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Meyer et al.

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(54) **UNDERCARRIAGE TRACK LINK FOR
MOBILE EARTHMOVING MACHINE**

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

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(51) **LOC (10) Cl.** **15-03**

(52) **U.S. Cl.**
USPC **D15/28**

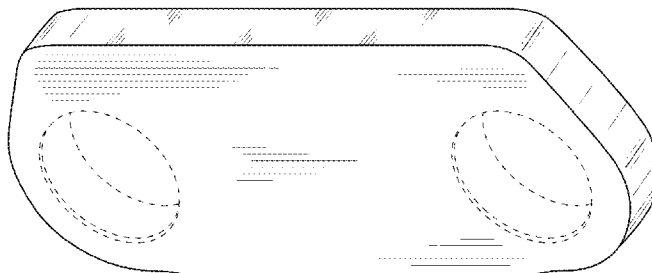
(58) **Field of Classification Search**
USPC D15/28, 22-26; 305/54, 85 R, 39, 35 R
CPC B62D 55/211; B62D 55/20; B62D 55/28
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D53,639 S	7/1919	Moore
1,952,545 A	3/1934	Gotshall
D107,515 S	12/1937	Grange et al.
2,168,053 A	8/1939	Starr et al.
2,463,226 A	3/1949	Walden
2,549,930 A	4/1951	Riegel et al.
2,652,285 A	9/1953	Negri
2,664,317 A	12/1953	Glynn et al.
2,874,005 A	2/1959	Engstrom
D186,214 S	9/1959	Francis
2,911,252 A	11/1959	Templeton
3,035,872 A	5/1962	Rich
3,089,021 A	5/1963	Hawes et al.
3,372,959 A	3/1968	Watts, Jr.
D224,705 S	9/1972	Mattson
3,712,687 A	1/1973	Alexander
3,795,431 A	3/1974	Boggs et al.
3,937,530 A	2/1976	Sturges
3,947,074 A	3/1976	Nelson
3,955,855 A	5/1976	Massieon et al.

3,994,064 A	11/1976	Boggs et al.
4,003,608 A	1/1977	Carter
4,036,538 A	7/1977	Haslett et al.
4,081,202 A	3/1978	Kozuki
4,082,372 A	4/1978	Kozuki
4,098,543 A	7/1978	Sturges
4,099,795 A	7/1978	Roley
RE29,723 E	8/1978	Haslett et al.
4,105,260 A	8/1978	Blunier et al.
4,112,851 A	9/1978	Rousseau et al.
4,116,497 A	9/1978	Schimpf et al.
4,123,120 A	10/1978	Kohriyama
4,128,277 A	12/1978	Meisel, Jr.
4,129,045 A	12/1978	Kishitani
4,141,601 A	2/1979	Stedman
4,159,857 A	7/1979	Purcell
4,176,887 A	12/1979	Alpers et al.
4,265,084 A	5/1981	Livesay
4,306,753 A	12/1981	Livesay et al.
4,371,362 A	2/1983	Dorris
4,423,910 A *	1/1984	Narang 305/190
4,440,095 A	4/1984	Mathieu
4,444,441 A	4/1984	Parker
4,449,357 A *	5/1984	Balitch 59/30
4,459,124 A	7/1984	Newton
4,530,546 A	7/1985	Meisel, Jr.
4,553,791 A *	11/1985	Blair 305/186
4,602,825 A	7/1986	Meisel, Jr.
4,636,014 A	1/1987	Dennison et al.
4,685,184 A	8/1987	Satkamp
4,763,961 A	8/1988	Parrott
D298,632 S	11/1988	Grawey et al.
4,825,777 A	5/1989	Cummins
4,880,283 A *	11/1989	Savage et al. 305/160
4,890,892 A	1/1990	Haslett
5,005,922 A	4/1991	Edwards et al.
5,172,965 A *	12/1992	Taft 305/187
5,183,318 A	2/1993	Taft et al.
5,201,171 A	4/1993	Anderton et al.
D338,020 S	8/1993	Taft
D340,890 S	11/1993	Martin et al.
5,288,143 A	2/1994	Dester et al.
5,482,364 A	1/1996	Edwards et al.
5,509,359 A	4/1996	Houston
D382,570 S	8/1997	Bruns
5,692,985 A	12/1997	Hirata et al.
5,759,309 A	6/1998	Watts et al.
5,803,558 A	9/1998	Ketting et al.
5,887,958 A	3/1999	Bissi et al.
5,913,374 A	6/1999	Becker et al.
5,927,665 A	7/1999	Grabnic
6,012,784 A	1/2000	Oertley
6,017,103 A	1/2000	Villard



6,047,969	A	4/2000	Hoeffft et al.	AU	139354	12/1999
6,109,706	A	8/2000	Oertley	AU	140881	6/2000
6,120,405	A	9/2000	Oertley et al.	AU	143748	5/2001
D435,565	S *	12/2000	Barani D15/28	AU	149531	10/2002
6,186,671	B1	2/2001	Rucks et al.	AU	304403	11/2005
6,237,877	B1	5/2001	Wallace et al.	AU	307970	7/2006
6,250,459	B1	6/2001	Coen et al.	AU	310269	9/2006
RE37,254	E	7/2001	Ketting et al.	AU	321833	10/2008
6,322,173	B1	11/2001	Maguire et al.	AU	324833	2/2009
6,364,438	B1	4/2002	Hasselbusch et al.	AU	335858	4/2011
6,416,142	B1	7/2002	Oertley	AU	338612	9/2011
6,422,667	B2	7/2002	Miyaura	AU	340737	2/2012
6,431,665	B1	8/2002	Banerjee et al.	CL	265-1928	5/1928
6,474,754	B1	11/2002	Hasselbusch	CL	628-1928	10/1928
6,565,161	B2	5/2003	Anderton	CL	145-1939	7/1939
6,733,093	B2	5/2004	Deland et al.	CL	75-1943	3/1943
6,783,196	B2	8/2004	Maguire et al.	CL	774-1989	11/1989
6,851,768	B2	2/2005	Takeno et al.	CL	773-1989	3/1990
6,874,859	B1	4/2005	Duse	CL	92-1990	5/1990
D510,742	S	10/2005	Stover	CL	564-1991	7/1991
6,951,096	B2	10/2005	Maguire et al.	CL	2196-1997	12/1998
7,007,360	B2	3/2006	Huenefeld et al.	CL	1488-2002	9/2002
7,040,080	B2	5/2006	Okawa et al.	CL	2980-2001	8/2003
7,100,353	B1	9/2006	Maguire	CL	331-2009	5/2009
D549,244	S	8/2007	Noel	CL	332-2009	5/2009
7,345,255	B2	3/2008	Jiang et al.	CL	335-2009	5/2009
D598,937	S	8/2009	Lyasko	CL	336-2009	5/2009
D599,381	S	9/2009	Chiang	CL	7-2010	9/2010
D603,880	S	11/2009	Brazier	CL	2110-2011	12/2011
7,614,709	B2	11/2009	Oertley	CL	3070-2011	6/2012
7,644,999	B2	1/2010	Bradberry et al.	EM	000302823-0001	2/2005
7,661,774	B2	2/2010	Yamamoto et al.	EM	000450028-0003	12/2005
7,721,864	B2	5/2010	Bluhm	EM	000450028-0006	12/2005
7,776,451	B2	8/2010	Jiang et al.	EM	000472956-0001	1/2006
7,806,209	B2	10/2010	Standish et al.	EM	000528807-0001	5/2006
7,832,815	B2	11/2010	VanderVeen	EM	000528807-0002	5/2006
7,877,977	B2	2/2011	Johannsen et al.	EM	000528807-0003	5/2006
7,896,766	B2	3/2011	Mitzschke et al.	EM	000644976-0001	12/2006
7,914,086	B2	3/2011	Mulligan	GB	1051849	12/1987
8,075,069	B2	12/2011	Pech et al.	GB	2008967	3/1990
D660,877	S	5/2012	Caron et al.	GB	2067983	7/1997
8,172,342	B2	5/2012	Diekevers et al.	GB	2080040	12/1998
D709,527	S	7/2014	Meyer et al.	GB	2087930	11/1999
2001/0001223	A1	5/2001	Miyaura	GB	2092436	4/2000
2002/0113489	A1	8/2002	Oertley	GB	2098189	6/2000
2003/0090151	A1	5/2003	Takeno et al.	GB	2105696	4/2001
2003/0122423	A1	7/2003	Banerjee et al.	GB	2105775	5/2001
2003/0122425	A1	7/2003	Banerjee	GB	3019881	12/2004
2003/0217453	A1	11/2003	Huenefeld et al.	GB	3022180	8/2005
2003/0217454	A1	11/2003	Maguire et al.	GB	3022182	8/2005
2005/0040708	A1	2/2005	Yamamoto et al.	GB	4014572	2/2010
2005/0104448	A1	5/2005	Hori et al.	GB	4017607	11/2010
2006/0017323	A1	1/2006	Wodrich et al.	GB	4025167	6/2012
2008/0164756	A1	7/2008	Yamamoto et al.	WO	2005123490 A1	12/2005
2008/0217994	A1	9/2008	McRae et al.			
2009/0026836	A1	1/2009	Maeda			
2009/0102281	A1	4/2009	Diekevers et al.			
2009/0267408	A1	10/2009	Chiang			
2010/0007206	A1	1/2010	Wodrich			
2010/0102623	A1	4/2010	Mulligan			
2010/0133898	A1	6/2010	Johannsen et al.			
2010/0139993	A1	6/2010	Sebright et al.			
2010/0141005	A1	6/2010	Mackert			
2010/0141027	A1	6/2010	Fischer et al.			
2012/0146398	A1	6/2012	Nebergall et al.			
2012/0146399	A1	6/2012	Nebergall et al.			
2012/0153714	A1	6/2012	Yelistratov			
2014/0001827	A1	1/2014	Kaufmann et al.			
2014/0070603	A1	3/2014	Wodrich et al.			

FOREIGN PATENT DOCUMENTS

AU	95684	3/1987
AU	105902	11/1989
AU	106480	1/1990
AU	107028	3/1990
AU	109960	1/1991
AU	121710	10/1994
AU	137779	7/1999

OTHER PUBLICATIONS

Caterpillar, "Cat® Tri- and Quad-Link Tracks," © 2010.
 Caterpillar, "Heavy Duty Track," © 2008.
 Caterpillar, "Cat® Enhanced Sealed and Lubricated Track (SALT) Undercarriage," © 2011.
 Caterpillar, "Cat® Undercarriage Assurance Programs," © 2010.
 Caterpillar, "Cat® Grease Lubricated Track Link Assemblies," © 2008.
 Caterpillar, "Maximizing Track Life," © 2007.
 Caterpillar, "Cat® Undercarriage," © 2011.
 Caterpillar, "Cat® Sleeve Bearing Track Undercarriage," © 2006.
 Caterpillar, "Cat® Positive Pin Retention 2 (PPR2) Track," © 2011.
 Caterpillar, "Cat® SystemOne™ Undercarriage for Cat® Machines," © 2009.
 Caterpillar, "Undercarriage System and Components," © 2007.
 U.S. Appl. No. 29/426,089, entitled "Undercarriage Track System for Mobile Earthmoving Machine," filed Jun. 29, 2012.
 U.S. Appl. No. 29/426,090, entitled "Undercarriage Track Shoe for Mobile Earthmoving Machine," filed Jun. 29, 2012.
 U.S. Appl. No. 29/426,112, entitled "Undercarriage Track Component for Mobile Earthmoving Machine," filed Jun. 29, 2012.

U.S. Appl. No. 61/666,596, entitled "Track Link Assembly," filed Jun. 29, 2012.

U.S. Appl. No. 61/666,590, entitled "Undercarriage Assembly," filed Jun. 29, 2012.

U.S. Appl. No. 61/666,559, entitled "Undercarriage Guiding Assembly," filed Jun. 29, 2012.

U.S. Appl. No. 61/666,567, entitled "Track Link," filed Jun. 29, 2012.

* cited by examiner

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(57)

CLAIM

The ornamental design for an undercarriage track link for mobile earthmoving machine, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of an undercarriage track link for mobile earthmoving machine showing our new design;

FIG. 2 is a rear perspective view thereof;

FIG. 3 is a front view thereof, the rear view being identical;

FIG. 4 is a left side view thereof, the right side view being identical;

FIG. 5 is a top view thereof;

FIG. 6 is a bottom view thereof;

FIG. 7 is a front perspective view of a second embodiment thereof;

FIG. 8 is a rear perspective view thereof;

FIG. 9 is a front view thereof, the rear view being identical;

FIG. 10 is a left side view thereof, the right side view being identical;

FIG. 11 is a top view thereof;

FIG. 12 is a bottom view thereof;

FIG. 13 is a front perspective view of a third embodiment thereof;

FIG. 14 is a rear perspective view thereof;

FIG. 15 is a front view thereof, the rear view being identical; FIG. 16 is a left side view thereof, the right side view being identical;

FIG. 17 is a top view thereof;

FIG. 18 is a bottom view thereof;

FIG. 19 is a front perspective view of a fourth embodiment thereof;

FIG. 20 is a rear perspective view thereof;

FIG. 21 is a front view thereof;

FIG. 22 is a rear view thereof;

FIG. 23 is a left side view thereof, the right side view being identical;

FIG. 24 is a top view thereof;

FIG. 25 is a bottom view thereof;

FIG. 26 is a front perspective view of a fifth embodiment thereof;

FIG. 27 is a rear perspective view thereof;

FIG. 28 is a front view thereof;

FIG. 29 is a rear view thereof;

FIG. 30 is a left side view thereof, the right side view being identical;

FIG. 31 is a top view thereof;

FIG. 32 is a bottom view thereof;

FIG. 33 is a front perspective view of a sixth embodiment thereof;

FIG. 34 is a rear perspective view thereof;

FIG. 35 is a front view thereof;

FIG. 36 is a rear view thereof;

FIG. 37 is a left side view thereof, the right side view being identical;

FIG. 38 is a top view thereof; and,

FIG. 39 is a bottom view thereof.

The dashed broken lines illustrate environmental structure and form no part of the claimed design.

The relatively light shade lines on the surface portions indicate contour and not surface decoration.

1 Claim, 18 Drawing Sheets

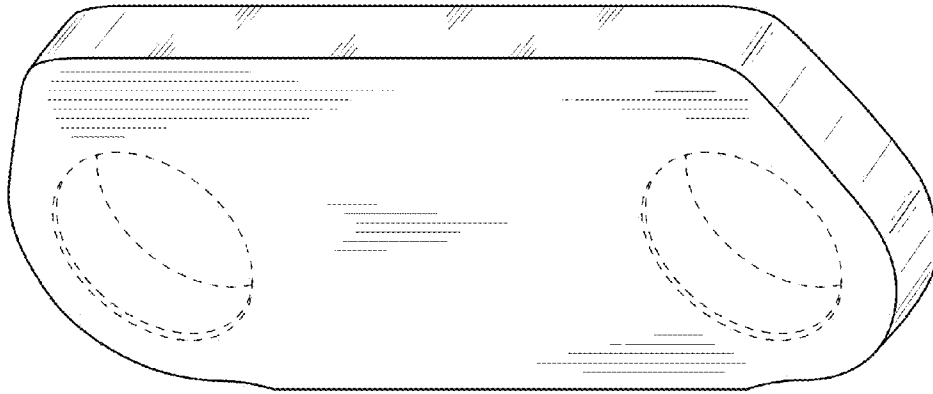


Fig. 1

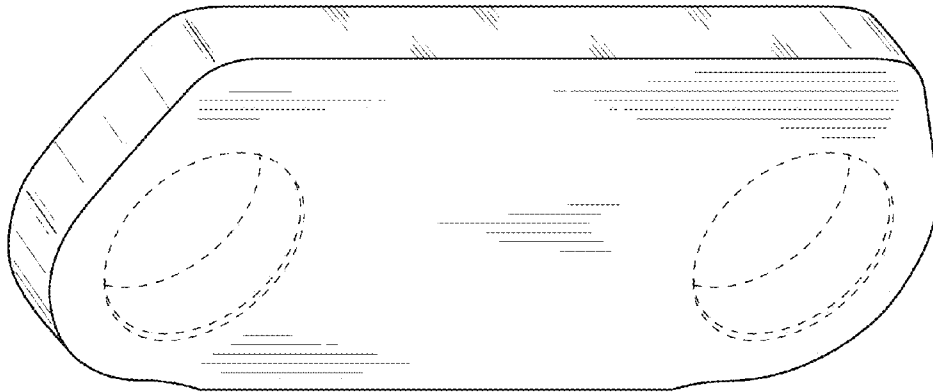


Fig. 2

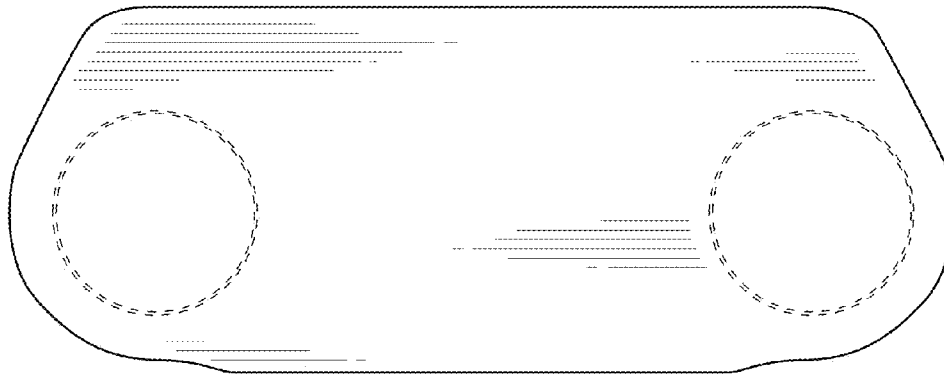


Fig. 3



Fig. 4



Fig. 5

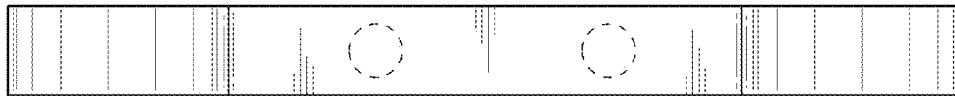


Fig. 6

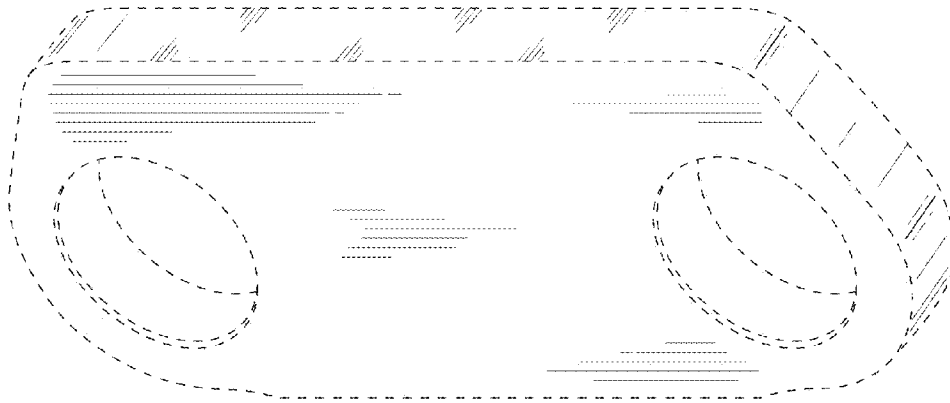


Fig. 7

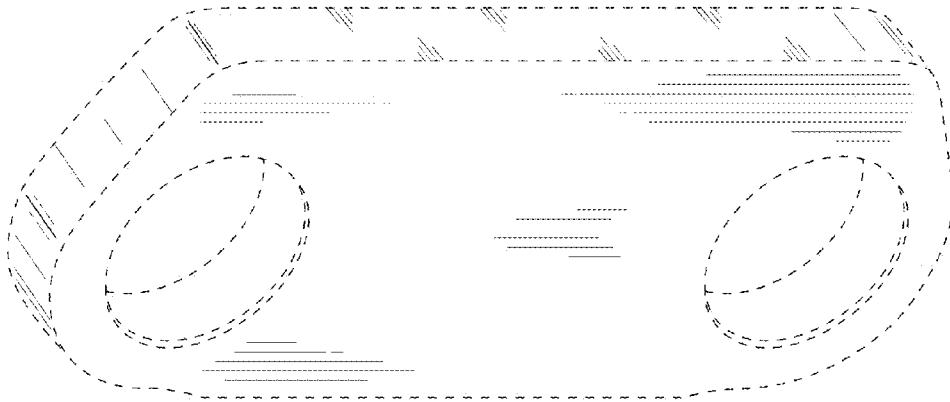


Fig. 8

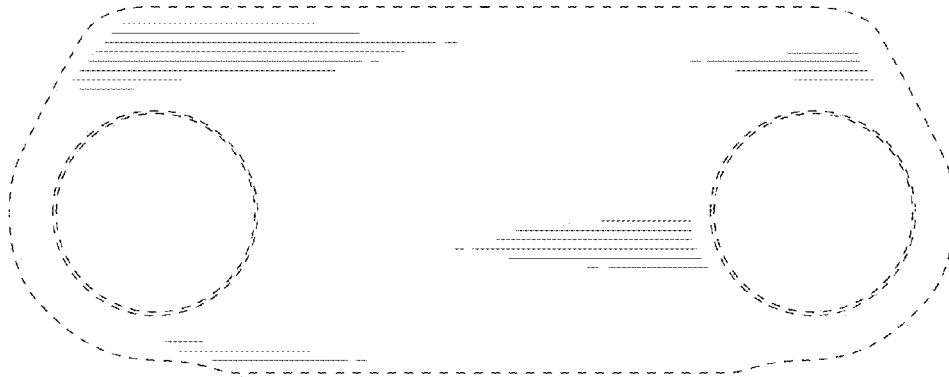


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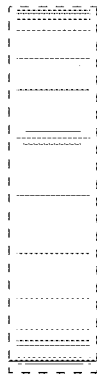


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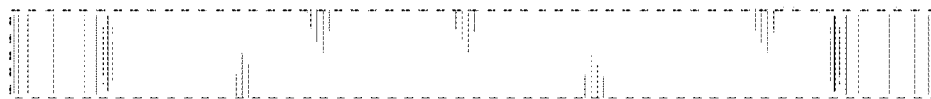


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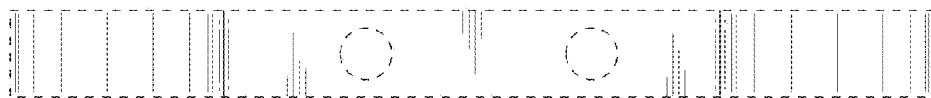


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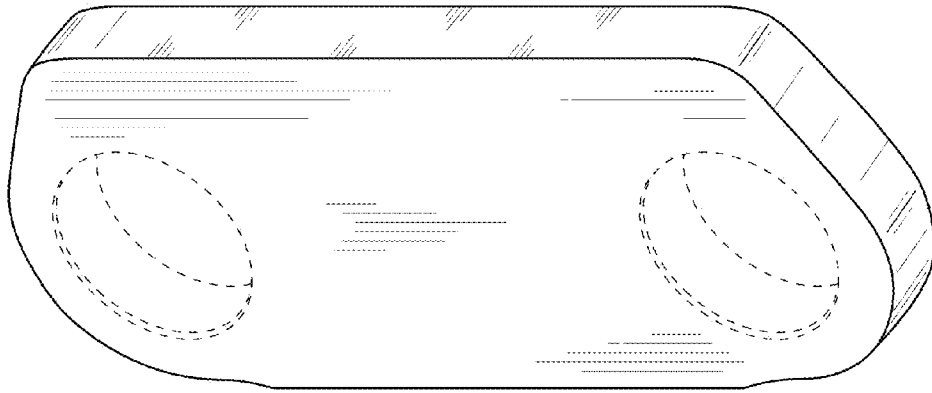


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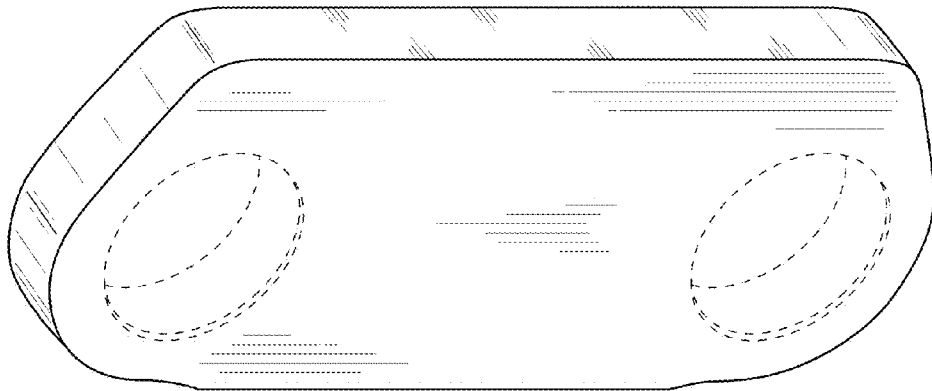


Fig. 14

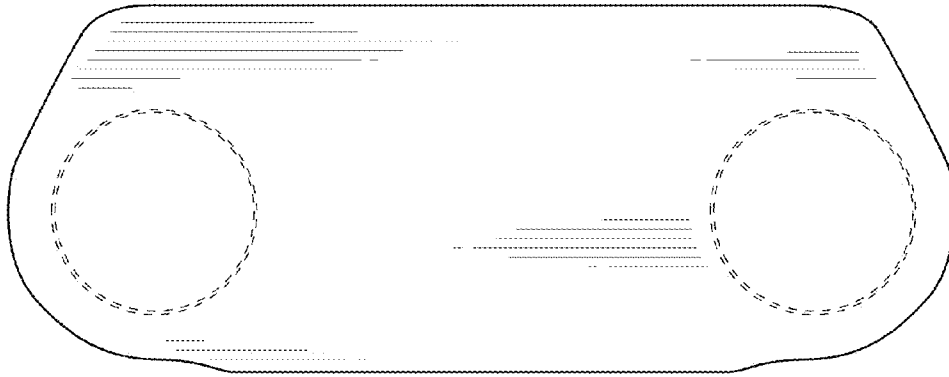


Fig. 15



Fig. 16

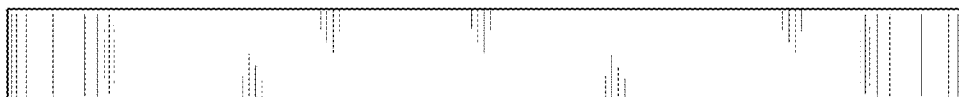


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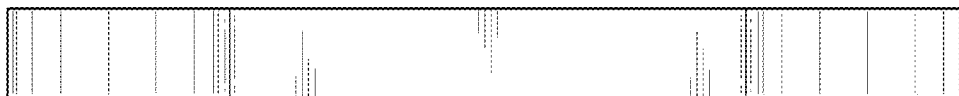


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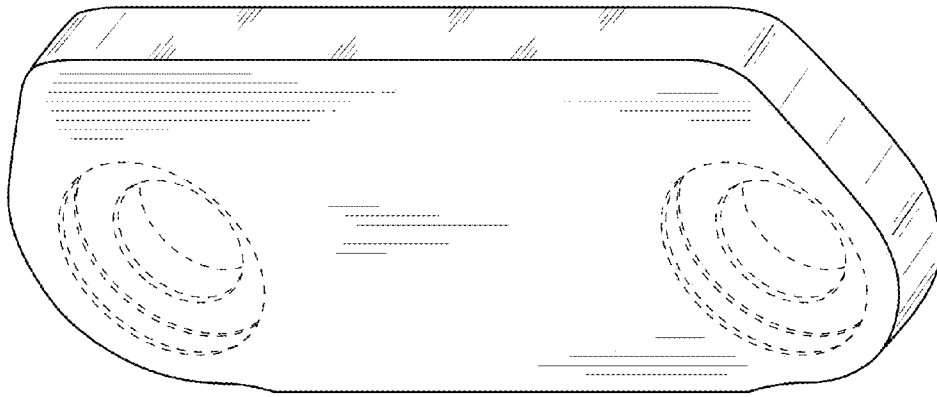


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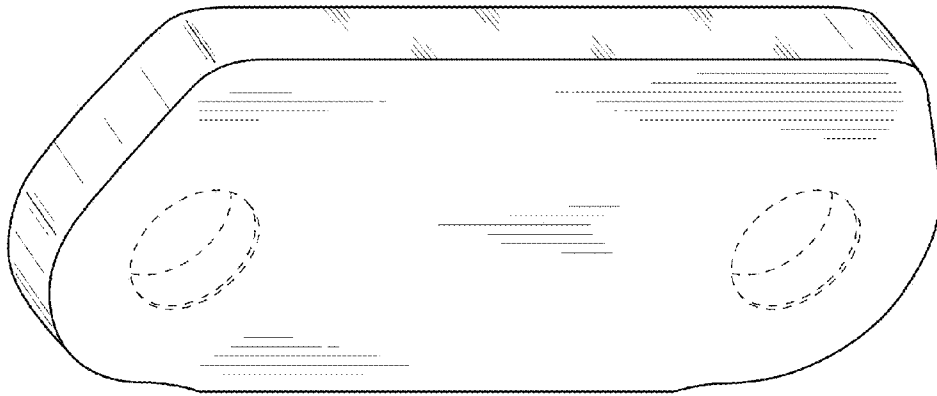


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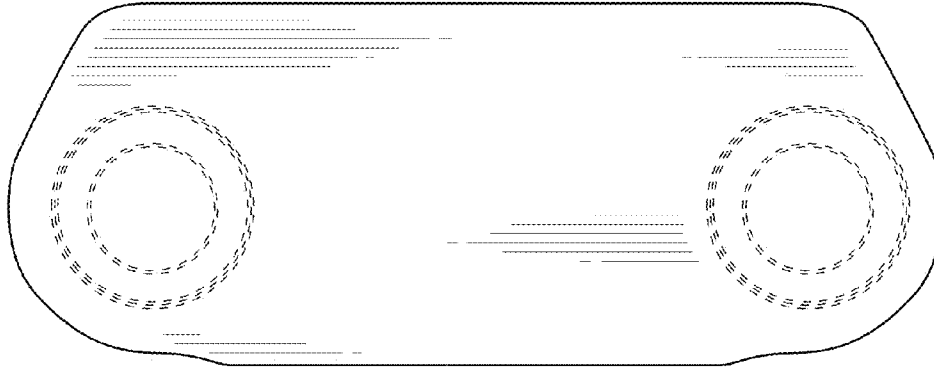


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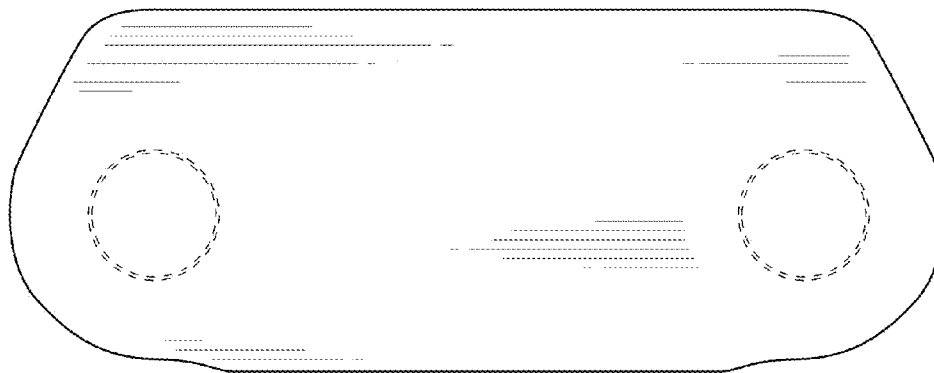


Fig. 22



Fig. 23

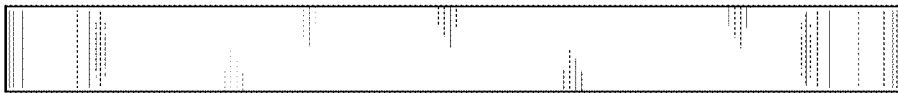


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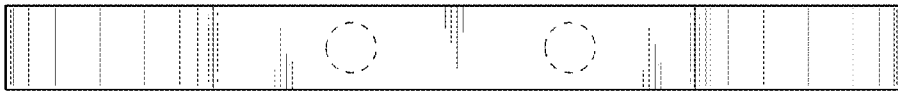


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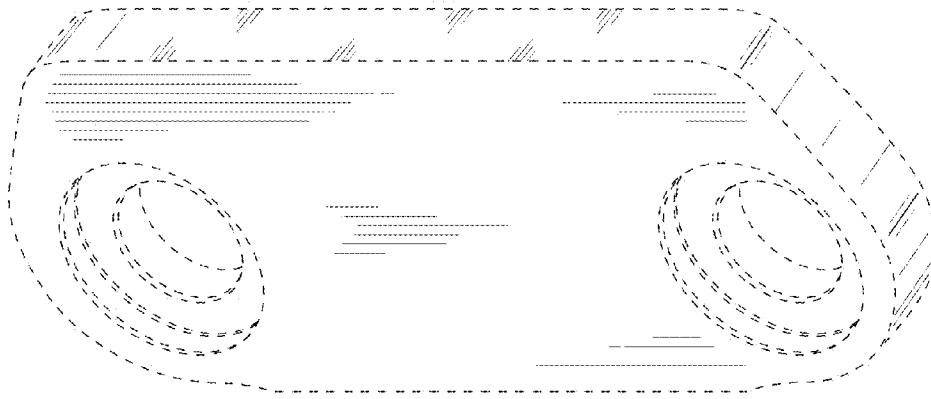


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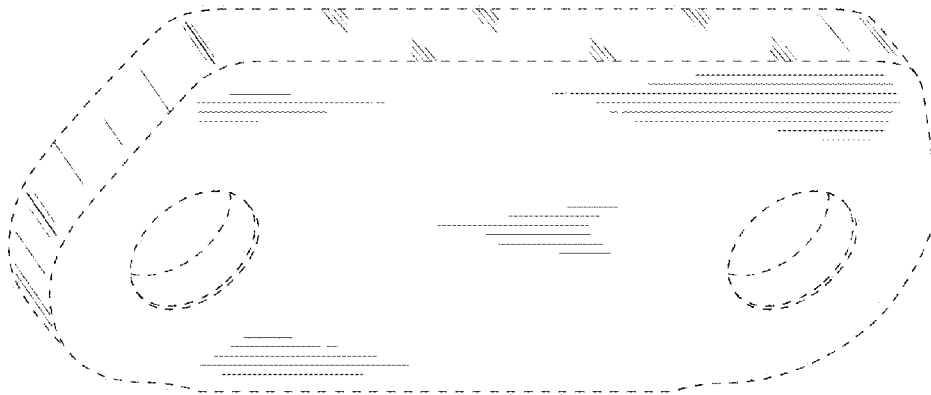


Fig. 27

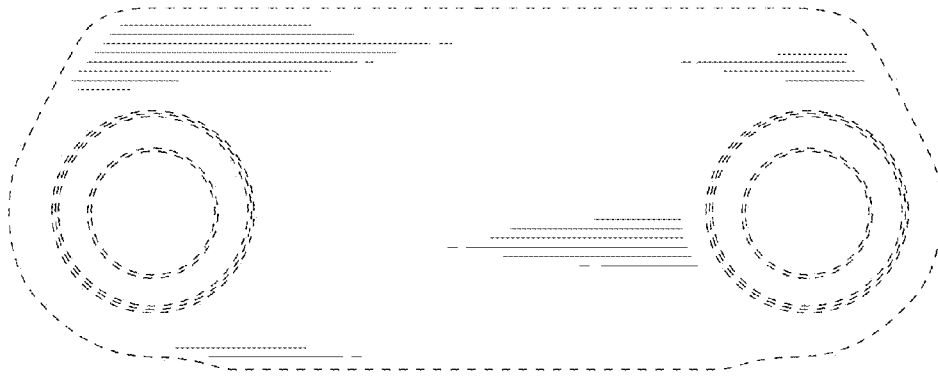


Fig. 28

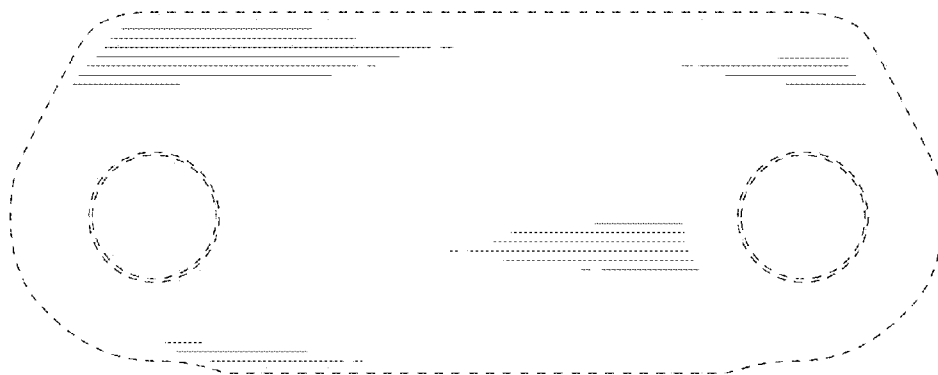


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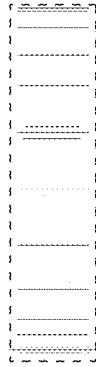


Fig. 30



Fig. 31

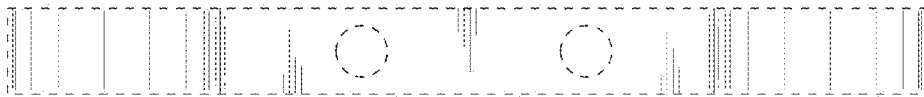


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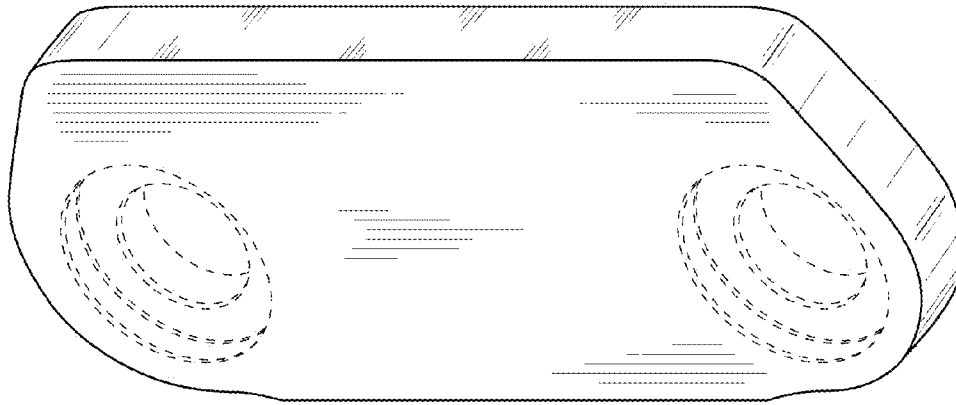


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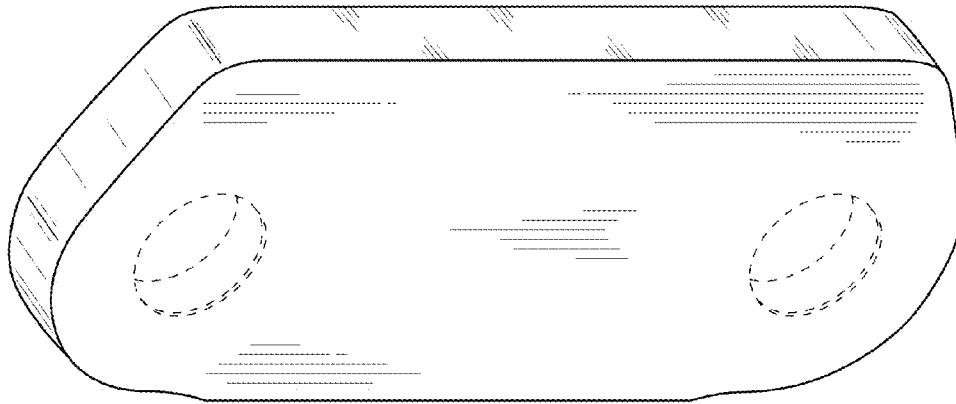


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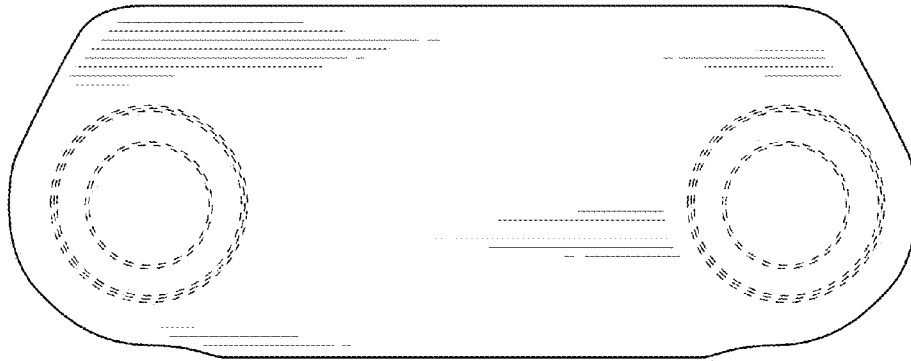


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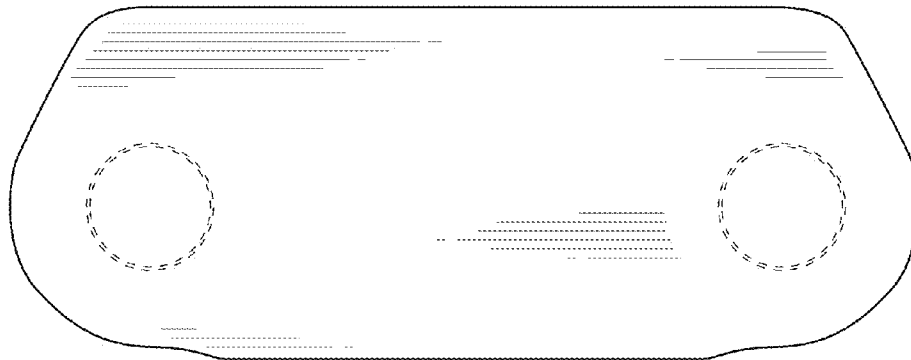


Fig. 36



Fig. 37

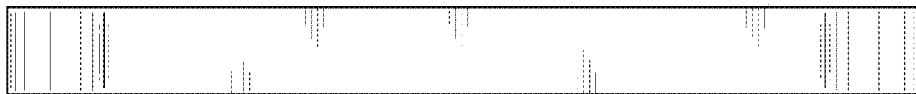


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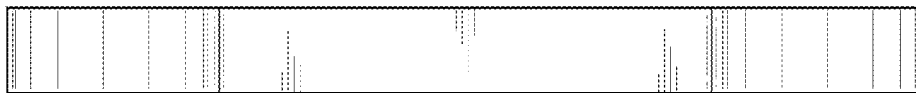


Fig. 39