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(12) **United States Design Patent**
Harris

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- (54) **PROPPANT CONTAINER**
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1,520,560 A 12/1923 Burno
 1,506,936 A 9/1924 Lea
 1,526,527 A 2/1925 Butler
 1,573,664 A 2/1926 Wetherill
 (Continued)

FOREIGN PATENT DOCUMENTS

CA 2023138 2/1992
 CA 2791088 3/2013
 (Continued)

OTHER PUBLICATIONS

Portare, "Portare Services LLC announces FRACBOX™. . . ", Posted Apr. 3, 2014, Accessed Jul. 3, 2017. (<http://portareservices.com/portare-services-llc-announces-fracbox-remarkable-innovation-shipping-transportation-industry/>).*

(Continued)

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Related U.S. Application Data

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- (51) **LOC (11) Cl.** **23-01**
- (52) **U.S. Cl.**
 USPC **D3/202**; D3/272
- (58) **Field of Classification Search**
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 CPC B65D 88/26; B65D 88/542; B65D 88/129;
 B65D 88/00; B65D 88/528; B65D 88/02;
 B65D 88/12; F25D 2331/804
 See application file for complete search history.

(57) **CLAIM**

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

DESCRIPTION

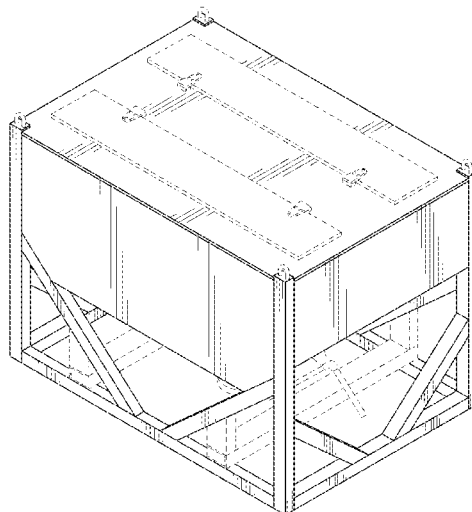
FIG. 1 is an upper perspective view of a proppant container; FIG. 2 is a front elevational view of FIG. 1, the rear elevational view being a mirror image thereof, FIG. 3 is a top plan view of FIG. 1; FIG. 4 is a left-side elevational view of FIG. 1; FIG. 5 is a right-side elevational view of FIG. 1; and, FIG. 6 is a bottom plan view of FIG. 1. The features presented in broken lines are for environmental purposes only and form no part of the claimed design.

1 Claim, 4 Drawing Sheets

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
- 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.



(56)

References Cited

U.S. PATENT DOCUMENTS

1,807,447 A	5/1931	Smith	3,692,363 A	9/1972	Tenebaum et al.
1,850,000 A	3/1932	Fernand	3,704,797 A	12/1972	Suykens
1,932,320 A	10/1933	Steward	3,721,199 A	3/1973	Hassenauer
1,973,312 A	9/1934	Hardinge	3,729,121 A	4/1973	Cannon
2,020,628 A	11/1935	Woodruff	3,734,215 A	5/1973	Smith
2,233,005 A	2/1941	Garlinghouse	3,738,511 A	6/1973	Lemon et al.
2,255,448 A	9/1941	Morris	3,777,909 A	12/1973	Rheinfrank
2,293,160 A	8/1942	Miller et al.	3,785,534 A	1/1974	Smith
2,368,672 A	2/1945	McNamara	3,800,712 A	4/1974	Krug, Jr.
2,381,103 A	8/1945	Frank	3,802,584 A	4/1974	Sackett
2,385,245 A	9/1945	Willoughby	3,817,261 A	6/1974	Rogge
2,423,879 A	7/1947	De Frees	3,820,762 A	6/1974	Bostrom et al.
2,564,020 A	8/1951	Mengel	3,827,578 A	8/1974	Hough
2,603,342 A	7/1952	Martinson	3,840,141 A	10/1974	Allom et al.
2,616,758 A	11/1952	Meyers	3,854,612 A	12/1974	Snape
2,622,771 A	12/1952	Tulou	3,861,716 A	1/1975	Baxter et al.
2,652,174 A	9/1953	Shea et al.	3,883,005 A	5/1975	Stevens
2,678,145 A	5/1954	Ejuzwiak et al.	3,904,105 A	9/1975	Booth
2,693,282 A	11/1954	Sensibar	3,909,223 A	9/1975	Schmidt
2,700,574 A	1/1955	Tourneau	3,913,933 A	10/1975	Visser et al.
2,792,262 A	4/1955	Hathorn	3,933,100 A	1/1976	Dugge
2,774,515 A	12/1956	Johansson et al.	3,963,149 A	6/1976	Fassauer
2,791,973 A	5/1957	Dorey	3,970,123 A	7/1976	Poulton et al.
2,801,125 A	7/1957	Page et al.	3,986,708 A	10/1976	Hellzel et al.
2,808,164 A	10/1957	Glendinning	3,997,089 A	12/1976	Clarke et al.
2,812,970 A	11/1957	Martinson	3,999,290 A	12/1976	Wood
2,837,369 A	6/1958	Stopps	4,003,301 A	1/1977	Norton
2,865,521 A	12/1958	Fisher et al.	4,004,700 A	1/1977	Empey
2,873,036 A	2/1959	Noble	4,019,635 A	4/1977	Boots
2,894,666 A	7/1959	Campbell, Jr.	4,057,153 A	11/1977	Weaver
2,988,235 A	6/1961	Ronyak	4,058,239 A	11/1977	Van Mill
2,994,460 A	8/1961	Matthews	4,063,656 A	12/1977	Lambert
3,041,113 A	6/1962	Sackett	4,073,410 A	2/1978	Melcher
3,049,248 A	8/1962	Heltzel et al.	4,125,195 A	11/1978	Sasadi
3,064,832 A	11/1962	Heltzel	4,138,163 A	2/1979	Calvert et al.
3,083,879 A	4/1963	Coleman	4,178,117 A	12/1979	Brugler
3,090,527 A	5/1963	Rensch	4,204,773 A	5/1980	Bates
3,109,389 A	11/1963	Karlsson	4,210,273 A	7/1980	Hegele
3,122,258 A	2/1964	Raymond	4,210,963 A	7/1980	Ricciardi et al.
3,135,432 A	6/1964	McKinney	RE30,358 E	8/1980	Sensibar
3,163,127 A	12/1964	Gutridge et al.	4,222,498 A	9/1980	Brock
3,187,684 A	6/1965	Ortner	4,227,732 A	10/1980	Kish
3,198,494 A	8/1965	Curran et al.	4,232,884 A	11/1980	DeWitt
3,199,585 A	8/1965	Cronberger	4,239,424 A	12/1980	Pavolka
3,248,026 A	4/1966	Kemp	4,245,820 A	1/1981	Muryn
3,255,927 A	6/1966	Ruppert et al.	4,247,228 A	1/1981	Gray et al.
3,265,443 A	8/1966	Simas	4,247,370 A	1/1981	Nijhawan et al.
3,270,921 A	9/1966	Nadolske et al.	4,258,953 A	3/1981	Johnson
3,281,006 A	10/1966	Wei	4,265,266 A	5/1981	Kierbow et al.
3,294,306 A	12/1966	Areddy	4,278,190 A	7/1981	Dory et al.
3,318,473 A	5/1967	Jones et al.	4,280,640 A	7/1981	Daloisio
3,353,599 A	11/1967	Swift	4,282,988 A	8/1981	Hulbert, Jr.
3,354,918 A	11/1967	Coleman	4,287,921 A	9/1981	Sanford
3,378,152 A	4/1968	Warner	4,287,997 A	9/1981	Rolfe et al.
3,387,570 A	6/1968	Pulcrano et al.	4,289,353 A	9/1981	Merritt
3,396,675 A	8/1968	Stevens	4,299,597 A	11/1981	Oetiker et al.
3,397,654 A	8/1968	Snyder	4,306,895 A	12/1981	Thompson et al.
3,406,995 A	10/1968	McCarthy	4,329,106 A	5/1982	Adler
3,407,971 A	10/1968	Oehler	4,350,241 A	9/1982	Wenzel
3,425,599 A	2/1969	Sammarco et al.	4,359,176 A	11/1982	Johnson
3,455,474 A	7/1969	Truncali	4,363,396 A	12/1982	Wolf et al.
3,486,787 A	12/1969	Campbell	4,395,052 A	7/1983	Rash
3,499,694 A	3/1970	Coppel	4,397,406 A	8/1983	Croley
3,508,762 A	4/1970	Pratt	4,398,653 A	8/1983	Daloisio
3,524,567 A	8/1970	Coleman	4,402,392 A	9/1983	Fabian et al.
3,528,570 A	9/1970	Pase	4,407,202 A	10/1983	McCormick
3,561,633 A	2/1971	Morrison et al.	4,408,886 A	10/1983	Sampson et al.
3,587,834 A	6/1971	Dugge	4,410,106 A	10/1983	Kierbow et al.
3,596,609 A	8/1971	Ortner	4,420,285 A	12/1983	Loyer et al.
3,601,244 A	8/1971	Ort et al.	4,427,133 A	1/1984	Kierbow et al.
3,602,400 A *	8/1971	Cooke	4,428,504 A	1/1984	Bassett et al.
		B65D 88/128	4,449,861 A	5/1984	Saito et al.
		222/143	4,453,645 A	6/1984	Usui et al.
3,650,567 A	3/1972	Danielson	4,474,204 A	10/1984	West
3,653,521 A	4/1972	Bridge	4,475,672 A	10/1984	Whitehead
3,661,293 A	5/1972	Gerhard et al.	4,478,155 A	10/1984	Cena et al.
			4,483,462 A	11/1984	Heintz
			4,525,071 A	6/1985	Horowitz
			4,526,353 A	7/1985	Stomp

(56)

References Cited

U.S. PATENT DOCUMENTS

4,532,098	A	7/1985	Campbell	5,507,514	A	4/1996	Jacques
4,534,869	A	8/1985	Seibert	5,538,286	A	7/1996	Hoff
4,552,573	A	11/1985	Weis	5,549,278	A	8/1996	Sidler
4,569,394	A	2/1986	Sweatman et al.	5,564,599	A	10/1996	Barber et al.
4,570,967	A	2/1986	Allnut	5,570,743	A	11/1996	Padgett et al.
4,571,143	A	2/1986	Hellerich	5,590,976	A	1/1997	Kilheffer et al.
4,608,931	A	9/1986	Ruhmann et al.	5,601,181	A	2/1997	Lindhorst
4,619,531	A	10/1986	Dunstan	5,602,761	A	2/1997	Spoerre et al.
4,624,729	A	11/1986	Bresciani et al.	5,613,446	A	3/1997	DiLuigi et al.
4,626,155	A	12/1986	Hlinsky et al.	5,617,974	A	4/1997	Sawyer
4,626,166	A	12/1986	Jolly	5,647,514	A	7/1997	Toth et al.
4,628,825	A	12/1986	Taylor et al.	RE35,580	E	8/1997	Heider et al.
4,639,015	A	1/1987	Pitts	5,667,298	A	9/1997	Musil
4,660,733	A	4/1987	Snyder et al.	5,687,881	A	11/1997	Rouse et al.
4,701,095	A	10/1987	Berryman et al.	5,690,466	A	11/1997	Gaddis et al.
4,715,754	A	12/1987	Scully	5,697,535	A	12/1997	Coleman
4,724,976	A	2/1988	Lee	5,706,614	A	1/1998	Wiley et al.
4,738,774	A	4/1988	Patrick	5,718,555	A	2/1998	Swalheim
4,741,273	A	5/1988	Sherwood	5,722,552	A	3/1998	Olson
4,779,751	A	10/1988	Munroe	5,722,688	A	3/1998	Garcia
4,801,389	A	1/1989	Brannon et al.	5,746,258	A	5/1998	Huck
4,819,830	A	4/1989	Schultz	5,761,854	A	6/1998	Johnson et al.
4,836,735	A	6/1989	Dennehy	5,762,222	A	6/1998	Liu
4,848,605	A	7/1989	Wise	5,772,390	A	6/1998	Walker
4,882,784	A	11/1989	Tump	5,782,524	A	7/1998	Heider et al.
4,889,219	A	12/1989	Key	5,785,421	A	7/1998	Milek
4,901,649	A	2/1990	Fehrenbach et al.	5,803,296	A	9/1998	Olson
4,909,378	A	3/1990	Webb	5,806,863	A	9/1998	Heger et al.
4,909,556	A	3/1990	Koskinen	5,836,480	A	11/1998	Epp et al.
4,917,019	A	4/1990	Hesch et al.	5,845,799	A	12/1998	Deaton
4,919,583	A	4/1990	Speakman, Jr.	5,876,172	A	3/1999	Di Rosa
4,923,358	A	5/1990	Van Mill	5,878,903	A	3/1999	Ung
4,946,068	A	8/1990	Erickson et al.	5,906,471	A	5/1999	Schwoerer
4,947,760	A	8/1990	Dawson et al.	5,911,337	A	6/1999	Bedecker
4,954,975	A	9/1990	Kalata	5,924,829	A	7/1999	Hastings
4,956,821	A	9/1990	Fenelon	5,927,558	A	7/1999	Bruce
4,975,205	A	12/1990	Sloan	5,960,974	A	10/1999	Kee
4,995,522	A	2/1991	Barr	5,971,219	A	10/1999	Karpisek
5,004,400	A	4/1991	Handke	5,993,202	A	11/1999	Yamazaki et al.
5,036,979	A	8/1991	Selz	5,997,099	A	12/1999	Collins
5,042,538	A	8/1991	Wiese	6,002,063	A	12/1999	Bilak et al.
5,069,352	A	12/1991	Harbolt et al.	6,006,918	A	12/1999	Hart
5,080,259	A	1/1992	Hadley	6,069,118	A	5/2000	Hinkel et al.
5,082,304	A	1/1992	Preller	6,077,068	A	6/2000	Okumura
5,102,281	A	4/1992	Handke	6,092,974	A	7/2000	Roth
5,102,286	A	4/1992	Fenton	6,109,486	A	8/2000	Lee
5,105,858	A	4/1992	Levinson	6,120,233	A	9/2000	Adam
5,131,524	A	7/1992	Uehara	D431,358	S *	10/2000	Willemsen D3/272
5,190,182	A	3/1993	Copas et al.	6,155,175	A	12/2000	Rude et al.
5,195,861	A	3/1993	Handke	6,186,654	B1	2/2001	Gunteret et al.
5,199,826	A	4/1993	Lawrence	6,190,107	B1	2/2001	Lanigan et al.
5,201,546	A	4/1993	Lindsay	6,192,985	B1	2/2001	Hinkel et al.
5,224,635	A	7/1993	Wise	6,196,590	B1	3/2001	Kim
5,253,746	A	10/1993	Friesen et al.	6,205,938	B1	3/2001	Foley et al.
5,253,776	A	10/1993	Decroix et al.	6,210,088	B1	4/2001	Crosby
5,265,763	A	11/1993	Heinrici et al.	6,247,594	B1	6/2001	Garton
5,277,014	A	1/1994	White	6,263,803	B1	7/2001	Dohr et al.
5,286,158	A	2/1994	Zimmerman	6,269,849	B1	8/2001	Fields
5,290,139	A	3/1994	Hedrick	6,273,154	B1	8/2001	Laug
5,317,783	A	6/1994	Williamson	6,283,212	B1	9/2001	Hinkel et al.
5,320,046	A	6/1994	Hesch	6,286,986	B2	9/2001	Grimland
5,324,097	A	6/1994	DeCap	6,296,109	B1	10/2001	Nohl
5,339,996	A	8/1994	Dubbert	6,306,800	B1	10/2001	Samuel et al.
5,345,982	A	9/1994	Nadeau et al.	6,328,156	B1	12/2001	Otsman
5,358,137	A	10/1994	Shuert et al.	6,328,183	B1	12/2001	Coleman
5,373,792	A	12/1994	Pileggi et al.	6,364,584	B1	4/2002	Taylor
5,402,915	A	4/1995	Hogan	6,374,915	B1	4/2002	Andrews
5,413,154	A	5/1995	Hurst, Jr. et al.	6,382,446	B1	5/2002	Hinkle et al.
5,429,259	A	7/1995	Robin	6,390,742	B1	5/2002	Breeden
5,441,321	A	8/1995	Karpisek	6,401,983	B1	6/2002	McDonald et al.
5,445,289	A	8/1995	Owen	6,412,422	B2	7/2002	Dohr et al.
5,465,829	A	11/1995	Kruse	6,415,909	B1	7/2002	Mitchell et al.
5,470,175	A	11/1995	Jensen et al.	6,416,271	B1	7/2002	Pigott et al.
5,470,176	A	11/1995	Corcoran et al.	6,425,725	B1	7/2002	Ehlers
5,493,852	A	2/1996	Stewart	6,457,291	B2	10/2002	Wick
				6,505,760	B1	1/2003	Werner
				6,508,387	B1	1/2003	Simon et al.
				6,508,615	B2	1/2003	Taylor
				6,523,482	B2	2/2003	Wingate

(56)

References Cited

U.S. PATENT DOCUMENTS

6,537,002 B2	3/2003	Gloystein	8,562,022 B2	10/2013	Nadeau et al.	
6,557,896 B1	5/2003	Stobart	8,573,387 B2	11/2013	Trimble	
6,575,614 B2	6/2003	Tosco et al.	8,573,917 B2	11/2013	Renyer	
6,660,693 B2	12/2003	Miller et al.	8,585,341 B1 *	11/2013	Oren	B65G 65/42 222/181.1
6,663,373 B2	12/2003	Yoshida	D694,670 S	12/2013	Oren	
6,666,573 B2	12/2003	Grassi	8,616,370 B2	12/2013	Allegretti	
6,675,073 B2	1/2004	Kiemann et al.	8,622,251 B2	1/2014	Oren	
6,705,449 B2	3/2004	Wagstaffe	8,646,641 B2	2/2014	Moir	
6,720,290 B2	4/2004	England et al.	8,662,525 B1	3/2014	Dierks et al.	
6,772,912 B1	8/2004	Schall et al.	8,668,430 B2	3/2014	Oren	
6,774,318 B2	8/2004	Beal et al.	D703,582 S	4/2014	Oren	
6,776,235 B1	8/2004	England	8,820,559 B2	9/2014	Beitler et al.	
6,783,032 B2	8/2004	Fons	8,827,118 B2	9/2014	Oren	
6,811,048 B2	11/2004	Lau	8,881,749 B1	11/2014	Smith	
6,828,280 B2	12/2004	England et al.	8,887,914 B2	11/2014	Allegretti	
6,835,041 B1	12/2004	Albert	8,905,266 B2	12/2014	De Brabanter	
6,882,960 B2	4/2005	Miller	8,915,691 B2	12/2014	Mintz	
6,902,061 B1	6/2005	Elstone	9,051,801 B1	6/2015	Mintz	
6,915,854 B2	7/2005	England et al.	9,052,034 B1	6/2015	Wegner et al.	
6,953,119 B1	10/2005	Wening	D740,556 S *	10/2015	Huber	D3/272
6,955,127 B2	10/2005	Taylor	9,162,261 B1	10/2015	Smith	
6,964,551 B1	11/2005	Friesen	9,267,266 B2	2/2016	Cutler et al.	
6,968,946 B2	11/2005	Shuert	RE45,914 E *	3/2016	Oren	D23/202
6,974,021 B1	12/2005	Boevers	9,296,572 B2	3/2016	Houghton et al.	
7,008,163 B2	3/2006	Russell	9,309,064 B2 *	4/2016	Sheesley	B65D 88/129
7,051,661 B2	5/2006	Herzog et al.	9,410,414 B2	8/2016	Tudor	
7,084,095 B2	8/2006	Lee et al.	D780,883 S *	3/2017	Schaffner	D23/202
7,104,425 B2	9/2006	Le Roy	D783,771 S *	4/2017	Stegemoeller	D23/202
7,140,516 B2	11/2006	Bothor	D783,772 S *	4/2017	Stegemoeller, III	D23/202
7,146,914 B2	12/2006	Morton et al.	2001/0022308 A1	9/2001	Epp et al.	
7,201,290 B2	4/2007	Mehus et al.	2001/0045338 A1	11/2001	Ransil et al.	
7,214,028 B2	5/2007	Boasso	2002/0134550 A1	9/2002	Leeson et al.	
7,240,681 B2	7/2007	Saik	2002/0139643 A1	10/2002	Peltier et al.	
7,252,309 B2	8/2007	Eng Goh	2003/0006248 A1	1/2003	Gill et al.	
7,284,579 B2	10/2007	Elgan et al.	2003/0024971 A1	2/2003	Jones	
7,284,670 B2	10/2007	Schmid	2003/0111470 A1	6/2003	Fouillet et al.	
7,316,333 B2	1/2008	Wegner	2003/0145418 A1	8/2003	Ikeda et al.	
7,367,271 B2	5/2008	Early	2003/0156929 A1	8/2003	Russell	
7,377,219 B2	5/2008	Brandt	2004/0065699 A1	4/2004	Schoer et al.	
7,410,623 B2	8/2008	Mehus et al.	2004/0074922 A1	4/2004	Bothor et al.	
7,475,796 B2	1/2009	Garton	2004/0084874 A1	5/2004	McDougall et al.	
7,500,817 B2	3/2009	Furrer et al.	2004/0206646 A1	10/2004	Goh	
7,513,280 B2	4/2009	Brashears et al.	2004/0245284 A1	12/2004	Mehus et al.	
7,591,386 B2	9/2009	Hooper	2005/0158158 A1	7/2005	Porta	
7,640,075 B2	12/2009	Wietgreffe	2005/0201851 A1	9/2005	Jonkka	
7,695,538 B2	4/2010	Cheng	2006/0012183 A1	1/2006	Marchiori et al.	
7,753,637 B2	7/2010	Benedict et al.	2006/0027582 A1	2/2006	Beach	
7,798,558 B2	9/2010	Messier	2006/0053582 A1	3/2006	Engel et al.	
7,802,958 B2	9/2010	Garcia et al.	2006/0091072 A1	5/2006	Schmid et al.	
7,803,321 B2	9/2010	Lark et al.	2006/0151058 A1	7/2006	Salaoras et al.	
7,837,427 B2	11/2010	Beckel	2006/0180062 A1	8/2006	Furrer et al.	
7,841,394 B2	11/2010	McNeel et al.	2006/0180232 A1	8/2006	Glewwe et al.	
7,845,516 B2	12/2010	Pessin et al.	2006/0239806 A1	10/2006	Yelton	
7,858,888 B2	12/2010	Lucas et al.	2006/0267377 A1	11/2006	Lusk et al.	
7,891,304 B2	2/2011	Herzog et al.	2006/0277783 A1	12/2006	Garton	
7,891,523 B2	2/2011	Mehus et al.	2006/0289166 A1	12/2006	Stromquist et al.	
7,896,198 B2	3/2011	Mehus et al.	2007/0096537 A1	5/2007	Hicks	
7,921,783 B2	4/2011	Forbes et al.	2007/0125543 A1	6/2007	McNeel et al.	
7,967,161 B2	6/2011	Townsend	2008/0008562 A1	1/2008	Beckel et al.	
7,980,803 B2	7/2011	Brandstätter et al.	2008/0029546 A1	2/2008	Schuld	
7,997,623 B2	8/2011	Williams	2008/0029553 A1	2/2008	Culleton	
8,083,083 B1	12/2011	Mohns	2008/0017905 A1	7/2008	McGough et al.	
8,201,520 B2	6/2012	Meritt	2008/0179054 A1	7/2008	McGough et al.	
8,313,278 B2	11/2012	Simmons et al.	2008/0179324 A1	7/2008	McGough et al.	
8,366,349 B2	2/2013	Beachner	2008/0213073 A1	9/2008	Benedict et al.	
8,375,690 B2	2/2013	LaFargue et al.	2008/0226434 A1 *	9/2008	Smith	B65D 88/022 414/332
8,379,927 B2	2/2013	Taylor	2008/0264641 A1	10/2008	Slabaugh et al.	
8,387,824 B2	3/2013	Wietgreffe	2008/0277423 A1	11/2008	Garton	
8,393,502 B2	3/2013	Renyer et al.	2009/0038242 A1	2/2009	Cope	
8,424,666 B2	4/2013	Berning et al.	2009/0078410 A1	3/2009	Krenek et al.	
D688,351 S *	8/2013	Oren	2009/0278326 A1	11/2009	Rowland et al.	
D688,772 S *	8/2013	Oren	2010/0021258 A1	1/2010	Kim	
8,505,780 B2	8/2013	Oren	2010/0037572 A1	2/2010	Cheng	
8,544,419 B1	10/2013	Spalding et al.	2010/0038143 A1	2/2010	Burnett et al.	
8,545,148 B2	10/2013	Wanek-Pusset et al.	2010/0040446 A1	2/2010	Renyer	
			2010/0065466 A1	3/2010	Perkins	
			2010/0108711 A1	5/2010	Wietgreffe	

(56) **References Cited**

U.S. PATENT DOCUMENTS

2010/0129193 A1 5/2010 Sherrer
 2010/0199668 A1 8/2010 Coustou et al.
 2010/0278621 A1 11/2010 Redekop
 2010/0288603 A1 11/2010 Schafer
 2010/0320727 A1 12/2010 Haut et al.
 2011/0011893 A1* 1/2011 Cerny B65D 88/30
 222/185.1

2011/0017693 A1 1/2011 Thomas
 2011/0101040 A1 5/2011 Weissbrod
 2011/0109703 A1 5/2011 Williams
 2011/0127178 A1 6/2011 Claussen
 2011/0160104 A1 6/2011 Wu et al.
 2011/0162838 A1 7/2011 Mackenzie et al.
 2011/0168593 A1 7/2011 Neufeld et al.
 2011/0222983 A1 9/2011 Dugic et al.
 2011/0297702 A1 12/2011 Hildebrandt et al.
 2012/0090956 A1 4/2012 Brobst
 2012/0103848 A1 5/2012 Allegretti et al.
 2012/0219391 A1 8/2012 Teichrob et al.
 2012/0255539 A1 10/2012 Kolecki
 2013/0004272 A1 1/2013 Mintz
 2013/0022441 A1 1/2013 Uhryn et al.
 2013/0206415 A1 8/2013 Sheesley
 2013/0209204 A1 8/2013 Sheesley
 2013/0233545 A1 9/2013 Mahoney
 2013/0284729 A1 10/2013 Cook et al.
 2013/0309052 A1 11/2013 Luharuka
 2013/0323005 A1 12/2013 Rexius et al.
 2014/0020765 A1 1/2014 Oren
 2014/0020892 A1 1/2014 Oren
 2014/0023465 A1* 1/2014 Oren B65G 65/40
 414/288

2014/0034662 A1 2/2014 Chalmers et al.
 2014/0044507 A1 2/2014 Naizer et al.
 2014/0077484 A1 3/2014 Harrell
 2014/0083554 A1* 3/2014 Harris B65D 88/32
 141/1

2014/0093319 A1 4/2014 Harris et al.
 2014/0097182 A1 4/2014 Sheesley
 2014/0166647 A1 6/2014 Sheesley
 2014/0203046 A1* 7/2014 Allegretti B65G 65/40
 222/185.1

2014/0234059 A1 8/2014 Thomeer
 2014/0305769 A1 10/2014 Eiden et al.
 2014/0321950 A1 10/2014 Krenek et al.
 2015/0004895 A1 1/2015 Hammers et al.
 2015/0069052 A1 3/2015 Allegretti et al.
 2015/0086307 A1 3/2015 Stefan
 2015/0107822 A1 4/2015 Tudor
 2015/0110565 A1 4/2015 Harris
 2015/0115589 A1 4/2015 Thiessen
 2015/0159232 A1 6/2015 Zucchi et al.
 2015/0209829 A1 7/2015 De Siqueira et al.
 2015/0284183 A1 10/2015 Houghton et al.
 2016/0148813 A1 5/2016 Rogers et al.
 2016/0177678 A1 6/2016 Morris et al.
 2016/0185522 A1 6/2016 Herman et al.
 2016/0280480 A1 9/2016 Smith et al.
 2017/0129721 A1 5/2017 Harris et al.
 2017/0144834 A1* 5/2017 Oren B65D 90/125

FOREIGN PATENT DOCUMENTS

CN 201161588 12/2008
 CN 201390486 1/2010
 CN 201881469 6/2011
 CN 103350017 10/2013
 CN 203580948 5/2014
 DE 3108121 9/1982
 DE 3342281 6/1985
 DE 4008147 9/1990
 DE 4217329 5/1993
 EP 0016977 10/1980
 EP 0019967 12/1980

EP 322283 6/1989
 EP 0564969 10/1993
 EP 0997607 5/2000
 EP 1052194 11/2000
 EP 1167236 1/2002
 EP 1598288 11/2005
 EP 1775190 4/2007
 EP 2062832 5/2009
 EP 2311757 4/2011
 FR 2173445 10/1973
 FR 2640598 6/1990
 GB 1000621 8/1965
 GB 1296736 11/1972
 GB 2066220 7/1981
 GB 2374864 10/2002
 JP S4871029 9/1973
 JP S4876041 9/1973
 JP S58161888 10/1983
 JP 410087046 4/1998
 JP 10264882 10/1998
 JP 2007084151 4/2007
 MX 2012011046 5/2013
 NL 8105283 6/1983
 WO 1990008082 7/1990
 WO 1992002437 2/1992
 WO 1993001997 2/1993
 WO 1993006031 4/1993
 WO 1996025302 8/1996
 WO 2003024815 3/2003
 WO 2006039757 4/2006
 WO 2007005054 1/2007
 WO 2007061310 5/2007
 WO 2009087338 7/2009
 WO 2010026235 3/2010
 WO 2011099358 8/2011
 WO 2012021447 2/2012
 WO 2012058059 5/2012

OTHER PUBLICATIONS

Hamilton plastic systems, "Surge Bins", Cached Oct. 16, 2014, Accessed Jul. 6, 2017. (http://hamiltonplasticsystems.com/portfolio_page/surge-bins).*

Getty, John, Montana Tech; ASTM International, Overview of Proppants and Existing Standards and Practices, Jacksonville, FL, Jan. 29, 2013.

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

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.

Solaris Oilfield Infrastructure, Mobile Sand Silo System, 2016.

Final Office Action dated Jun. 1, 2017 for co-pending U.S. Appl. No. 13/628,702.

Final Office Action dated Jul. 3, 2017 for co-pending U.S. Appl. No. 14/923,920.

Non-Final Office Action dated Jun. 28, 2017 for co-pending U.S. Appl. No. 15/589,185.

Final Office Action dated Jun. 7, 2017 for co-pending U.S. Appl. No. 14/848,447.

Final Office Action dated Jun. 28, 2017 for co-pending U.S. Appl. No. 14/485,687.

Final Office Action dated Jun. 6, 2017 for co-pending U.S. Appl. No. 14/927,614.

Final Office Action dated Jun. 21, 2017 for co-pending U.S. Appl. No. 14/943,182.

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

Final Office 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.

(56)

References Cited

OTHER PUBLICATIONS

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

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

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

Itsumi Nagahama, English translation of Japan Unexamined Application No. S4871029, Dec. 14, 1971.

* cited by examiner

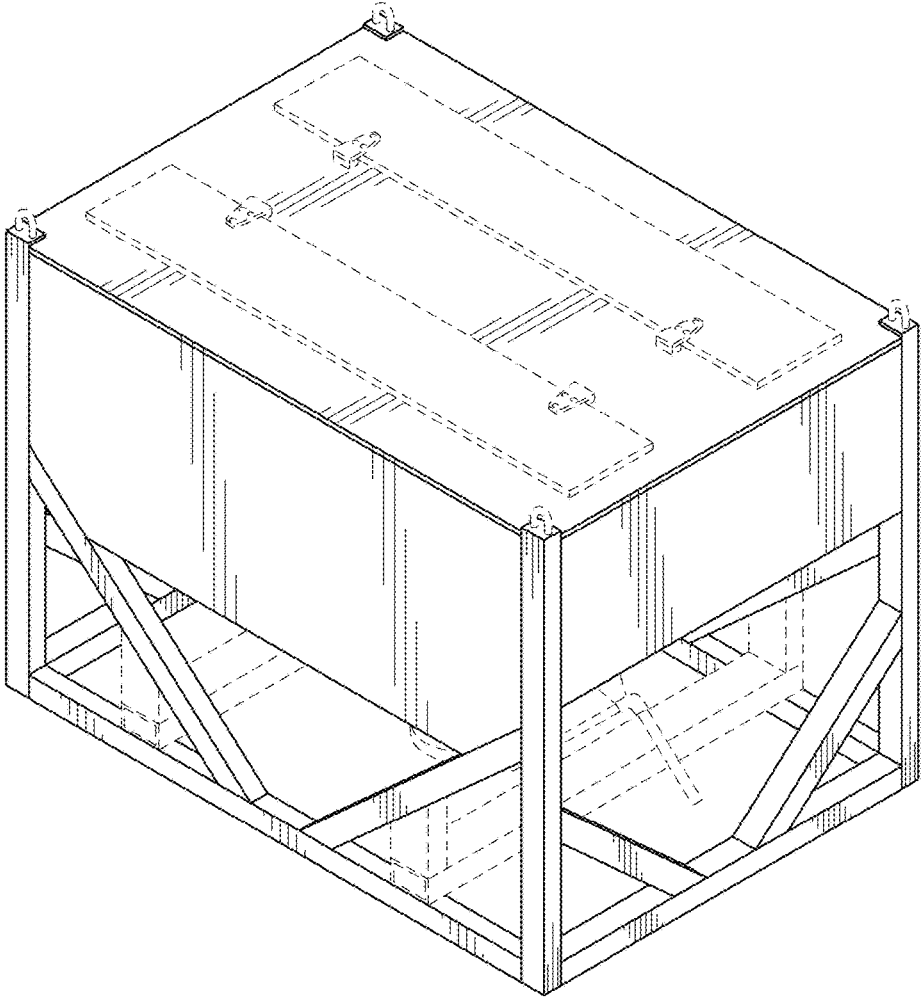


FIG. 1

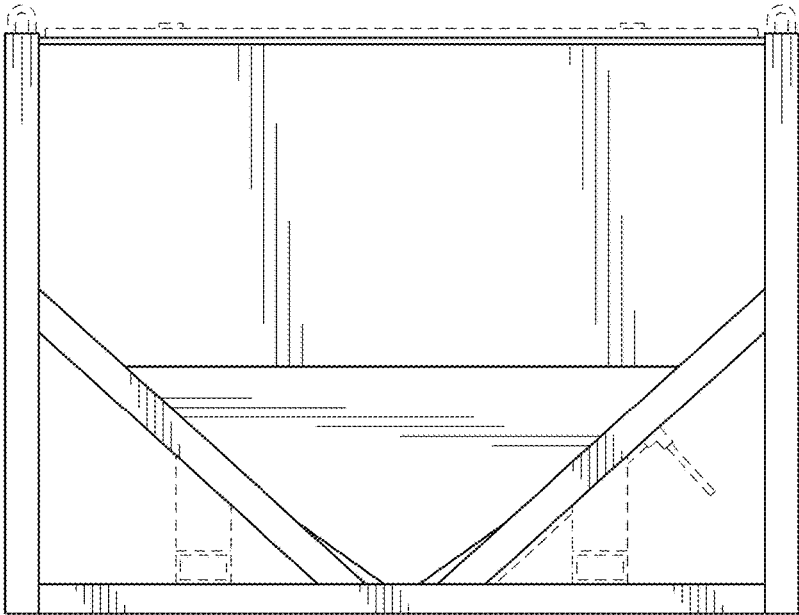


FIG. 2

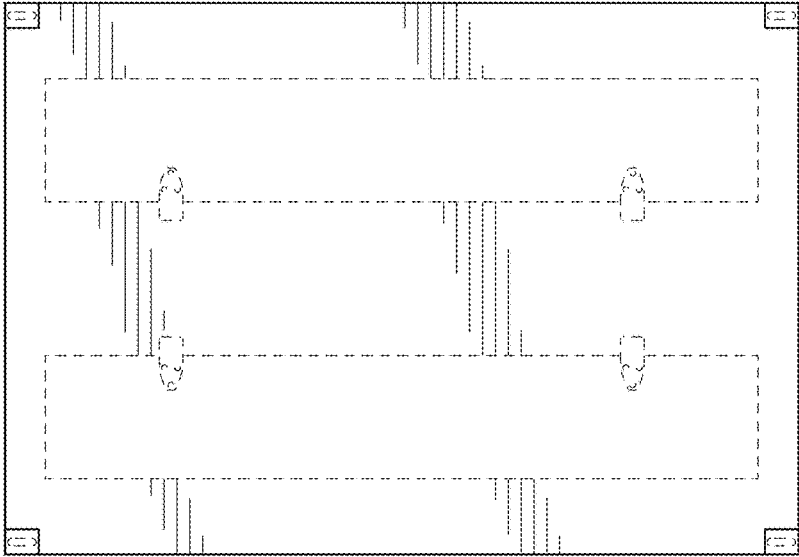


FIG. 3

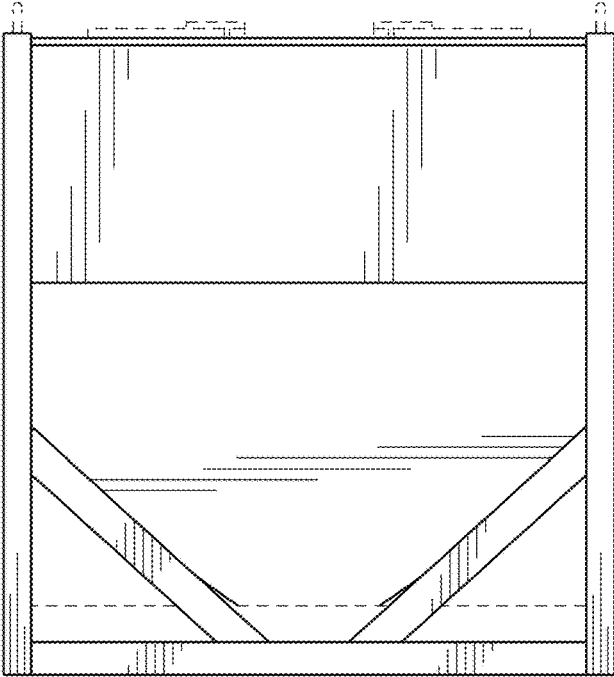


FIG. 4

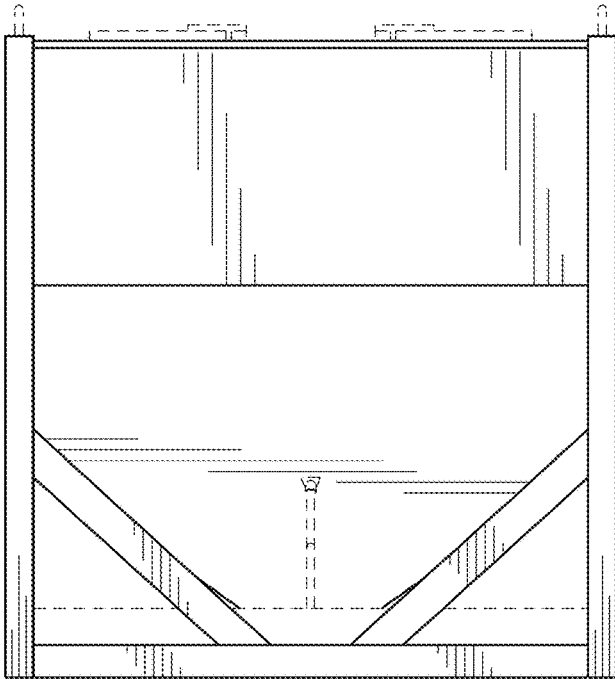


FIG. 5

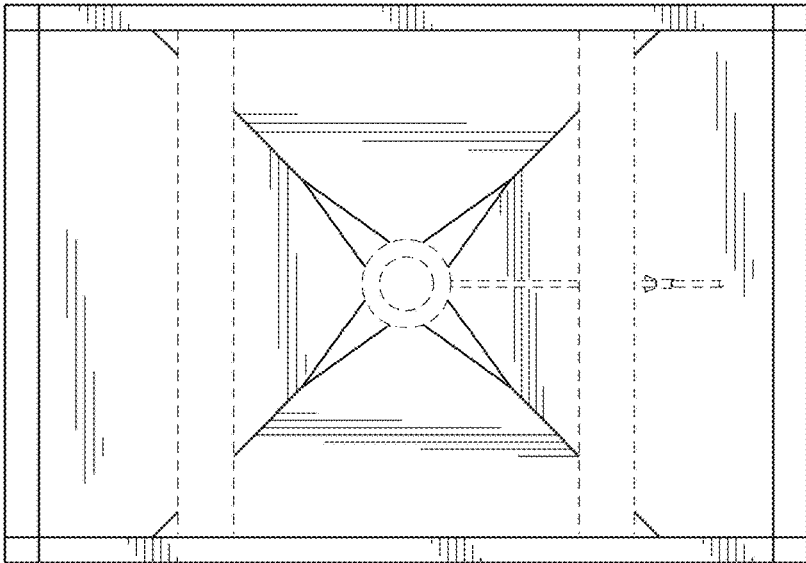


FIG. 6