



US00D894285S

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

(10) **Patent No.:** **US D894,285 S**

(45) **Date of Patent:** **** Aug. 25, 2020**

(54) **GAMING MACHINE**

D280,835 S 10/1985 Berge et al.
D280,836 S 10/1985 Ludzia et al.
4,606,545 A 8/1986 Ritchie

(71) Applicant: **SG Gaming, Inc.**, Las Vegas, NV (US)

(Continued)

(72) Inventors: **Robert J. Glenn**, Chicago, IL (US);
Szymon K. Gluc, Las Vegas, NV (US);
Paul M. Lesley, Chicago, IL (US)

FOREIGN PATENT DOCUMENTS

(73) Assignee: **SG Gaming, Inc.**, Las Vegas, NV (US)

EP 649 671 A1 4/1995
JP 03210172 B2 9/2001

(Continued)

(**) Term: **15 Years**

OTHER PUBLICATIONS

(21) Appl. No.: **29/657,666**

AU Optronics Corp.; News Center. "AUO Announces Multiple Upcoming Innovations"; Oct. 27, 2008; retrieved from <<http://www.auo.com/?sn=107&lang=en-US&c=10&n=363>> on Mar. 3, 2017 (2 pages).

(22) Filed: **Jul. 24, 2018**

(51) **LOC (12) Cl.** **21-03**

(52) **U.S. Cl.**

USPC **D21/369**

(Continued)

(58) **Field of Classification Search**

USPC D21/369, 370, 371, 385, 329, 325, 394;
D14/307, 172, 129, 325, 401, 371, 126,
D14/439, 432, 450, 128, 375, 248, 374,
D14/341, 138 G, 127; 463/28, 13, 11,
463/16, 20, 25, 31, 46, 23, 30, 17, 36, 29,
463/42, 34, 32, 35, 19, 21, 22; 273/292,
273/203, 138.2, 143 R, 142 R, 138.1;
D19/60; D16/226; D8/335, 331, 334;
D26/141; D7/641

CPC G07F 17/32; G07F 17/34; G07F 17/3211;
G07F 17/3244; G07F 17/3267

See application file for complete search history.

Primary Examiner — Ryan Harvey

(74) *Attorney, Agent, or Firm* — Banner & Witcoff, Ltd.

(57)

CLAIM

The ornamental design for a gaming machine, as shown and described.

DESCRIPTION

FIG. 1 is a front top right perspective view of a gaming machine showing our new design;
FIG. 2 is a front bottom left perspective view thereof;
FIG. 3 is a front view thereof;
FIG. 4 is a right side view thereof;
FIG. 5 is a left side view thereof; and,
FIG. 6 is a top view thereof.

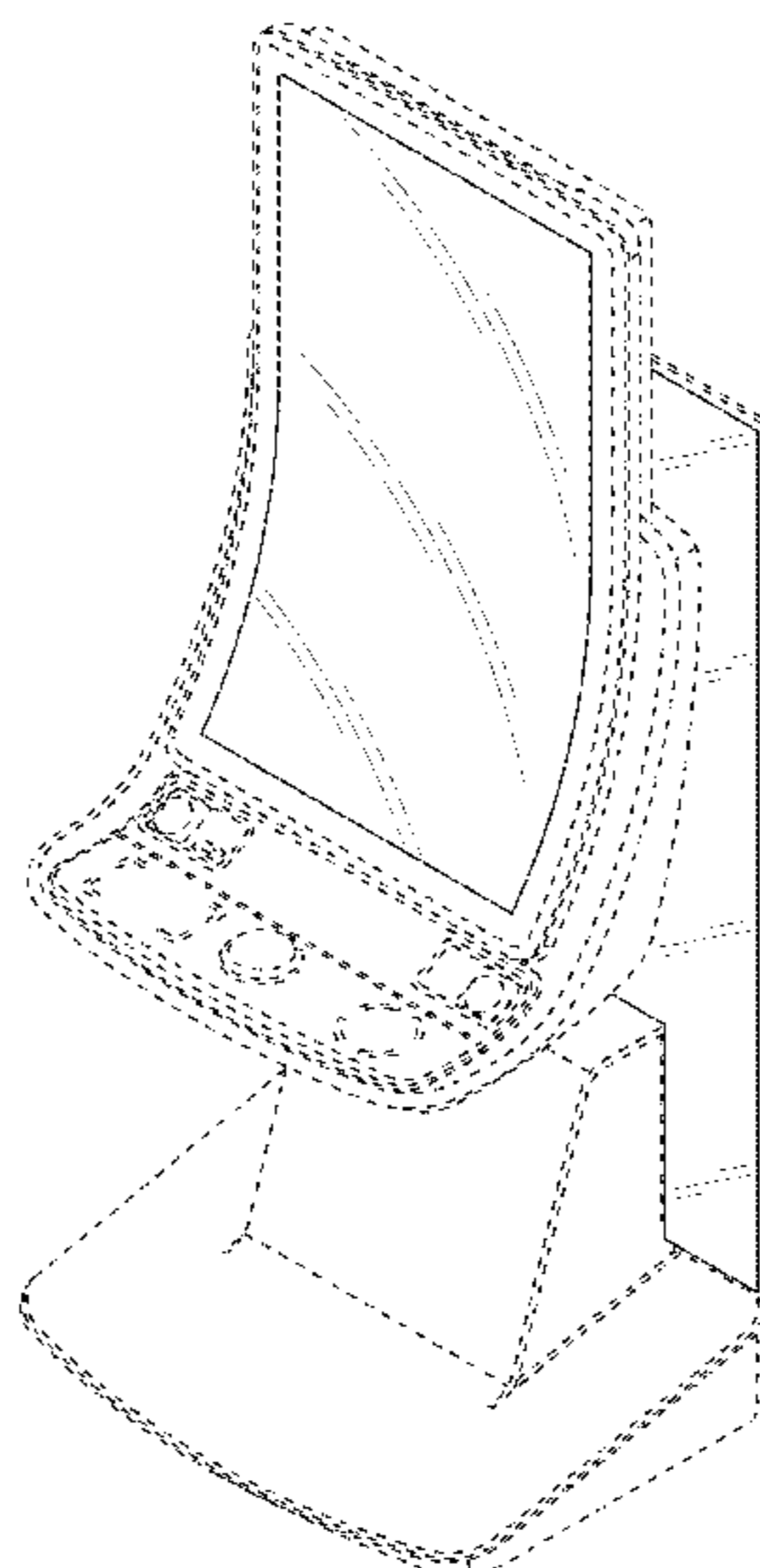
The center region is a display and has a surface which is transparent, translucent, highly polished or reflective. The planar back panel is a display and has a surface which is transparent, translucent, highly polished or reflective. The broken line showing of the remainder of the gaming machine forms no part of the claimed design.

1 Claim, 6 Drawing Sheets

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,661,954 A 12/1953 Koci
D236,720 S 9/1975 Baker
D238,379 S 1/1976 Miller
4,046,419 A 9/1977 Schmitt
D264,485 S 5/1982 Kitchen
4,372,557 A 2/1983 Del Principe et al.
4,373,725 A 2/1983 Ritchie
D275,772 S 10/1984 Akopian et al.



(56)

References Cited

U.S. PATENT DOCUMENTS

4,705,274 A	11/1987	Lubeck	5,806,851 A	9/1998	Gomez et al.
4,840,343 A	6/1989	Gasser	5,820,460 A	10/1998	Fulton
4,861,037 A	8/1989	Oursler	5,833,236 A	11/1998	Oursler et al.
D307,771 S	5/1990	Cesaroni et al.	D405,473 S	2/1999	Tikhonski et al.
4,930,117 A	5/1990	Huggins	D406,612 S	3/1999	Johnson
4,981,298 A	1/1991	Lawlor et al.	D407,759 S	4/1999	Isetani et al.
D315,110 S	3/1991	Slater	D408,366 S	4/1999	Popadiuk
5,015,189 A	5/1991	Wenzinger	D408,458 S *	4/1999	Hempel D20/10
D318,660 S	7/1991	Weber	5,890,715 A	4/1999	Gomez et al.
5,074,558 A	12/1991	Bleich et al.	5,899,454 A	5/1999	Eddy et al.
5,083,738 A	1/1992	Infanti	5,924,690 A	7/1999	Kopera et al.
5,091,677 A	2/1992	Bleich et al.	5,934,672 A	8/1999	Sines et al.
5,102,192 A	4/1992	Barile, Sr.	5,938,195 A	8/1999	Anghelo et al.
5,110,120 A	5/1992	Smolucha	5,944,309 A	8/1999	Popadiuk et al.
5,114,112 A	5/1992	Infanti	D417,145 S	11/1999	McLaughlin
5,120,058 A	6/1992	Trudeau et al.	5,984,782 A	11/1999	Inoue
5,123,647 A	6/1992	Lawlor et al.	6,000,697 A	12/1999	Popadiuk et al.
5,143,055 A	9/1992	Eakin	D419,201 S	1/2000	de Haas
5,149,094 A	9/1992	Tastad	D419,606 S	1/2000	Toriyama
D333,164 S	2/1993	Kraft et al.	6,036,188 A	3/2000	Gomez et al.
5,193,807 A	3/1993	Schilling et al.	6,047,962 A	4/2000	Popadiuk
5,195,746 A	3/1993	Boyd et al.	6,047,963 A	4/2000	Pierce et al.
D335,150 S	4/1993	Biagi et al.	D424,122 S	5/2000	Dickenson et al.
5,226,653 A	7/1993	Bil et al.	6,071,190 A	6/2000	Weiss et al.
5,232,191 A	8/1993	Infanti	D428,062 S	7/2000	Hayashi
5,290,034 A	3/1994	Hineman	6,089,663 A	7/2000	Hill
5,297,793 A	3/1994	DeMar et al.	D428,864 S	8/2000	Rooyackers et al.
5,316,303 A	5/1994	Trudeau et al.	6,102,394 A	8/2000	Wurz et al.
5,322,283 A	6/1994	Ritchie et al.	6,113,097 A	9/2000	Krutsch et al.
5,326,104 A	7/1994	Pease et al.	6,117,010 A	9/2000	Canterbury et al.
5,350,174 A	9/1994	Ritchie et al.	6,120,021 A	9/2000	Piotrowski et al.
D351,869 S	10/1994	Rothschild et al.	6,129,353 A	10/2000	DeMar et al.
5,351,954 A	10/1994	Oursler et al.	6,129,355 A	10/2000	Hahn et al.
5,357,104 A	10/1994	Bleich	6,135,449 A	10/2000	Cornell et al.
5,358,241 A	10/1994	Anghelo et al.	6,135,562 A	10/2000	Infanti
5,358,242 A	10/1994	Trudeau et al.	6,149,153 A	11/2000	Sheats, Jr.
5,358,243 A	10/1994	Eddy et al.	6,155,565 A	12/2000	Gomez et al.
D352,738 S	11/1994	Anghelo et al.	6,155,925 A	12/2000	Giobbi et al.
5,383,663 A	1/1995	Anghelo et al.	6,158,737 A	12/2000	Cornell et al.
5,405,144 A	4/1995	Ritchie et al.	6,159,098 A	12/2000	Slomiany et al.
5,409,296 A	4/1995	Barile	6,164,644 A	12/2000	Cornell et al.
5,411,257 A	5/1995	Fulton	6,173,955 B1	1/2001	Perrie et al.
5,415,402 A	5/1995	Morrison et al.	6,199,861 B1	3/2001	Hume et al.
5,415,403 A	5/1995	Ritchie et al.	D439,931 S	4/2001	Yamaguchi
5,417,423 A	5/1995	Oursler et al.	6,210,279 B1	4/2001	Dickinson
5,417,425 A	5/1995	Blumberg et al.	6,224,482 B1	5/2001	Bennett
5,437,453 A	8/1995	Hineman	6,227,614 B1	5/2001	Rubin
5,465,963 A	11/1995	Patla, Sr.	6,227,970 B1	5/2001	Shimizu et al.
5,472,197 A	12/1995	Gwiasda et al.	D443,313 S	6/2001	Brettschneider
5,494,286 A	2/1996	DeMar et al.	D446,252 S	8/2001	Yamaguchi
5,507,488 A	4/1996	Eddy et al.	6,283,546 B1	9/2001	Hill
5,511,783 A	4/1996	Popadiuk et al.	6,290,229 B1	9/2001	Perez
5,516,103 A	5/1996	Lawlor et al.	D450,094 S	11/2001	Hedrick et al.
5,522,641 A	6/1996	Infanti	6,334,612 B1	1/2002	Wurz et al.
5,524,887 A	6/1996	Trudeau et al.	6,354,660 B1	3/2002	Friedrich
5,533,726 A	7/1996	Nordman et al.	D459,402 S	6/2002	Wurz et al.
5,542,748 A	8/1996	Barile	D460,915 S	7/2002	Lynch
D376,391 S	12/1996	Okumura	6,422,670 B1	7/2002	Hedrick et al.
5,580,052 A	12/1996	Popadiuk et al.	6,422,941 B1	7/2002	Thorner et al.
D378,604 S	3/1997	Brettschneider	6,439,993 B1	8/2002	O'Halloran
5,632,482 A	5/1997	Anghelo	D463,504 S	9/2002	Stephan
D380,014 S	6/1997	Yang	D464,377 S	10/2002	Wurz et al.
D381,700 S	7/1997	Brettschneider	D465,813 S	11/2002	Randall
5,655,965 A	8/1997	Takemoto et al.	D466,160 S	11/2002	Hirato et al.
5,664,777 A	9/1997	Nordman et al.	D467,977 S	12/2002	Gatto et al.
5,669,818 A	9/1997	Thorner et al.	D468,364 S	1/2003	Beadell et al.
5,678,886 A	10/1997	Infanti	6,530,842 B1	3/2003	Wells et al.
D388,469 S	12/1997	Dickenson et al.	6,530,872 B2	3/2003	Frehland et al.
5,697,612 A	12/1997	Piotrowski et al.	6,572,187 B2	6/2003	Laufer
5,704,835 A	1/1998	Dietz, II	6,589,114 B2	7/2003	Rose
5,707,059 A	1/1998	Sullivan et al.	6,609,972 B2	8/2003	Seelig et al.
5,720,480 A	2/1998	Lawlor et al.	6,616,142 B2	9/2003	Adams
D395,463 S	6/1998	Scott et al.	6,620,047 B1	9/2003	Alcorn et al.
5,762,617 A	6/1998	Infanti	D481,078 S	10/2003	Stephan
5,791,731 A	8/1998	Infanti	6,646,695 B1	11/2003	Gauselmann
			6,652,378 B2	11/2003	Cannon et al.
			D483,075 S	12/2003	Kang
			D484,548 S	12/2003	Franco Munoz et al.
			D485,583 S	1/2004	Porto

(56)

References Cited

U.S. PATENT DOCUMENTS

6,695,697 B1	2/2004	Okada	D601,638 S	10/2009	Palmisano
6,715,756 B2	4/2004	Inoue	D601,639 S	10/2009	McComb et al.
6,729,618 B1	5/2004	Koenig et al.	D604,368 S	11/2009	Lesley et al.
D492,363 S	6/2004	Seelig et al.	D605,189 S	12/2009	Kuroda
D492,364 S	6/2004	Seelig et al.	D605,231 S	12/2009	Hashimoto et al.
D492,365 S	6/2004	Munoz et al.	7,628,693 B2	12/2009	Thomas
D492,676 S	7/2004	Monson et al.	7,666,085 B2	2/2010	Vorias et al.
D493,843 S	8/2004	Jackson, Sr. et al.	D612,432 S	3/2010	De Viveiros Ortiz
D493,846 S	8/2004	Seelig et al.	7,686,689 B2	3/2010	Thomas
D495,754 S	9/2004	Wurz et al.	D613,802 S	4/2010	Meyers et al.
D495,755 S	9/2004	Wurz et al.	D615,598 S	5/2010	McComb et al.
D496,407 S	9/2004	Gadda et al.	D616,036 S	5/2010	Cha
D498,267 S	11/2004	Crouch	D616,039 S	5/2010	Bruzzese et al.
D500,098 S	12/2004	Doi	7,713,119 B2	5/2010	Pacey et al.
6,880,825 B2	4/2005	Seelig et al.	D617,388 S	6/2010	Wildner et al.
D505,162 S	5/2005	Bristol et al.	D619,177 S	7/2010	Lee
D508,268 S	8/2005	Hanchar et al.	D622,780 S	8/2010	Lesley et al.
D508,269 S	8/2005	Wichinsky	D622,781 S	8/2010	Lesley et al.
D508,719 S	8/2005	de Haas	D622,782 S	8/2010	Chudek et al.
D508,961 S	8/2005	Gatto et al.	D623,621 S	9/2010	Roed et al.
D509,254 S	9/2005	Rasmussen et al.	D624,604 S	9/2010	Wudtke
D509,255 S	9/2005	Bristol et al.	D625,368 S	10/2010	Nelson et al.
D512,105 S	11/2005	Chitrapongse et al.	D626,182 S	10/2010	Cole et al.
D513,511 S	1/2006	Decombe	D626,183 S	10/2010	Cole et al.
D515,144 S	2/2006	Boyd	7,811,167 B2	10/2010	Giobbi et al.
6,997,810 B2	2/2006	Cole	D631,060 S	1/2011	Flik et al.
D520,504 S	5/2006	Martin	D631,100 S	1/2011	Palmisano
7,063,615 B2	6/2006	Alcorn et al.	D633,950 S	3/2011	Terpstra et al.
7,108,237 B2	9/2006	Gauselmann	D637,238 S	5/2011	O'Keene et al.
D531,677 S	11/2006	Mallory et al.	D637,652 S	5/2011	Tahara et al.
7,184,277 B2	2/2007	Beime	7,938,728 B2	5/2011	Vetter et al.
D537,885 S	3/2007	Gadda et al.	7,955,176 B2	6/2011	Tastad et al.
D539,854 S	4/2007	Luciano et al.	D641,047 S	7/2011	Tahara et al.
D540,398 S	4/2007	Gadda et al.	7,976,393 B2	7/2011	Haga et al.
D546,893 S	7/2007	Yamashita	7,985,139 B2	7/2011	Lind et al.
7,247,098 B1	7/2007	Bradford et al.	8,002,424 B2	8/2011	Hwang et al.
D548,801 S	8/2007	Groswirt	8,002,626 B2	8/2011	Englman
D549,785 S	8/2007	Luciano, Jr. et al.	D646,336 S *	10/2011	Kelly D21/329
7,267,612 B2	9/2007	Alcorn et al.	D646,337 S *	10/2011	Kelly D21/329
D554,710 S	11/2007	Malone et al.	D646,691 S	10/2011	Thai et al.
D556,765 S	12/2007	Evans et al.	D649,605 S	11/2011	Terpstra et al.
D557,348 S	12/2007	Gutknecht et al.	D651,608 S	1/2012	Allen et al.
D557,748 S	12/2007	Jumper	8,152,623 B2	4/2012	Fiden
D559,328 S	1/2008	Rasmussen et al.	8,162,740 B2	4/2012	Aoki
D559,917 S	1/2008	Cole	8,216,061 B2	7/2012	Pacey
D560,724 S	1/2008	Johnson	8,267,764 B1	9/2012	Aoki et al.
D560,725 S	1/2008	Johnson	D669,076 S	10/2012	Haller
D563,326 S	3/2008	Patel et al.	8,292,451 B2	10/2012	Hwang et al.
D563,481 S	3/2008	Looks et al.	8,303,420 B2	11/2012	Chudek et al.
D564,600 S	3/2008	Greenberg et al.	8,305,743 B2	11/2012	Wu et al.
D564,601 S	3/2008	Strahinic et al.	8,323,114 B2	12/2012	Burak et al.
D566,197 S	4/2008	Greenberg et al.	D673,620 S	1/2013	Johnson et al.
D569,863 S	5/2008	Feldstein et al.	D673,621 S	1/2013	Johnson et al.
D572,314 S	7/2008	Vallejo et al.	D673,622 S	1/2013	Wudtke
D573,200 S	7/2008	Hashimoto et al.	8,353,755 B2	1/2013	Vann et al.
D573,417 S *	7/2008	Osbourn D7/641	8,371,920 B2	2/2013	Gomez et al.
D578,168 S	10/2008	Looks et al.	8,371,927 B2	2/2013	Englman
D581,983 S	12/2008	Bergstrom	8,371,928 B2	2/2013	Englman et al.
RE40,625 E	1/2009	Wurz et al.	8,376,832 B2	2/2013	O'Connor et al.
7,479,066 B2	1/2009	Emori	D677,736 S	3/2013	Dorn et al.
D586,866 S	2/2009	Hsu	D678,270 S *	3/2013	Song D14/341
D587,272 S	2/2009	Morrow et al.	D678,955 S	3/2013	Lesley et al.
D587,319 S	2/2009	Moises Deiab	D678,956 S	3/2013	Lesley et al.
RE40,671 E	3/2009	Wurz et al.	D678,957 S	3/2013	Cesaroni et al.
7,503,849 B2	3/2009	Hornik et al.	D678,958 S	3/2013	Cesaroni et al.
D590,025 S	4/2009	Fiore	D681,130 S	4/2013	Lesley et al.
D591,799 S	5/2009	Yang	8,430,756 B2	4/2013	McComb et al.
D592,709 S	5/2009	McComb et al.	D682,948 S	5/2013	Cesaroni et al.
D594,068 S	6/2009	Hsu	D684,637 S	6/2013	Shelley et al.
D596,678 S	7/2009	Myers	D684,639 S	6/2013	Shelley et al.
D599,365 S	9/2009	Brown et al.	D685,033 S *	6/2013	Wudtke D21/370
D599,858 S	9/2009	Lesley et al.	D691,665 S	10/2013	Chudek
D599,859 S	9/2009	Lesley et al.	D691,666 S	10/2013	Lesley et al.
D599,860 S	9/2009	Lesley et al.	D693,343 S	11/2013	Haller
D601,637 S	10/2009	Myers et al.	D697,558 S	1/2014	Myers et al.
			D704,273 S	5/2014	Chudek
			D704,275 S	5/2014	Lesley et al.
			D705,872 S	5/2014	Ortiz
			D706,359 S	6/2014	Wudtke

(56)

References Cited

U.S. PATENT DOCUMENTS

- D706,741 S * 6/2014 Myers D14/172
D707,646 S * 6/2014 Kim D14/138 G
D708,676 S 7/2014 Ballman et al.
D712,975 S * 9/2014 Lesley D21/369
D713,447 S 9/2014 Balar et al.
D713,811 S * 9/2014 Isaacs D14/138 AA
D714,269 S * 9/2014 Lee D14/248
D714,270 S * 9/2014 Lee D14/248
D714,271 S * 9/2014 Lee D14/248
D714,392 S 9/2014 Arabian
D714,875 S 10/2014 Wudtke et al.
D715,279 S * 10/2014 Lee D14/248
D715,364 S 10/2014 Wudtke et al.
D716,246 S * 10/2014 Yun D14/138 R
D718,818 S * 12/2014 Sumii D14/401
D719,615 S * 12/2014 Inoue D21/370
D719,616 S * 12/2014 Inoue D21/370
D721,767 S 1/2015 Ferrazoli
8,982,545 B2 3/2015 Kim et al.
D726,139 S * 4/2015 Park D14/138 R
D726,140 S * 4/2015 Park D14/138 R
D726,678 S * 4/2015 Park D14/138 R
D727,431 S 4/2015 Themann
D730,993 S 6/2015 Castro et al.
D732,520 S 6/2015 Themann
D733,088 S * 6/2015 Garneau D14/172
D736,751 S * 8/2015 Lee D14/248
D736,752 S * 8/2015 Lee D14/248
D740,887 S 10/2015 Randazzo
D740,888 S * 10/2015 DePalma D21/370
D742,974 S * 11/2015 Lesley D21/369
D742,975 S 11/2015 Myers et al.
D747,763 S 1/2016 Haller
D752,573 S 3/2016 Ballman et al.
D760,846 S 7/2016 Castro et al.
D762,613 S * 8/2016 Garneau D14/172
RE46,169 E * 10/2016 Kelly G07F 17/34
D770,449 S * 11/2016 Bae D14/341
D770,450 S * 11/2016 Bae D14/341
D770,998 S * 11/2016 Kwak D14/138 AB
D771,041 S * 11/2016 Bae D14/341
D771,628 S * 11/2016 Bae D14/341
D774,032 S * 12/2016 Bae D14/341
D776,112 S * 1/2017 Bae D14/374
D786,242 S * 5/2017 Ho D14/127
D786,859 S * 5/2017 Kim D14/341
9,679,435 B2 6/2017 Schrementi et al.
D792,384 S * 7/2017 Kim D14/248
D795,855 S * 8/2017 Kim D14/248
D797,713 S * 9/2017 Kim D14/248
D801,435 S 10/2017 Themann
D801,945 S * 11/2017 Cho D14/138 G
D802,590 S * 11/2017 Bae D14/374
D802,591 S * 11/2017 Bae D14/374
D803,323 S 11/2017 Bussey et al.
D803,324 S 11/2017 Bussey et al.
D803,818 S * 11/2017 Kim D14/248
D805,065 S 12/2017 Taylor et al.
D805,588 S 12/2017 Sharp et al.
D806,159 S 12/2017 Haller
D808,354 S 1/2018 Castro et al.
D808,467 S 1/2018 Huang et al.
D809,068 S 1/2018 Ballman et al.
D809,069 S 1/2018 Ballman et al.
D811,384 S * 2/2018 Diasabeygunawardena
D812,145 S 3/2018 Huang et al.
D812,146 S * 3/2018 Castro D21/369
D812,147 S * 3/2018 Castro D21/369
D812,148 S * 3/2018 Castro D21/369
D812,149 S * 3/2018 Castro D21/369
D813,954 S 3/2018 Calhoun et al.
D818,048 S 5/2018 Calhoun et al.
D818,524 S 5/2018 Dong et al.
D819,747 S * 6/2018 Castro D21/369
D820,915 S * 6/2018 Lee D21/369
D832,355 S * 10/2018 Castro D21/369
D832,356 S * 10/2018 Castro D21/369
D832,357 S * 10/2018 Castro D21/369
D833,534 S 11/2018 Lee et al.
D836,164 S * 12/2018 Castro D21/369
D836,720 S * 12/2018 Kang D19/113
D839,357 S 1/2019 Steelman et al.
10,181,236 B2 * 1/2019 Goldstein G07F 17/3216
D842,929 S 3/2019 Hung et al.
D842,930 S * 3/2019 Johnson D21/369
D842,932 S * 3/2019 Stair D21/369
D842,933 S * 3/2019 Castro D21/396
D843,458 S * 3/2019 Castro D21/369
D843,459 S * 3/2019 Castro D21/369
D843,460 S * 3/2019 Castro D21/369
D843,461 S * 3/2019 Castro D21/369
D843,464 S * 3/2019 Castro D21/369
D843,465 S * 3/2019 Castro D21/369
D843,466 S * 3/2019 Castro D21/369
D843,467 S * 3/2019 Johnson D21/369
D843,468 S * 3/2019 Johnson D21/369
D843,473 S * 3/2019 Zedell, Jr. D21/369
D843,474 S * 3/2019 Lesley D21/369
D843,475 S * 3/2019 Lesley D21/369
D843,476 S * 3/2019 Lesley D21/369
D843,477 S * 3/2019 Lesley D21/369
D843,478 S * 3/2019 Lesley D21/369
D843,479 S * 3/2019 Castro D21/369
D843,480 S * 3/2019 Castro D21/369
D843,482 S * 3/2019 Holland D21/396
D843,866 S * 3/2019 Mutch D10/87
D844,062 S * 3/2019 Lesley D21/369
D844,063 S 3/2019 Lee et al.
D846,650 S * 4/2019 Stair D21/369
D849,149 S 5/2019 Bussey et al.
D849,150 S 5/2019 Gallagher et al.
D850,536 S * 6/2019 Stair D21/370
D850,537 S * 6/2019 Urban D21/370
10,325,446 B2 * 6/2019 Castro G07F 17/322
D852,890 S 7/2019 Ross et al.
D854,620 S 7/2019 Yeh
D854,621 S 7/2019 Calhoun et al.
D858,641 S 9/2019 Legras et al.
D858,642 S 9/2019 Legras et al.
D862,602 S * 10/2019 Kariya D21/324
D880,606 S * 4/2020 Glenn, II D21/369
D880,608 S * 4/2020 Glenn, II D21/369
D880,610 S * 4/2020 Glenn, II D21/369
D880,611 S * 4/2020 Glenn, II D21/369
2002/0041069 A1 4/2002 Steelman
2003/0122973 A1 7/2003 Huang
2004/0018877 A1 1/2004 Tastad et al.
2004/0029631 A1 2/2004 Duhamel
2004/0053662 A1 3/2004 Pacey
2005/0014547 A1 1/2005 Gomez et al.
2006/0009284 A1 1/2006 Schwartz et al.
2006/0028159 A1 2/2006 Otomo et al.
2006/0034042 A1 2/2006 Hisano et al.
2006/0079316 A1 4/2006 Flemming et al.
2006/0131810 A1 6/2006 Nicely
2006/0183553 A1 8/2006 Kiriyama et al.
2006/0199638 A1 9/2006 Walker et al.
2006/0287111 A1 12/2006 Mitchell et al.
2008/0039213 A1 2/2008 Cornell et al.
2008/0051202 A1 2/2008 Lube
2009/0174996 A1 7/2009 Park
2010/0053231 A1 3/2010 Park
2012/0122569 A1 5/2012 Kowolik et al.
2012/0168058 A1 7/2012 Kim et al.
2013/0180653 A1 7/2013 Kim et al.
2013/0278875 A1 * 10/2013 Kim G02F 1/133514
2014/0055696 A1 2/2014 Lee et al.
2014/0092356 A1 4/2014 Ahn et al.
2014/0176856 A1 6/2014 Lee et al.
2014/0226111 A1 8/2014 Kim
2014/0226112 A1 8/2014 Kim

349/106

(56)

References Cited

U.S. PATENT DOCUMENTS

2014/0354938	A1	12/2014	Kim	
2014/0368782	A1	12/2014	Kim et al.	
2014/0375963	A1	12/2014	Bishop	
2015/0000823	A1	1/2015	Kim et al.	
2015/0001291	A1	1/2015	Govindarajan et al.	
2015/0036073	A1	2/2015	Im et al.	
2015/0087403	A1	3/2015	Castro et al.	
2015/0116621	A1	4/2015	Park et al.	
2015/0116625	A1	4/2015	Hwang et al.	
2015/0301390	A1	10/2015	Kim	
2016/0070964	A1	3/2016	Conrad	
2016/0093143	A1*	3/2016	Lamb G07F 17/3213 463/20
2018/0075689	A1*	3/2018	Castro G07F 17/322
2018/0078854	A1*	3/2018	Achmueller A63F 13/20
2019/0080547	A1	3/2019	Urban	

FOREIGN PATENT DOCUMENTS

KR	10-1113734	B1	2/2012
KR	10-2012-0051630		5/2012
KR	10-1268471	B1	6/2013
KR	10-1278904	B1	6/2013
KR	10-1336677	B1	12/2013
KR	10-1381609	B1	4/2014
KR	10-1381610	B1	4/2014
KR	10-2015-0013987		2/2015
KR	10-1539221	B1	7/2015
TW	200949775	A	12/2009

OTHER PUBLICATIONS

Brochure for “Virtual Pinball,” Tab-Austria, 2007 (8 pages).
 Cabinet Brochure for Hydako Co., date estimated as early as 2009 (1 page).
 Catalog for “Your Partner Innovation,” Bally Technologies, date estimated as early as 2011 (4 pages).
 Catalog for Atronic®Spielo®, date estimated as early as 2008 (2 pages).
 Cohran; “Why Samsung’s curved-screen TV might be a ‘game changer’”; CBS News; Aug. 14, 2013; retrieved from <<http://www.cbsnews.com/news/why-samsungs-curved-screen-tv-might-be-a-game-changer/>> (3 pages).
 DailyTech; “AUO Shows Off Curved Display and Touch Screen”; May 23, 2008; retrieved from <<http://www.dailytech.com/AUO+Shows+Off+Curved+Display+and+Touch+Screen+Tech/article11845.htm>> on Mar. 3, 2017 (2 pages).
 Daniel; “Curved Monitors—Overview”; Curved Monitor Test; Aug. 28, 2015; retrieved from <<http://www.curved-monitor-test.de/>> (5 pages).
 Denison; “Why can’t you buy a flat OLED yet? The curve isn’t just about viewing experience”; Digital Trends; Aug. 18, 2013; retrieved from <<http://www.digitaltrends.com/home-theater-why-did-the-us-get-stuck-with-curved-oled/#!zXypT>> (8 pages).
 DigiTimes Inc.; “FPD China 2009: AUO 8.9-inch convex display panel”; Mar. 12, 2009; retrieved from <<http://www.digitimes.com/photogallery/showphoto.asp?ID=3376>> on Mar. 3, 2017 (3 pages).
 Fall & Winter Catalog for Aristocrat, date estimated as early as 2010-2011 (7 pages).
 Gizmodo.com; “AUO Curved Displays, Ultra Thin LCDs On the Way”; May 20, 2008; retrieved from <<http://gizmodo.com/392248/auo-curved-displays-ultra-thin-lcds-on-the-way>> on Mar. 3, 2017 (2 pages).
 Immersaview; “Why choose a Curved Screen for your Multi-Projector Setup”; Jan. 28, 2016; retrieved from <<https://www.immersaview.com/resources/why-curved/>> (7 pages).

Kelly; “TV trends at CES: 4K, curves and smart TVs”; CNN; Jan. 8, 2014; retrieved from <<http://www.cnn.com/2014/01/07/tech/gaming-gadgets/ces-television-trends/>> (5 pages).
 Ljt216; “Flat Screen vs Curved CRTs for Retro Games”; Reddit; Jul. 29, 2015; retrieved from <https://www.reddit.com/r/gamecollecting/comments/3f25r0/flat_screen_vs_curved_crts_for_retro_games/> (4 pages).
 Manjoo; “TV Makers Are Out of Ideas”; Wall Street Journal; Jan. 8, 2014; retrieved from <<https://www.wsj.com/news/articles/SB100014240527023033938045790308801012230792>> (4 pages).
 Matthias; “Curved TV—Overview”; Curved TV Test; Apr. 20, 2016; retrieved from <<http://technikblog.net/fernseher-test/curved-tv/>> (16 pages, in German).
 Morrison; “Curved OLED HDTV screens are a bad idea (for now)”; CNET; Jun. 18, 2013; reetrieved from <<https://www.cnet.com/news/curved-oled-hdtv-screens-are-a-bad-idea-for-now/>> (9 pages).
 NewLaunches.com; “LG Phillips LCD develops world’s highest resolution 14.3-inch flexible color E-paper display!”; Jan. 3, 2008; retrieved from <http://newlaunches.com/archives/lgphillips_lcd_develops_worlds_highest_resolution_143inch_flexible_color_epaper_display.php> (4 pages).
 OLED-Info; “LG Phillips LCD Develops 14.3-Inch Color E-Paper Display”; Jan. 4, 2008; retrieved from <http://www.oled-info.com/lg/lg_phillips_lcd_develops_14_3_inch_color_e_paper_display>; (2 pages).
 PC World; “AU Optronics Shows off Curved LCD Screen”; May 20, 2008; retrieved from <<http://www.pcworld.com/article/146083/article.amp.html>> on Mar. 3, 2017 (3 pages).
 Photonics industry and Technology Development Association (PIDA); “E-Paper Shows Potential at Creating a Paperless Haven”; OptoLink Magazine, 3 Quarter 2008; pp. 8-11 (4 pages).
 Product Catalog for “Alpha Elite™,” Bally Technologies, date estimated as early as 2008-2009 (2 pages).
 Product Catalog for Ainsworth Game Technology Ltd, date estimated as early as 2007 (6 pages).
 Product Catalog for Bally Technologies, date estimated as early as 2010 (2 pages).
 Product Sheet for “3RV™,” WMS Gaming In., 2002 or earlier (2 pages).
 Product Sheet for “American Eagle,” Eagle Co. Ltd., 1997 (2 pages).
 Product Sheet for “American Eagle,” Eagle Co., Ltd., 2000 (2 pages).
 Product Sheet for “EVO™ Hybrid,” Bally Gaming Systems, 2002 (4 pages).
 Product Sheet for “Miss America,” AC Coin & Slot, 2002 or earlier (2 pages).
 Product Sheet for “Monopoly Chairman of the Board™,” WMS Gaming Inc., 1999 (2 pages).
 Product Sheet for “ProSLOT®6000,” Bally Gaming Systems, 2002 (4 pages).
 Product Sheet for “Survivor,” WMS Gaming Inc., 2001 (4 pages).
 Product Sheet for “Ultrapin™,” Global VR, 2007 (1 page).
 Snider; “Sony tosses latest pitch for curved TV displays”; USA Today; Oct. 15, 2013; retrieved from <<http://www.usatoday.com/story/tech/personal/2013/10/15/new-curved-sony-led-hdtv/2982051/>> (2 pages).
 Wilcox; “LG, Samsung, and Sony throw TV buyers a curve”; Consumer Reports; Sep. 10, 2013; retrieved from <<http://www.consumerreports.org/cro/news/2013/09/curved-tv-screens/index.htm#>> (1 page).
 Wood, M., Major, C., Carr, V. eds.; “Curved Screens: Worth It?” video found at <<http://www.nytimes.com/video/technology/personaltech/100000002788325/curved-screens-worth-it.html>>; New York Times; Mar. 26, 2014.

* cited by examiner

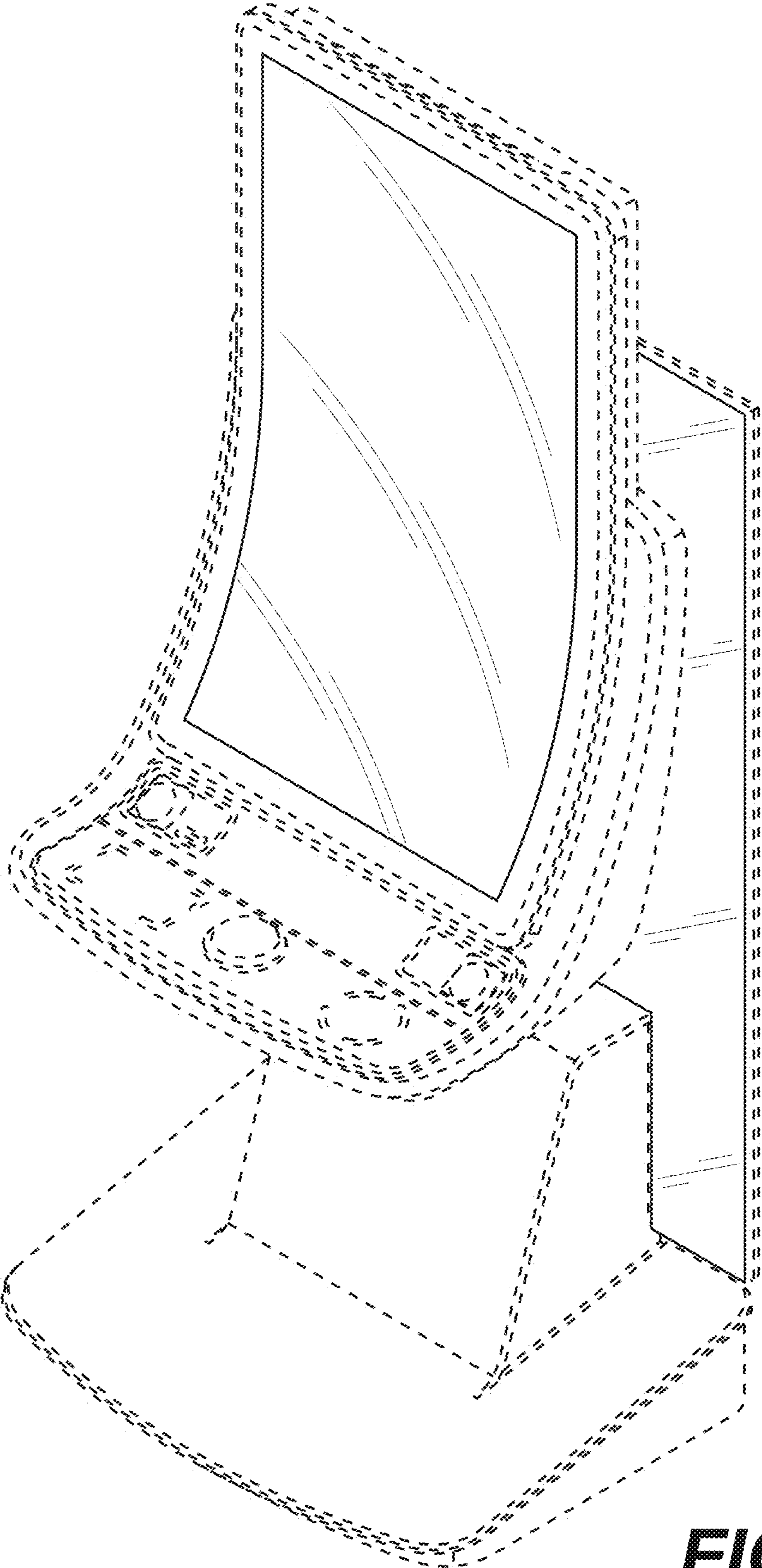


FIG. 1

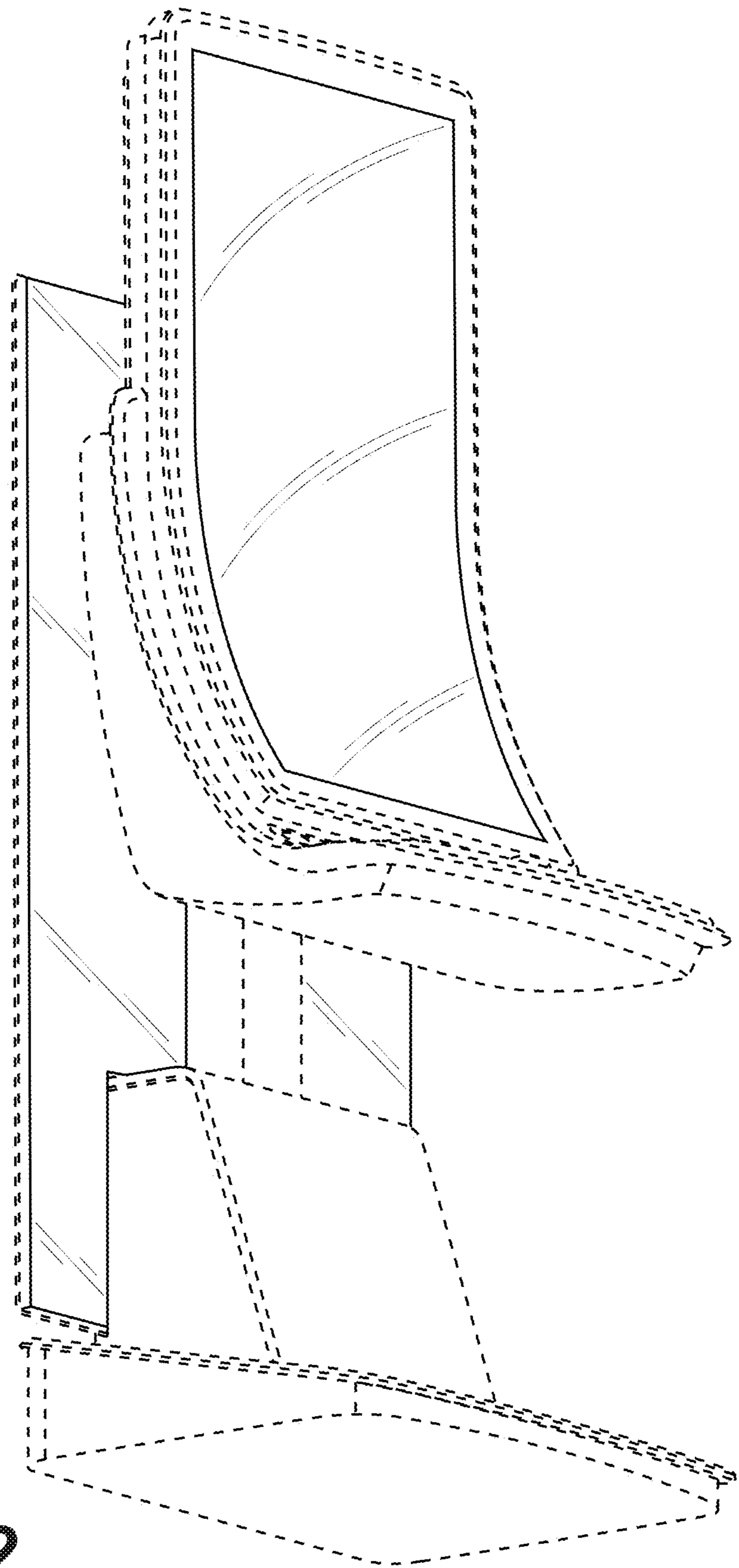


FIG. 2

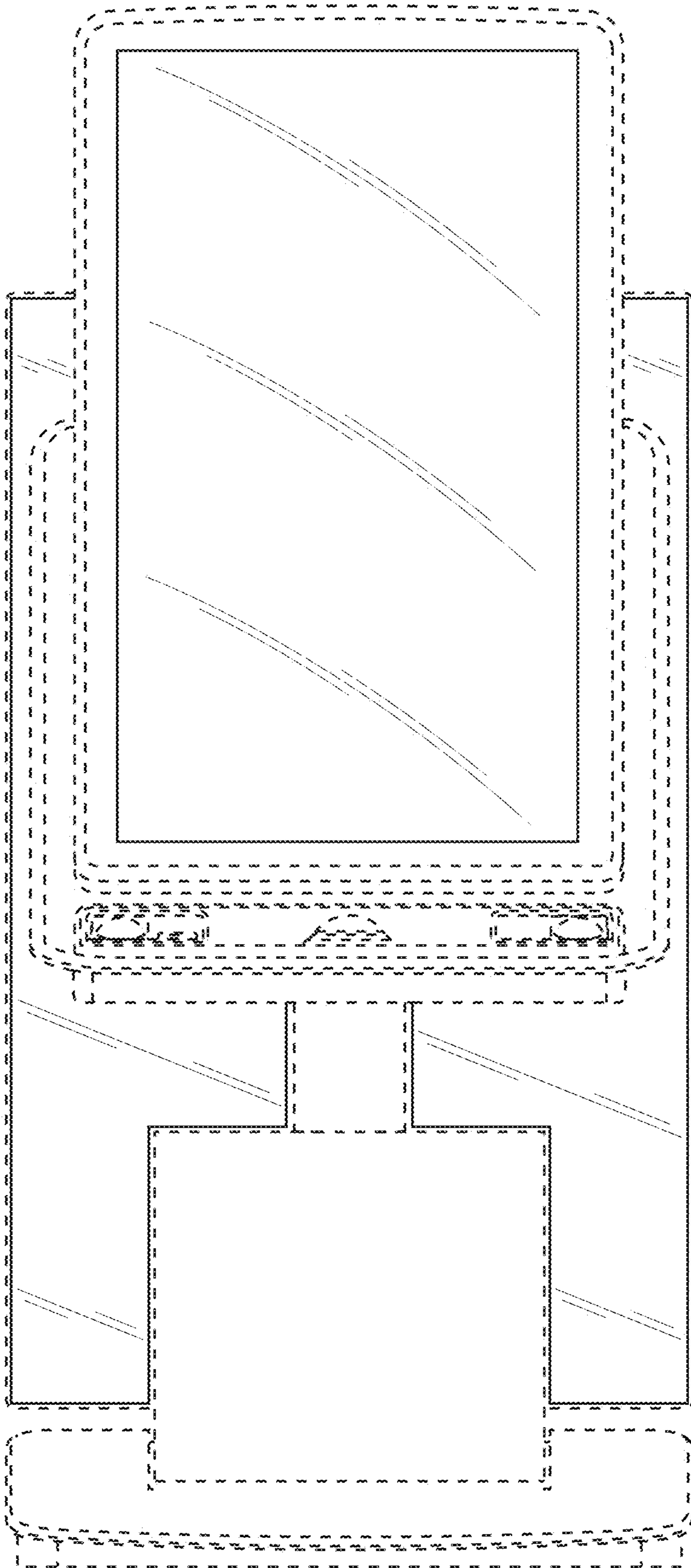


FIG. 3

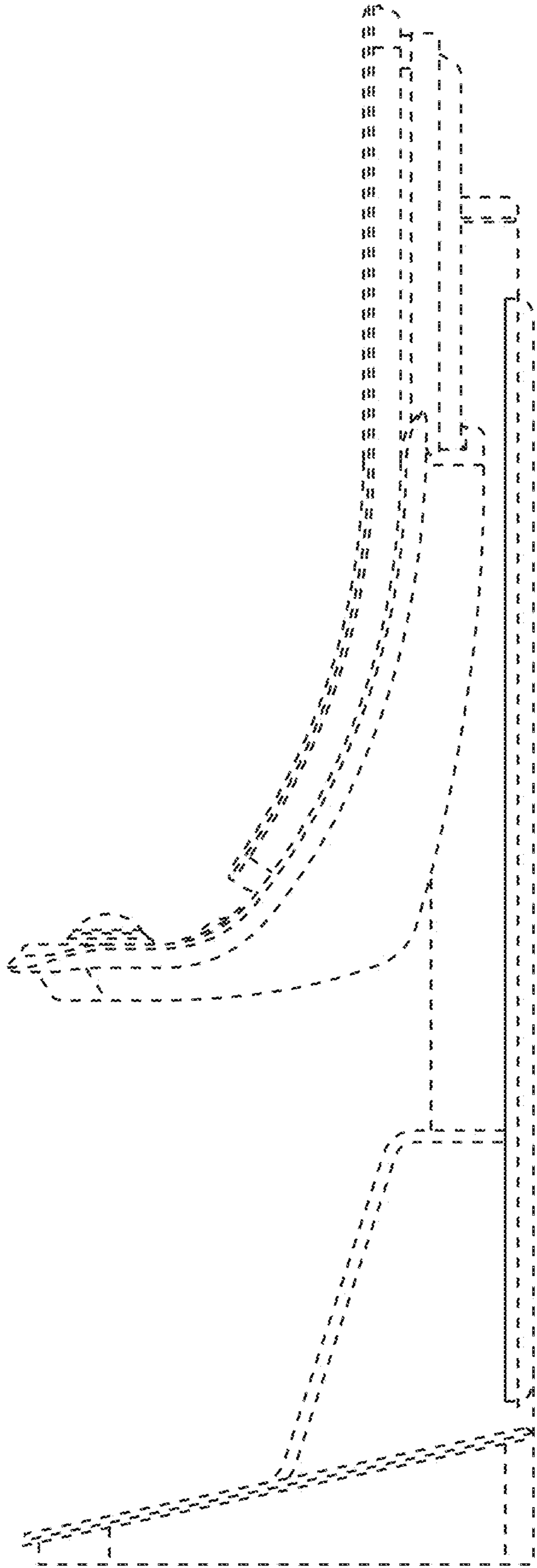


FIG. 4

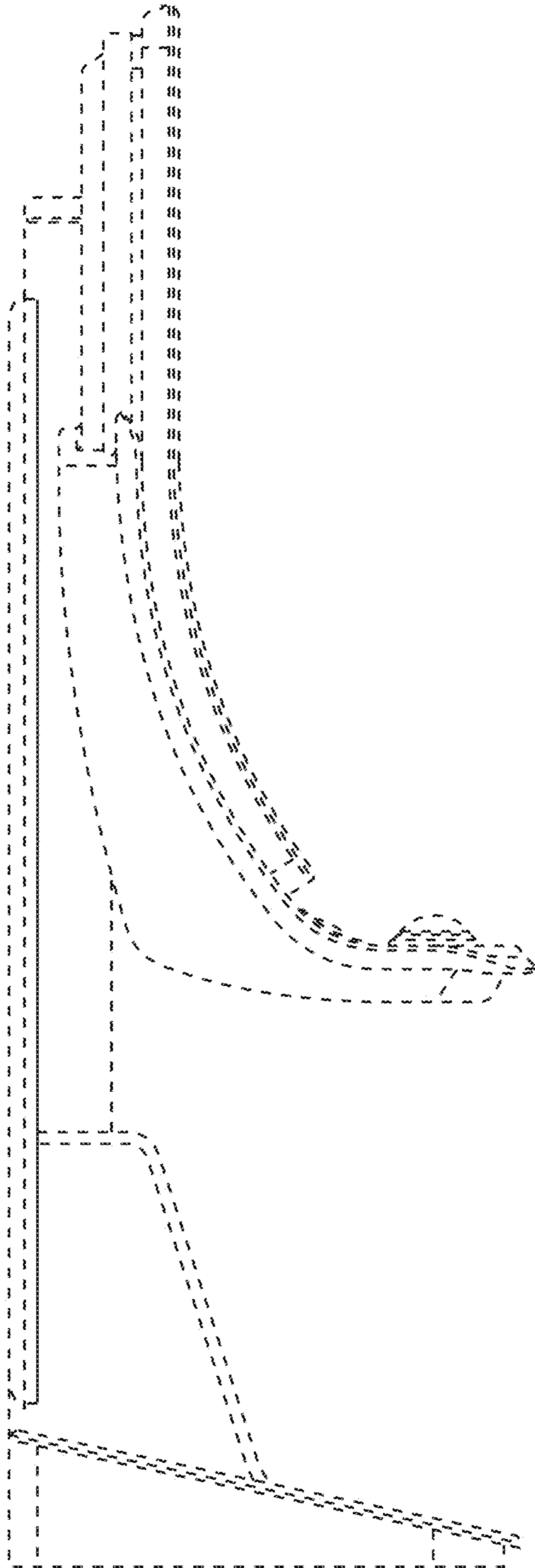


FIG. 5

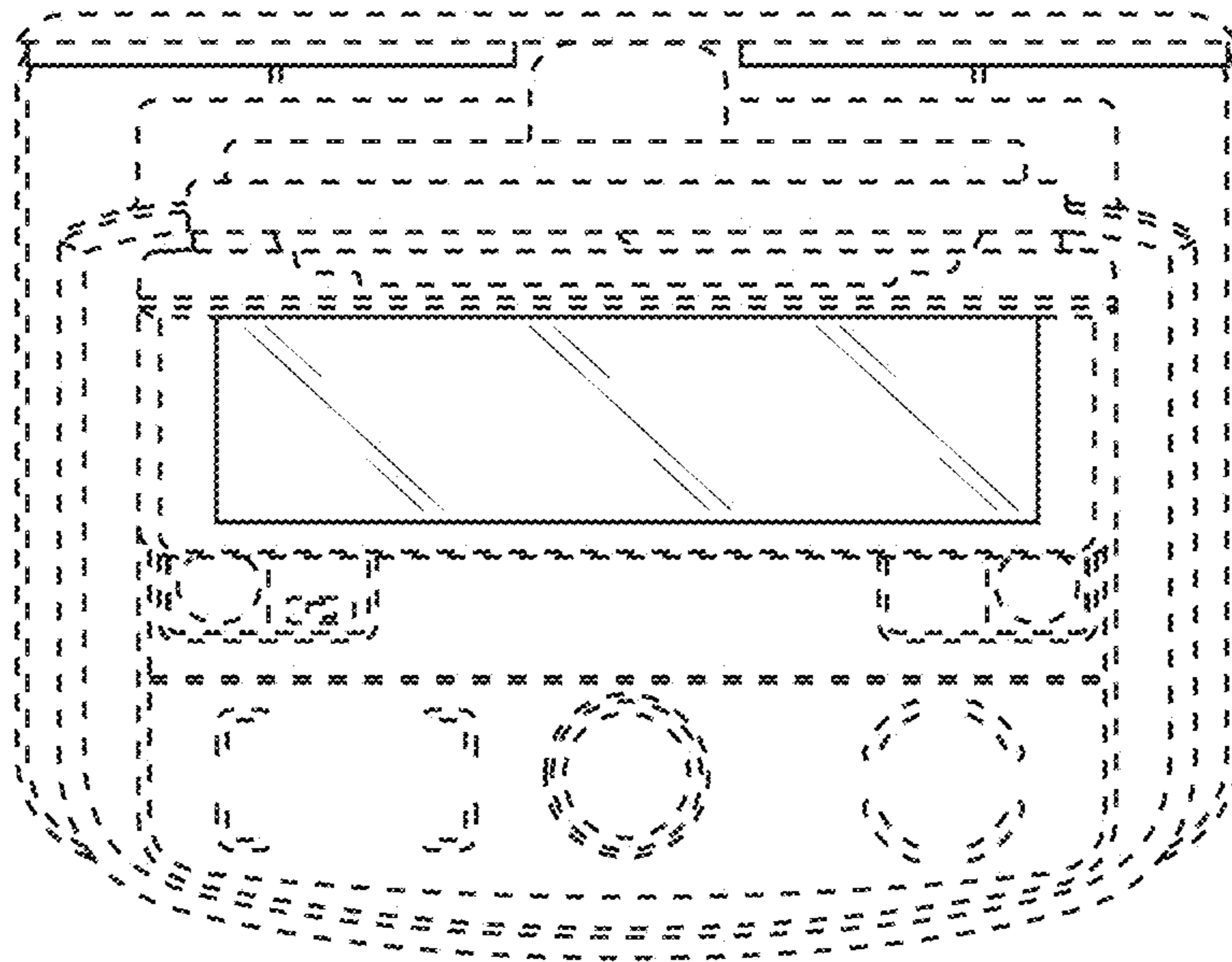


FIG. 6