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(19) **United States**
(12) **Reissued Patent**
Oren

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(54) **TRAILER FOR PROPPANT CONTAINERS**

OTHER PUBLICATIONS

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(57) **CLAIM**

(21) Appl. No.: **29/537,566**

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

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DESCRIPTION

Related U.S. Patent Documents

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(52) **U.S. Cl.** **D12/101**

(58) **Field of Classification Search**

USPC D12/19, 100-106, 111, 112, 129;

D21/425, 435; D34/12, 16-19, 21-26;

(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

137,871 A 4/1873 Worsley

150,894 A 5/1874 Safely

(Continued)

FOREIGN PATENT DOCUMENTS

CA 2023138 2/1992

CA 2791088 3/2013

(Continued)

[FIG. 1 is an upper perspective view of the trailer for proppant containers showing my new design.]

[FIG. 2 is a side elevation view thereof;]

[FIG. 3 is an opposite side elevation view thereof;]

[FIG. 4 is a front elevation view thereof;]

[FIG. 5 is a rear elevation view thereof;]

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

[FIG. 7 is a bottom plan view thereof.]

FIG. 8 is a top and front perspective view of a trailer for proppant containers showing my new design;

FIG. 9 is a side elevation view thereof;

FIG. 10 is an opposing side elevation view thereof;

FIG. 11 is a front elevation view thereof;

FIG. 12 is a rear elevation view thereof;

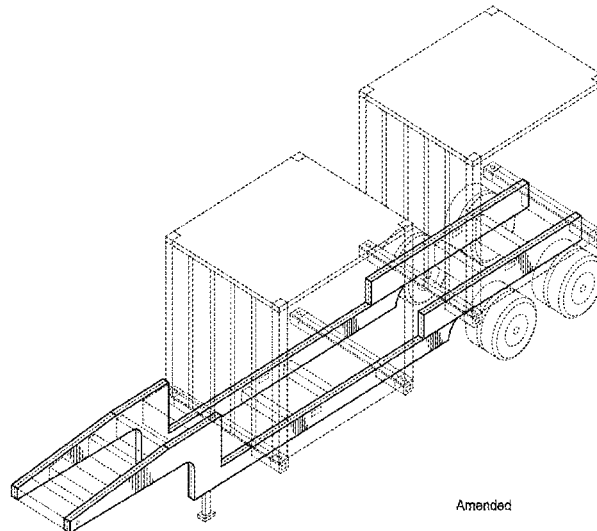
FIG. 13 is a top plan view thereof; and,

FIG. 14 is a bottom plan view thereof.

The [features presented in broken lines are for environmental purposes only and] *broken lines in the drawings illustrate portions of the trailer and environmental structures of two container bins that do not form no 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.



(58) **Field of Classification Search**
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 CPC B60P 1/52; B60P 1/56
 See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

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.
 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
 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
 2,233,005 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
 2,423,879 A 7/1947 De Frees
 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.
 2,678,145 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 Stopps
 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
 3,049,248 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
 3,135,432 A 6/1964 McKinney
 D199,118 S * 9/1964 McKillop D12/102
 3,163,127 A 12/1964 Guttridge et al.
 3,185,519 A * 5/1965 Turnbull et al. ... B62D 25/2054
 280/789
 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.
 3,281,006 A 10/1966 Wei
 3,294,306 A 12/1966 Areddy
 3,318,473 A 5/1967 Jones et al.
 3,353,599 A 11/1967 Swift
 3,354,918 A 11/1967 Coleman
 3,378,152 A 4/1968 Warner
 3,387,570 A 6/1968 Pulcrano et al.
 3,396,675 A 8/1968 Stevens

3,397,654 A 8/1968 Snyder
 3,406,995 A 10/1968 McCarthy
 3,407,971 A 10/1968 Oehler
 3,425,599 A 2/1969 Sammarco et al.
 3,455,474 A 7/1969 Truncali
 3,524,567 A 8/1970 Coleman
 3,528,570 A 9/1970 Pase
 3,561,633 A 2/1971 Morrison et al.
 3,587,834 A 6/1971 Dugge
 3,596,609 A 8/1971 Ortner
 3,601,244 A 8/1971 Ort et al.
 3,602,400 A 8/1971 Cooke
 3,650,567 A 3/1972 Danielson
 3,653,521 A 4/1972 Bridge
 3,661,293 A 5/1972 Gerhard et al.
 3,692,363 A 9/1972 Tenebaum et al.
 3,704,797 A 12/1972 Suykens
 3,721,199 A 3/1973 Hassenauer
 3,729,121 A 4/1973 Cannon
 3,734,215 A 5/1973 Smith
 3,738,511 A 6/1973 Lemon et al.
 3,777,909 A 12/1973 Rheinfrank
 3,785,534 A 1/1974 Smith
 3,800,712 A 4/1974 Krug, Jr.
 3,802,584 A 4/1974 Sackett
 3,817,261 A 6/1974 Rogge
 3,820,762 A 6/1974 Bostrom et al.
 3,827,578 A 8/1974 Hough
 3,840,141 A 10/1974 Allom et al.
 3,854,612 A 12/1974 Snape
 3,861,716 A 1/1975 Baxter et al.
 3,879,050 A * 4/1975 Young E04B 1/34352
 280/639
 3,883,005 A 5/1975 Stevens
 3,933,100 A 1/1976 Dugge
 3,970,123 A 7/1976 Poulton et al.
 3,986,708 A 10/1976 Hellzel et al.
 3,997,089 A 12/1976 Clarke et al.
 4,003,301 A 1/1977 Norton
 4,004,700 A 1/1977 Empey
 4,057,153 A 11/1977 Weaver
 4,058,239 A 11/1977 Van Mill
 4,063,656 A 12/1977 Lambert
 4,073,410 A 2/1978 Melcher
 4,138,163 A 2/1979 Calvert et al.
 4,178,117 A 12/1979 Brugler
 4,204,773 A 5/1980 Bates
 4,210,273 A 7/1980 Hegele
 4,210,963 A 7/1980 Ricciardi et al.
 RE30,358 E 8/1980 Sensibar
 4,222,498 A 9/1980 Brock
 4,227,732 A 10/1980 Kish
 4,232,884 A 11/1980 DeWitt
 4,239,424 A 12/1980 Pavolka
 4,247,228 A 1/1981 Gray et al.
 4,258,953 A 3/1981 Johnson
 4,265,266 A 5/1981 Kierbow et al.
 4,278,190 A 7/1981 Oory et al.
 4,282,988 A 8/1981 Hulbert, Jr.
 4,287,921 A 9/1981 Sanford
 4,287,997 A 9/1981 Rolfe et al.
 4,289,353 A 9/1981 Merritt
 4,299,597 A 11/1981 Oetiker et al.
 4,306,895 A 12/1981 Thompson et al.
 D263,942 S * 4/1982 Francis D12/101
 4,329,106 A 5/1982 Adler
 4,350,241 A 9/1982 Wenzel
 4,359,176 A 11/1982 Johnson
 4,363,396 A 12/1982 Wolf et al.
 4,397,406 A 8/1983 Croley
 4,398,653 A 8/1983 Daloisio
 4,402,392 A 9/1983 Fabian et al.
 4,407,202 A 10/1983 McCormick
 4,408,886 A 10/1983 Sampson et al.
 4,410,106 A 10/1983 Kierbow et al.
 4,427,133 A 1/1984 Kierbow et al.
 4,428,504 A 1/1984 Bassett et al.
 4,449,861 A 5/1984 Saito et al.
 4,453,645 A 6/1984 Usui et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

4,474,204	A	10/1984	West	5,564,599	A	10/1996	Barber et al.
4,475,672	A	10/1984	Whitehead	5,570,743	A	11/1996	Padgett et al.
4,478,155	A	10/1984	Cena et al.	5,590,976	A	1/1997	Kilheffer et al.
4,483,462	A	11/1984	Heintz	5,601,181	A	2/1997	Lindhorst
4,525,071	A	6/1985	Horowitz	5,602,761	A	2/1997	Spoerre et al.
4,532,098	A	7/1985	Campbell	5,613,446	A	3/1997	DiLuigi et al.
4,569,394	A	2/1986	Sweatman et al.	5,617,974	A	4/1997	Sawyer
4,571,143	A	2/1986	Hellerich	5,647,514	A	7/1997	Toth et al.
4,608,931	A	9/1986	Ruhmann et al.	RE35,580	E	8/1997	Heider et al.
4,619,531	A	10/1986	Dunstan	5,667,298	A	9/1997	Musil et al.
4,626,155	A	12/1986	Hlinsky et al.	5,687,881	A	11/1997	Rouse et al.
4,626,166	A	12/1986	Jolly	5,690,466	A	11/1997	Gaddis et al.
4,628,825	A	12/1986	Taylor et al.	5,697,535	A	12/1997	Coleman
4,660,733	A	4/1987	Snyder et al.	5,706,614	A	1/1998	Wiley et al.
4,701,095	A	10/1987	Berryman et al.	5,718,555	A	2/1998	Swalheim
4,715,754	A	12/1987	Scully	5,722,552	A	3/1998	Olson
4,738,774	A	4/1988	Patrick	5,761,854	A	6/1998	Johnson et al.
4,741,273	A	5/1988	Sherwood	5,762,222	A	6/1998	Liu
4,801,389	A	1/1989	Brannon et al.	5,772,390	A	6/1998	Walker
4,819,830	A	4/1989	Schultz	5,782,524	A	7/1998	Heider et al.
4,848,605	A	7/1989	Wise	5,785,421	A	7/1998	Milek
4,882,784	A	11/1989	Tump	5,803,296	A	9/1998	Olson
4,889,219	A	12/1989	Key	5,806,863	A	9/1998	Heger et al.
4,901,649	A	2/1990	Fehrenbach et al.	5,836,480	A	11/1998	Epp et al.
4,909,378	A	3/1990	Webb	D402,233	S *	12/1998	Warlick D12/101
4,909,556	A	3/1990	Koskinen	5,845,799	A	12/1998	Deaton
4,917,019	A	4/1990	Hesch et al.	5,876,172	A	3/1999	Di Rosa
4,919,583	A	4/1990	Speakman, Jr.	5,906,471	A	5/1999	Schwoerer
4,923,358	A	5/1990	Van Mill	5,911,337	A	6/1999	Bedeker
4,946,068	A	8/1990	Erickson et al.	5,927,558	A	7/1999	Bruce
4,947,760	A	8/1990	Dawson et al.	5,971,219	A	10/1999	Karpisek
4,954,975	A	9/1990	Kalata	D417,172	S *	11/1999	Smith et al. D12/101
4,956,821	A	9/1990	Fenelon	5,993,202	A	11/1999	Yamazaki et al.
4,975,205	A	12/1990	Sloan	6,002,063	A	12/1999	Bilak et al.
4,995,522	A	2/1991	Barr	6,006,918	A	12/1999	Hart
5,004,400	A	4/1991	Handke	6,069,118	A	5/2000	Hinkel et al.
5,042,538	A	8/1991	Wiese	6,077,068	A	6/2000	Okumura
5,069,352	A	12/1991	Harbolt et al.	6,092,974	A	7/2000	Roth
5,080,259	A	1/1992	Hadley	6,109,486	A	8/2000	Lee
5,082,304	A	1/1992	Preller	6,120,233	A	9/2000	Adam
5,102,281	A	4/1992	Handke	6,155,175	A	12/2000	Rude et al.
5,102,286	A	4/1992	Fenton	6,186,654	B1	2/2001	Gunteret et al.
5,105,858	A	4/1992	Levinson	6,190,107	B1	2/2001	Lanigan et al.
5,131,524	A	7/1992	Uehara	6,192,985	B1	2/2001	Hinkel et al.
5,190,182	A	3/1993	Copas et al.	6,196,590	B1	3/2001	Kim
5,191,842	A *	3/1993	Tinkler B61D 3/16 105/355	6,205,938	B1	3/2001	Foley et al.
5,195,861	A	3/1993	Handke	6,247,594	B1	6/2001	Garton
5,199,826	A	4/1993	Lawrence	6,263,803	B1	7/2001	Dohr et al.
5,201,546	A *	4/1993	Lindsay E04B 5/14 280/789	6,269,849	B1	8/2001	Fields
5,224,635	A	7/1993	Wise	6,273,154	B1	8/2001	Laug
5,253,746	A	10/1993	Friesen et al.	6,283,212	B1	9/2001	Hinkel et al.
5,253,776	A	10/1993	Decroix et al.	6,286,986	B2	9/2001	Grimland
5,265,763	A	11/1993	Heinrici et al.	6,296,109	B1	10/2001	Nohl
5,286,158	A	2/1994	Zimmerman	6,306,800	B1	10/2001	Samuel et al.
5,290,139	A	3/1994	Hedrick	6,328,156	B1	12/2001	Ostman
5,320,046	A	6/1994	Hesch	6,328,183	B1	12/2001	Coleman
5,324,097	A	6/1994	DeCap	6,364,584	B1	4/2002	Taylor
5,339,996	A	8/1994	Dubbert	6,374,915	B1	4/2002	Andrews
5,345,982	A	9/1994	Nadeau et al.	6,382,446	B1	5/2002	Hinkle et al.
5,351,990	A *	10/1994	Thomas B62D 53/061 280/789	6,401,983	B1	6/2002	McDonald et al.
5,358,137	A	10/1994	Shuert et al.	6,412,422	B2	7/2002	Dohr et al.
5,373,792	A	12/1994	Pileggi et al.	6,415,909	B1	7/2002	Mitchell et al.
5,402,915	A	4/1995	Hogan	6,416,271	B1	7/2002	Pigott et al.
5,413,154	A	5/1995	Hurst et al.	6,425,725	B1	7/2002	Ehlers
5,429,259	A	7/1995	Robin	6,457,291	B2	10/2002	Wick
5,441,321	A	8/1995	Karpisek	6,505,760	B1	1/2003	Werner
5,445,289	A	8/1995	Owen	6,508,387	B1	1/2003	Simon et al.
5,465,829	A	11/1995	Kruse	6,508,615	B2	1/2003	Taylor
5,470,175	A	11/1995	Jensen et al.	6,523,482	B2	2/2003	Wingate
5,493,852	A	2/1996	Stewart	6,537,002	B2	3/2003	Gloystein
5,538,286	A	7/1996	Hoff	6,575,614	B2	6/2003	Tosco et al.
5,549,278	A	8/1996	Sidler	6,660,693	B2	12/2003	Miller et al.
				6,663,373	B2	12/2003	Yoshida
				6,666,573	B2	12/2003	Grassi
				6,675,073	B2	1/2004	Kieman et al.
				6,705,449	B2	3/2004	Wagstaffe
				6,720,290	B2	4/2004	England et al.
				6,772,912	B1	8/2004	Schall et al.
				6,774,318	B2	8/2004	Beal et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

6,776,235 B1	8/2004	England	8,636,832 B2	1/2014	Stutzman et al.
6,783,032 B2	8/2004	Fons	8,646,641 B2	2/2014	Moir
6,811,048 B2	11/2004	Lau	8,668,430 B2	3/2014	Oren
6,828,280 B2	12/2004	England et al.	D703,582 S *	4/2014	Oren D12/42
6,835,041 B1	12/2004	Albert	8,820,559 B2	9/2014	Beitler et al.
6,882,960 B2	4/2005	Miller	8,827,118 B2	9/2014	Oren
6,902,061 B1	6/2005	Elstone	8,887,914 B2	11/2014	Allegretti
6,915,854 B2	7/2005	England et al.	8,905,266 B2	12/2014	De Brabanter
6,932,388 B2 *	8/2005	Few et al. B60G 3/12 280/787	8,915,691 B2	12/2014	Mintz
6,953,119 B1	10/2005	Wening	9,051,801 B1	6/2015	Mintz
6,955,127 B2	10/2005	Taylor	9,052,034 B1	6/2015	Wegner et al.
6,964,551 B1	11/2005	Friesen	9,267,266 B2	2/2016	Cutler et al.
6,968,946 B2	11/2005	Shuert	2001/0022308 A1	9/2001	Epp et al.
6,974,021 B1	12/2005	Boevers	2001/0045338 A1	11/2001	Ransil et al.
7,008,163 B2	3/2006	Russell	2002/0134550 A1	9/2002	Leeson et al.
7,051,661 B2	5/2006	Herzog et al.	2002/0139643 A1	10/2002	Peltier et al.
7,084,095 B2	8/2006	Lee et al.	2003/0006248 A1	1/2003	Gill et al.
7,104,425 B2	9/2006	Le Roy	2003/0111470 A1	6/2003	Fouillet et al.
7,140,516 B2	11/2006	Bothor	2003/0145418 A1	8/2003	Ikeda et al.
7,146,914 B2	12/2006	Morton et al.	2003/0156929 A1	8/2003	Russell
7,201,290 B2	4/2007	Mehus et al.	2004/0065699 A1	4/2004	Schoer et al.
7,214,028 B2	5/2007	Boasso	2004/0074922 A1	4/2004	Bother et al.
7,240,681 B2	7/2007	Saik	2004/0084874 A1	5/2004	McDougall et al.
7,252,309 B2	8/2007	Eng Soon et al.	2004/0206646 A1	10/2004	Goh
7,284,579 B2	10/2007	Elgan et al.	2004/0245284 A1	12/2004	Mehus et al.
7,284,670 B2	10/2007	Schmid	2005/0158158 A1	7/2005	Porta
D558,097 S *	12/2007	Winter et al. D12/101	2005/0201851 A1	9/2005	Jonkka
7,316,333 B2	1/2008	Wegner	2006/0012183 A1	1/2006	Marchiori et al.
7,367,271 B2	5/2008	Early	2006/0027582 A1	2/2006	Beach
7,377,219 B2	5/2008	Brandt	2006/0053582 A1	3/2006	Engel et al.
7,410,623 B2	8/2008	Mehus et al.	2006/0091072 A1	5/2006	Schmid
7,475,796 B2	1/2009	Garton	2006/0151058 A1	7/2006	Salaoras et al.
7,500,817 B2	3/2009	Furrer et al.	2006/0180062 A1	8/2006	Furrer et al.
7,513,280 B2	4/2009	Brashears et al.	2006/0180232 A1	8/2006	Glewwe et al.
7,591,386 B2	9/2009	Hooper	2006/0239806 A1	10/2006	Yelton
7,640,075 B2	12/2009	Wietgreffe	2006/0267377 A1	11/2006	Lusk et al.
7,695,538 B2	4/2010	Cheng	2006/0277783 A1	12/2006	Garton
7,753,637 B2	7/2010	Benedict et al.	2006/0289166 A1	12/2006	Stromquist et al.
7,798,558 B2	9/2010	Messier	2007/0096537 A1	5/2007	Hicks
7,802,958 B2	9/2010	Garcia et al.	2007/0125543 A1	6/2007	McNeel et al.
7,803,321 B2	9/2010	Lark et al.	2007/0234927 A1 *	10/2007	Beers B61D 17/005 105/404
7,837,427 B2	11/2010	Beckel et al.	2008/0008562 A1	1/2008	Beckel et al.
7,841,394 B2	11/2010	McNeel et al.	2008/0029546 A1	2/2008	Shuld
7,845,516 B2	12/2010	Pessin et al.	2008/0029553 A1	2/2008	Culleton
7,858,888 B2	12/2010	Lucas et al.	2008/0179054 A1	7/2008	McGough et al.
7,891,304 B2	2/2011	Herzog et al.	2008/0179324 A1	7/2008	McGough et al.
7,891,523 B2	2/2011	Mehus et al.	2008/0213073 A1	9/2008	Benedict et al.
7,896,198 B2	3/2011	Mehus et al.	2008/0226434 A1	9/2008	Smith et al.
7,921,783 B2	4/2011	Forbes et al.	2008/0264641 A1	10/2008	Slabaugh et al.
7,967,161 B2	6/2011	Townsend	2008/0277423 A1	11/2008	Garton
7,980,803 B2	7/2011	Brandstätter et al.	2009/0038242 A1	2/2009	Cope
7,997,623 B2	8/2011	Williams	2009/0078410 A1	3/2009	Krenek et al.
D648,656 S *	11/2011	Crane D12/101	2009/0278326 A1	11/2009	Rowland et al.
8,083,083 B1	12/2011	Mohns	2010/0021258 A1	1/2010	Kim
8,201,520 B2	6/2012	Meritt	2010/0037572 A1	2/2010	Cheng
8,313,278 B2	11/2012	Simmons et al.	2010/0038143 A1	2/2010	Burnett et al.
8,366,349 B2	2/2013	Beachner	2010/0040446 A1	2/2010	Renyer
8,375,690 B2	2/2013	LaFargue et al.	2010/0065466 A1	3/2010	Perkins
8,379,927 B2	2/2013	Taylor	2010/0108711 A1	5/2010	Wietgreffe
8,387,824 B2	3/2013	Wietgreffe	2010/0129193 A1	5/2010	Sherrer
8,393,502 B2	3/2013	Renyer et al.	2010/0278621 A1	11/2010	Redekop
8,424,666 B2	4/2013	Berning et al.	2010/0288603 A1	11/2010	Schafer
D688,351 S	8/2013	Oren	2011/0011893 A1	1/2011	Cerny
D688,597 S *	8/2013	Oren D12/101	2011/0017693 A1	1/2011	Thomas
8,505,780 B2	8/2013	Oren	2011/0101040 A1	5/2011	Weissbrod
8,544,419 B1	10/2013	Spalding et al.	2011/0109703 A1	5/2011	Williams
8,545,148 B2	10/2013	Wanek-Pusset et al.	2011/0127178 A1	6/2011	Claussen
8,562,022 B2	10/2013	Nadeau et al.	2011/0160104 A1	6/2011	Wu et al.
8,573,387 B2	11/2013	Trimble	2011/0162838 A1	7/2011	Mackenzie et al.
8,573,917 B2	11/2013	Renyer	2011/0168593 A1	7/2011	Neufeld et al.
8,585,341 B1	11/2013	Oren	2011/0222983 A1	9/2011	Dugic et al.
D694,670 S *	12/2013	Oren D12/101	2011/0297702 A1	12/2011	Hildebrandt et al.
8,616,370 B2	12/2013	Allegretti	2012/0103848 A1	5/2012	Allegretti et al.
8,622,251 B2	1/2014	Oren	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

(56)

References Cited

U.S. PATENT DOCUMENTS

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 et al.	
2014/0034662	A1	2/2014	Chalmers et al.	
2014/0044507	A1	2/2014	Naizer et al.	
2014/0083554	A1	3/2014	Harris	
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	
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	
2015/0110565	A1	4/2015	Harris	
2015/0159232	A1	6/2015	Zucchi et al.	
2015/0224905	A1*	8/2015	Oren	B60P 1/56 414/518
2016/0280480	A1	9/2016	Smith et al.	
2017/0129721	A1	5/2017	Harris et al.	

FOREIGN PATENT DOCUMENTS

CN	201390486	1/2010	
CN	201881469	6/2011	
CN	103350017	10/2013	
DE	3108121	9/1982	
DE	3342281	6/1985	
DE	4217329	5/1993	
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	1775190	4/2007	
EP	2062832	5/2009	
EP	2311757	4/2011	
FR	2640598	6/1990	
GB	1296736	11/1972	
GB	2374864	10/2002	
JP	S4871029	9/1973	
JP	S4876041	9/1973	
JP	S58161888	10/1983	
JP	410087046	4/1998	
JP	10264882	10/1998	
MX	2012011046	5/2013	
WO	9008082	7/1990	
WO	9202437	2/1992	
WO	9301997	2/1993	
WO	9306031	4/1993	
WO	2006039757	4/2006	
WO	2007005054	1/2007	
WO	2007061310	5/2007	
WO	2010026235	3/2010	
WO	2011099358	8/2011	
WO	2012021447	2/2012	
WO	2012058059	5/2012	

OTHER PUBLICATIONS

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, dated Sep. 23, 2014.
 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. (https://web.archive.org/web/20120319070423/http://www.nov.com/Well_Service_and_Completion/Frac_Sand_Handling_Equipment/Frac_Sanders/FS-35.aspx).
 File History for U.S. Appl. No. 61/538,616, Robert A. Harris, Sep. 23, 2011. (21 pages).
 International Search Report for PCT/US2015/024810, dated Jul. 8, 2015. (13 pages).
 International Search Report for PCT/US15/35635, dated Oct. 30, 2015. (12 pages).
 European Search Report for Application No. 15167039.5, dated Sep. 8, 2015. (7 pages).
 SandBox Logistics, "Mine to Wellhead Logistics," Houston, TX, May 2013.
 SandBox Logistics, screenshots from video made in Apr. 2013 and publicly shown in May 2013, Arnegard, North Dakota.
 PCT International Search Report for PCT/US15/49074, dated Dec. 17, 2015. (11 pages).
 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. Appl. 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.
 PCT International Search Report for PCT/U615/57601, dated 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.
 SandBox Logistics, LLC, screenshots from video dated Oct. 11, 2013.
 SandBox Logistics, LLC, screenshots from video dated Apr. 10, 2013.
 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.
 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>.

(56)

References Cited

OTHER PUBLICATIONS

Grit Energy Solutions, LLC, The Grit Stack System, Screenshots from video dated Feb. 7, 2014, <https://www.youtube.com/user/gritstack>.

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

Arrows Up, Inc., Reusable Packaging Association, Member Spotlight: John Allegretti, 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.

Solaris Oilfield Infrastructure, Mobile Sand Silo System, 2016.

Final Office Action dated Sep. 27, 2016 for co-pending U.S. Appl. No. 13/555,635.

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, 2016, 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. 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. Appl. 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. 15/084,613.

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.

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.

Non-Final Office Action dated Oct. 27, 2016 for co-pending U.S. Appl. No. 15/219,676.

Non-Final Office Action dated Nov. 9, 2016 for co-pending U.S. Appl. No. 14/948,494.

Final Office Action dated Nov. 4, 2016 for co-pending U.S. Appl. No. 14/738,485.

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.

(56)

References Cited

OTHER PUBLICATIONS

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.

Non-Final Office Action dated Apr. 3, 2017 for co-pending U.S. Appl. No. 13/555,635.

Non-Final Office Action dated Feb. 14, 2017 for co-pending U.S. Appl. No. 14/493,111.

Final Office Action dated Mar. 7, 2017 for co-pending U.S. Appl. No. 15/144,296.

Non-Final Office Action dated Apr. 6, 2017 for co-pending U.S. Appl. No. 13/768,962.

Non-Final Office Action dated Mar. 6, 2017 for co-pending U.S. Appl. No. 15/152,744.

Non-Final Office Action dated Feb. 24, 2017 for co-pending U.S. Appl. No. 14/943,182.

* cited by examiner

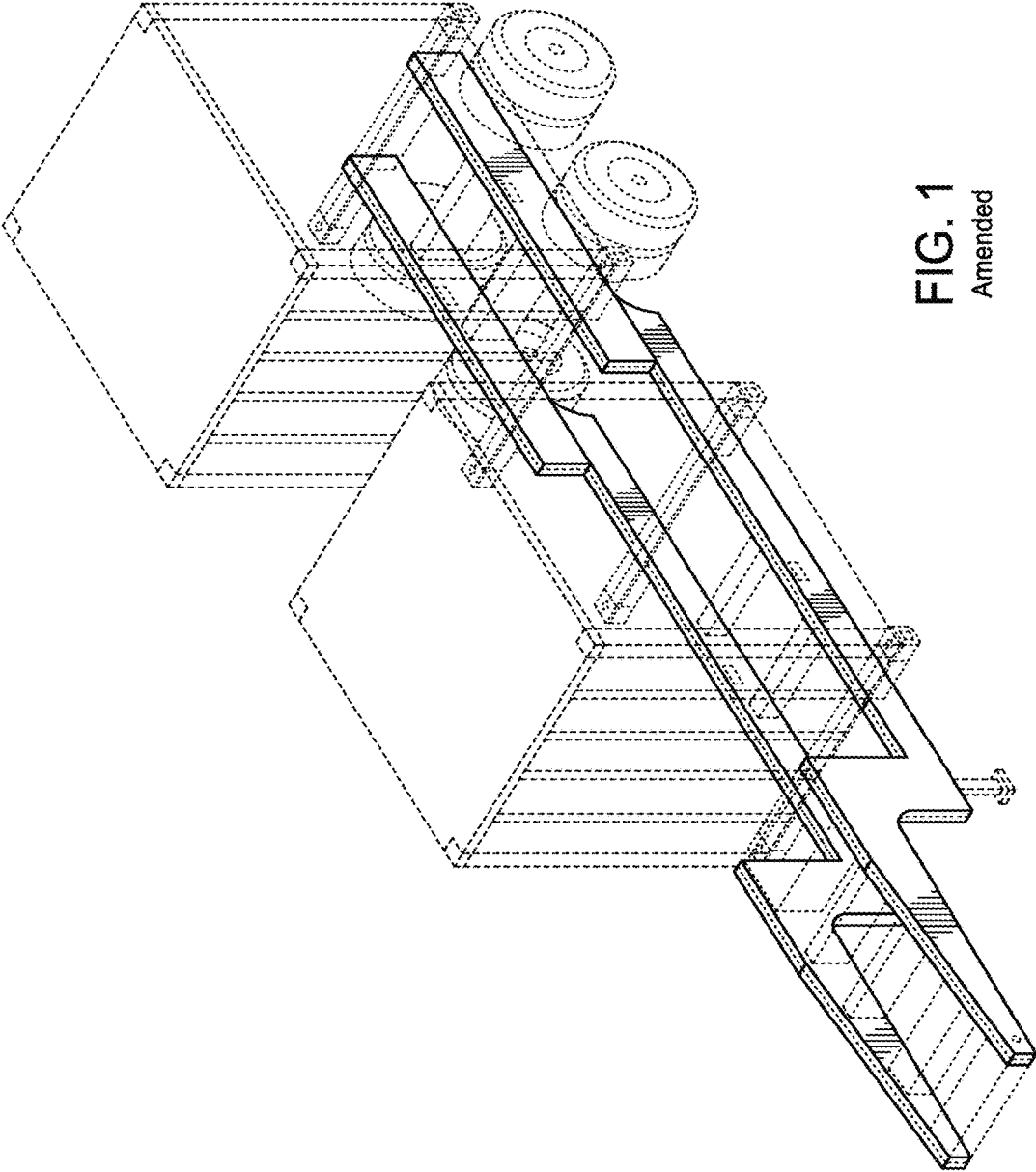


FIG. 1
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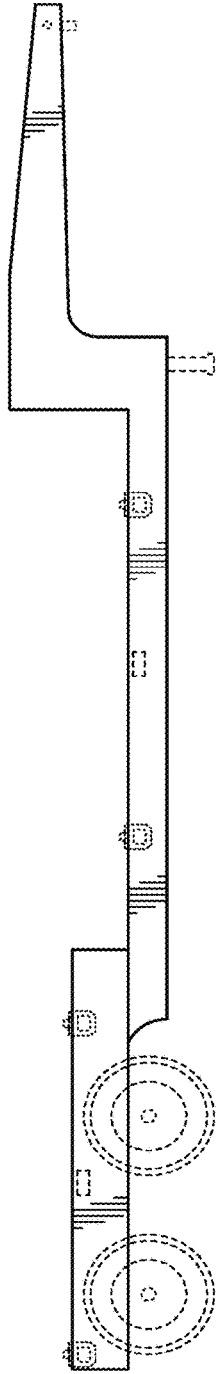


FIG. 2
Amended

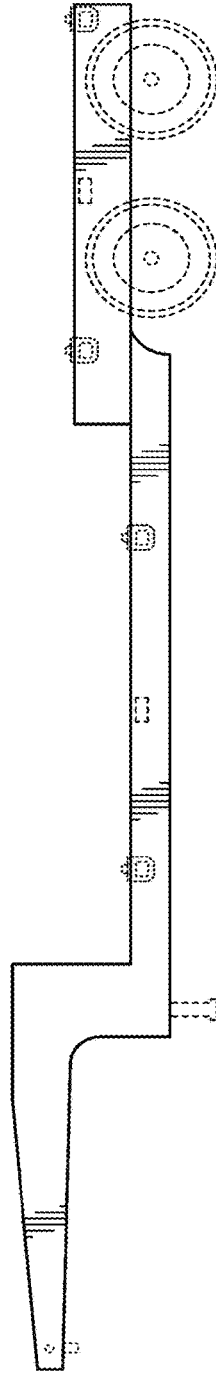


FIG. 3
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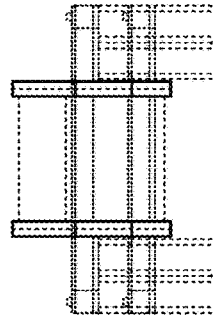


FIG. 5
Amended

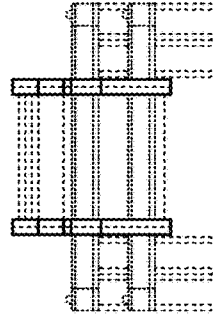


FIG. 4
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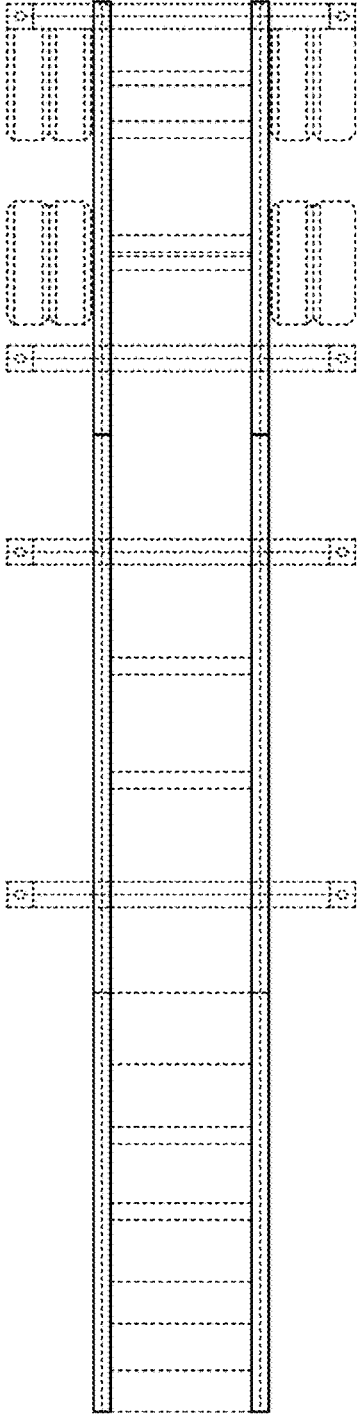


FIG. 6
Amended

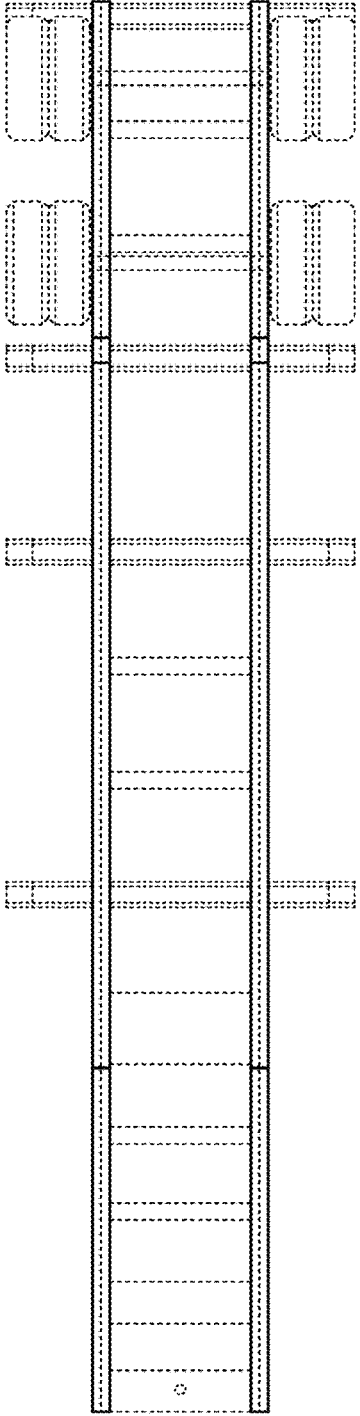


FIG. 7
Amended

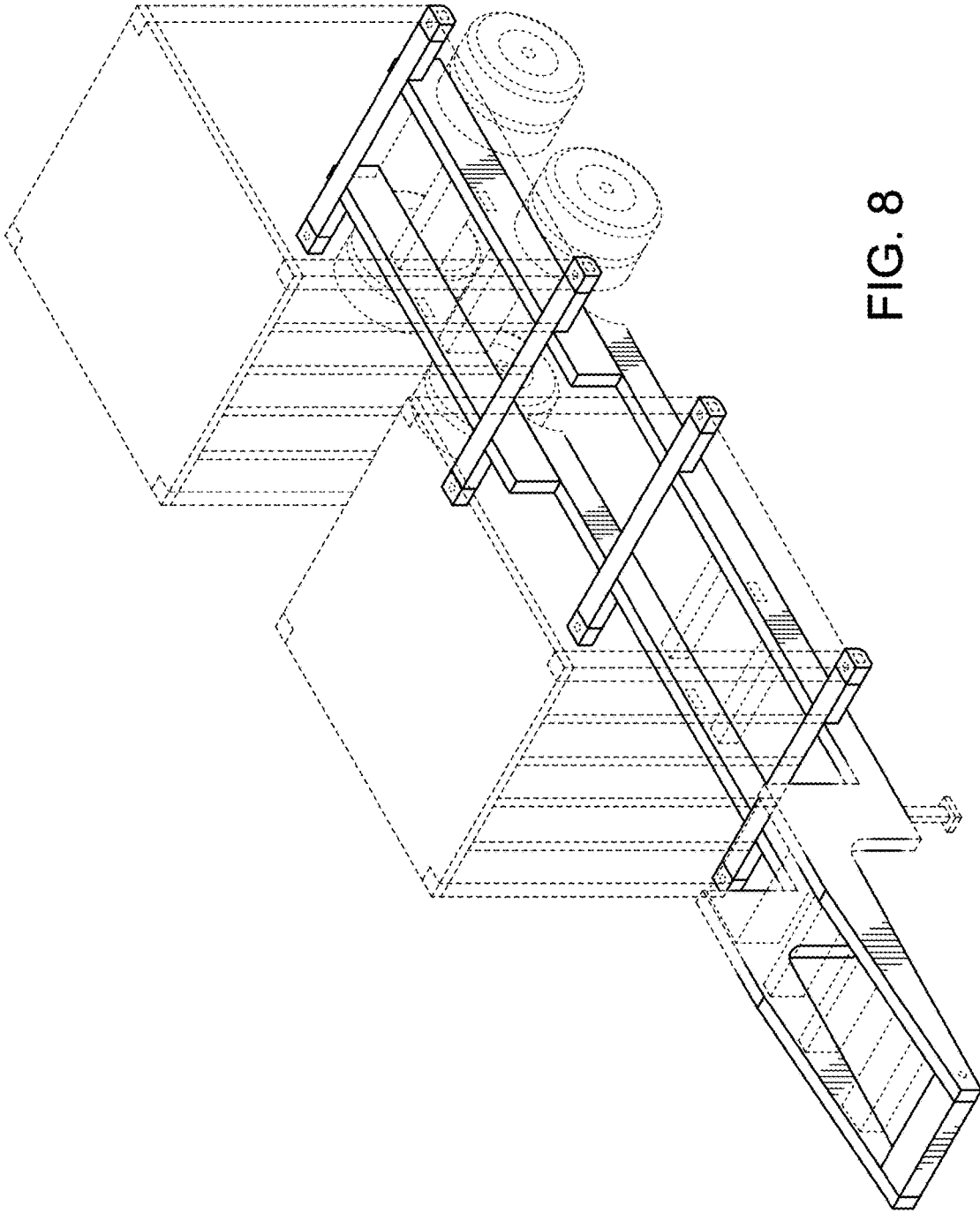


FIG. 8

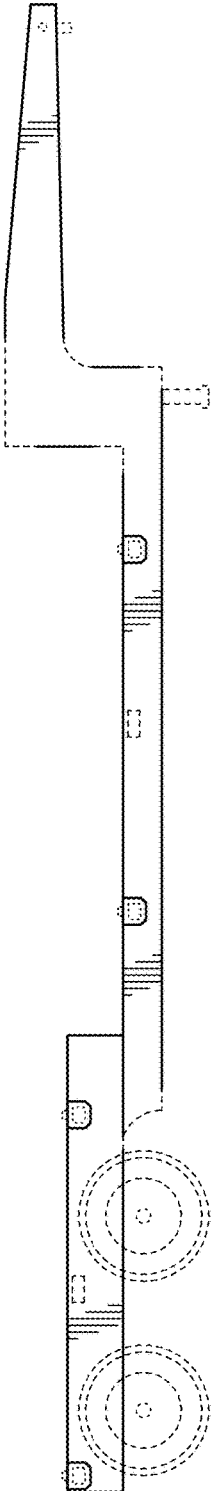


FIG. 9

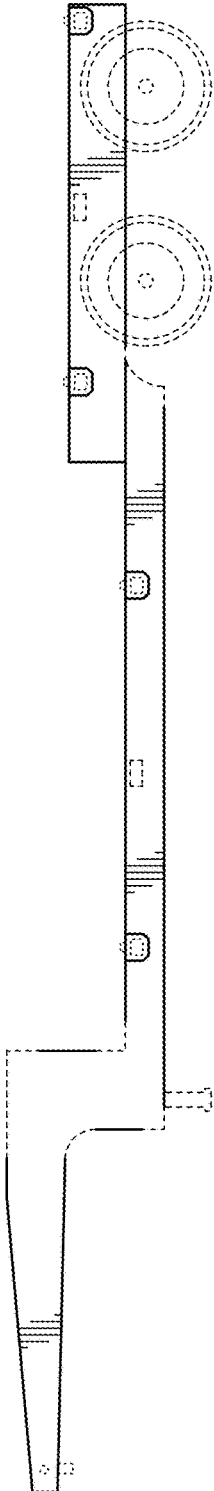


FIG. 10

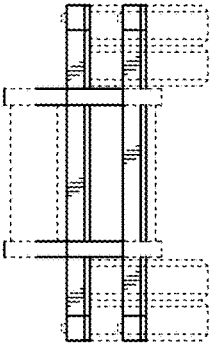


FIG. 11

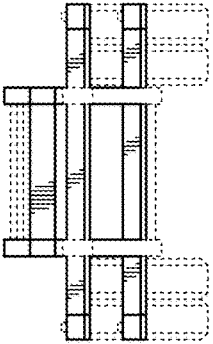


FIG. 12

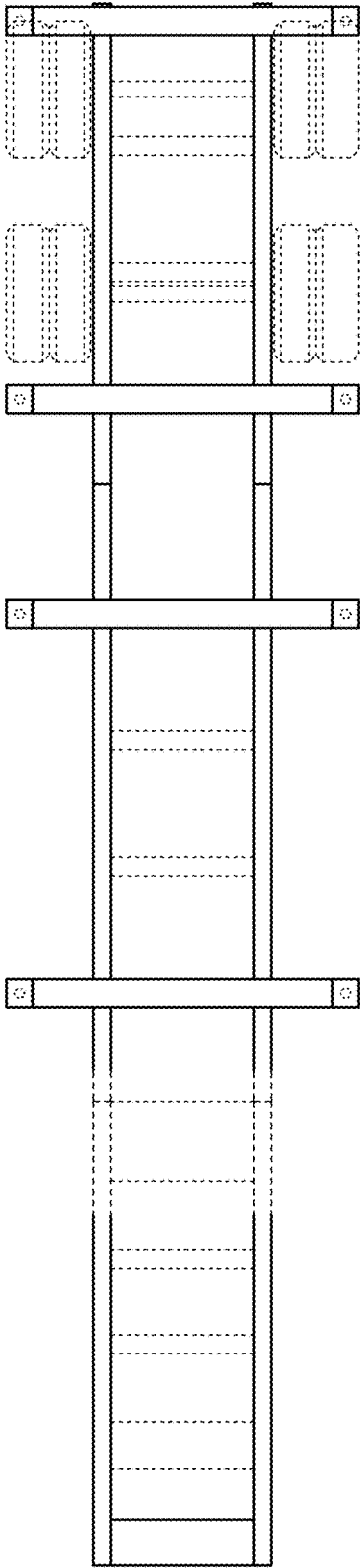


FIG. 13

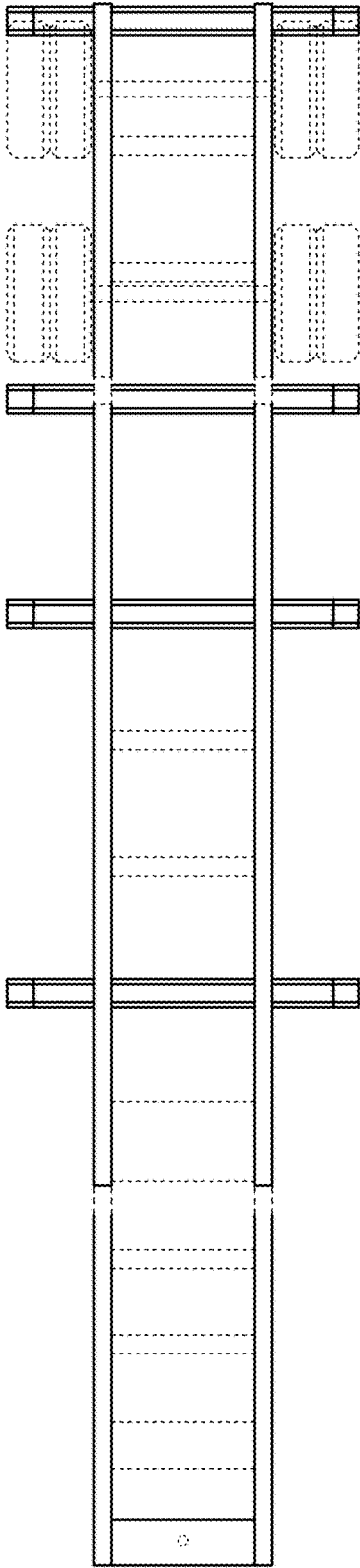


FIG. 14