	Elstone
5,667,298 A	9/1997	Musil	6,915,854 B2	7/2005	England et al.
5,690,466 A	11/1997	Gaddis et al.	6,953,119 B1	10/2005	Wening
5,697,535 A	12/1997	Coleman	6,955,127 B2	10/2005	Taylor
5,704,477 A *	1/1998	Hermann et al. 206/386	6,964,551 B1	11/2005	Friesen
5,718,555 A	2/1998	Swalheim	6,968,946 B2	11/2005	Shuert
5,722,552 A	3/1998	Olson	6,974,021 B1	12/2005	Boevers
5,722,688 A	3/1998	Garcia	7,008,163 B2	3/2006	Russell
5,746,258 A	5/1998	Huck	7,036,662 B2 *	5/2006	Schutz 206/386
5,772,390 A	6/1998	Walker	7,051,661 B2	5/2006	Herzog et al.
5,782,524 A	7/1998	Heider et al.	7,084,095 B2	8/2006	Lee et al.
5,785,421 A	7/1998	Milek	7,104,425 B2	9/2006	Le Roy
5,803,296 A	9/1998	Olson	7,140,516 B2	11/2006	Bothor
5,806,863 A	9/1998	Heger et al.	7,146,914 B2	12/2006	Morton et al.
5,836,480 A	11/1998	Epp et al.	7,201,290 B2	4/2007	Mehus et al.
5,845,799 A	12/1998	Deaton	7,214,028 B2	5/2007	Boasso
5,876,172 A	3/1999	Di Rosa	7,240,681 B2	7/2007	Saik
5,906,471 A	5/1999	Schwoerer	7,252,309 B2	8/2007	Eng Goh
5,911,337 A	6/1999	Bedecker	7,284,579 B2	10/2007	Elgan et al.
5,927,558 A	7/1999	Bruce	7,284,670 B2	10/2007	Schmid
5,960,974 A	10/1999	Kee	7,316,333 B2	1/2008	Wegner
5,971,219 A	10/1999	Karpisek	7,367,271 B2	5/2008	Early
5,993,202 A	11/1999	Yamazaki et al.	7,377,219 B2	5/2008	Brandt
5,997,099 A	12/1999	Collins	7,410,623 B2	8/2008	Mehus et al.
6,002,063 A	12/1999	Bilak et al.	7,475,796 B2	1/2009	Garton
6,006,918 A	12/1999	Hart	7,500,817 B2	3/2009	Furrer et al.
6,069,118 A	5/2000	Hinkel et al.	7,513,280 B2	4/2009	Brashears et al.
6,092,974 A	7/2000	Roth	7,591,386 B2	9/2009	Hooper
6,109,486 A	8/2000	Lee	7,640,075 B2	12/2009	Wietgreffe
6,120,233 A	9/2000	Adam	7,695,538 B2	4/2010	Cheng
D431,358 S	10/2000	Willemsen	7,753,637 B2	7/2010	Benedict et al.
6,155,175 A	12/2000	Rude et al.	7,798,558 B2	9/2010	Messier
6,186,654 B1	2/2001	Gunteret et al.	7,802,958 B2	9/2010	Garcia et al.
6,190,107 B1	2/2001	Lanigan et al.	7,803,321 B2	9/2010	Lark et al.
6,192,985 B1	2/2001	Hinkel et al.	7,837,427 B2	11/2010	Beckel
6,196,590 B1	3/2001	Kim	7,841,394 B2	11/2010	McNeel et al.
6,205,938 B1	3/2001	Foley et al.	7,845,516 B2	12/2010	Pessin et al.
6,247,594 B1	6/2001	Garton	7,858,888 B2	12/2010	Lucas et al.
6,263,803 B1	7/2001	Dohr et al.	7,867,613 B2	1/2011	Smith
6,269,849 B1	8/2001	Fields	7,878,327 B2 *	2/2011	Cassina 206/386
6,273,154 B1	8/2001	Laug	7,891,304 B2	2/2011	Herzog et al.
6,283,212 B1	9/2001	Hinkel et al.	7,891,523 B2	2/2011	Mehus et al.
6,286,986 B2	9/2001	Grimland	7,896,198 B2	3/2011	Mehus et al.
6,296,109 B1	10/2001	Nohl	7,897,223 B2 *	3/2011	Schubbach et al. 428/35.7
6,306,800 B1	10/2001	Samuel et al.	7,921,783 B2	4/2011	Forbes et al.

US RE47,162 E

Page 5

CN	2075632	4/1991	International Search Report for PCT/US2015/024810, Jul. 8, 2015. (13 pages).
CN	1329562	1/2002	SandBox Logistics, "Mine to Wellhead Logistics," Houston, TX, May 2013.
CN	2517684	10/2002	SandBox Logistics, screenshots from video made in Apr. 2013 and publicly shown in May 2013, Arnegard, North Dakota.
CN	1635965	7/2005	European Search Report for Application No. 15167039.5, dated Sep. 8, 2015. (7 pages).
CN	2913250	6/2007	Non-Final Office Action dated Oct. 27, 2016 for co-pending U.S. Appl. No. 15/219,676.
CN	201390486	1/2010	Non-Final Office Action dated Nov. 9, 2016 for co-pending U.S. Appl. No. 14/948,494.
CN	101823630	9/2010	Final Office Action dated Nov. 4, 2016 for co-pending U.S. Appl. No. 14/738,485.
CN	102101595	6/2011	Non-Final Office Action dated Apr. 3, 2017 for co-pending U.S. Appl. No. 13/555,635.
CN	201881469	6/2011	Non-Final Office Action dated Feb. 14, 2017 for co-pending U.S. Appl. No. 14/943,111.
CN	102114985	7/2011	Final Office Action dated Mar. 7, 2017 for co-pending U.S. App. No. 15/144,296.
CN	203033469	7/2013	Non-Final Office Action dated Apr. 6, 2017 for co-pending U.S. Appl. No. 13/768,962.
CN	103350017	10/2013	Non-Final Office Action dated Mar. 6, 2017 for co-pending U.S. Appl. No. 15/152,744.
DE	3108121	9/1982	Non-Final Office Action dated Feb. 24, 2017 for co-pending U.S. Appl. No. 14/943,182.
DE	3342281	6/1985	Solaris Oilfield Infrastructure, Mobile Sand Silo System, 2016.
DE	4217329	5/1993	Final Office Action dated Sep. 27, 2016 for co-pending U.S. Appl. No. 13/555,635.
DE	20317967	3/2004	Non-Final Office Action dated Mar. 23, 2016 for co-pending U.S. Appl. No. 13/555,635.
EP	0019967	12/1980	Final Office Action dated Jul. 30, 2015 for co-pending U.S. Appl. No. 13/555,635.
EP	322283	6/1989	Non-Final Office Action dated Oct. 22, 2014 for co-pending U.S. Appl. No. 13/555,635.
EP	0564969	10/1993	Final Office Action dated Jun. 21, 2016 for co-pending U.S. Appl. No. 13/628,702.
EP	0997607	5/2000	Non-Final Office Action dated Feb. 23, 2016 for co-pending U.S. Appl. No. 13/628,702.
EP	1052194	11/2000	Final Office Action dated Sep. 22, 2015 for co-pending U.S. Appl. No. 13/628,702.
EP	1167236	1/2002	Non-Final Office Action dated Jul. 28, 2015 for co-pending U.S. Appl. No. 13/628,702.
EP	1775190	4/2007	Final Office Action dated Mar. 24, 2015 for co-pending U.S. Appl. No. 13/628,702.
EP	1795467	6/2007	Non-Final Office Action dated Sep. 18, 2014 for co-pending U.S. Appl. No. 13/628,702.
EP	2062832	5/2009	Final Office Action dated Jun. 27, 2016 for co-pending U.S. Appl. No. 14/831,924.
EP	2311757	4/2011	Non-Final Office Action dated Feb. 16, 2016 for co-pending U.S. Appl. No. 14/831,924.
FR	2173445	10/1973	Final Office Action dated Jun. 27, 2016 for co-pending U.S. Appl. No. 14/923,920.
FR	2640598	6/1990	Non-Final Office Action dated Feb. 9, 2016 for co-pending U.S. Appl. No. 14/923,920.
GB	1296736	11/1972	Final Office Action dated Sep. 15, 2016 for co-pending U.S. Appl. No. 14/943,111.
GB	2204847	11/1988	Non-Final Office Action dated Apr. 5, 2016 for co-pending U.S. Appl. No. 14/943,111.
GB	2374864	10/2002	Final Office Action dated Jul. 18, 2016 for co-pending U.S. Appl. No. 14/948,494.
JP	S4871029	9/1973	Non-Final Office Action dated Apr. 8, 2016 for co-pending U.S. Appl. No. 14/948,494.
JP	S4876041	9/1973	Non-Final Office Action dated Sep. 6, 2016 for co-pending U.S. Appl. No. 15/144,296.
JP	S58161888	10/1983	Non-Final Office Action dated Jul. 25, 2016 for co-pending U.S. Appl. No. 13/660,855.
JP	410087046	4/1998	Final Office Action dated Apr. 28, 2016 for co-pending U.S. Appl. No. 13/660,855.
JP	10264882	10/1998	Non-Final Office Action dated Oct. 6, 2015 for co-pending U.S. Appl. No. 13/660,855.
JP	11034729	2/1999	Final Office Action dated Aug. 6, 2015 for co-pending U.S. Appl. No. 13/660,855.
MX	2012011046	5/2013	
WO	1990008082	7/1990	
WO	1992002437	2/1992	
WO	1993001997	2/1993	
WO	1993006031	4/1993	
WO	1996025302	8/1996	
WO	2006039757	4/2006	
WO	2007005054	1/2007	
WO	2007057398	5/2007	
WO	2007061310	5/2007	
WO	2008012513	1/2008	
WO	2010026235	3/2010	
WO	2012021447	2/2012	
WO	2012058059	5/2012	
WO	2011099358	6/2013	

OTHER PUBLICATIONS

International Search Report for related International Application No. PCT/US2012/066639, dated Feb. 25, 2013.

International Search Report for related International Application No. PCT/US2013/035442, dated Jun. 23, 2013.

International Search Report for related International Application No. PCT/US2013/032819, dated May 23, 2013.

International Search Report for related International Application No. PCT/US2013/049028, dated Mar. 4, 2014.

International Preliminary Report on Patentability for PCT/US2012/066639, dated Feb. 26, 2013.

International Preliminary Report on Patentability for PCT/US2013/032819, Sep. 23, 2014.

International Search Report for PCT/US15/35635, dated Oct. 30, 2015. (12 pages).

International Search Report for PCT/US2015/012990, dated May 6, 2015. (15 pages).

FS-35 Desert Frac-Sanders. NOV (National Oilwell Varco). Mar. 19, 2012. (http://web.archive.org/web/20120319070423/http://www.nov.com/Well_Service_and_Completion/Frac_Sand_Handling_Equipment/Frac_Sanders/FS-35.aspx).

Non-Final Office Action dated Mar. 23, 2016 for co-pending U.S. Appl. No. 13/555,635.

Final Office Action dated Jul. 30, 2015 for co-pending U.S. Appl. No. 13/555,635.

Non-Final Office Action dated Oct. 22, 2014 for co-pending U.S. Appl. No. 13/555,635.

Final Office Action dated Jun. 21, 2016 for co-pending U.S. Appl. No. 13/628,702.

Non-Final Office Action dated Feb. 23, 2016 for co-pending U.S. Appl. No. 13/628,702.

Final Office Action dated Sep. 22, 2015 for co-pending U.S. Appl. No. 13/628,702.

Non-Final Office Action dated Jul. 28, 2015 for co-pending U.S. Appl. No. 13/628,702.

Final Office Action dated Mar. 24, 2015 for co-pending U.S. Appl. No. 13/628,702.

Non-Final Office Action dated Sep. 18, 2014 for co-pending U.S. Appl. No. 13/628,702.

Final Office Action dated Jun. 27, 2016 for co-pending U.S. Appl. No. 14/831,924.

Non-Final Office Action dated Feb. 16, 2016 for co-pending U.S. Appl. No. 14/831,924.

Final Office Action dated Jun. 27, 2016 for co-pending U.S. Appl. No. 14/923,920.

Non-Final Office Action dated Feb. 9, 2016 for co-pending U.S. Appl. No. 14/923,920.

Final Office Action dated Sep. 15, 2016 for co-pending U.S. Appl. No. 14/943,111.

Non-Final Office Action dated Apr. 5, 2016 for co-pending U.S. Appl. No. 14/943,111.

Final Office Action dated Jul. 18, 2016 for co-pending U.S. Appl. No. 14/948,494.

Non-Final Office Action dated Apr. 8, 2016 for co-pending U.S. Appl. No. 14/948,494.

Non-Final Office Action dated Sep. 6, 2016 for co-pending U.S. Appl. No. 15/144,296.

Non-Final Office Action dated Jul. 25, 2016 for co-pending U.S. Appl. No. 13/660,855.

Final Office Action dated Apr. 28, 2016 for co-pending U.S. Appl. No. 13/660,855.

Non-Final Office Action dated Oct. 6, 2015 for co-pending U.S. Appl. No. 13/660,855.

Final Office Action dated Aug. 6, 2015 for co-pending U.S. Appl. No. 13/660,855.

- Non-Final Office Action dated Apr. 29, 2015 for co-pending U.S. Appl. No. 13/660,855.
- Final Office Action dated Dec. 17, 2014 for co-pending U.S. Appl. No. 13/660,855.
- Non-Final Office Action dated Sep. 4, 2014 for co-pending U.S. Appl. No. 13/660,855.
- Final Office Action dated Sep. 24, 2013 for co-pending U.S. Appl. No. 13/660,855.
- Non-Final Office Action dated May 14, 2013 for co-pending U.S. Appl. No. 13/660,855.
- Non-Final Office Action dated Jul. 5, 2016 for co-pending U.S. Appl. No. 14/996,362.
- Non-Final Office Action dated Jul. 6, 2016 for co-pending U.S. Appl. No. 15/144,450.
- Final Office Action dated Sep. 29, 2016 for co-pending U.S. Appl. No. 13/768,962.
- Non-Final Office Action dated Apr. 5, 2016 for co-pending U.S. Appl. No. 13/768,962.
- Final Office Action dated Oct. 9, 2015 for co-pending U.S. Appl. No. 13/768,962.
- Non-Final Office Action dated May 1, 2015 for co-pending U.S. Appl. No. 13/768,962.
- Non-Final Office Action dated Jul. 18, 2016 for co-pending U.S. Appl. No. 15/152,744.
- Non-Final Office Action dated Apr. 13, 2016 for co-pending U.S. Appl. No. 14/738,485.
- Non-Final Office Action dated Sep. 7, 2016 for co-pending U.S. Appl. No. 14/841,942.
- Final Office Action dated May 12, 2016 for co-pending U.S. App. No. 14/841,942.
- Non-Final Office Action dated Nov. 30, 2015 for co-pending U.S. Appl. No. 14/841,942.
- Non-Final Office Action dated Jul. 21, 2016 for co-pending U.S. Appl. No. 15/083,596.
- Non-Final Office Action dated Aug. 19, 2016 for co-pending U.S. Appl. No. 15/084,611.
- Non-Final Office Action dated Sep. 6, 2016 for co-pending U.S. Appl. No. 15/143,942.
- Final Office Action dated Sep. 1, 2016 for co-pending U.S. Appl. No. 14/848,447.
- Non-Final Office Action dated Apr. 8, 2016 for co-pending U.S. Appl. No. 14/848,447.
- SandBox Logistics, LLC, screenshots from video dated Oct. 11, 2013.
- SandBox Logistics, LLC, screenshots from video dated Apr. 10, 2013.
- Grit Energy Solutions, LLC, Fidelity, Screenshots from video dated May 16, 2014.
- Grit Energy Solutions, LLC, Gate, Screenshots from video dated Dec. 6, 2013, <https://www.youtube.com/user/gritstack>.
- Grit Energy Solutions, LLC, Screen, Screenshots from video dated Dec. 6, 2013, <https://www.youtube.com/user/gritstack>.
- Grit Energy Solutions, LLC, The Grit Stack System—Live Frac, Screenshots from video dated Jun. 15, 2015, <https://www.youtube.com/user/gritstack>.
- Grit Energy Solutions, LLC, The Grit Stack System, Screenshots from video dated Feb. 7, 2014, <https://www.youtube.com/user/gritstack>.
- Frac Sand Primer by Brian D. Olmen, Kelrick, LLC, from Hydraulic Fracturing by Michael Berry Smith and Carl Montgomery (CRC Press, Dec. 16, 2015), p. 384.
- Premier Silica LLC, Sands Application in the Energy Market, Irving, TX, Copyright 2016.
- Getty, John, Montana Tech; ASTM International, Overview of Proppants and Existing Standards and Practices, Jacksonville, FL, Jan. 29, 2013.
- PCT International Search Report for PCT/US15/49074, dated Dec. 17, 2015. (11 pages).
- PCT International Search Report for PCT/US15/57601, May 6, 2016. (11 pages).
- SandBox Logistics, LLC, screenshots from video dated Sep. 19, 2013.
- SandBox Logistics, LLC, screenshots from video dated Aug. 22, 2014.
- Non-Final Office Action dated May 13, 2016 for co-pending U.S. Appl. No. 14/986,826.
- Final Office Action dated Sep. 15, 2016 for co-pending U.S. Appl. No. 14/922,836.
- Non-Final Office Action dated Feb. 4, 2016 for co-pending U.S. Appl. No. 14/922,836.
- Final Office Action dated Aug. 25, 2016 for co-pending U.S. Appl. No. 14/927,614.
- Non-Final Office Action dated Mar. 1, 2016 for co-pending U.S. Appl. No. 14/927,614.
- Non-Final Office Action dated Apr. 29, 2016 for co-pending U.S. App. No. 14/943,182.
- Final Office Action dated Sep. 15, 2016 for co-pending U.S. Appl. No. 14/882,973.
- Non-Final Office Action dated Feb. 11, 2016 for co-pending U.S. Appl. No. 14/882,973.
- Non-Final Office Action dated Aug. 11, 2016 for co-pending U.S. Appl. No. 13/625,675.
- Final Office Action dated Nov. 11, 2015 for co-pending U.S. Appl. No. 13/625,675.
- Non-Final Office Action dated Mar. 11, 2015 for co-pending U.S. Appl. No. 13/625,675.
- Non-Final Office Action dated Dec. 28, 2016 for co-pending U.S. Appl. No. 13/628,702.
- Non-Final Office Action dated Jan. 13, 2017 for co-pending U.S. Appl. No. 14/923,920.
- Final Office Action dated Jan. 12, 2017 for co-pending U.S. Appl. No. 14/841,942.
- Non-Final Office Action dated Dec. 23, 2016 for co-pending U.S. Appl. No. 14/485,686.
- Non-Final Office Action dated Jan. 27, 2017 for co-pending U.S. Appl. No. 14/485,687.
- Non-Final Office Action dated Dec. 20, 2016 for co-pending U.S. Appl. No. 14/831,924.
- Final Office Action dated Jan. 19, 2017 for co-pending U.S. Appl. No. 13/660,855.
- Final Office Action dated Nov. 25, 2016 for co-pending U.S. Appl. No. 15/152,744.
- Non-Final Office Action dated Dec. 15, 2016 for co-pending U.S. Appl. No. 14/848,447.
- Non-Final Office Action dated Dec. 9, 2016 for co-pending U.S. Appl. No. 14/927,614.
- International Search Report for PCT Application No. PCT/US2016/050859 dated Dec. 9, 2016.
- International Search Report and Written Opinion for PCT/US2017/012271, dated May 22, 2017.
- Non-Final Office Action dated Apr. 24, 2017 for co-pending U.S. Appl. No. 14/738,485.
- Final Office Action dated May 4, 2017 for co-pending U.S. Appl. No. 15/143,942.
- Final Office Action dated May 30, 2017 for co-pending U.S. Appl. No. 13/625,675.
- Final Office Action dated Apr. 19, 2017 for co-pending U.S. Appl. No. 15/219,640.
- Non-Final Office Action dated Jun. 1, 2017 for co-pending U.S. Appl. No. 15/219,640.
- Final Office Action dated May 2, 2017 for co-pending U.S. Appl. No. 15/219,676.
- Non-Final Office Action dated May 10, 2017 for co-pending U.S. Appl. No. 14/882,973.
- Yergin, Daniel, The Quest: Energy, Security, and the Remaking of the Modern World, 2011.
- Gold, Russell, The Boom: How Fracking Ignited the American Energy Revolution and Changed the World, 2014.
- Yergin, Daniel, Stepping on the Gas, Wall Street Journal, Apr. 2, 2011.
- Raimi, Daniel et al., Dunn County and Watford City, North Dakota: A case study of the fiscal effects of Bakken shale development, Duke University Energy Initiative, May 2016.
- Local Economic Impacts Related to Marcellus Shale Development, The Center for Rural Pennsylvania, Sep. 2014.

Eagle Ford Shale Task Force Report, Railroad Commission of Texas, Convened and Chaired by David Porter, Mar. 2013.

Sandbox Logistics LLC et al v. Grit Energy Solutions LLC, 3:16-cv-00012, 73 Parties' P.R. 4-3 Joint Claim Construction and Prehearing Statement by Oren Technologies LLC, SandBox Enterprises LLC, SandBox Logistics LLC, Nov. 17, 2016.

Beard, Tim, Fracture Design in Horizontal Shale Wells—Data Gathering to Implementation, EPA Hydraulic Fracturing Workshop, Mar. 10-11, 2011.

Economic Impact of the Eagle Ford Shale, Center for Community and Business Research at the University of Texas at San Antonio's Institute for Economic Development, Sep. 2014.

Kelsey, Timothy W. et al., Economic Impacts of Marcellus Shale in Pennsylvania: Employment and Income in 2009, The Marcellus Shale Education & Training Center, Aug. 2011.

2006 Montana Commercial Vehicle Size and Weight and Safety Trucker's Handbook, Montana Department of Transportation Motor Carrier Services Division, Fifth Edition, Jun. 2010.

Budzynski, Brian W., Never Meant to Take the Weight, Roads & Bridges, Apr. 2015.

Interstate Weight Limits, 23 C.F.R. § 658, Apr. 1, 2011.

VIN Requirements, 49 C.F.R. § 565, Oct. 1, 2011.

Benson, Mary Ellen et al., Frac Sand in the United States—A Geological and Industry Overview, U.S. Department of the Interior, U.S. Geological Survey, 2015-2017.

Beekman, Thomas J. et al., Transportation Impacts of the Wisconsin Fracture Sand Industry, Wisconsin Department of Transportation, Mar. 2013.

U.S. Silica Company, Material Safety Data Sheet, Jan. 2011.

Texas Transportation Code, Chapter 621, General Provisions Relating to Vehicle Size and Weight (Sec. 621.101 effective Sep. 1, 2005 and Section 621.403 effective Sep. 1, 1995).

Garner, Dwight, Visions of an Age When Oil Isn't King, New York Times, Sep. 20, 2011.

File History for U.S. Appl. No. 61/538,616, Robert A. Harris, Sep. 23, 2011. (21 pages).

Arrows Up, Inc., Jumbo BTS—Bulk Transport System, Aug. 1, 2014.

Arrows Up, Inc., Reusable Packaging Association, Member Spotlight: John Allegreli, President & CEO, Arrows Up, Inc., Jun. 23, 2016.

Seed Today, Arrows Up, Inc. Bulk Transport System (BTS), Country Journal Publishing Co., Decatur, IL, Mar. 2, 2011.

SeedQuest, Arrows Up, Inc. launches innovative bulk transport system for see, Barrington, IL, Mar. 2, 2011.

Monster Tanks, Inc., Sand Monster Website, <http://monstertanksinc.com/sandmonster.html>, 2012.

Final Office Action dated Oct. 13, 2017 for co-pending U.S. Appl. No. 15/398,950.

Non-Final Office Action dated Sep. 21, 2017 for co-pending U.S. Appl. No. 15/413,822.

Non-Final Office Action dated Oct. 5, 2017 for co-pending U.S. Appl. No. 14/848,447.

Final Office Action dated Sep. 21, 2017 for co-pending U.S. Appl. No. 14/922,836.

Non-Final Office Action dated Sep. 27, 2017 for co-pending U.S. Appl. No. 14/996,362.

Non-Final Office Action dated Sep. 28, 2017 for co-pending U.S. Appl. No. 13/628,702.

Final Office Action dated Jan. 22, 2018 for co-pending U.S. Appl. No. 13/628,702.

Final Office Action dated Jan. 25, 2018 for co-pending U.S. Appl. No. 15/602,666.

Final Office Action dated Feb. 6, 2018 for co-pending U.S. Appl. No. 15/475,354.

Non-Final Office Action dated Feb. 9, 2018 for co-pending U.S. Appl. No. 15/587,926.

Non-Final Office Action dated Feb. 15, 2018 for co-pending U.S. Appl. No. 14/922,836.

Final Office Action dated Dec. 27, 2017 for co-pending U.S. Appl. No. 14/943,182.

Non-Final Office Action dated Sep. 8, 2017 for co-pending U.S. Appl. No. 15/475,354.

Non-Final Office Action dated Sep. 8, 2017 for co-pending U.S. Appl. No. 15/143,942.

International Search Report and Written Opinion for PCT/US17/34603 dated Aug. 22, 2017.

Non-Final Office Action dated Aug. 30, 2017 for co-pending U.S. Appl. No. 14/943,182.

Non-Final Office Action dated Aug. 4, 2017 for co-pending U.S. Appl. No. 13/625,675.

Non-Final Office Action dated Jul. 26, 2017 for co-pending U.S. Appl. No. 15/463,201.

Final Office Action dated Jul. 27, 2017 for co-pending U.S. Appl. No. 14/738,485.

Non-Final Office Action dated Aug. 3, 2017 for co-pending U.S. Appl. No. 15/219,676.

Beckwith, Robin, Proppants: Where in the World, Proppant Shortage, JPT, Apr. 2011 (6 pages).

Kullman, John, The Complicated World of Proppant Selection . . . , South Dakota School of Mines & Technology, Oct. 2011 (65 pages).

Lafollette, Randy, Key Considerations for Hydraulic Fracturing of Gas Shales, BJ Services Company, Sep. 9, 2010 (53 pages).

WW Trailers Inc., Model GN2040EZ datasheet, Portland, OR, Jan. 2007 (4pages).

WW Trailers Inc., Model GN204S9A datasheet, Portland, OR, Jan. 2007 (4pages).

Smith, Ryan E., Prefab Architecture, A Guide to Modular Design and Construction, John Wiley & Sons, Inc., 2010.

OSHA-NIOSH, Hazard Alert: Worker Exposure to Silica during Hydraulic Fracturing, Jun. 2012.

Tremoglie, Michael P., Legal NewsLine, OSHA, NIOSH issue Tracking health alert (/stories/510527440-oshaniosh-issue-fracking-health-alert), Jun. 25, 2012.

Beckwith, Robin, Proppants: Where in the World, Journal of Petroleum Technology, Apr. 2011.

Final Office Action dated Feb. 27, 2018 for co-pending U.S. Appl. No. 15/143,942.

Non-Final Office Action dated Apr. 26, 2018 for co-pending U.S. Appl. No. 15/616,783.

Final Office Action dated Apr. 23, 2018 for co-pending U.S. Appl. No. 14/848,447.

Final Office Action dated Mar. 16, 2018 for co-pending U.S. Appl. No. 14/996,362.

Final Office Action dated Mar. 14, 2018 for co-pending U.S. Appl. No. 15/144,450.

Randy Lafollette, Key Considerations for Hydraulic Fracturing of Gas Shales, May 12, 2010.

Case No. 4:17-cv-00589, Plaintiffs' P.R. 3-1 and 3-2 Infringement Contentions and Disclosures, Jun. 8, 2017.

ISO 1496-1: International Standard, Series 1 Freight Containers—Specification and Testing—Part 1, General Cargo Containers, Fifth Edition, Aug. 15, 1990.

ISO 6346: International Standard, Freight Containers—Coding, Identification and Marking, Third Edition, Dec. 1, 1995.

ISO/IEC 15416: International Standard, Information Technology—Automatic Identification and Data Capture Techniques—Bar Code Print Quality Test Specification—Linear Symbols, First Edition, Aug. 15, 2000.

Hoel, Lester A., Giuliano, Genevieve and Meyer, Michael D., Portions of Intermodal Transportation: Moving Freight in a Global Economy, Copyright Eno Transportation Foundation, 2011.

* cited by examiner

Primary Examiner — Philip S Hyder

(74) *Attorney, Agent, or Firm* — Hogan Lovells US LLP

(57)

CLAIM

The ornamental design for a proppant vessel, as shown and described.

DESCRIPTION

This application is a reissue application of U.S. Pat. No. D688,351 issued on Aug. 20, 2013, from U.S. application Ser. No. 29/436,170, filed on Nov. 2, 2012. Application Ser.

No. 29/518,134 filed Feb. 20, 2015, is a divisional reissue application of this reissue application. Application Ser. No. 29/518,135 filed Feb. 20, 2015, is also a divisional reissue application of this reissue application.

Notice: More than one reissue application has been filed for the reissue of U.S. Pat. No. D688,351. The reissue applications are application Ser. No. 29/500,681 (the present application) filed Aug. 27, 2014, application Ser. No. 29/518,134, filed Feb. 20, 2015, and application Ser. No. 29/518,135 filed Feb. 20, 2015.

FIG. 1 is an upper perspective view of the proppant vessel showing our design[.];

FIG. 2 is a front [elevation] elevational view [thereof] of FIG. 1;

FIG. 3 is a rear [elevation] elevational view [thereof] of FIG. 1;

FIG. 4 is a right side [elevation] elevational view [thereof] of FIG. 1;

FIG. 5 is [an opposite] a left side [elevation] elevational view [thereof] of FIG. 1;

FIG. 6 is a top plan view [thereof] of FIG. 1; and,

FIG. 7 is a bottom plan view [thereof.] of FIG. 1;

FIG. 8 is an upper perspective view of an alternate embodiment of the proppant vessel embodying our design;

FIG. 9 is a front elevational view of the embodiment of FIG. 8;

FIG. 10 is a rear elevational view of the embodiment of FIG. 8;

FIG. 11 is a right side elevational view of the embodiment of FIG. 8;

FIG. 12 is a left side elevational view of the embodiment of FIG. 8;

FIG. 13 is a top plan view of the embodiment of FIG. 8;

FIG. 14 is a bottom plan view of the embodiment of FIG. 8;

FIG. 15 is an upper perspective view of another alternate embodiment of the proppant vessel embodying our design;

FIG. 16 is a front elevational view of the embodiment of FIG. 15;

FIG. 17 is a rear elevational view of the embodiment of FIG. 15;

FIG. 18 is a right side elevational view of the embodiment of FIG. 15;

FIG. 19 is a left side elevational view of the embodiment of FIG. 15;

FIG. 20 is a top plan view of the embodiment of FIG. 15; and,

FIG. 21 is a bottom plan view of the embodiment of FIG. 15.

[The features presented in broken lines are for environmental purposes only and form no part of the claimed design]

The broken lines depict portions of the proppant vessel in which the design is embodied that are not considered part of the claimed design.

1 Claim, 6 Drawing Sheets

Matter enclosed in heavy brackets [] appears in the original patent but forms no part of this reissue; matter printed in italics indicates the additions made by reissue.

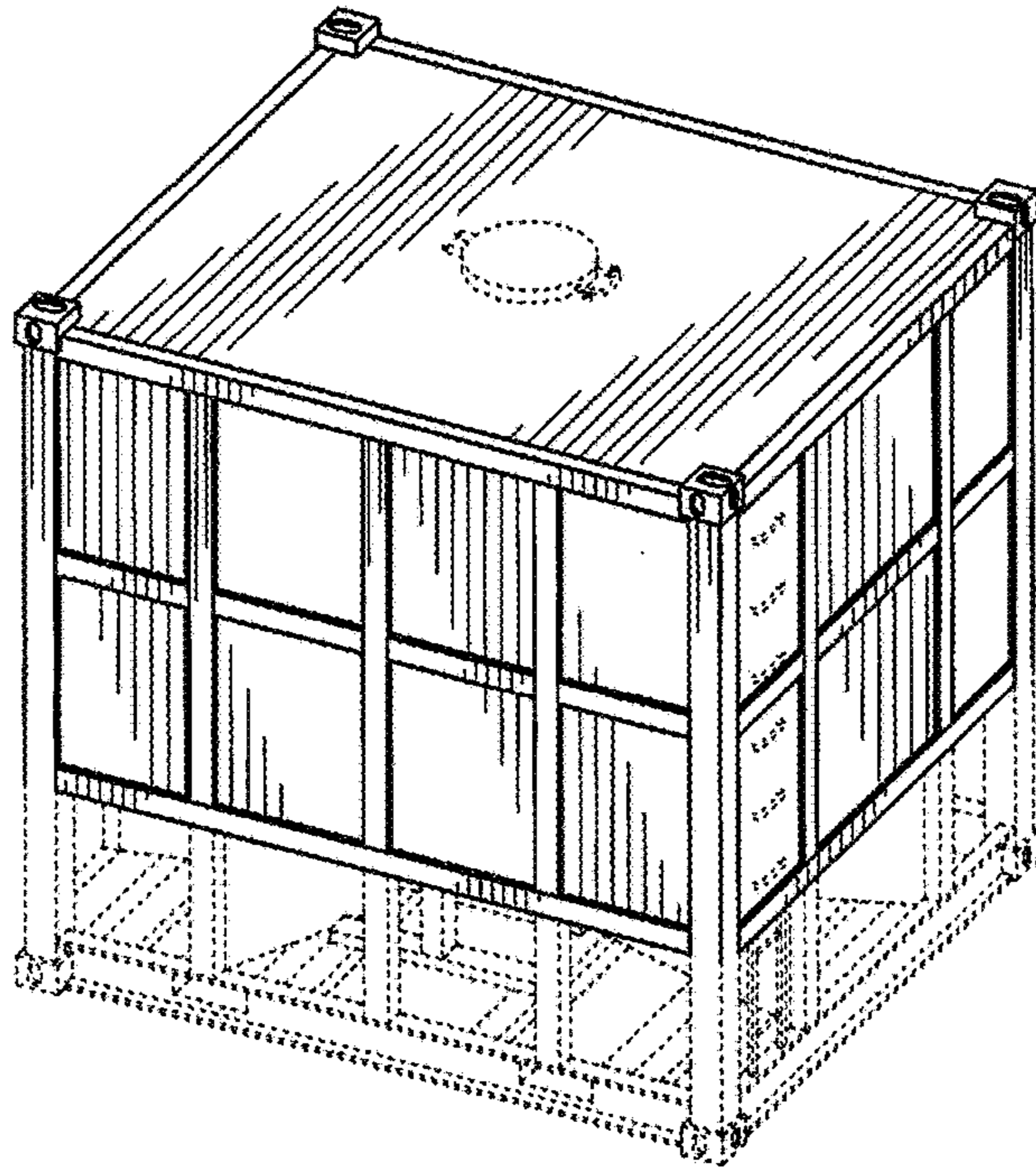


FIG. 1

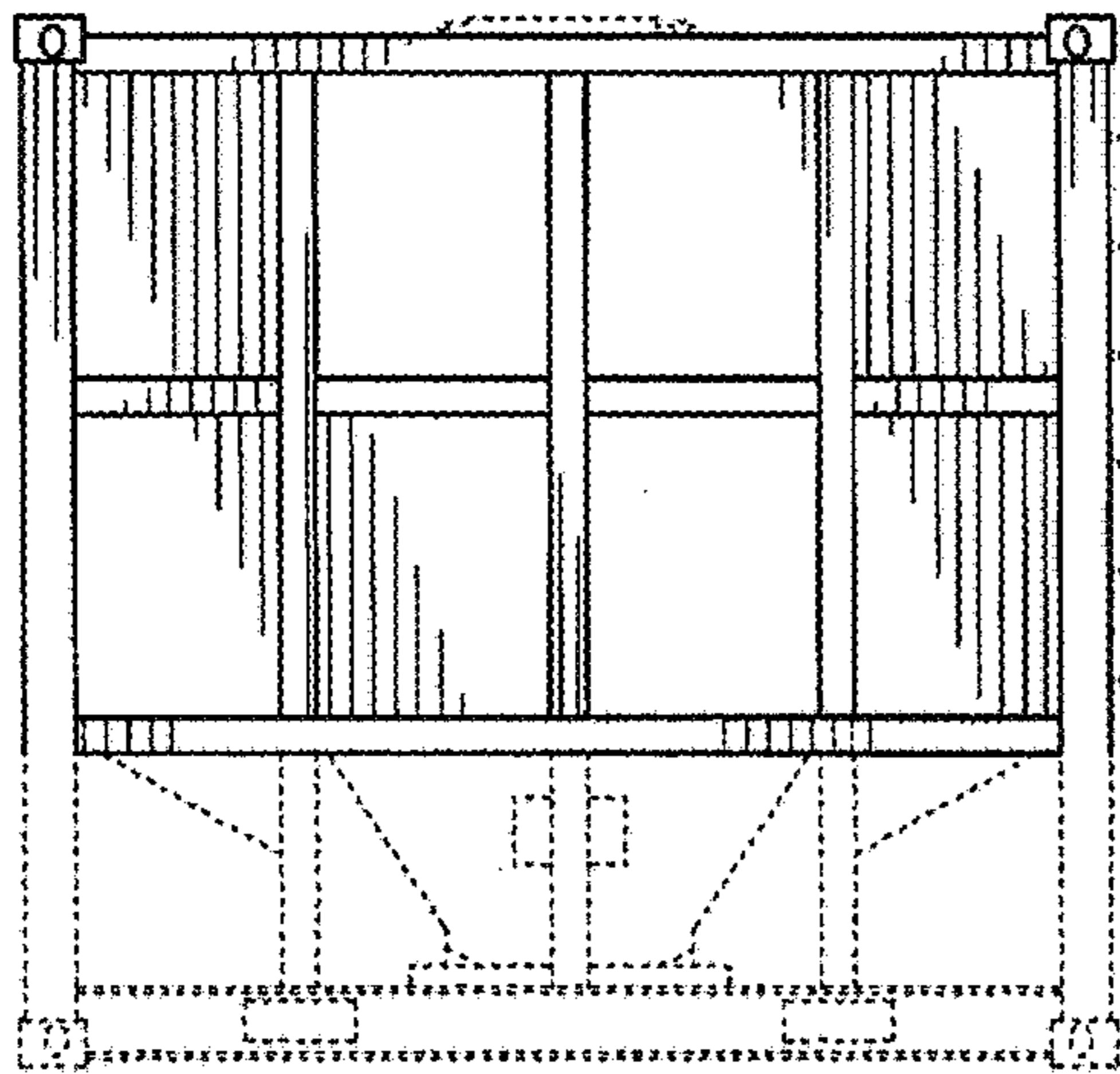


FIG. 2

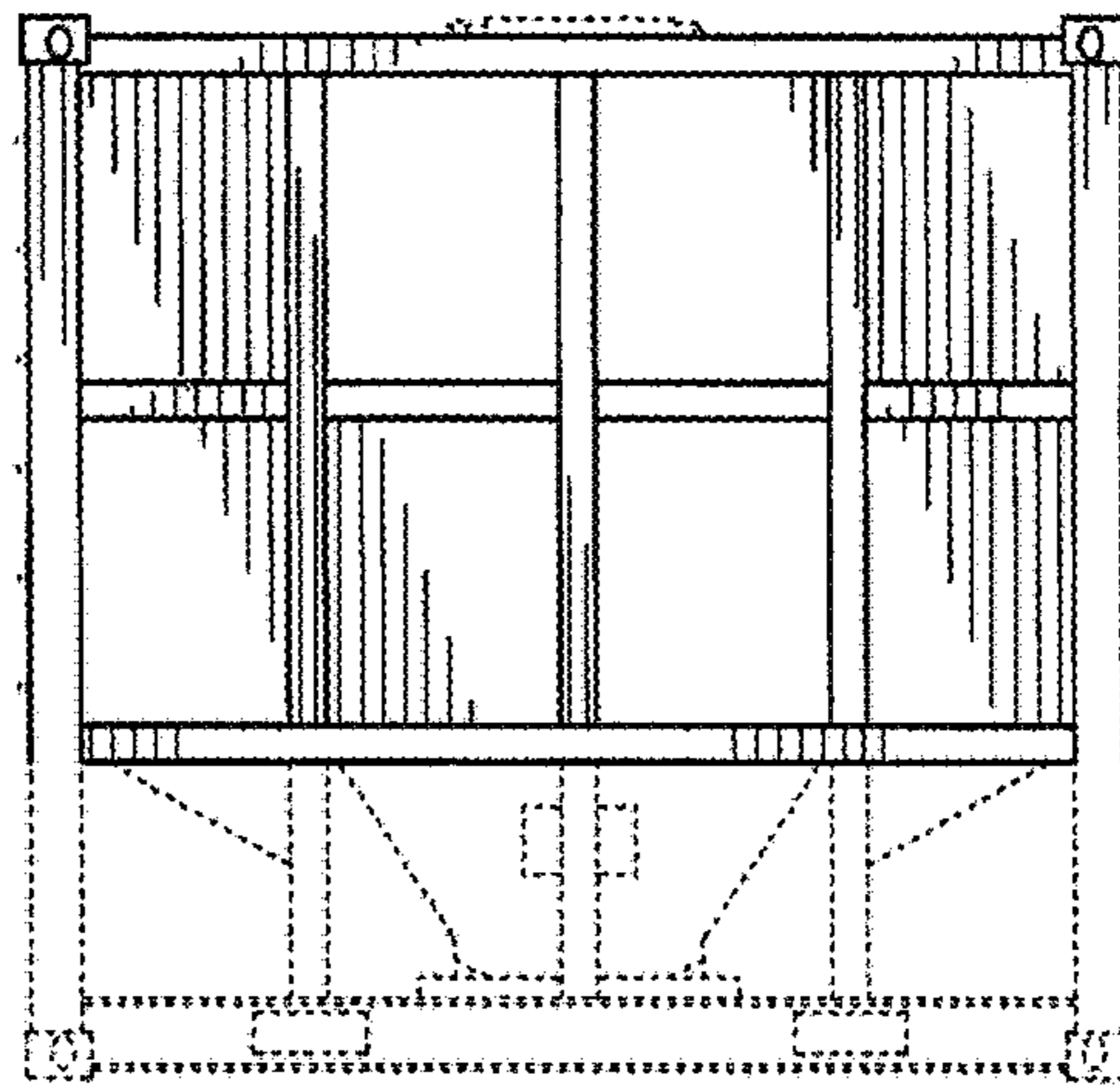


FIG. 3

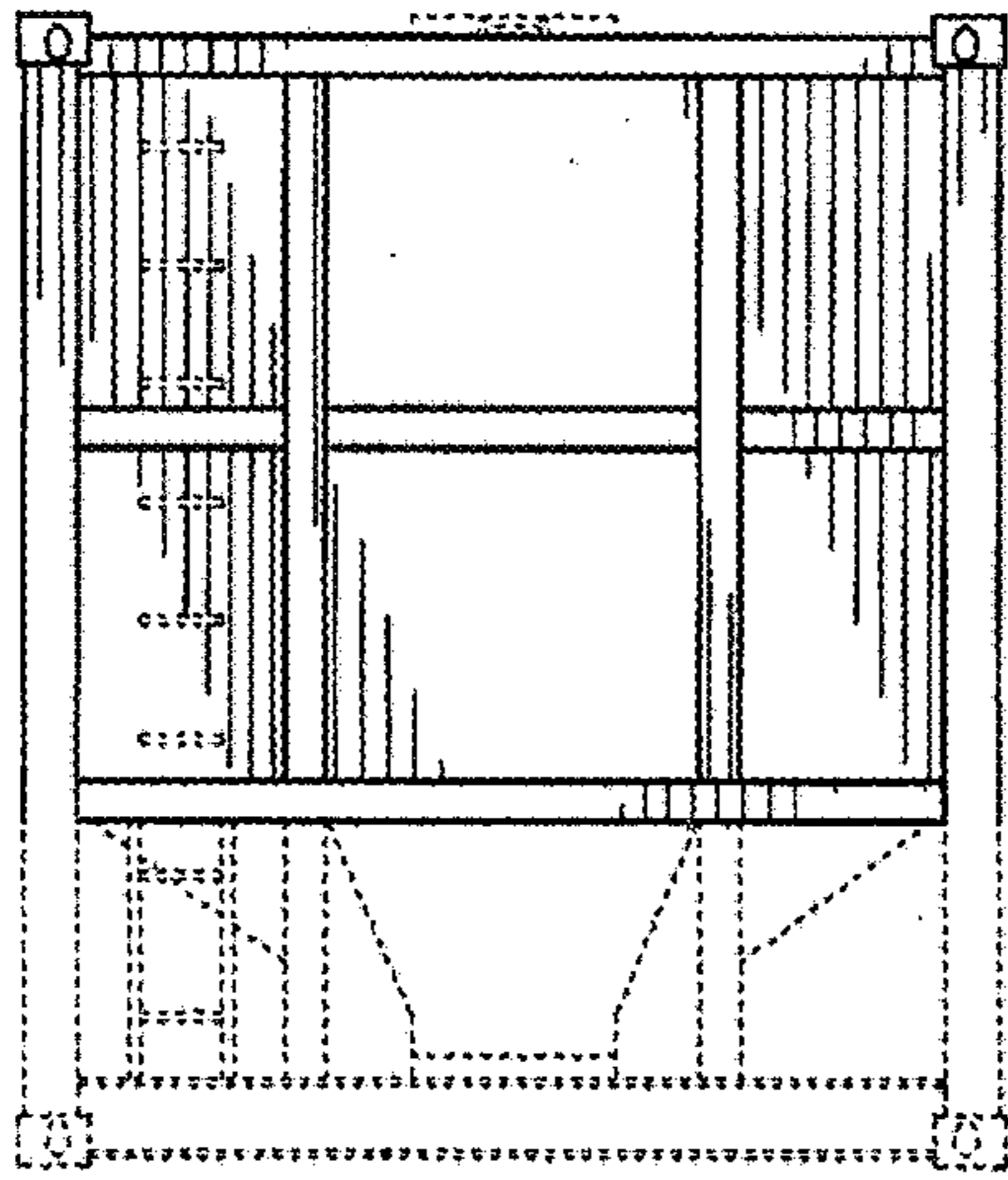


FIG. 4

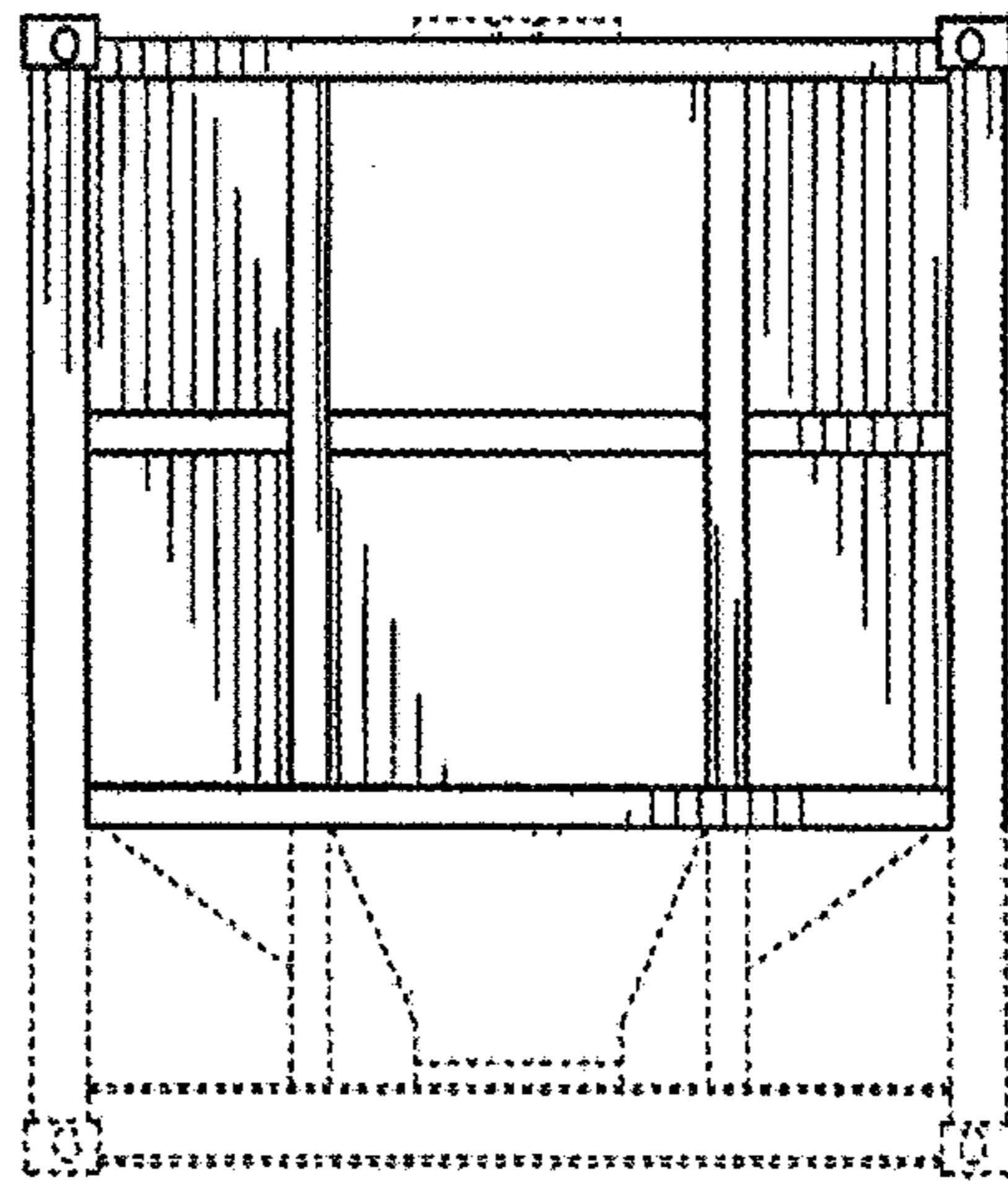


FIG. 5

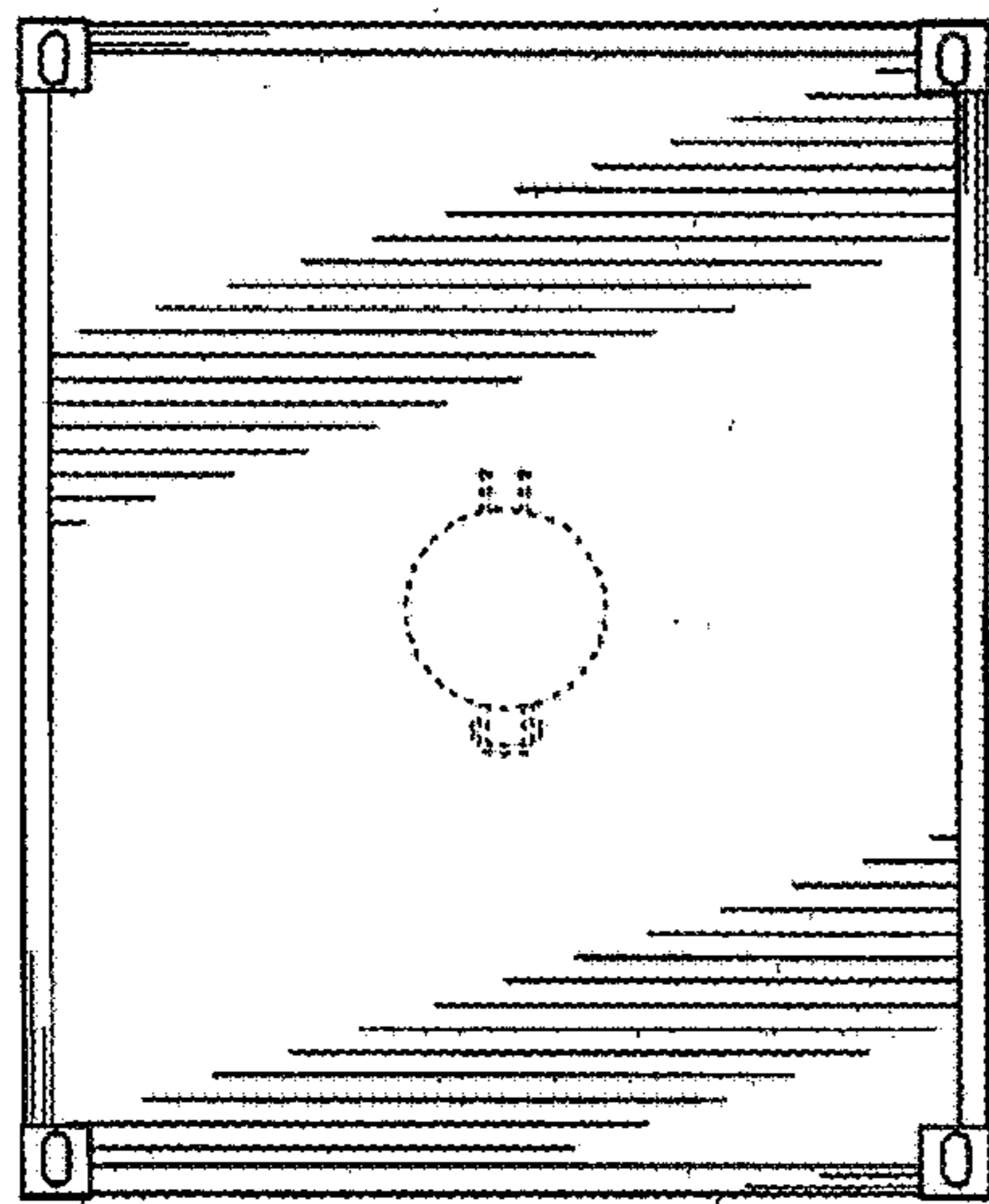


FIG. 6

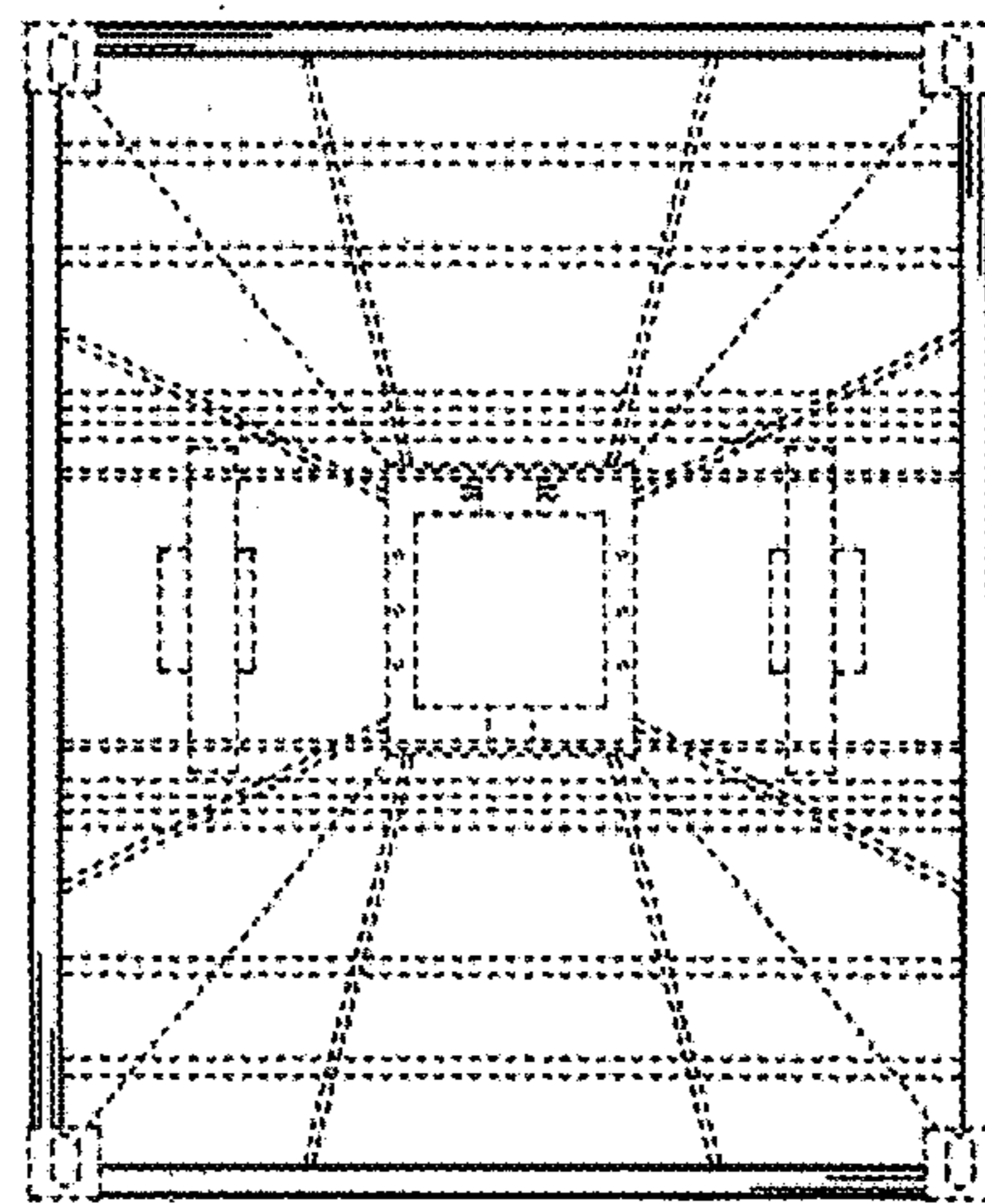


FIG. 7

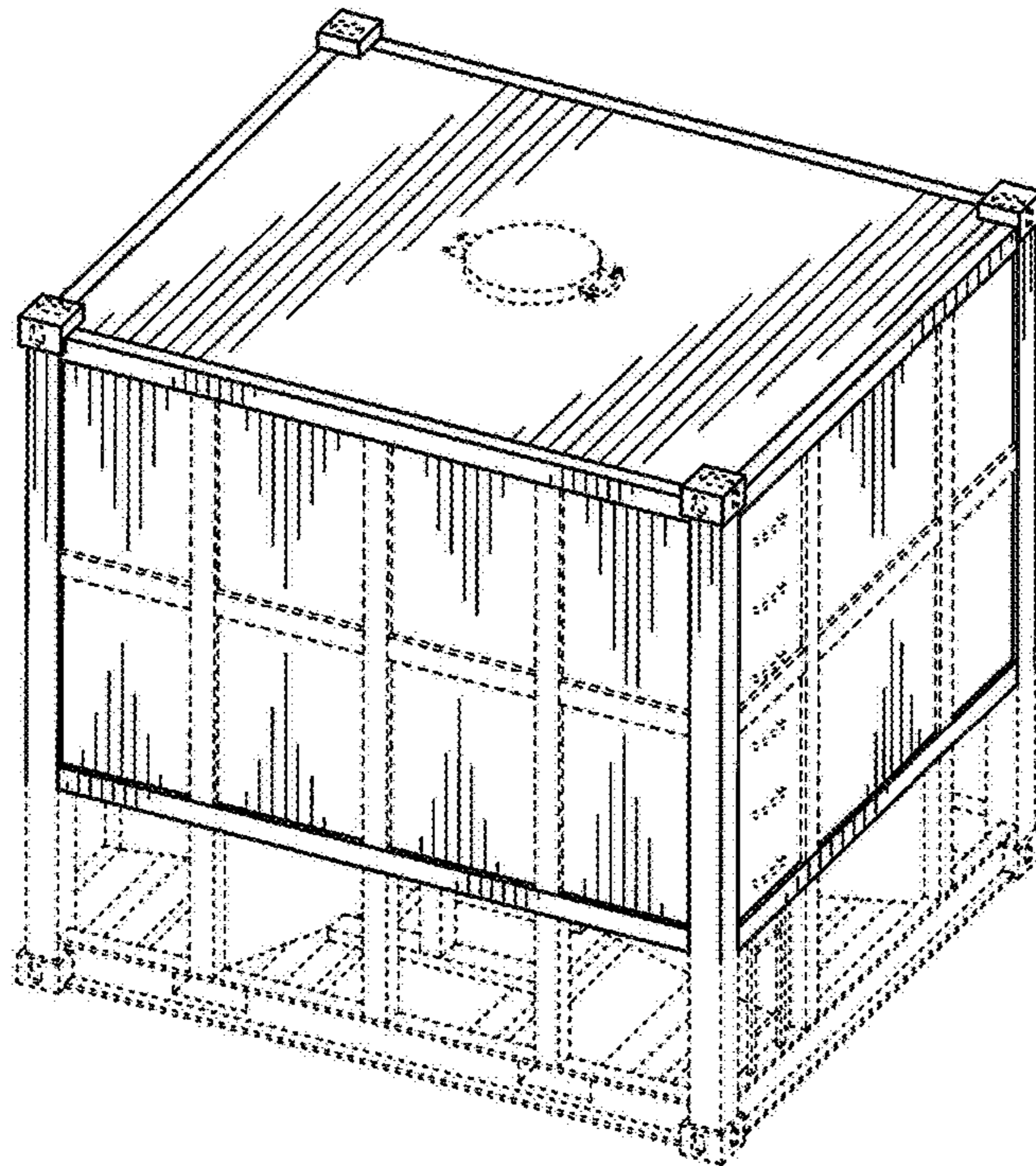


FIG. 8
NEW

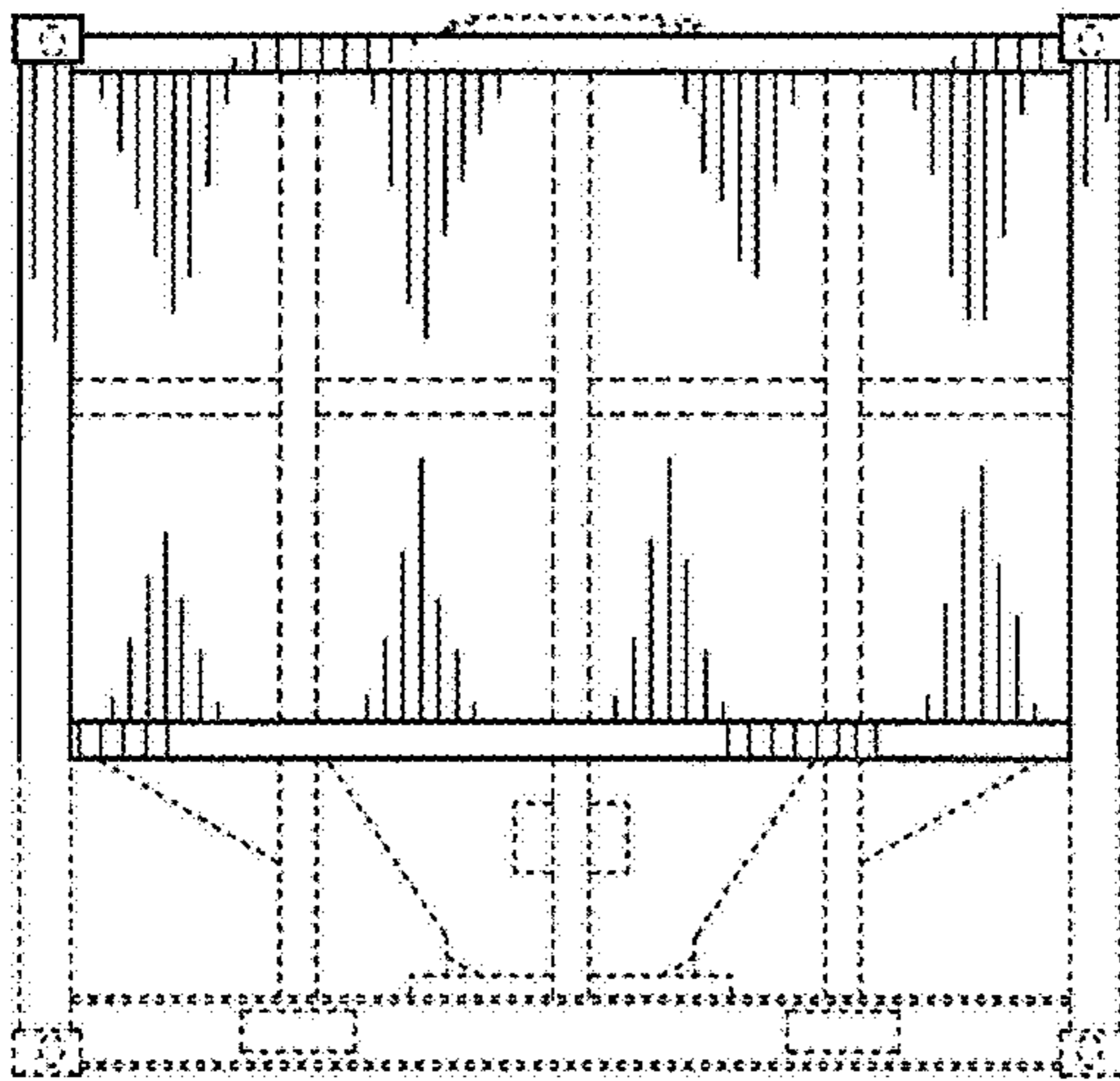


FIG. 9
NEW

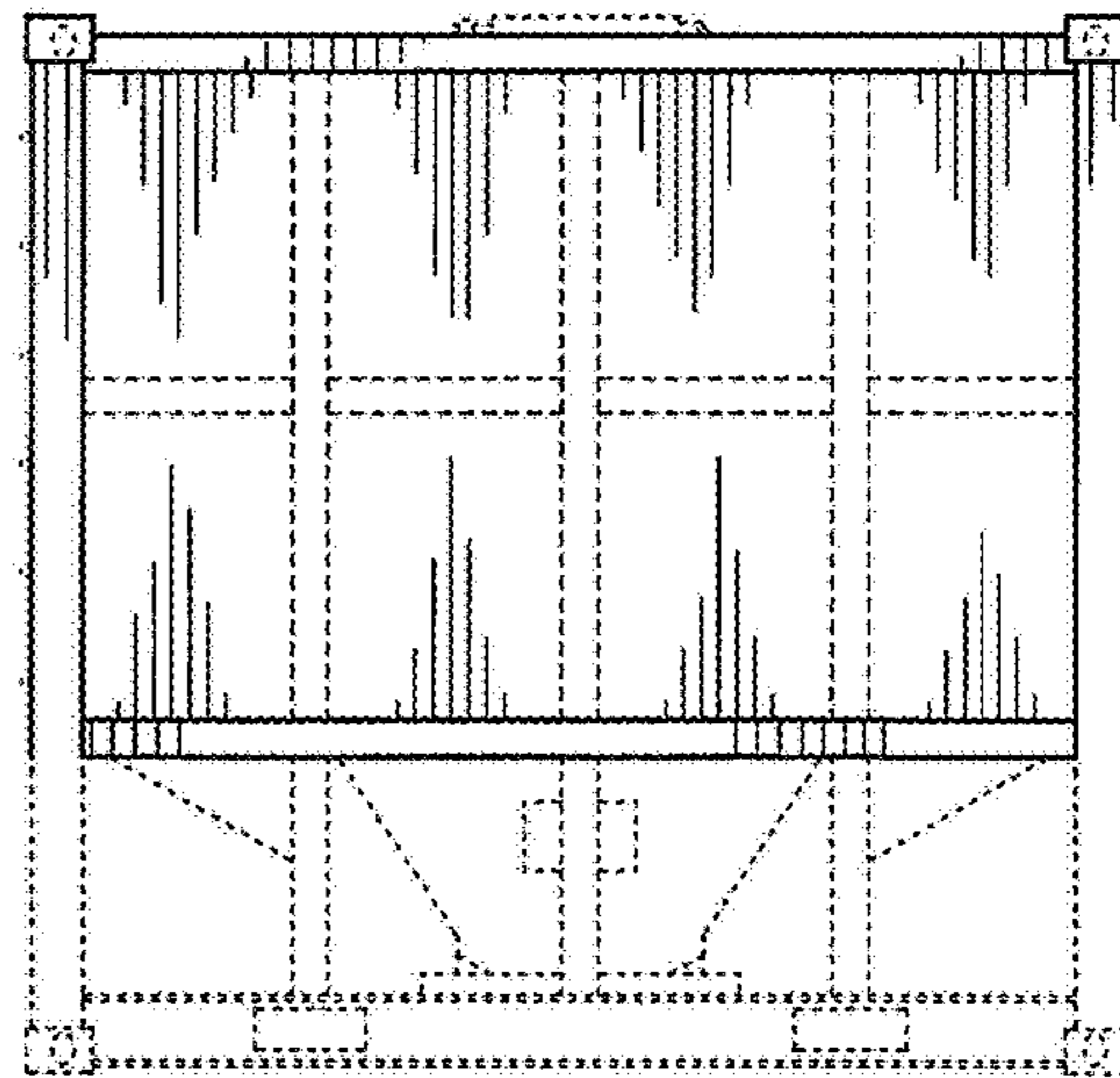


FIG. 10
NEW

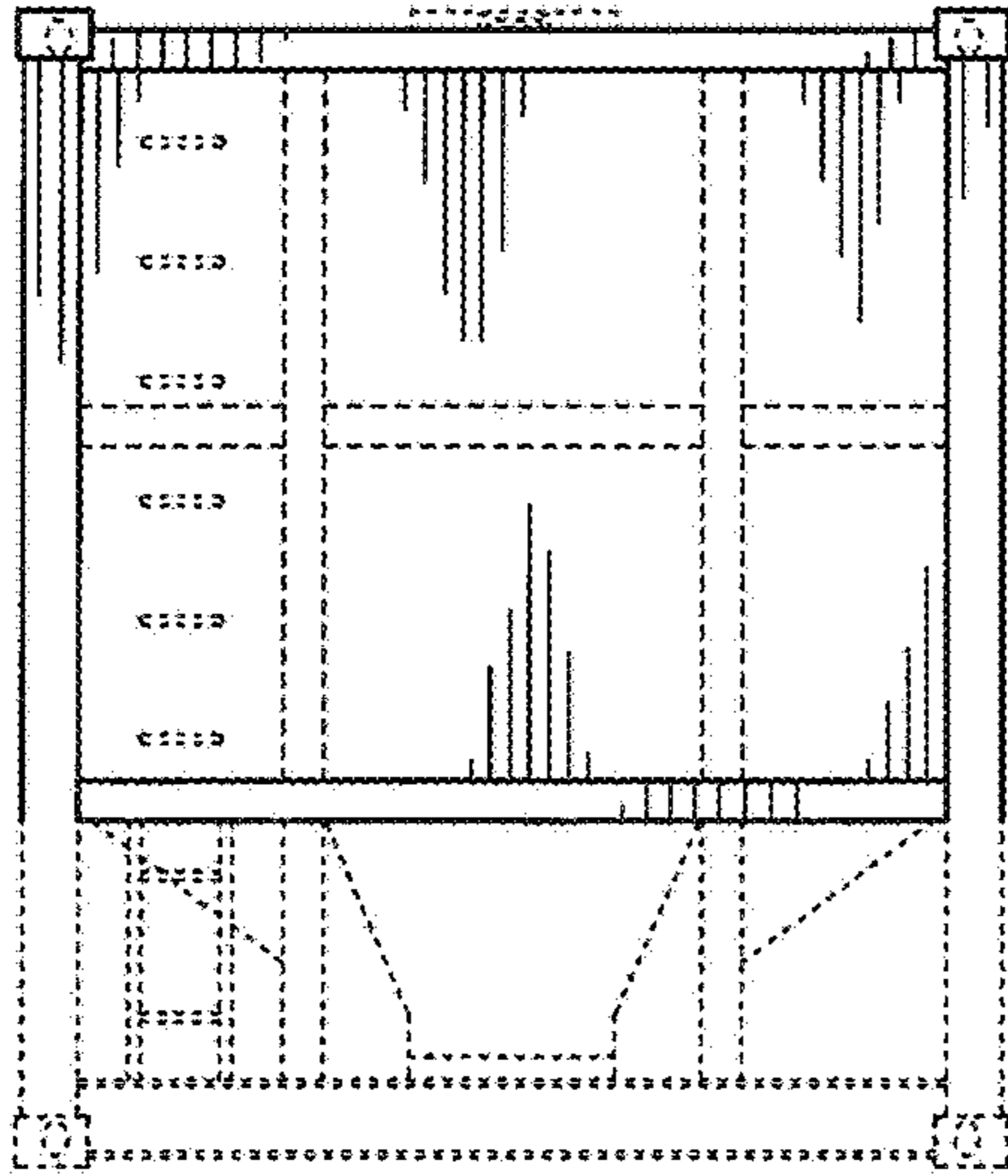


FIG. 11
NEW

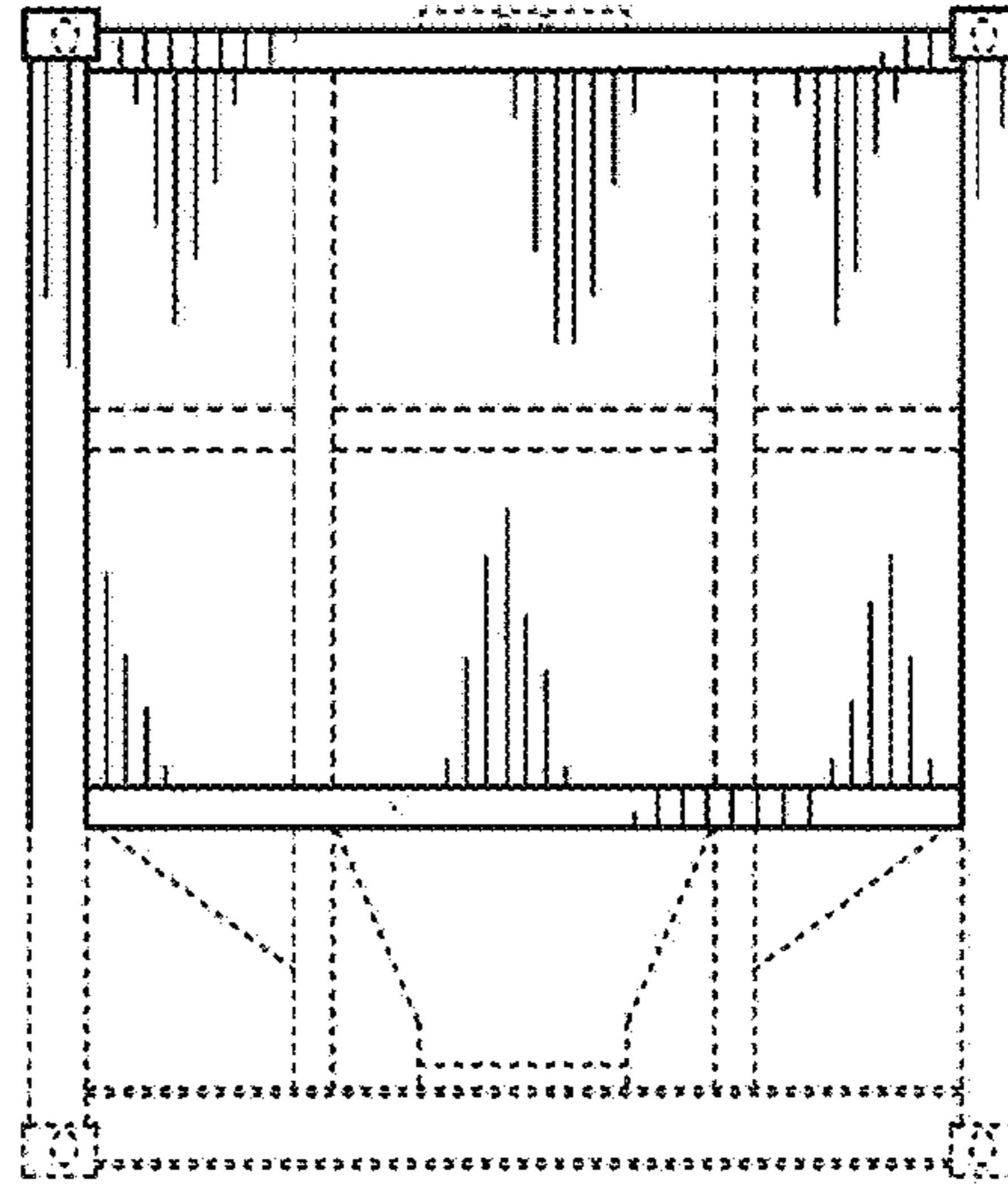


FIG. 12
NEW

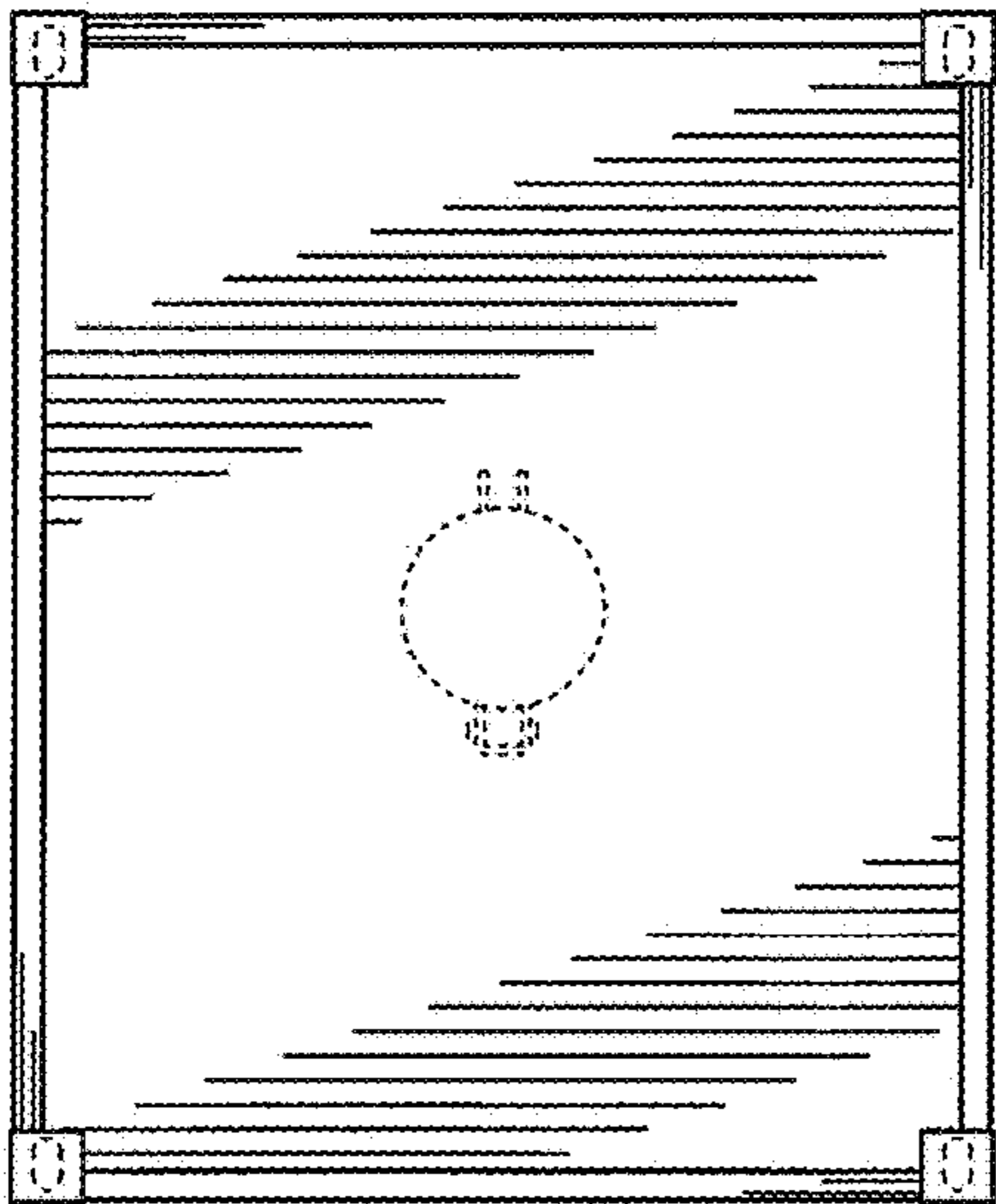


FIG. 13
NEW

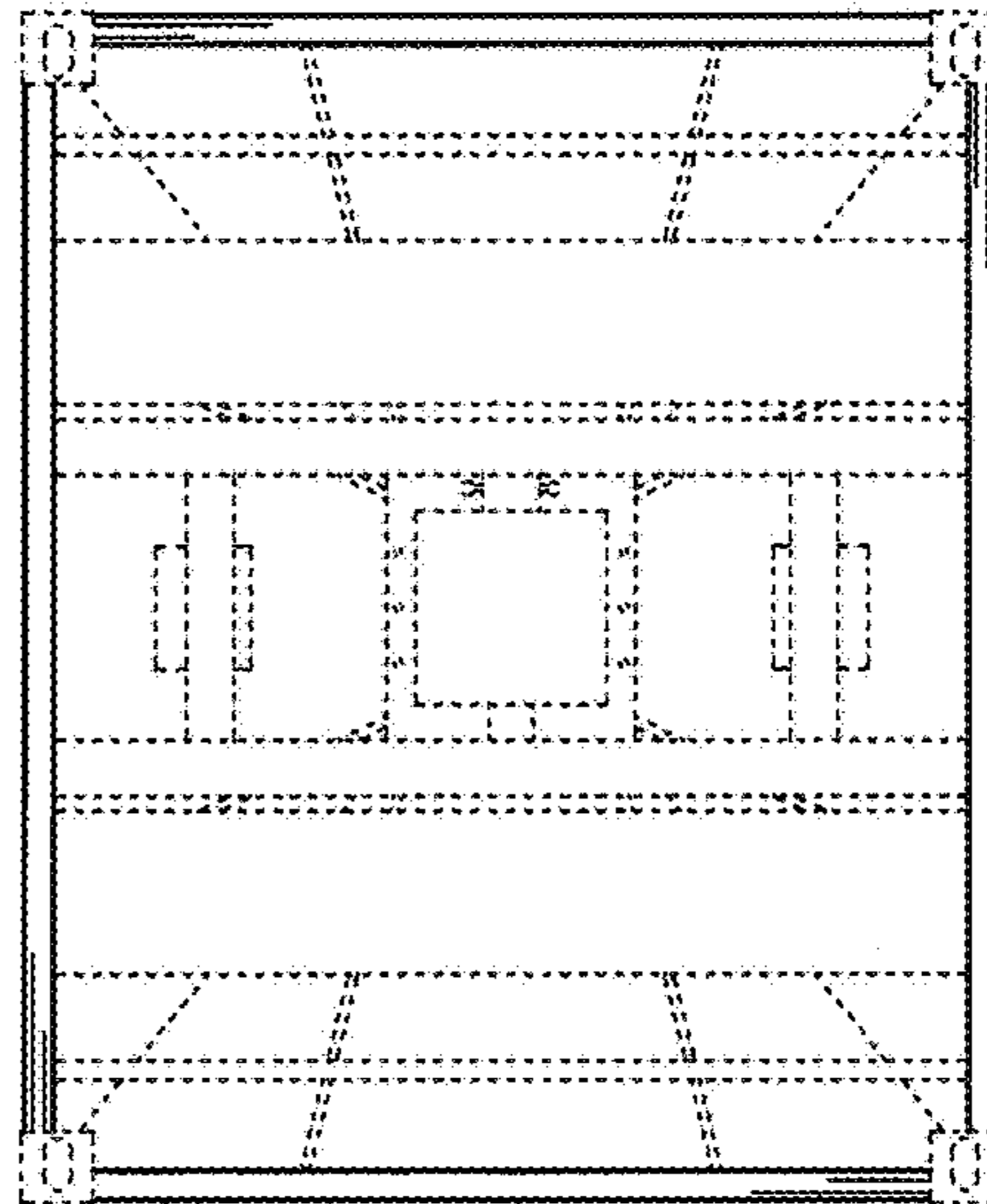


FIG. 14
NEW

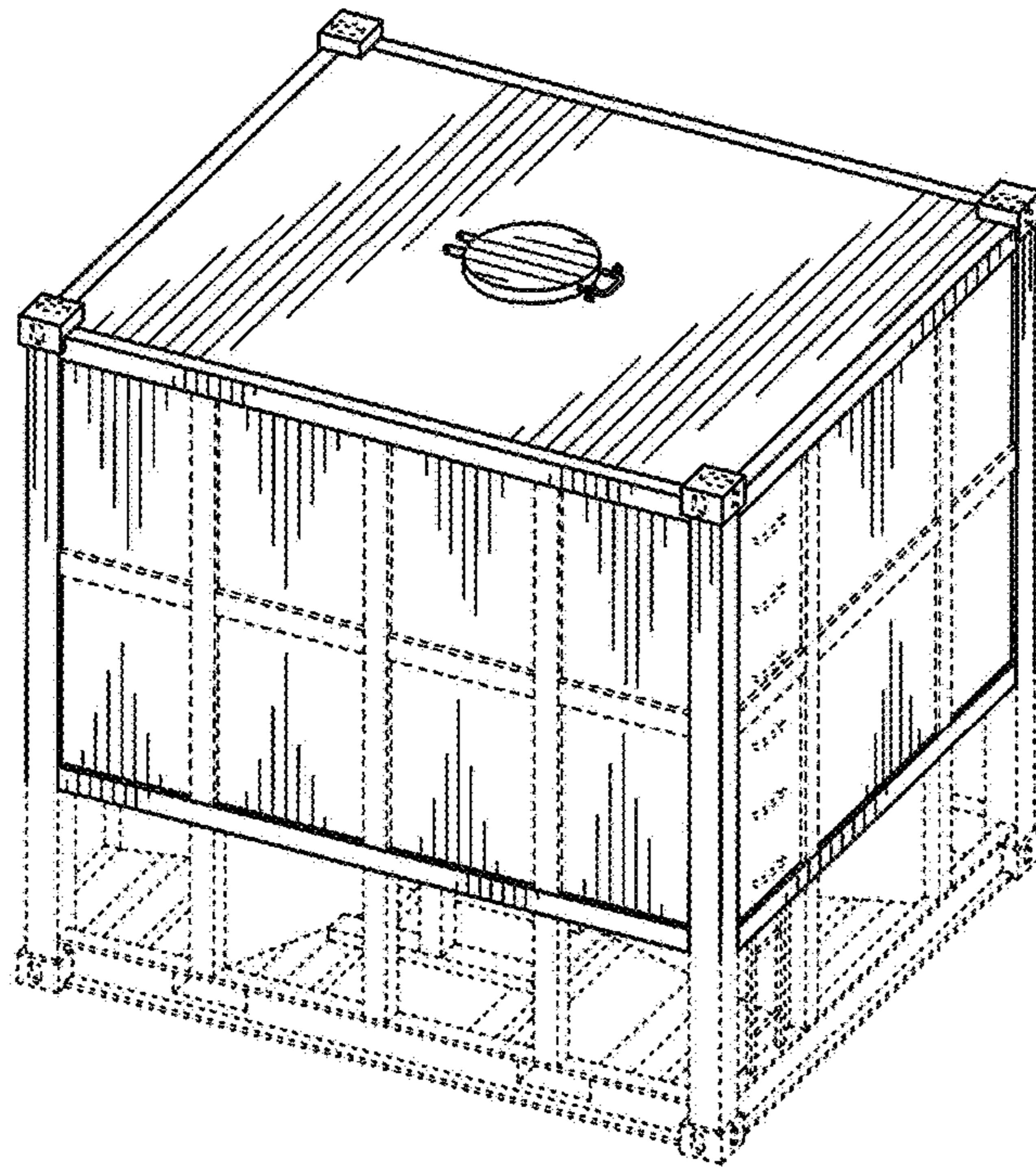


FIG. 15
NEW

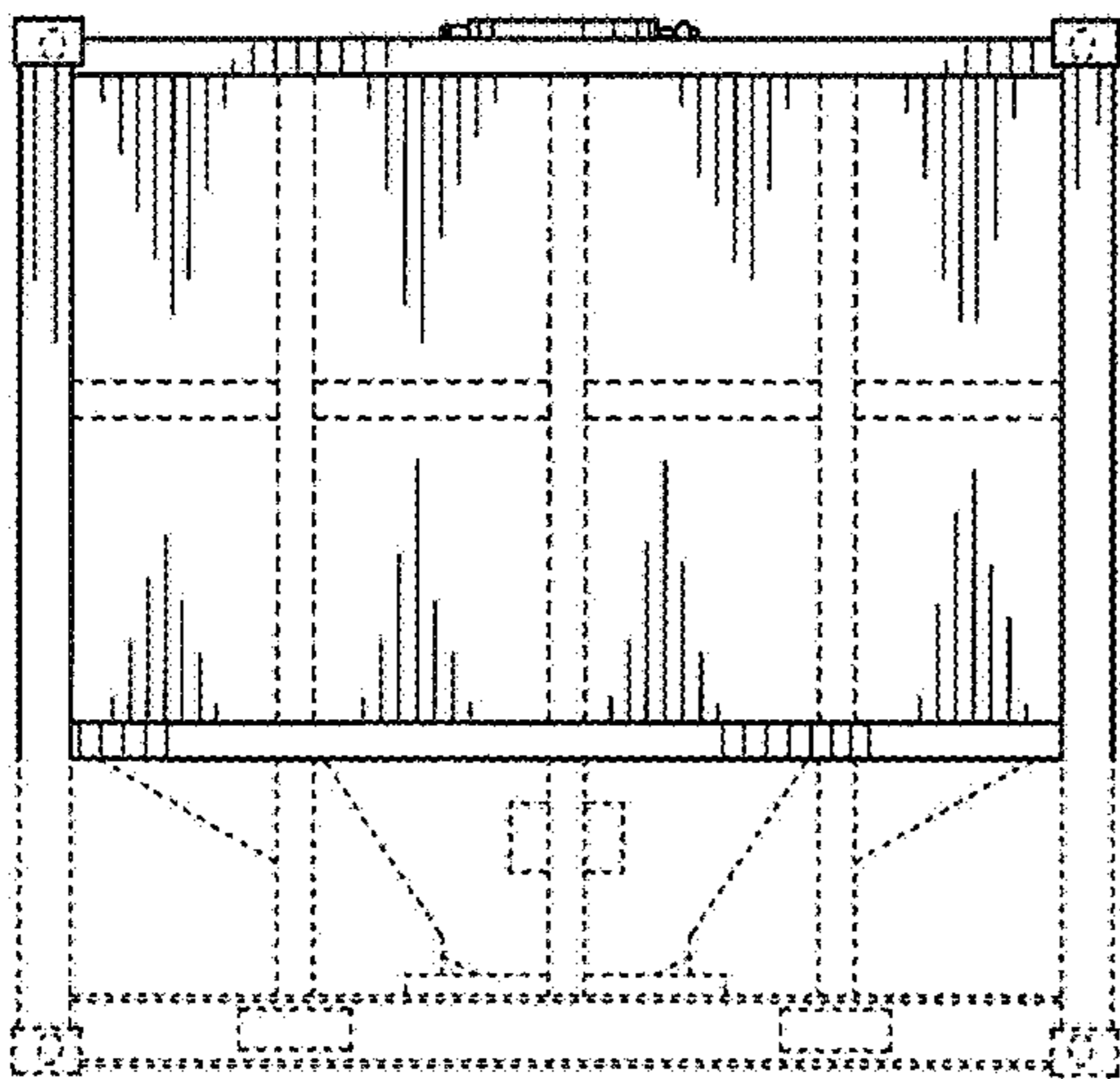


FIG. 16
NEW

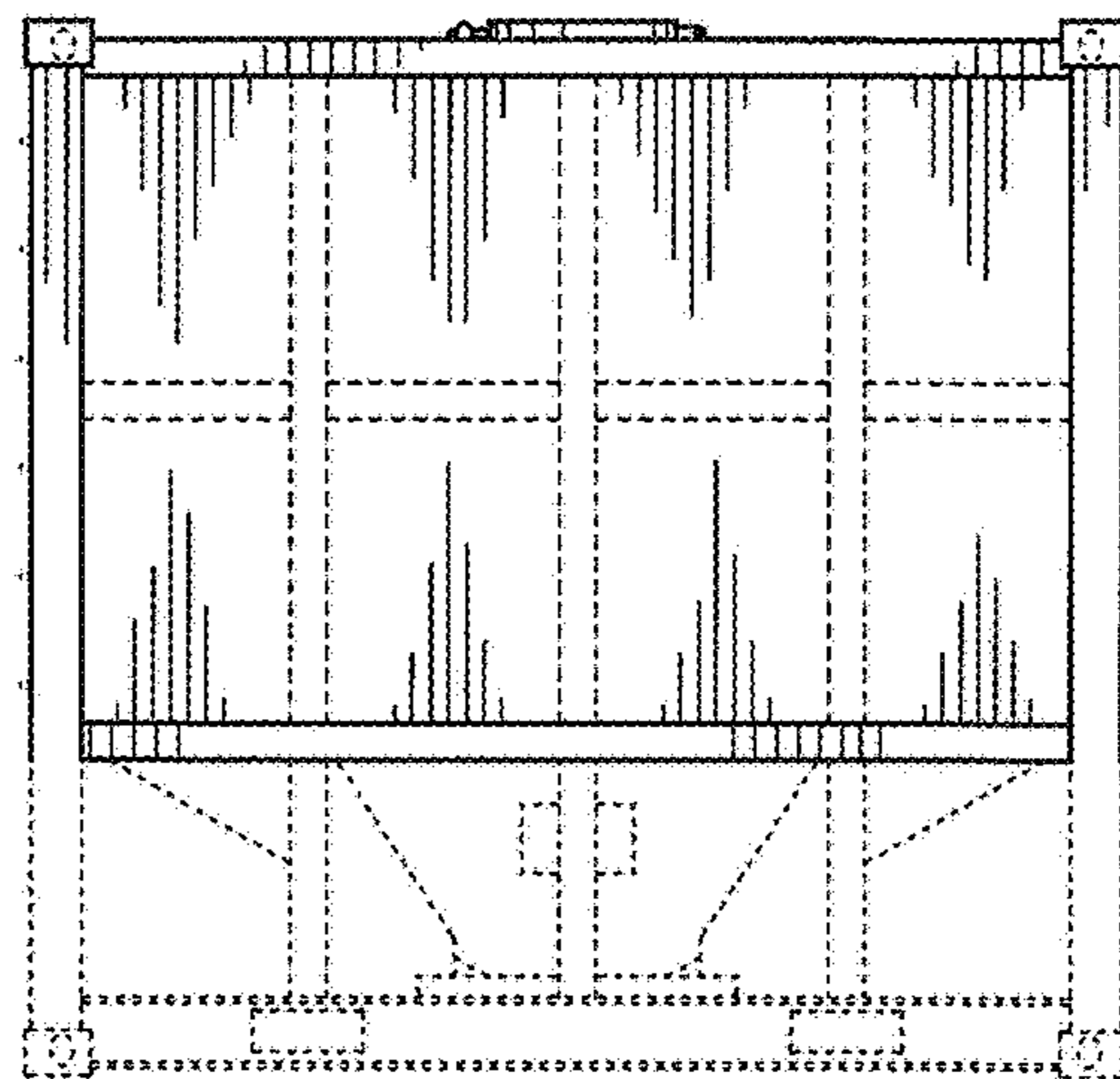


FIG. 17
NEW

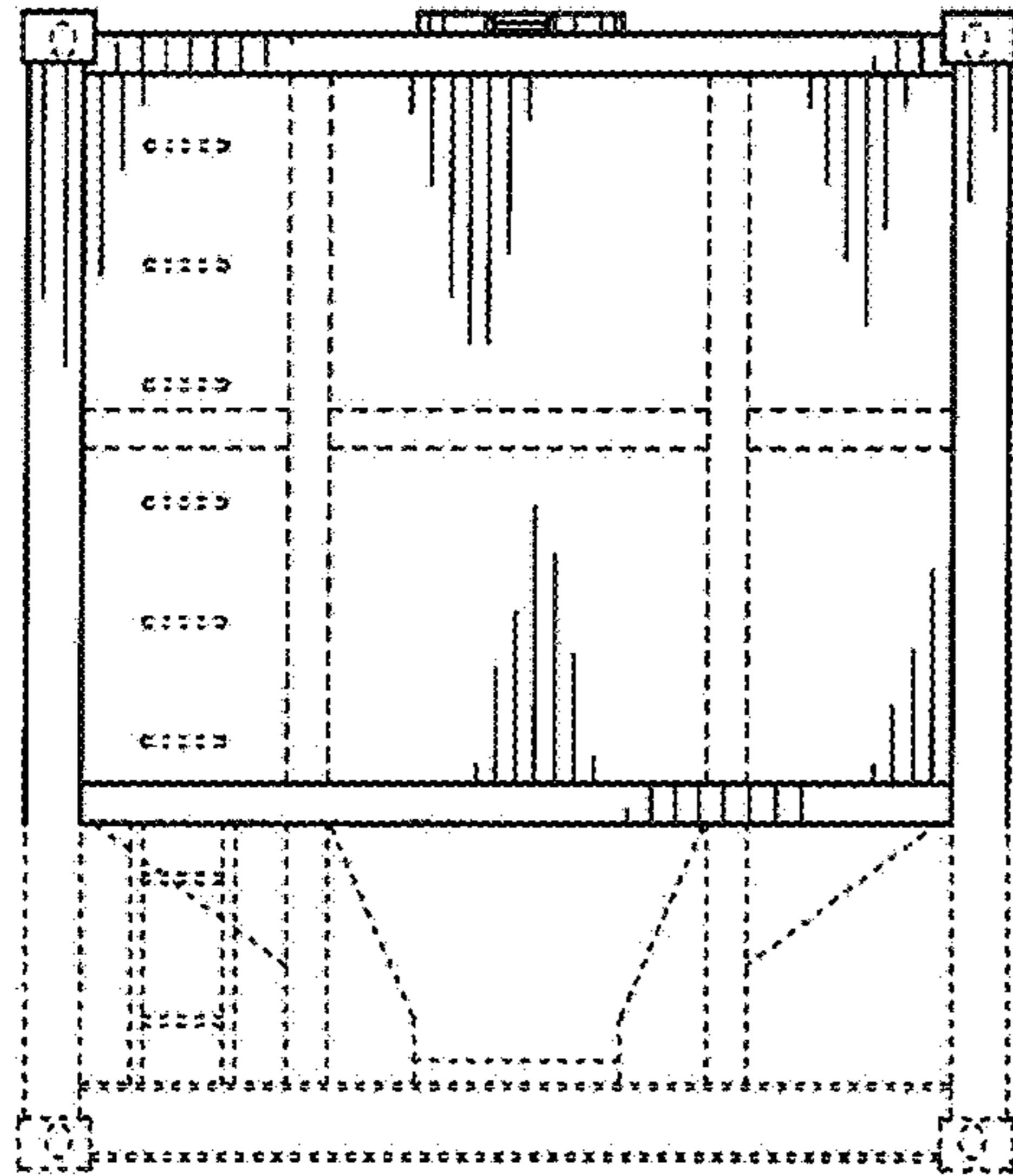


FIG. 18
NEW

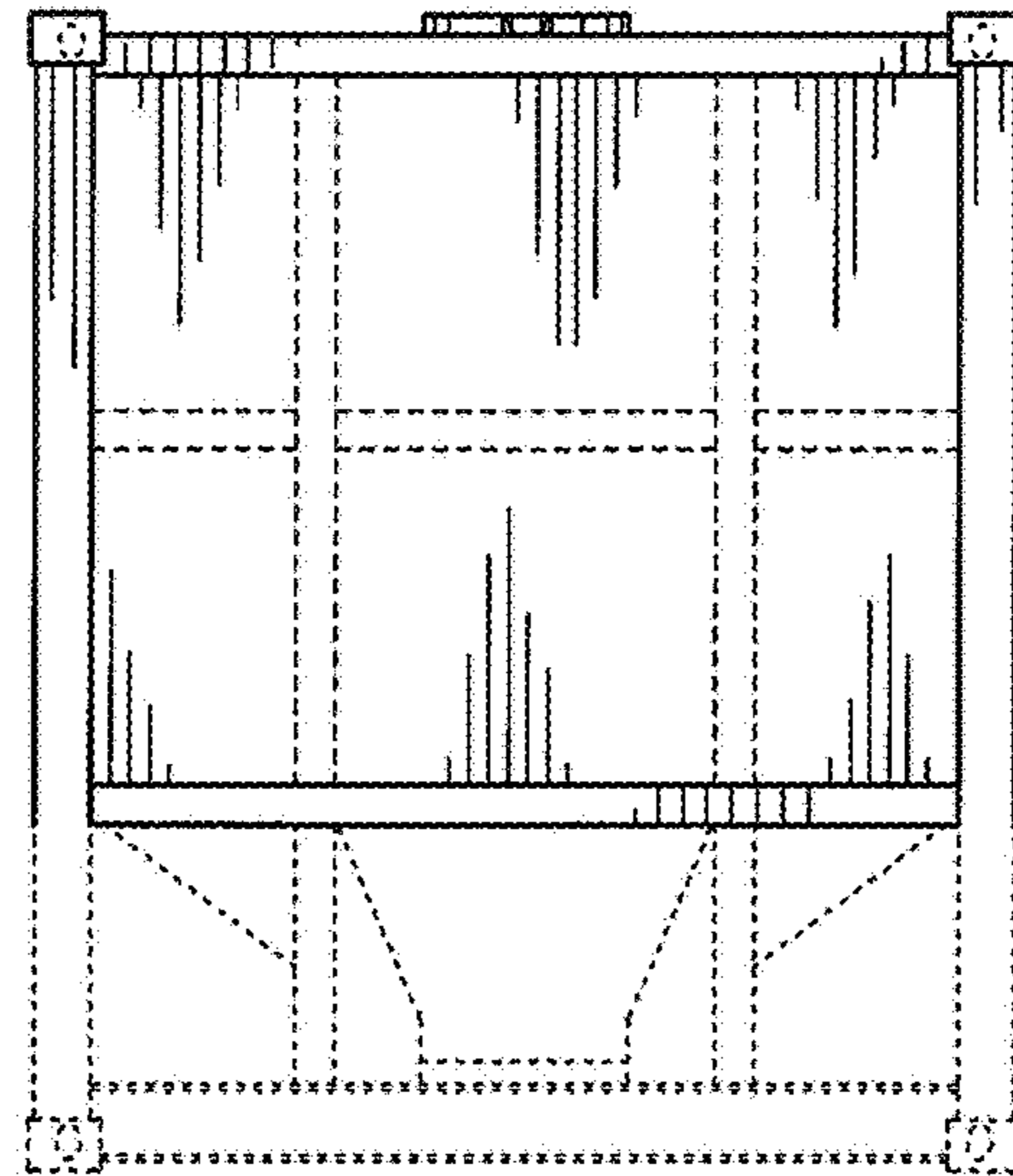


FIG. 19
NEW

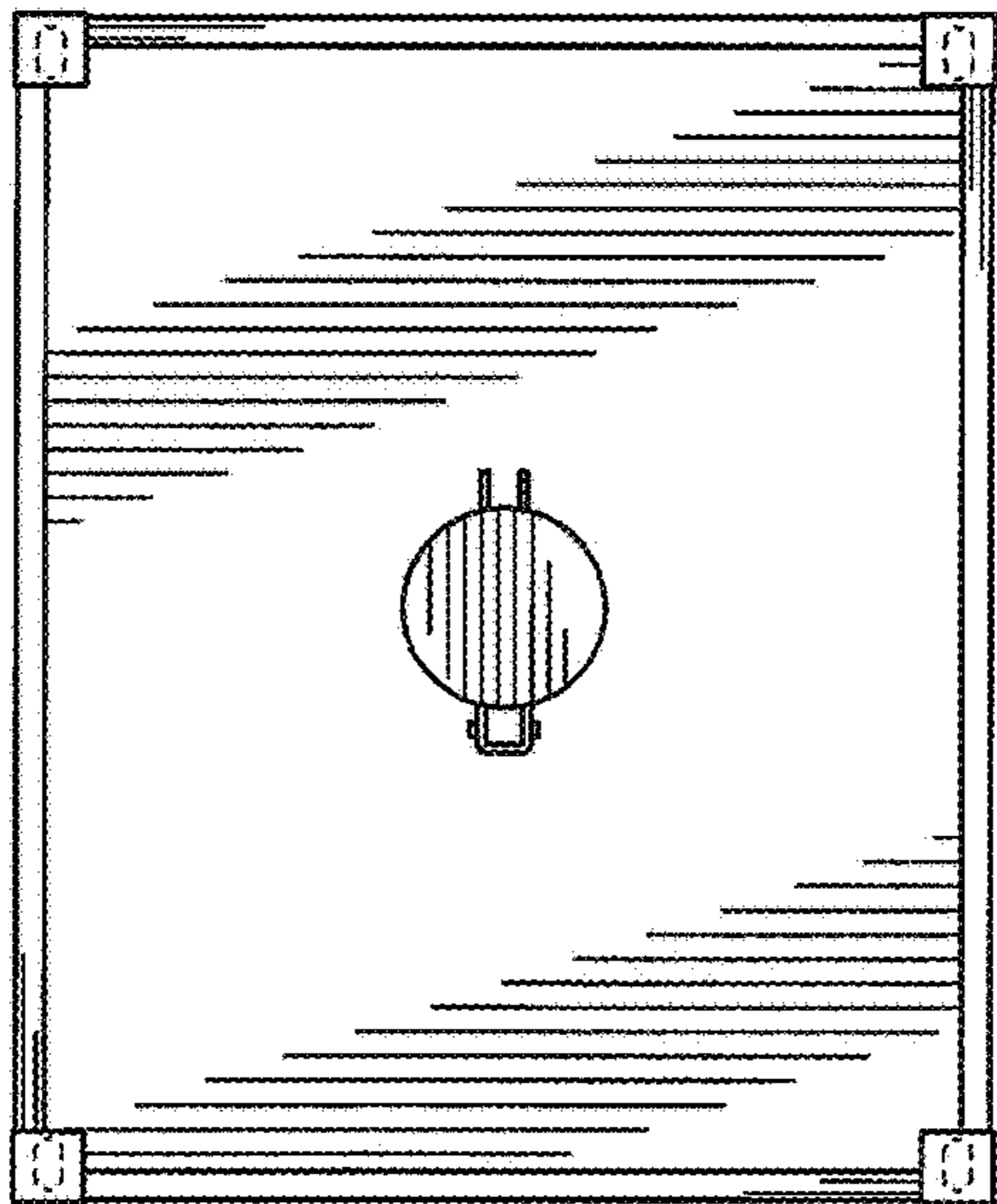


FIG. 20
NEW

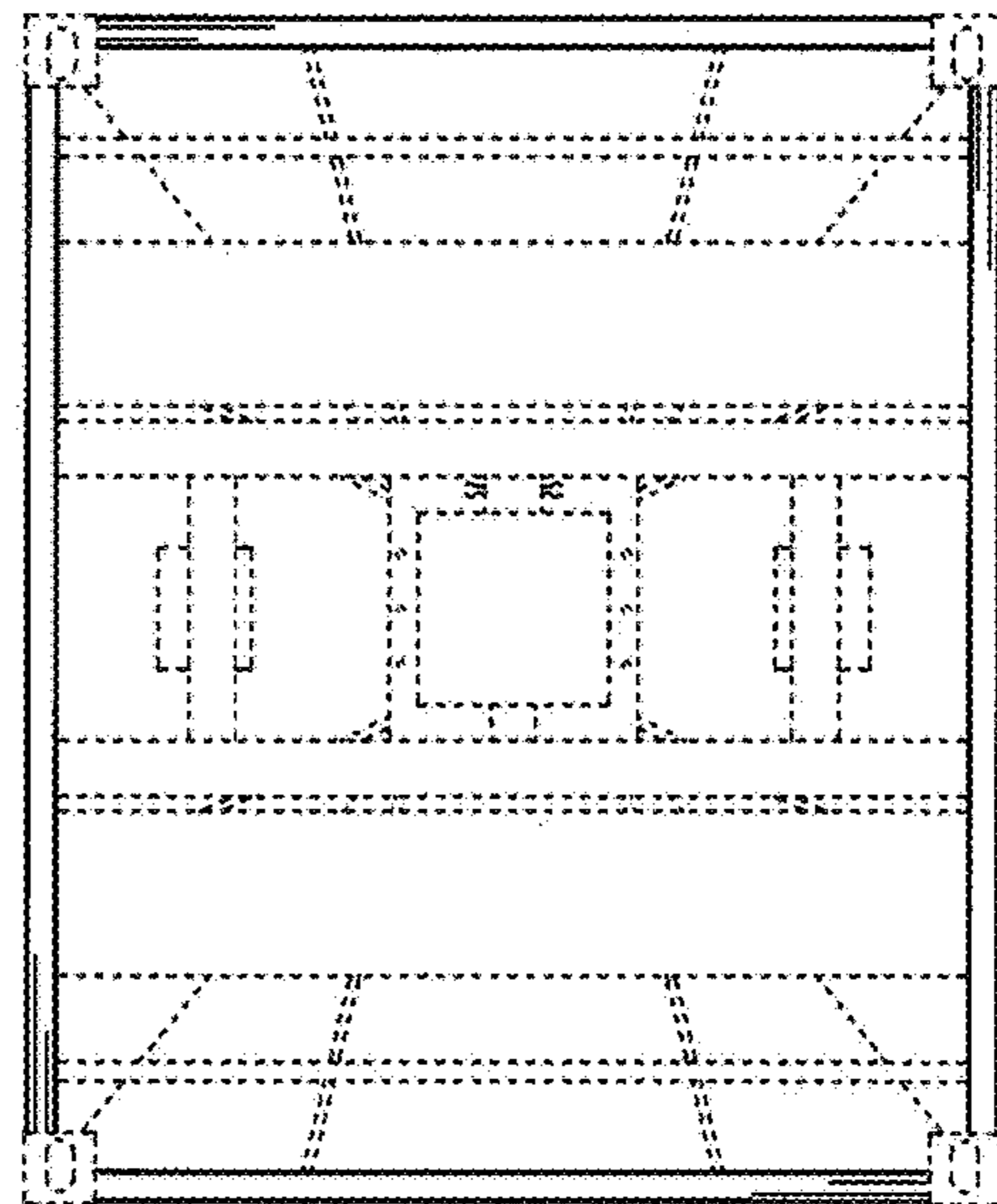


FIG. 21
NEW