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Bar-El et al.

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- (54) **LIQUID TRANSFER DEVICE**
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1,021,681 A	3/1912	Jennings
1,704,817 A	3/1929	Ayers
1,930,944 A	10/1933	Schmitz, Jr.
2,326,490 A	8/1943	Perelson
2,560,162 A	7/1951	Ferguson
2,748,769 A	6/1956	Jennie
2,830,587 A	4/1958	James
2,931,668 A	4/1960	Baley
2,968,497 A	1/1961	Mervyn
3,059,643 A	10/1962	Barton
D198,499 S	6/1964	Andrew et al.

(Continued)

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

FOREIGN PATENT DOCUMENTS

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CA	2946559 A1	10/2015
CN	1636605 A	7/2005

(Continued)

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(51) **LOC (14) Cl.** **24-02**

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

USPC **D24/129**

(58) **Field of Classification Search**

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CPC .. A61M 5/162; A61M 39/105; A61M 39/223; A61M 2039/0027; A61J 1/2089; A61J 1/2058

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

62,333 A	2/1867	Hall
247,975 A	10/1881	Wickes
254,444 A	2/1882	Vogel et al.
300,060 A	6/1884	Ford

Vial Direct To Bag, ADV care, [Post date unknown], [Site seen: Apr. 30, 2024], Seen at URL: <https://advcare-med.com/products/2> (Year: 2024).*

(Continued)

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(57) **CLAIM**

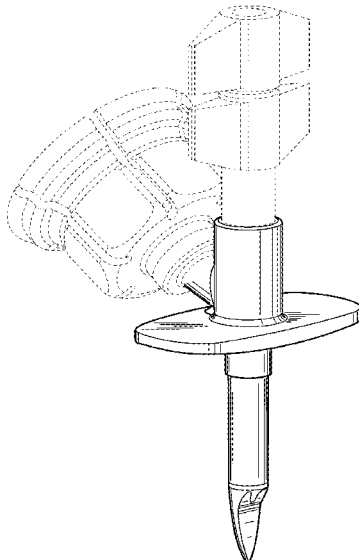
The ornamental design for a liquid transfer device, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a liquid transfer device; and, FIG. 2 is a cross-sectional view thereof.

The dashed broken lines in the figures show portions of the liquid transfer device that form no part of the claimed design.

1 Claim, 2 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

3,225,763	A	12/1965	Waterman	4,683,975	A	8/1987	Booth et al.
3,277,893	A	10/1966	Clark	4,697,622	A	10/1987	Swift et al.
3,308,822	A	3/1967	Luca	4,721,133	A	1/1988	Sundblom
3,484,849	A	12/1969	Huebner et al.	4,729,401	A	3/1988	Raines
3,618,637	A	11/1971	Santomieri	4,735,608	A	4/1988	Sardam
3,757,981	A	9/1973	Harris, Sr. et al.	4,743,229	A	5/1988	Chu
D229,518	S	12/1973	Albert	4,743,243	A	5/1988	Vaillancourt
3,782,365	A	1/1974	Pinna	4,752,292	A	6/1988	Lopez et al.
3,788,524	A	1/1974	Davis et al.	4,758,235	A	7/1988	Tu
3,822,700	A	7/1974	Pennington	4,759,756	A	7/1988	Forman et al.
3,826,261	A	7/1974	Killinger	4,778,447	A	10/1988	Velde et al.
3,872,992	A	3/1975	Larson	4,787,898	A	11/1988	Raines
3,885,607	A	5/1975	Peltier	4,797,898	A	1/1989	Martinez
3,938,520	A	2/1976	Scislowicz et al.	D300,060	S	2/1989	Molgaard-Nielsen
3,957,052	A	5/1976	Topham	4,804,366	A	2/1989	Zdeb et al.
3,977,555	A	8/1976	Larson	4,826,492	A	5/1989	Magasi
3,993,063	A	11/1976	Larrabee	4,832,690	A	5/1989	Kuu
4,020,839	A	5/1977	Klapp	4,834,152	A	5/1989	Howson et al.
4,026,128	A	5/1977	Blanco	4,834,744	A	5/1989	Ritson
4,051,852	A	10/1977	Villari	D303,013	S	8/1989	Konopka
D247,975	S	5/1978	Luther	4,857,062	A	8/1989	Russell
D248,568	S	7/1978	Ismach	4,865,592	A	9/1989	Rycroft
4,109,670	A	8/1978	Slagel	4,871,463	A	10/1989	Taylor et al.
4,121,585	A	10/1978	Becker, Jr.	4,898,209	A	2/1990	Zdeb
4,161,178	A	7/1979	Genese	4,909,290	A	3/1990	Coccia
4,187,848	A	2/1980	Taylor	4,919,596	A	4/1990	Slate et al.
D254,444	S	3/1980	Levine	4,927,423	A	5/1990	Malmberg
4,203,067	A	5/1980	Bollongino et al.	4,931,040	A	6/1990	Haber et al.
4,203,443	A	5/1980	Genese	4,932,944	A	6/1990	Jagger et al.
4,210,173	A	7/1980	Choksi et al.	4,967,797	A	11/1990	Manska
D257,286	S	10/1980	Folkman	D314,050	S	1/1991	Sone
4,253,501	A	3/1981	Ogle	D314,622	S	2/1991	Andersson et al.
4,262,671	A	4/1981	Kersten	4,997,430	A	3/1991	Van Der Heiden et al.
4,296,786	A	10/1981	Brignola	5,006,114	A	4/1991	Rogers et al.
4,303,067	A	12/1981	Connolly et al.	5,035,686	A	7/1991	Crittenden et al.
4,312,349	A	1/1982	Cohen	5,041,105	A	8/1991	D'Alo et al.
4,314,586	A	2/1982	Folkman	5,045,066	A	9/1991	Scheuble et al.
4,328,802	A	5/1982	Curley et al.	5,049,129	A	9/1991	Zdeb et al.
4,335,717	A	6/1982	Bujan et al.	5,053,015	A	10/1991	Gross
D267,199	S	12/1982	Koenig	5,061,248	A	10/1991	Sacco
4,364,387	A	12/1982	Larkin	5,088,996	A	2/1992	Kopfer et al.
4,376,634	A	3/1983	Prior et al.	5,096,575	A	3/1992	Cosack
D268,871	S	5/1983	Benham et al.	5,104,387	A	4/1992	Pokorney et al.
4,392,850	A	7/1983	Elias et al.	5,113,904	A	5/1992	Aslanian
D270,282	S	8/1983	Gross	5,122,124	A	6/1992	Novacek et al.
4,410,321	A	10/1983	Pearson et al.	5,125,908	A	6/1992	Cohen
4,411,662	A	10/1983	Pearson	5,125,915	A	6/1992	Berry et al.
D271,421	S	11/1983	Fetterman	D328,788	S	8/1992	Sagae et al.
4,434,823	A	3/1984	Hudspith	D331,281	S	11/1992	Levine
4,465,471	A	8/1984	Harris et al.	5,171,230	A	12/1992	Eland et al.
4,475,915	A	10/1984	Sloane	5,181,508	A	1/1993	Poole, Jr.
4,493,348	A	1/1985	Lemmons	5,201,705	A	4/1993	Berglund et al.
4,505,709	A	3/1985	Froning et al.	5,201,717	A	4/1993	Wyatt et al.
4,507,113	A	3/1985	Dunlap	5,203,771	A	4/1993	Melker et al.
D280,018	S	8/1985	Scott	5,203,775	A	4/1993	Frank et al.
4,532,969	A	8/1985	Kwaan	5,211,638	A	5/1993	Dudar et al.
4,534,758	A	8/1985	Akers et al.	D337,828	S	7/1993	David
4,561,445	A	12/1985	Berke et al.	5,232,029	A	8/1993	Knox et al.
4,564,054	A	1/1986	Gustavsson	5,232,109	A	8/1993	Tirrell et al.
4,573,993	A	3/1986	Hoag et al.	5,242,432	A	9/1993	Defrank
4,576,211	A	3/1986	Valentini et al.	5,247,972	A	9/1993	Tetreault
4,581,014	A	4/1986	Millerd et al.	D341,420	S	11/1993	Conn
4,585,446	A	4/1986	Kempf	5,269,768	A	12/1993	Cheung
4,588,396	A	5/1986	Stroebel et al.	5,270,219	A	12/1993	Decastro et al.
4,588,403	A	5/1986	Weiss et al.	5,279,576	A	1/1994	Loo et al.
D284,603	S	7/1986	Loignon	5,288,290	A	2/1994	Brody
4,604,093	A	8/1986	Brown et al.	5,300,034	A	4/1994	Behnke et al.
4,607,671	A	8/1986	Aalto et al.	5,301,685	A	4/1994	Guirguis
4,614,437	A	9/1986	Buehler	5,304,163	A	4/1994	Bonnici et al.
4,638,975	A	1/1987	Iuchi et al.	5,304,165	A	4/1994	Haber et al.
4,639,019	A	1/1987	Mittleman	5,308,483	A	5/1994	Sklar et al.
4,667,927	A	5/1987	Oscarsson	5,312,377	A	5/1994	Dalton
4,675,020	A	6/1987	Mcphee	5,328,474	A	7/1994	Raines
4,676,530	A	6/1987	Nordgren et al.	D349,648	S	8/1994	Tirrell et al.
D291,490	S	8/1987	Raines	5,334,163	A	8/1994	Sinnett
				5,334,179	A	8/1994	Poli et al.
				5,342,346	A	8/1994	Honda et al.
				5,344,417	A	9/1994	Wadsworth, Jr.
				5,348,544	A	9/1994	Sweeney et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

5,348,548 A	9/1994	Meyer et al.	5,772,652 A	6/1998	Zielinski
5,350,372 A	9/1994	Ikeda et al.	RE35,841 E	7/1998	Frank et al.
5,364,386 A	11/1994	Fukuoka et al.	5,776,116 A	7/1998	Lopez et al.
5,364,387 A	11/1994	Sweeney	5,782,872 A	7/1998	Mueller
5,374,264 A	12/1994	Wadsworth, Jr.	5,806,831 A	9/1998	Paradis
5,385,547 A	1/1995	Wong et al.	5,810,792 A	9/1998	Fangrow et al.
5,397,303 A	3/1995	Sancoff et al.	5,814,020 A	9/1998	Gross
D357,733 S	4/1995	Matkovich	D399,558 S	10/1998	Guala et al.
5,429,614 A	7/1995	Fowles et al.	D399,559 S	10/1998	Molina
5,433,330 A	7/1995	Yatsko et al.	5,817,082 A	10/1998	Niedospial et al.
5,445,630 A	8/1995	Richmond	5,820,621 A	10/1998	Yale et al.
5,445,631 A	8/1995	Uchida	5,827,262 A	10/1998	Neftel et al.
D362,718 S	9/1995	Deily et al.	5,832,971 A	11/1998	Yale et al.
5,451,374 A	9/1995	Molina	5,833,213 A	11/1998	Ryan
5,454,805 A	10/1995	Brony	5,834,744 A	11/1998	Risman
5,464,111 A	11/1995	Vacek et al.	5,839,715 A	11/1998	Leinsing
5,464,123 A	11/1995	Scarow	D403,398 S	12/1998	Guala et al.
5,466,219 A	11/1995	Lynn et al.	5,853,406 A	12/1998	Masuda et al.
5,466,220 A	11/1995	Brenneman	D405,522 S	2/1999	Hoening et al.
5,470,327 A	11/1995	Helgren et al.	5,868,710 A	2/1999	Battiato et al.
5,471,994 A	12/1995	Guirguis	5,871,110 A	2/1999	Grimard et al.
5,472,022 A	12/1995	Michel et al.	5,873,872 A	2/1999	Thibault et al.
5,478,337 A	12/1995	Okamoto et al.	5,879,337 A	3/1999	Kuracina et al.
5,482,446 A	1/1996	Williamson et al.	5,879,345 A	3/1999	Aneas
5,492,147 A	2/1996	Challender et al.	5,887,633 A	3/1999	Yale et al.
5,496,274 A	3/1996	Graves et al.	5,890,610 A	4/1999	Jansen et al.
D369,406 S	4/1996	Niedospial et al.	5,891,129 A	4/1999	Daubert et al.
5,505,714 A	4/1996	Dassa et al.	5,893,397 A	4/1999	Peterson et al.
5,509,433 A	4/1996	Paradis	5,897,526 A	4/1999	Vaillancourt
5,515,871 A	5/1996	Bittner et al.	5,899,468 A	5/1999	Apps et al.
5,520,659 A	5/1996	Hedges	5,902,280 A	5/1999	Powles et al.
5,526,853 A	6/1996	Mcphee et al.	5,902,298 A	5/1999	Niedospial et al.
5,527,306 A	6/1996	Haining	D410,740 S	6/1999	Molina
5,531,695 A	7/1996	Swisher	5,911,710 A	6/1999	Barry et al.
5,547,471 A	8/1996	Thompson et al.	5,919,182 A	7/1999	Avallone
5,549,577 A	8/1996	Siegel et al.	5,921,419 A	7/1999	Niedospial et al.
5,554,128 A	9/1996	Hedges	5,924,584 A	7/1999	Hellstrom et al.
5,562,686 A	10/1996	Sauer et al.	5,925,029 A	7/1999	Jansen et al.
5,562,696 A	10/1996	Nobles et al.	5,935,112 A	8/1999	Stevens et al.
5,566,729 A	10/1996	Grabenkort et al.	5,941,848 A	8/1999	Nishimoto et al.
5,569,191 A	10/1996	Meyer	5,941,850 A	8/1999	Shah et al.
5,573,281 A	11/1996	Keller	5,944,700 A	8/1999	Nguyen et al.
5,578,015 A	11/1996	Robb	D414,562 S	9/1999	Tajima
5,583,052 A	12/1996	Portnoff et al.	5,954,104 A	9/1999	Daubert et al.
5,584,819 A	12/1996	Kopfer	5,968,022 A	10/1999	Saito
5,591,143 A	1/1997	Trombley et al.	5,971,181 A	10/1999	Niedospial et al.
5,603,706 A	2/1997	Wyatt et al.	5,971,965 A	10/1999	Mayer
5,607,439 A	3/1997	Yoon	D416,086 S	11/1999	Parris et al.
5,611,576 A	3/1997	Guala	5,989,237 A	11/1999	Fowles et al.
5,616,203 A	4/1997	Stevens	D417,733 S	12/1999	Howell et al.
5,636,660 A	6/1997	Pfleiderer et al.	6,003,566 A	12/1999	Thibault et al.
5,637,101 A	6/1997	Shillington	6,004,278 A	12/1999	Botich et al.
5,641,010 A	6/1997	Maier	6,019,750 A	2/2000	Fowles et al.
5,645,538 A	7/1997	Richmond	6,022,339 A	2/2000	Fowles et al.
5,647,845 A	7/1997	Haber et al.	6,036,171 A	3/2000	Weinheimer et al.
5,651,776 A	7/1997	Appling et al.	6,039,093 A	3/2000	Mrotzek et al.
5,653,686 A	8/1997	Coulter et al.	6,039,302 A	3/2000	Cote et al.
5,658,133 A	8/1997	Anderson et al.	D422,357 S	4/2000	Niedospial et al.
5,672,160 A	9/1997	Osterlind et al.	6,053,899 A	4/2000	Slanda et al.
5,674,195 A	10/1997	Truthan	6,063,068 A	5/2000	Fowles et al.
5,676,346 A	10/1997	Einsing	D427,308 S	6/2000	Zinger
5,685,845 A	11/1997	Grimard	D427,309 S	6/2000	Molina
D388,172 S	12/1997	Cipes	6,070,623 A	6/2000	Aneas
5,699,821 A	12/1997	Paradis	6,071,270 A	6/2000	Fowles et al.
5,702,019 A	12/1997	Grimard	6,080,132 A	6/2000	Cole et al.
5,718,346 A	2/1998	Weiler	D428,141 S	7/2000	Brotspies et al.
5,728,087 A	3/1998	Niedospial, Jr.	6,086,762 A	7/2000	Guala
D393,722 S	4/1998	Fangrow et al.	6,089,541 A	7/2000	Weinheimer et al.
5,738,144 A	4/1998	Rogers	6,090,091 A	7/2000	Fowles et al.
5,743,312 A	4/1998	Pfeifer et al.	6,090,093 A	7/2000	Thibault et al.
5,746,733 A	5/1998	Capaccio et al.	6,092,692 A	7/2000	Riskin
5,752,942 A	5/1998	Doyle et al.	D430,291 S	8/2000	Jansen et al.
5,755,696 A	5/1998	Caizza	6,099,511 A	8/2000	Devos et al.
5,766,211 A	6/1998	Wood et al.	6,113,068 A	9/2000	Ryan
5,772,630 A	6/1998	Ljungquist	6,113,583 A	9/2000	Fowles et al.
			6,117,114 A	9/2000	Paradis
			D431,864 S	10/2000	Jansen
			6,139,534 A	10/2000	Niedospial et al.
			6,142,446 A	11/2000	Leinsing

(56)

References Cited

U.S. PATENT DOCUMENTS

6,146,362	A	11/2000	Turnbull et al.	D482,121	S	11/2003	Harding et al.
6,149,623	A	11/2000	Reynolds	D482,447	S	11/2003	Harding et al.
6,156,025	A	12/2000	Niedospial et al.	6,651,956	B2	11/2003	Miller
6,159,192	A	12/2000	Fowles et al.	6,652,509	B1	11/2003	Helgren et al.
6,162,199	A	12/2000	Geringer	D483,487	S	12/2003	Harding et al.
6,168,037	B1	1/2001	Grimard	D483,869	S	12/2003	Tran et al.
6,171,287	B1	1/2001	Lynn et al.	6,656,433	B2	12/2003	Sasso
6,171,293	B1	1/2001	Rowley et al.	6,666,852	B2	12/2003	Niedospial
6,173,852	B1	1/2001	Browne	6,681,810	B2	1/2004	Weston
6,173,868	B1	1/2001	Dejonge	6,681,946	B1	1/2004	Jansen et al.
6,174,304	B1	1/2001	Weston	6,682,509	B2	1/2004	Lopez
6,179,822	B1	1/2001	Niedospial, Jr.	6,692,478	B1	2/2004	Paradis
6,179,823	B1	1/2001	Niedospial, Jr.	6,692,829	B2	2/2004	Stubler et al.
6,186,997	B1	2/2001	Gabbard et al.	6,695,829	B2	2/2004	Hellstrom et al.
6,206,861	B1	3/2001	Mayer	6,699,229	B2	3/2004	Zinger et al.
6,221,041	B1	4/2001	Russo	6,699,232	B2	3/2004	Hart et al.
6,221,054	B1	4/2001	Martin et al.	6,706,022	B1	3/2004	Leinsing et al.
6,221,065	B1	4/2001	Davis	6,706,031	B2	3/2004	Manera
6,238,372	B1	5/2001	Zinger et al.	6,715,520	B2	4/2004	Andreasson et al.
6,245,044	B1	6/2001	Daw et al.	6,729,370	B2	5/2004	Norton et al.
D445,501	S	7/2001	Niedospial	6,736,798	B2	5/2004	Ohkubo et al.
D445,895	S	7/2001	Svendson	6,745,998	B2	6/2004	Doyle
6,253,804	B1	7/2001	Safabash	6,746,438	B1	6/2004	Amnissolle
6,258,078	B1	7/2001	Thilly	6,752,180	B2	6/2004	Delay
6,280,430	B1	8/2001	Neffel et al.	D495,416	S	8/2004	Dimeo et al.
6,290,688	B1	9/2001	Lopez et al.	D496,457	S	9/2004	Prais et al.
6,296,621	B1	10/2001	Masuda et al.	6,802,490	B2	10/2004	Leinsing et al.
6,299,131	B1	10/2001	Ryan	6,832,994	B2	12/2004	Niedospial et al.
D453,221	S	1/2002	Haytman et al.	6,852,103	B2	2/2005	Fowles et al.
6,343,629	B1	2/2002	Wessman et al.	6,875,203	B1	4/2005	Fowles et al.
6,348,044	B1	2/2002	Coletti et al.	6,875,205	B2	4/2005	Leinsing
6,358,236	B1	3/2002	Defoggi et al.	6,878,131	B2	4/2005	Novacek et al.
6,364,866	B1	4/2002	Furr et al.	6,884,253	B1	4/2005	Mcfarlane
6,378,576	B2	4/2002	Thibault et al.	6,890,328	B2	5/2005	Fowles et al.
6,378,714	B1	4/2002	Jansen et al.	D506,256	S	6/2005	Miyoshi et al.
6,379,340	B1	4/2002	Zinger et al.	6,901,975	B2	6/2005	Aramata et al.
D457,954	S	5/2002	Wallace et al.	6,945,417	B2	9/2005	Jansen et al.
6,382,442	B1	5/2002	Thibault et al.	6,948,522	B2	9/2005	Newbrough et al.
6,386,397	B2	5/2002	Brotspies et al.	6,949,086	B2	9/2005	Ferguson et al.
6,408,897	B1	6/2002	Laurent et al.	6,951,613	B2	10/2005	Reif et al.
6,409,708	B1	6/2002	Wessman	6,953,450	B2	10/2005	Baldwin et al.
6,419,696	B1	7/2002	Ortiz et al.	6,957,745	B2	10/2005	Thibault et al.
6,440,107	B1	8/2002	Trombley et al.	6,960,164	B2	11/2005	O'Heeron
6,453,949	B1	9/2002	Chau	6,964,684	B2	11/2005	Ortiz et al.
6,453,956	B2	9/2002	Safabash	6,972,002	B2	12/2005	Thorne
6,474,375	B2	11/2002	Spero et al.	6,979,318	B1	12/2005	Mcdonald et al.
6,478,788	B1	11/2002	Aneas	RE38,996	E	2/2006	Crawford et al.
D468,015	S	12/2002	Horppu	6,994,315	B2	2/2006	Ryan et al.
6,499,617	B1	12/2002	Niedospial et al.	6,997,916	B2	2/2006	Simas et al.
6,503,240	B1	1/2003	Niedospial et al.	6,997,917	B2	2/2006	Niedospial et al.
6,503,244	B2	1/2003	Hayman	7,024,968	B2	4/2006	Raudabough et al.
6,520,932	B2	2/2003	Taylor	7,070,589	B2	7/2006	Lolachi et al.
6,524,278	B1	2/2003	Campbell et al.	7,074,216	B2	7/2006	Fowles et al.
6,524,295	B2	2/2003	Daubert et al.	7,083,600	B2	8/2006	Meloul
D472,316	S	3/2003	Douglas et al.	7,086,431	B2	8/2006	D'Antonio et al.
6,530,903	B2	3/2003	Wang et al.	7,097,637	B2	8/2006	Triplett et al.
6,537,263	B1	3/2003	Aneas	7,100,890	B2	9/2006	Cote et al.
D472,630	S	4/2003	Douglas et al.	7,140,401	B2	11/2006	Wilcox et al.
6,544,246	B1	4/2003	Niedospial	7,150,735	B2	12/2006	Hickle
6,551,299	B2	4/2003	Miyoshi et al.	7,192,423	B2	3/2007	Wong
6,558,365	B2	5/2003	Zinger et al.	7,195,623	B2	3/2007	Burroughs et al.
6,569,196	B1	5/2003	Vesely	D546,450	S	7/2007	Wolf
6,571,837	B2	6/2003	Jansen et al.	7,241,285	B1	7/2007	Dikeman
6,572,591	B2	6/2003	Mayer	7,294,122	B2	11/2007	Kubo et al.
6,575,955	B2	6/2003	Azzolini	7,306,199	B2	12/2007	Leinsing et al.
6,581,593	B1	6/2003	Rubin et al.	D560,815	S	1/2008	Tajima
6,581,648	B1	6/2003	Zolentroff et al.	D561,348	S	2/2008	Zinger et al.
6,582,415	B1	6/2003	Fowles et al.	7,326,188	B1	2/2008	Russell et al.
D476,731	S	7/2003	Cise et al.	7,326,194	B2	2/2008	Zinger et al.
6,591,876	B2	7/2003	Safabash	7,335,213	B1	2/2008	Hyde et al.
6,599,273	B1	7/2003	Lopez	7,350,764	B2	4/2008	Raybuck
6,601,721	B2	8/2003	Jansen et al.	7,354,422	B2	4/2008	Riesenberg et al.
6,626,309	B1	9/2003	Jansen et al.	7,354,427	B2	4/2008	Fangrow
6,632,201	B1	10/2003	Mathias et al.	D573,250	S	7/2008	Macrae et al.
6,638,244	B1	10/2003	Reynolds	D575,314	S	8/2008	Hind
				7,425,209	B2	9/2008	Fowles et al.
				7,435,246	B2	10/2008	Zihlmann
				D580,558	S	11/2008	Shigesada et al.
				D581,529	S	11/2008	Moehle et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

7,452,348 B2	11/2008	Hasegawa	8,066,688 B2	11/2011	Zinger et al.
7,470,257 B2	12/2008	Norton et al.	8,070,739 B2	12/2011	Zinger et al.
7,470,265 B2	12/2008	Brugger et al.	8,075,550 B2	12/2011	Nord et al.
7,472,932 B2	1/2009	Weber et al.	8,096,525 B2	1/2012	Ryan
7,488,297 B2	2/2009	Flaherty	8,105,314 B2	1/2012	Fangrow, Jr.
7,491,197 B2	2/2009	Jansen et al.	D654,166 S	2/2012	Lair
7,497,848 B2	3/2009	Leinsing et al.	D655,017 S	2/2012	Mosler et al.
7,500,961 B2	3/2009	Nemoto	8,122,923 B2	2/2012	Kraus et al.
7,523,967 B2	4/2009	Steppe	8,123,736 B2	2/2012	Kraushaar et al.
7,530,546 B2	5/2009	Ryan et al.	D655,071 S	3/2012	Davila
D595,420 S	6/2009	Suzuki et al.	D657,461 S	4/2012	Schembre et al.
D595,421 S	6/2009	Suzuki et al.	8,152,779 B2	4/2012	Cabiri
7,540,863 B2	6/2009	Haindl	8,157,784 B2	4/2012	Rogers
7,540,865 B2	6/2009	Griffin et al.	8,167,863 B2	5/2012	Yow
7,544,191 B2	6/2009	Peluso et al.	8,172,824 B2	5/2012	Pfeifer et al.
D595,862 S	7/2009	Suzuki et al.	8,177,768 B2	5/2012	Leinsing
D595,863 S	7/2009	Suzuki et al.	8,182,452 B2	5/2012	Mansour et al.
7,569,062 B1	8/2009	Kuehn et al.	8,187,248 B2	5/2012	Zihlmann
D604,837 S	11/2009	Crawford et al.	8,196,614 B2	6/2012	Kriheli
7,611,487 B2	11/2009	Woehr et al.	8,197,459 B2	6/2012	Jansen et al.
7,611,502 B2	11/2009	Daly	8,211,069 B2	7/2012	Fangrow, Jr.
7,615,041 B2	11/2009	Sullivan et al.	8,225,959 B2	7/2012	Lambrecht
7,628,779 B2	12/2009	Aneas	8,241,268 B2	8/2012	Whitley
7,632,261 B2	12/2009	Zinger et al.	8,262,628 B2	9/2012	Fangrow, Jr.
D608,900 S	1/2010	Giraud et al.	8,262,641 B2	9/2012	Vedrine et al.
D609,804 S	2/2010	Uchida et al.	8,267,127 B2	9/2012	Kriheli
7,654,995 B2	2/2010	Warren et al.	D669,980 S	10/2012	Lev et al.
7,670,326 B2	3/2010	Shemesh	8,287,513 B2	10/2012	Elstrom et al.
7,695,445 B2	4/2010	Yuki	D671,654 S	11/2012	Akamatsu et al.
7,703,483 B2	4/2010	Hartman et al.	8,317,741 B2	11/2012	Kraushaar
7,704,229 B2	4/2010	Moberg et al.	8,328,784 B2	12/2012	Jensen et al.
7,704,236 B2	4/2010	Denolly	D673,673 S	1/2013	Wang
D616,090 S	5/2010	Kawamura	D674,084 S	1/2013	Linnenschmidt
7,713,247 B2	5/2010	Lopez	D674,088 S *	1/2013	Lev D24/129
7,717,886 B2	5/2010	Lopez	8,348,898 B2	1/2013	Cabiri
7,722,090 B2	5/2010	Burton et al.	D681,230 S	4/2013	Mosler et al.
D616,984 S	6/2010	Gilboa	8,418,690 B2	4/2013	Power et al.
7,731,678 B2	6/2010	Tennican et al.	8,454,573 B2	6/2013	Wyatt et al.
7,743,799 B2	6/2010	Mosler et al.	8,469,939 B2	6/2013	Fangrow, Jr.
7,744,581 B2	6/2010	Wallen et al.	8,475,404 B2	7/2013	Foshee et al.
7,757,901 B2	7/2010	Welp	8,480,645 B1	7/2013	Choudhury et al.
7,758,082 B2	7/2010	Weigel et al.	8,480,646 B2	7/2013	Nord et al.
7,758,560 B2	7/2010	Connell et al.	8,506,548 B2	8/2013	Okiyama
7,762,524 B2	7/2010	Cawthon et al.	8,511,352 B2	8/2013	Kraus et al.
7,766,304 B2	8/2010	Phillips	8,512,309 B2	8/2013	Shemesh et al.
7,771,383 B2	8/2010	Truitt et al.	D689,605 S	9/2013	Bellenoit
D624,641 S	9/2010	Boclet	D690,009 S	9/2013	Schembre et al.
7,799,009 B2	9/2010	Niedospial et al.	D690,418 S	9/2013	Rosenquist
7,803,140 B2	9/2010	Fangrow, Jr.	8,523,837 B2	9/2013	Wiggins et al.
D627,216 S	11/2010	Fulginiti	D691,264 S	10/2013	Dallemagne et al.
D630,732 S	1/2011	Lev et al.	8,545,476 B2	10/2013	Ariagno et al.
7,862,537 B2	1/2011	Zinger et al.	8,551,067 B2	10/2013	Zinger et al.
7,867,215 B2	1/2011	Akerlund et al.	8,556,879 B2	10/2013	Okiyama
7,879,018 B2	2/2011	Zinger et al.	8,562,582 B2	10/2013	Tuckwell et al.
7,883,499 B2	2/2011	Fangrow	8,608,723 B2	12/2013	Lev et al.
7,887,583 B2	2/2011	Macoviak	8,628,508 B2	1/2014	Weitzel et al.
7,895,216 B2	2/2011	Longshaw et al.	8,636,689 B2	1/2014	Halili et al.
D634,007 S	3/2011	Zinger et al.	D703,812 S	4/2014	Cederschiold et al.
7,896,849 B2	3/2011	Delay	8,684,992 B2	4/2014	Sullivan et al.
7,900,659 B2	3/2011	Whitley et al.	8,684,994 B2	4/2014	Lev et al.
7,914,499 B2	3/2011	Gonnelli et al.	8,752,598 B2	6/2014	Denenburg et al.
D637,713 S	5/2011	Nord et al.	D714,935 S	10/2014	Nishioka et al.
7,963,954 B2	6/2011	Kavazov	D717,406 S	11/2014	Stanley et al.
D641,080 S	7/2011	Zinger et al.	D717,948 S	11/2014	Strong et al.
7,985,216 B2	7/2011	Daily et al.	D719,650 S	12/2014	Arinobe et al.
D644,104 S	8/2011	Maeda et al.	D720,067 S	12/2014	Rosenquist
7,993,328 B2	8/2011	Whitley	D720,451 S	12/2014	Denenburg et al.
8,007,461 B2	8/2011	Huo et al.	D720,452 S	12/2014	Jordan
8,012,132 B2	9/2011	Lum et al.	8,900,212 B2	12/2014	Kubo
8,016,809 B2	9/2011	Zinger et al.	8,905,994 B1	12/2014	Lev et al.
8,021,325 B2	9/2011	Zinger et al.	8,915,882 B2	12/2014	Cabiri
8,025,653 B2	9/2011	Capitaine et al.	D720,850 S	1/2015	Hsia et al.
8,025,683 B2	9/2011	Morrison	8,986,370 B2	3/2015	Annest
8,029,472 B2	10/2011	Leinsing et al.	9,011,522 B2	4/2015	Annest
8,038,123 B2	10/2011	Ruschke et al.	D732,660 S	6/2015	Ohashi
			D732,664 S	6/2015	Woehr et al.
			D733,291 S	6/2015	Wang
			D733,292 S	6/2015	Rogers
			D733,293 S	6/2015	Rogers

(56)

References Cited

U.S. PATENT DOCUMENTS

9,072,827 B2	7/2015	Cabiri	2005/0137523 A1	6/2005	Wyatt et al.
D738,494 S	9/2015	Kashmirian	2005/0137566 A1	6/2005	Fowles et al.
D741,457 S	10/2015	Guest	2005/0137702 A1	6/2005	Haug et al.
9,149,575 B2	10/2015	Cabiri	2005/0159706 A1	7/2005	Wilkinson et al.
D750,235 S	2/2016	Maurice	2005/0159724 A1	7/2005	Enerson
9,254,242 B2	2/2016	Mueller et al.	2005/0182383 A1	8/2005	Wallen
D757,933 S	5/2016	Lev et al.	2005/0209554 A1	9/2005	Landau
9,393,365 B2	7/2016	Cabiri	2005/0261637 A1	11/2005	Miller
D765,837 S	9/2016	Lev et al.	2005/0277896 A1	12/2005	Messerli et al.
D767,124 S	9/2016	Lev et al.	2006/0030832 A1	2/2006	Niedospial et al.
9,486,391 B2	11/2016	Shemesh	2006/0049209 A1	3/2006	Baker
9,492,610 B2	11/2016	Cabiri	2006/0058741 A1	3/2006	Gallagher
9,511,190 B2	12/2016	Cabiri	2006/0074484 A1	4/2006	Huber
9,522,234 B2	12/2016	Cabiri	2006/0089594 A1	4/2006	Landau
D794,183 S	8/2017	Lev et al.	2006/0095015 A1	5/2006	Jobbs et al.
9,763,855 B2	9/2017	Fangrow	2006/0135948 A1	6/2006	Varma
D833,599 S	11/2018	Nilsson et al.	2006/0155257 A1	7/2006	Reynolds
D836,324 S	12/2018	Michalski	2006/0161192 A1	7/2006	Young
10,206,854 B2	2/2019	Wu et al.	2006/0169348 A1	8/2006	Yigal
D849,936 S	5/2019	Allard	2006/0178646 A1	8/2006	Harris et al.
D851,240 S	6/2019	Baid	2006/0195029 A1	8/2006	Shults et al.
10,413,662 B2	9/2019	Yeh et al.	2006/0212004 A1	9/2006	Atil
D881,389 S	4/2020	Wang et al.	2006/0224105 A1	10/2006	Thorne et al.
D881,390 S	4/2020	Wang et al.	2006/0253084 A1	11/2006	Nordgren
10,772,798 B2	9/2020	Lev et al.	2006/0259135 A1	11/2006	Navia et al.
D903,836 S	12/2020	Pak et al.	2007/0016381 A1	1/2007	Kamath et al.
D923,782 S	6/2021	Lev et al.	2007/0024995 A1	2/2007	Hayashi
D923,812 S	6/2021	Ben	2007/0060904 A1	3/2007	Vedrine et al.
D956,958 S *	7/2022	Bar-El D24/112	2007/0078428 A1	4/2007	Reynolds et al.
2001/0047150 A1	11/2001	Chobotov	2007/0083164 A1	4/2007	Barrelle et al.
2002/0017328 A1	2/2002	Loo	2007/0088252 A1	4/2007	Pestotnik et al.
2002/0029080 A1	3/2002	Mortier et al.	2007/0088293 A1	4/2007	Fangrow
2002/0055711 A1	5/2002	Lavi et al.	2007/0095856 A1	5/2007	Vogel et al.
2002/0065488 A1	5/2002	Suzuki et al.	2007/0106218 A1	5/2007	Yodfat et al.
2002/0087118 A1	7/2002	Reynolds et al.	2007/0112324 A1	5/2007	Hamedi-Sangsari
2002/0128628 A1	9/2002	Fathallah	2007/0156112 A1	7/2007	Walsh
2002/0138045 A1	9/2002	Moen	2007/0167912 A1	7/2007	Causey et al.
2002/0173752 A1	11/2002	Polzin	2007/0191760 A1	8/2007	Guchi et al.
2002/0193777 A1	12/2002	Aneas	2007/0191767 A1	8/2007	Hennessy et al.
2003/0028156 A1	2/2003	Juliar	2007/0203451 A1	8/2007	Murakami et al.
2003/0036725 A1	2/2003	Lavi et al.	2007/0219483 A1	9/2007	Kitani et al.
2003/0069550 A1	4/2003	Sharp	2007/0244461 A1	10/2007	Fangrow
2003/0073971 A1	4/2003	Saker	2007/0244462 A1	10/2007	Fangrow
2003/0083742 A1	5/2003	Spence et al.	2007/0249995 A1	10/2007	Van
2003/0100866 A1	5/2003	Reynolds	2007/0255202 A1	11/2007	Kitani et al.
2003/0120209 A1	6/2003	Jensen et al.	2007/0265574 A1	11/2007	Tennican et al.
2003/0135159 A1	7/2003	Daily et al.	2007/0265581 A1	11/2007	Funamura et al.
2003/0187420 A1	10/2003	Akerlund et al.	2007/0270778 A9	11/2007	Zinger et al.
2003/0195479 A1	10/2003	Kuracina et al.	2007/0287953 A1	12/2007	Ziv et al.
2003/0205843 A1	11/2003	Adams	2007/0299404 A1	12/2007	Katoh et al.
2003/0236543 A1	12/2003	Brenneman et al.	2008/0009822 A1	1/2008	Enerson
2004/0010207 A1	1/2004	Flaherty et al.	2008/0015496 A1	1/2008	Hamedi-Sangsari
2004/0024354 A1	2/2004	Reynolds	2008/0039935 A1	2/2008	Buch et al.
2004/0044327 A1	3/2004	Hasegawa	2008/0077235 A1	3/2008	Kirson
2004/0044406 A1	3/2004	Woolfson et al.	2008/0125860 A1	5/2008	Webler et al.
2004/0073189 A1	4/2004	Wyatt et al.	2008/0135051 A1	6/2008	Lee
2004/0143218 A1	7/2004	Das	2008/0167713 A1	7/2008	Bolling
2004/0143226 A1	7/2004	Marsden	2008/0188799 A1	8/2008	Mueller-Beckhaus et al.
2004/0153047 A1	8/2004	Blank et al.	2008/0195049 A1	8/2008	Thalmann et al.
2004/0158172 A1	8/2004	Hancock	2008/0208138 A1	8/2008	Lim et al.
2004/0162515 A1	8/2004	Chornenky et al.	2008/0215015 A1	9/2008	Cindrich et al.
2004/0162540 A1	8/2004	Walenciak et al.	2008/0249473 A1	10/2008	Rutti et al.
2004/0167472 A1	8/2004	Howell et al.	2008/0249479 A1	10/2008	Zinger et al.
2004/0181192 A1	9/2004	Cuppy	2008/0262609 A1	10/2008	Gross et al.
2004/0186424 A1	9/2004	Hjertman	2008/0269687 A1	10/2008	Chong et al.
2004/0204699 A1	10/2004	Hanly et al.	2008/0275407 A1	11/2008	Scheurer
2004/0217315 A1	11/2004	Doyle	2008/0287905 A1	11/2008	Hiejima et al.
2004/0236419 A1	11/2004	Milo	2008/0294100 A1	11/2008	De et al.
2004/0255952 A1	12/2004	Carlsen et al.	2008/0306439 A1	12/2008	Nelson et al.
2005/0010287 A1	1/2005	Macoviak et al.	2008/0312634 A1	12/2008	Helmerson et al.
2005/0015070 A1	1/2005	Delnevo et al.	2009/0043253 A1	2/2009	Podaima
2005/0055008 A1	3/2005	Paradis et al.	2009/0054852 A1	2/2009	Takano et al.
2005/0070999 A1	3/2005	Spence	2009/0054969 A1	2/2009	Salahieh et al.
2005/0075727 A1	4/2005	Wheatley	2009/0062767 A1	3/2009	Van et al.
2005/0082828 A1	4/2005	Wicks et al.	2009/0076360 A1	3/2009	Brister et al.
			2009/0082750 A1	3/2009	Denenburg et al.
			2009/0139724 A1	6/2009	Gray et al.
			2009/0143758 A1	6/2009	Okiyama
			2009/0177178 A1	7/2009	Pedersen

(56)

References Cited

U.S. PATENT DOCUMENTS

2009/0187140 A1 7/2009 Racz
 2009/0216103 A1 8/2009 Brister et al.
 2009/0257306 A1 10/2009 Coffeen et al.
 2009/0267011 A1 10/2009 Hatton et al.
 2009/0318946 A1 12/2009 Tamesada
 2009/0326506 A1 12/2009 Hasegawa et al.
 2010/0010443 A1 1/2010 Morgan et al.
 2010/0016811 A1 1/2010 Smith
 2010/0030181 A1 2/2010 Helle et al.
 2010/0036319 A1 2/2010 Drake et al.
 2010/0042147 A1 2/2010 Janovsky et al.
 2010/0049315 A1 2/2010 Kirson
 2010/0070027 A1 3/2010 Bonhoeffer et al.
 2010/0076397 A1 3/2010 Reed et al.
 2010/0087786 A1 4/2010 Zinger et al.
 2010/0137827 A1 6/2010 Warren et al.
 2010/0137831 A1 6/2010 Tsals
 2010/0152658 A1 6/2010 Hanson et al.
 2010/0160889 A1 6/2010 Smith et al.
 2010/0161047 A1 6/2010 Cabiri
 2010/0162548 A1 7/2010 Leidig
 2010/0168664 A1 7/2010 Zinger et al.
 2010/0198148 A1* 8/2010 Zinger A61J 1/2096
 604/89
 2010/0241088 A1 9/2010 Ranalletta et al.
 2010/0274184 A1 10/2010 Chun
 2010/0274202 A1 10/2010 Hyde et al.
 2010/0286661 A1 11/2010 Raday et al.
 2010/0312220 A1 12/2010 Kalitzki
 2011/0004143 A1 1/2011 Beiriger et al.
 2011/0004184 A1 1/2011 Proksch et al.
 2011/0044850 A1 2/2011 Solomon et al.
 2011/0054440 A1 3/2011 Lewis
 2011/0087164 A1 4/2011 Mosler et al.
 2011/0125056 A1 5/2011 Merchant
 2011/0144584 A1 6/2011 Wozencroft
 2011/0160655 A1 6/2011 Hanson et al.
 2011/0172636 A1 7/2011 Aasmul
 2011/0218511 A1 9/2011 Yokoyama
 2011/0224640 A1 9/2011 Kuehn et al.
 2011/0230856 A1 9/2011 Kyle et al.
 2011/0264069 A1 10/2011 Bochenko
 2011/0275988 A1 11/2011 Davis et al.
 2011/0276007 A1 11/2011 Denenburg
 2011/0319827 A1 12/2011 Leinsing et al.
 2012/0022344 A1 1/2012 Kube
 2012/0022469 A1 1/2012 Alpert
 2012/0059332 A1 3/2012 Woehr et al.
 2012/0059346 A1 3/2012 Sheppard et al.
 2012/0067429 A1 3/2012 Mosler et al.
 2012/0071819 A1 3/2012 Brueggemann et al.
 2012/0078214 A1 3/2012 Finke et al.
 2012/0184938 A1 7/2012 Lev et al.
 2012/0215182 A1 8/2012 Mansour et al.
 2012/0220977 A1 8/2012 Yow
 2012/0265163 A1 10/2012 Cheng et al.
 2012/0271229 A1 10/2012 Lev et al.
 2012/0296307 A1 11/2012 Holt et al.
 2012/0310203 A1 12/2012 Khaled et al.
 2012/0323172 A1 12/2012 Lev et al.
 2012/0323187 A1 12/2012 Iwase et al.
 2013/0046269 A1 2/2013 Lev et al.
 2013/0053814 A1 2/2013 Mueller-Beckhaus et al.
 2013/0096493 A1 4/2013 Kubo et al.
 2013/0110049 A1 5/2013 Cronenberg et al.
 2013/0144248 A1 6/2013 Putter et al.
 2013/0199669 A1 8/2013 Moy et al.
 2013/0226100 A1 8/2013 Lev
 2013/0231630 A1 9/2013 Kraus et al.
 2013/0237904 A1 9/2013 Deneburg et al.
 2013/0253448 A1 9/2013 Baron et al.
 2013/0289530 A1 10/2013 Wyatt et al.
 2013/0315026 A1 11/2013 Cheio et al.
 2013/0317472 A1 11/2013 Finke
 2014/0096862 A1 4/2014 Aneas

2014/0150911 A1 6/2014 Hanner et al.
 2014/0194854 A1 7/2014 Tsals
 2014/0221940 A1 8/2014 Clauson et al.
 2014/0276215 A1 9/2014 Nelson et al.
 2014/0277052 A1 9/2014 Haselby et al.
 2015/0082746 A1 3/2015 Ivosevic et al.
 2015/0088078 A1 3/2015 Lev et al.
 2015/0112297 A1 4/2015 Lev et al.
 2015/0209230 A1 7/2015 Lev et al.
 2015/0250681 A1 9/2015 Lev et al.
 2015/0290390 A1 10/2015 Ring et al.
 2015/0297839 A1 10/2015 Sanders et al.
 2015/0297880 A1 10/2015 Ogawa et al.
 2015/0305770 A1 10/2015 Fill et al.
 2016/0081308 A1 3/2016 Cary et al.
 2016/0081878 A1 3/2016 Marks et al.
 2016/0088995 A1 3/2016 Jeda et al.
 2016/0166824 A1 6/2016 Lev et al.
 2016/0199569 A1 7/2016 Yevmenenko et al.
 2016/0228644 A1 8/2016 Cabiri
 2016/0287475 A1 10/2016 Yevmenenko et al.
 2016/0367439 A1 12/2016 Davis et al.
 2018/0008513 A1 1/2018 libuchi et al.
 2018/0161243 A1 6/2018 Ariagno et al.
 2018/0221572 A1 8/2018 Schlitt et al.
 2018/0303720 A1 10/2018 Kennard et al.
 2019/0083357 A1 3/2019 David et al.
 2019/0117514 A1 4/2019 Denenburg et al.
 2019/0133885 A1 5/2019 Wu et al.
 2019/0343725 A1 11/2019 Denenburg
 2020/0276084 A1 9/2020 Denenburg
 2020/0282133 A1 9/2020 Mason et al.
 2020/0330326 A1* 10/2020 Merchant A61J 1/201
 2020/0376194 A1 12/2020 Fabrikant et al.
 2022/0040042 A1* 2/2022 Ben Shalom A61J 1/2096
 2022/0047458 A1* 2/2022 Bar-El A61J 1/10

FOREIGN PATENT DOCUMENTS

CN 1747683 A 3/2006
 CN 1863566 A 11/2006
 CN 1950049 A 4/2007
 CN 101001661 A 7/2007
 CN 101687083 A 3/2010
 CN 106413799 A 2/2017
 CN 306375580 S 3/2021
 DE 1064693 B 9/1959
 DE 1913926 A1 9/1970
 DE 4122476 A1 1/1993
 DE 4314657 A1 11/1994
 DE 4408498 A1 5/1995
 DE 19504413 A1 8/1996
 DE 202004012714 U1 11/2004
 DE 102007046951 B3 2/2009
 DE 202009011019 U1 12/2010
 EM 001126270-0001 8/2010
 EM 001680703-0001 8/2010
 EM 001680703-0002 8/2010
 EM 002446062-0001 8/2010
 EM 002446062-0002 8/2010
 EM 000627237-0001 10/2010
 EM 006630893-0001 8/2019
 EM 008039507-0004 1/2021
 EP 0192661 A1 9/1986
 EP 0195018 A1 9/1986
 EP 0258913 A2 3/1988
 EP 0416454 A2 3/1991
 EP 0426403 A1 5/1991
 EP 0282545 B1 2/1992
 EP 0518397 A1 12/1992
 EP 0521460 A1 1/1993
 EP 0582038 A2 2/1994
 EP 0598918 A1 6/1994
 EP 0637443 A1 2/1995
 EP 0737467 A1 10/1996
 EP 0761562 A1 3/1997
 EP 0765652 A1 4/1997
 EP 0765853 A1 4/1997
 EP 0806597 A1 11/1997

(56) References Cited			JP	2015-211763	A	11/2015
FOREIGN PATENT DOCUMENTS			JP	2019-015749	A	1/2019
EP	0814866	A1 1/1998	WO	86/01487	A1	3/1986
EP	0829248	A2 3/1998	WO	86/01712	A1	3/1986
EP	0856331	A2 8/1998	WO	86/05683	A1	10/1986
EP	0882441	A2 12/1998	WO	90/03536	A1	4/1990
EP	0887085	A2 12/1998	WO	94/03373	A1	2/1994
EP	0887885	A2 12/1998	WO	95/07066	A1	3/1995
EP	0897708	A2 2/1999	WO	95/07720	A1	3/1995
EP	0898951	A2 3/1999	WO	95/13785	A1	5/1995
EP	0960616	A2 12/1999	WO	96/00053	A1	1/1996
EP	1008337	A1 6/2000	WO	96/09083	A1	3/1996
EP	1029526	A1 8/2000	WO	96/29113	A1	9/1996
EP	1034809	A1 9/2000	WO	97/36636	A1	10/1997
EP	1051988	A2 11/2000	WO	98/32411	A1	7/1998
EP	1323403	A1 7/2003	WO	98/37854	A1	9/1998
EP	1329210	A1 7/2003	WO	99/61093	A1	12/1999
EP	1396250	A1 3/2004	WO	01/02490	A1	1/2001
EP	1454609	A1 9/2004	WO	01/28490	A1	4/2001
EP	1454650	A1 9/2004	WO	01/30425	A1	5/2001
EP	1498097	A2 1/2005	WO	01/32524	A1	5/2001
EP	1872824	A1 1/2008	WO	01/60311	A1	8/2001
EP	1911432	A1 4/2008	WO	01/89607	A2	11/2001
EP	1919432	A1 5/2008	WO	01/91693	A2	12/2001
EP	1930038	A2 6/2008	WO	02/02165	A2	1/2002
EP	2090278	A1 8/2009	WO	02/09797	A1	2/2002
EP	2351548	A1 8/2011	WO	02/32372	A1	4/2002
EP	2351549	A1 8/2011	WO	02/36191	A2	5/2002
EP	2462913	A1 6/2012	WO	02/66100	A2	8/2002
EP	2512399	A1 10/2012	WO	02/89900	A1	11/2002
EP	2416739	B1 6/2016	WO	03/51423	A2	6/2003
FR	2029242	A5 10/1970	WO	03/70147	A2	8/2003
FR	2856660	A1 12/2004	WO	03/79956	A1	10/2003
FR	2869795	A1 11/2005	WO	2004/004806	A1	1/2004
FR	2931363	A1 11/2009	WO	2004/041148	A1	5/2004
GB	1444210	A 7/1976	WO	2004/096113	A2	11/2004
GB	6142183	* 8/2021	WO	2005/002492	A1	1/2005
IL	171662	10/2005	WO	2005/018703	A2	3/2005
IL	186290	1/2008	WO	2005/041846	A2	5/2005
IN	259302	* 1/2015	WO	2005/105014	A2	11/2005
IN	331018-001-0001	6/2021	WO	2005/120431	A1	12/2005
JP	03-062426	B2 9/1991	WO	2006/099441	A2	9/2006
JP	03-205560	A 9/1991	WO	2006/124634	A1	11/2006
JP	04-329954	A 11/1992	WO	2007/015233	A1	2/2007
JP	06-050656	U 7/1994	WO	2007/017868	A1	2/2007
JP	08-000710	A 1/1996	WO	2007/052252	A1	5/2007
JP	09-104460	A 4/1997	WO	2007/079305	A2	7/2007
JP	09-104461	A 4/1997	WO	2007/101772	A1	9/2007
JP	10-118158	A 5/1998	WO	2007/105221	A1	9/2007
JP	10-504736	A 5/1998	WO	2007/130809	A2	11/2007
JP	11-503627	A 3/1999	WO	2008/068756	A2	6/2008
JP	11-319031	A 11/1999	WO	2008/076459	A1	6/2008
JP	2000-508934	A 7/2000	WO	2008/081424	A2	7/2008
JP	2000-237278	A 9/2000	WO	2008/126090	A1	10/2008
JP	2000-262497	A 9/2000	WO	2008/135989	A1	11/2008
JP	2001-505083	A 4/2001	WO	2009/026443	A2	2/2009
JP	2002-035140	A 2/2002	WO	2009/029010	A1	3/2009
JP	2002-516160	A 6/2002	WO	2009/038860	A2	3/2009
JP	2002-355318	A 12/2002	WO	2009/040804	A2	4/2009
JP	2003-033441	A 2/2003	WO	2009/087572	A1	7/2009
JP	2003-102807	A 4/2003	WO	2009/093249	A1	7/2009
JP	2003-513709	A 4/2003	WO	2009/112489	A1	9/2009
JP	2004-501721	A 1/2004	WO	2009/140511	A1	11/2009
JP	2004-097253	A 4/2004	WO	2009/146088	A1	12/2009
JP	2004-522541	A 7/2004	WO	2010/061743	A1	6/2010
JP	2004-267776	A 9/2004	WO	2010/078227	A1	7/2010
JP	2005-270629	A 10/2005	WO	2010/117471	A2	10/2010
JP	2005-537048	A 12/2005	WO	2010/117580	A1	10/2010
JP	2006-061421	A 3/2006	WO	2011/004360	A1	1/2011
JP	2008-220961	A 9/2008	WO	2011/024725	A1	3/2011
JP	2009-513294	A 4/2009	WO	2011/025719	A1	3/2011
JP	4329954	B2 9/2009	WO	2011/039747	A1	4/2011
JP	2010-063622	A 3/2010	WO	2011/058545	A1	5/2011
JP	2010-179128	A 8/2010	WO	2011/058548	A1	5/2011
JP	2012-205769	A 10/2012	WO	2011/077434	A1	6/2011
JP	2013-520272	A 6/2013	WO	2011/090955	A1	7/2011
JP	2014-000220	A 1/2014	WO	2011/104711	A1	9/2011
			WO	2011/132657	A1	10/2011
			WO	2011/150037	A1	12/2011

(56)

References Cited

FOREIGN PATENT DOCUMENTS

WO	2011/156373	A1	12/2011
WO	2012/004784	A1	1/2012
WO	2012/004790	A2	1/2012
WO	2012/063230	A1	5/2012
WO	2012/143921	A1	10/2012
WO	2012/150587	A1	11/2012
WO	2013/001525	A1	1/2013
WO	2013/127813	A1	9/2013
WO	2013/134246	A1	9/2013
WO	2013/148435	A1	10/2013
WO	2013/156944	A1	10/2013
WO	2013/156994	A1	10/2013
WO	2014/033706	A2	3/2014
WO	2014/033710	A1	3/2014
WO	2014/099395	A1	6/2014
WO	2014/170888	A1	10/2014
WO	2014/174278	A1	10/2014
WO	2015/009746	A2	1/2015
WO	2015/019343	A1	2/2015
WO	2016/023590	A1	2/2016
WO	2017/203512	A1	11/2017
WO	2018/104930	A1	6/2018
WO	2018/104932	A1	6/2018
WO	2018/178971	A1	10/2018
WO	2020/222220	A1	11/2020

OTHER PUBLICATIONS

IV Interlink Universal Vial Adapter, Medical Equipment Affiliates, [Post date: unknown], [Site seen Apr. 30, 2024], Seen at URL: <https://www.meak.com/categories/iv-supplies/standard-systems/baxter-interlink/interlink-sites-cannulas-connectors-latex-free/iv-interlink-universal-vial-adapter.html> (Year: 2024).*

Vial2Bag Advanced, West Pharma, [Post date unknown], [Site seen: Apr. 30, 2024], Seen at URL: <https://www.westpharma.com/products/vial-adapter-systems/vial2bag-advanced-admixture-adapter-drug-transfer-system> (Year: 2024).*

Int'l Search Report Issued Mar. 12, 2009 in Int'l Application No. PCT/IL2008/001278.

Int'l Search Report Issued Mar. 27, 2009 in Int'l Application No. PCT/US2008/070024.

Int'l Search Report issued Jul. 12, 2011 in Int'l Application No. PCT/IL2011/000186.

Int'l Search Report issued Jul. 12, 2011 in Int'l Application No. PCT/IL2011/000187.

Int'l Search Report Issued Jul. 27, 2007 in Int'l Application No. PCT/IL2007/000343.

Int'l Preliminary Report on Patentability dated Aug. 24, 2015 in Int'l Application No. PCT/IL2014/050405.

Int'l Search Report and Written Opinion dated Jul. 21, 2020 in Int'l Application No. PCT/IL2020/050362.

Int'l Search Report and Written Opinion dated Mar. 29, 2019 in Int'l Application No. PCT/IB2018/059577.

Int'l Search Report and Written Opinion issued on May 4, 2011 in Int'l Application No. PCT/IL2010/001077.

Int'l Search Report dated Apr. 24, 2020 in Int'l Application No. PCT/US2020/050020.

Int'l Search Report dated Aug. 25, 2008 in Int'l Application No. PCT/IL2008/000517.

Int'l Search Report dated Jan. 22, 2013 in Int'l Application No. PCT/IL2012/000354.

Int'l Search Report dated Nov. 20, 2006 in Int'l Application No. PCT/IL2006/000881.

International Search Report and Written Opinion dated Oct. 17, 2014 in International Application No. PCT/IL2014/050680.

International Search Report dated Jan. 23, 2007 in Int'l Application No. PCT/IL/2006/001228.

International Search Report dated Mar. 30, 2011 in Int'l Application No. PCT/IL2010/000939.

International Search Report Issued Aug. 28, 2008 in Int'l Application No. PCT/IL2008/000606.

Intl Search Report dated Dec. 6, 2006 in Int'l Application No. PCT/IL2006/000912.

IV disposables sets catalogue, Cardinal Health, Alaris(Registered) products, SmartSite(Registered) access devices and accessories product No. 10013365, SmartSite add-On bag access device with spike adapter and needle-free valve bag access port, pp. 1-5, Fall edition (2007).

Kipp, "Plastic Material Data Sheets," retrieved from the Internet: http://www.knovel.com/web/portal/browse/display?_EXT_KNOVEL_DISPLAY_bookid=1023&VerticalID=0, retrieved on Feb. 9, 2011.

Merchant "An engineered control device for needle free reconstitution and transfer of compounded sterile intravenous Drug solutions for immediate use to assist in complying with United States Pharmacopeia Chapter <797> standard", Adv Care, 2 pages, 2018. MixJect, downloaded from webpage: <http://www.westpharma.com/en/products/Pages/Mixjec.aspx>, Download Date: Aug. 8, 2012, 1 page.

MixJet Product Information Sheet, downloaded from webpage: <http://www.westpharma.com/SiteCollectionDocuments/Recon/mixject%20product%20sheet.pdf>; 1 page.

Non-Vented Vial Access Pin with ultrasite.rm. Valve, B. Braun Medical, Inc. website and product description, 3 pages, Feb. 2006. Notice of Allowance dated Jan. 12, 2016 in U.S. Appl. No. 14/385,212 by Lev.

Notice of Allowance dated Mar. 17, 2016 in U.S. Appl. No. 29/502,037 by Lev.

Novel Transfer, Mixing and Drug Delivery System, MOP Medimop Medical Projects Ltd. Catalog, 4 pages, Rev. 4, 2004.

Office Action dated Apr. 17, 2014 in CN Application No. 201080051201.4.

Office Action dated Apr. 2, 2013 in U.S. Appl. No. 13/505,790.

Office Action dated Apr. 20, 2010 in U.S. Appl. No. 11/997,569.

Office Action dated Apr. 9, 2015 in U.S. Appl. No. 13/883,289 by Lev.

Office Action dated Aug. 20, 2013 in U.S. Appl. No. 13/576,461 by Lev.

Office Action dated Aug. 24, 2015 in U.S. Appl. No. 14/366,306 by Lev.

Office Action dated Aug. 3, 2011 in JP Application No. 2008-525719.

Office Action dated Aug. 7, 2015 in JP Application No. 2015-529206.

Office Action dated Dec. 13, 2010 in U.S. Appl. No. 12/293,122.

Office Action dated Dec. 20, 2010 in U.S. Appl. No. 12/063,176.

Office Action dated Dec. 23, 2010 in U.S. Appl. No. 29/334,696.

Office Action dated Dec. 9, 2015 in U.S. Appl. No. 29/478,723 by Lev.

Office Action dated Dec. 9, 2015 in U.S. Appl. No. 29/478,726 by Lev.

Office Action dated Feb. 13, 2014 in U.S. Appl. No. 13/884,981 by Denenburg.

Office Action dated Feb. 20, 2009 in U.S. Appl. No. 11/694,297.

Office Action dated Feb. 22, 2005 in U.S. Appl. No. 10/062,796.

Office Action dated Feb. 7, 2011 in U.S. Appl. No. 12/783,194.

Office Action dated Jan. 17, 2014 in CN Application No. 201180006534.X.

Office Action dated Jan. 2, 2014 in U.S. Appl. No. 13/505,881 by Lev.

Office Action dated Jan. 2, 2015 in U.S. Appl. No. 29/438,141 by Gilboa.

Office Action dated Jan. 20, 2010 in JP Application No. 2007-510229.

Office Action dated Jan. 23, 2013 in U.S. Appl. No. 12/112,490 by Zinger.

Office Action dated Jan. 5, 2015 in U.S. Appl. No. 29/413,220 by Lev.

U.S. Appl. No. 14/385,212 by Lev, filed Sep. 15, 2014.

U.S. Appl. No. 14/391,792 by Lev, filed Oct. 10, 2014.

U.S. Appl. No. 14/423,595 by Lev, filed Feb. 24, 2015.

U.S. Appl. No. 14/423,612 by Lev, filed Feb. 24, 2015.

U.S. Appl. No. 14/425,582 by Lev, filed Mar. 3, 2015.

(56)

References Cited

OTHER PUBLICATIONS

- U.S. Appl. No. 14/504,979 by Lev, filed Oct. 2, 2014.
 U.S. Appl. No. 14/784,300 by Lev, filed Oct. 14, 2015.
 U.S. Appl. No. 14/888,590 by Marks, filed Nov. 2, 2015.
 U.S. Appl. No. 29/438,134 by Lev, filed Nov. 27, 2012.
 U.S. Appl. No. 29/438,141 by Gilboa, filed Nov. 27, 2012.
 U.S. Appl. No. 29/478,723 by Lev, filed Jan. 8, 2014.
 U.S. Appl. No. 29/478,726 by Lev, filed Jan. 8, 2014.
 U.S. Appl. No. 29/502,037 by Lev, filed Sep. 11, 2014.
 U.S. Appl. No. 29/502,053 by Lev, filed Sep. 11, 2014.
 U.S. Appl. No. 29/544,969 by Ben Shalom, filed Nov. 9, 2015.
 Vial-Mate Adapter Device, Baxter, May 2017, downloaded from web page: <http://www.baxtermedicationdeliveryproducts.com/drug-delivery/vialmate.html>, Download Date: Jul. 28, 2017, original posting date: unknown, 1page.
 Vial2Bag Advanced™ 20mm Admixture, West Pharmaceutical Services Inc, Youtube, [post date Nov. 5, 2020], [Site seen Jan. 25, 2022], Seen at URL: <https://www.youtube.com/watch?v=J0Am3mt5vn8> (Year: 2020).
 Vial2Bag DC, downloaded from webpage: <https://www.youtube.com/watch?v=FEOkg1xNBrs>, Original posting date: Aug. 21, 2014, 1 page.
 Written Opinion dated Aug. 16, 2012 in Int'l Application No. PCT/IL2012/000164.
 Written Opinion dated Jul. 31, 2013 in Int'l Application No. PCT/IL2013/050313.
 Written Opinion dated Jun. 5, 2013 in Int'l Application No. PCT/IL2012/050407.
 Written Opinion of ISR dated Jun. 19, 2006 in Int'l Application No. PCT/IL2005/000376.
 Written Opinion of the Int'l Searching Authority Issued Oct. 27, 2008 in Int'l Application No. PCT/US2008/070024.
 Written Opinion of the ISR dated Oct. 17, 2009 in Int'l Application No. PCT/IL08/00517.
 YouTube, "Advcare—Vial Direct to bag Spoke", first available Oct. 31, 2018 (https://www.youtube.com/watch?v=dd8ctgkrfm&feature=emb_title)(2018).
 YouTube, "vial2Bag DC", first available Feb. 1, 2018, (https://www.youtube.com/watch?v=abSKPo5e_Hg) (Year:2018).
 Youtube, "Vial2Bag.RTM. Needleless IV Transfer System from Helapet Ltd", first available Aug. 21, 2014 (<https://www.youtube.com/watch?v=yFejvs0eemE>) (Year: 2014).
 Article with picture of West Pharmaceutical Services' Vial2Bag Needleless System, [on-line]; !Sips Newsletter, Oct. 26, 2007; retrieved from Internet Feb. 16, 2010; URL:<http://www.isips.org/reports/ISIPS_Newsletter_October_26_2007.html> (7 pages. see pp. 5-6).
 Author unknown, Progressive Medical inc. is proud to announce the launch of West's Vial2Bag Advanced, Progressive Medicine., [Post Date Oct. 23, 2020], [Site seen Jan. 25, 2022], Seen at URL: <https://www.progressivemedinc.com/west-launches-vial2bag-advanced-20mm-admixture-device/> (Year: 2020).
 Decision to Grant dated Apr. 12, 2010 in EP Application No. 08738307.1.
 Drug Administration Systems product information sheets; <http://www.westpharma.com/eu/en/products/Pages/Vial2Bag.aspx>; pp. 1-3.
 English translation of an Office Action dated Apr. 28, 2014 in JP Application No. 2013-537257.
 English translation of an Office Action dated Aug. 28, 2014 in JP Application No. 2013-168885.
 English translation of an Office Action dated Dec. 25, 2013 in CN Application No. 201180006530.1.
 English translation of an Office Action dated Dec. 4, 2013 in CN Application No. 201080051210.3.
 English translation of an Office Action dated Feb. 4, 2014 in JP Application No. 2012-554468.
 English translation of an Office Action dated Jan. 9, 2014 in JP Application No. 2010-526421.
 English translation of an Office Action dated Jul. 26, 2013 in JP Application No. 2012-538464.
 English translation of an Office Action dated Jun. 19, 2013 in JP Application No. 2012-531551.
 English translation of an Office Action dated Jun. 30, 2014 in CN Application No. 201180052962.6.
 English translation of an Office Action dated Sep. 10, 2013 in JP Application No. 2012-554468.
 Extended European Search Report dated Jun. 3, 2014 in EP Application No. 08781828.2.
 Facebook "West Pharmaceutical Services, Inc.", first available Oct. 21, 2014 (<https://www.facebook.com/westpharma/photos/710246859056351>)(2014).
 Grifols Vial Adapter Product Literature, 2 pages, Jan. 2002. <http://www.knovel.com/web/portal/browse/display?.sub.--EXT.sub.--KNOVEL.su.b.-DISPLAY.sub.-bookid=1023&VerticalID=0> [retrieved on Feb. 9, 2011].
<http://www.westpharma.com/en/products/Pages/Mixject.aspx>, [Retrieved on Aug. 8, 2012].
<http://www.westpharma.com/eu/en/products/Pages/Vial2Bag.aspx>; Drug Administration Systems product information sheets pp. 1-3.
<http://www.westpharma.com/eu/SiteCollectionDocuments/Recon/mixject%20produ-ct%20sheet.pfg>; Mixject product information sheet pp. 1, Sep. 10, 2010.
 Int'l Preliminary Report on Patentability Issued Oct. 20, 2009 in Int'l Application No. PCT/IL2008/000517.
 Int'l Preliminary Report on Patentability issued Jan. 14, 2014 in Int'l Application No. PCT/IL2012/050516.
 Int'l Preliminary Report on Patentability issued May 6, 2008 in Int'l Application No. PCT/IL2006/001228.
 Int'l Preliminary Report on Patentability issued May 12, 2014 in Int'l Application No. PCT/IL2013/050316.
 Int'l Preliminary Report on Patentability issued Aug. 20, 2014 in Int'l Application No. PCT/IL2012/050407.
 Int'l Preliminary Report on Patentability issued Aug. 28, 2012 in Int'l Application No. PCT/IL2011/000186.
 Int'l Preliminary Report on Patentability issued Sep. 24, 2013 in Int'l Application No. PCT/IL2012/000354.
 Int'l Preliminary Report on Patentability Issued Dec. 4, 2009 in Int'l Application No. PCT/IL2006/000912.
 Int'l Preliminary Report on Patentability Issued Jun. 19, 2006 in Int'l Application No. PCT/IL2005/000376.
 Int'l Preliminary Report on Patentability Issued Jun. 19, 2008 in Int'l Application No. PCT/IL2007/000343.
 Int'l Search Report & Written Opinion issued on Mar. 7, 2012 in Int'l Application No. PCT/IL2011/000829.
 Int'l Search Report and Written Opinion issued Mar. 6, 2012 in Int'l Application No. PCT/IL2011/000834.
 Int'l Search Report and Written Opinion issued May 8, 2014 in Int'l Application No. PCT/IL2013/050706.
 Int'l Search Report and Written Opinion issued Jul. 16, 2014 in Int'l Application No. PCT/IL2014/050327.
 Int'l Search Report and Written Opinion issued Sep. 2, 2014 in Int'l Application No. PCT/IL2014/050405.
 Int'l Search Report and Written Opinion issued Mar. 23, 2020 in Int'l Application No. PCT/IL2020/050048.
 Int'l Search Report issued Feb. 3, 2011 in Int'l Application No. PCT/IL2010/000777; Written Opinion.
 Int'l Search Report issued Mar. 17, 2011 in Int'l Application No. PCT/IL2010/000854; Written Opinion.
 Int'l Search Report issued Mar. 17, 2011 in Int'l Application No. PCT/IL2010/000915; Written Opinion.
 Int'l Search Report issued Mar. 18, 2013 in Int'l Application No. PCT/IL2012/050516.
 Int'l Search Report issued Jun. 5, 2013 in Int'l Application No. PCT/IL2012/050407.
 Int'l Search Report issued Jun. 19, 2013 in Int'l Application No. PCT/IL2013/050167.
 Int'l Search Report issued Jul. 1, 2013 in Int'l Application No. PCT/IL2013/050180.
 Int'l Search Report issued Jul. 26, 2013 in Int'l Application No. PCT/IL2013/050316.
 Int'l Search Report issued Jul. 31, 2013 in Int'l Application No. PCT/IL2013/050313.

(56)

References Cited

OTHER PUBLICATIONS

Int'l Search Report issued Aug. 16, 2012 in Int'l Application No. PCT/IL2012/000164.

Int'l Search Report Issued Oct. 17, 2005 in Int'l Application No. PCT/IL2005/000376.

Int'l Search Report issued Oct. 17, 2011 in Int'l Application No. PCT/IL2011/000511.

Int'l Search Report issued Nov. 25, 2010 in Int'l Application No. PCT/IL2010/000530.

Office Action dated Jul. 11, 2011 in U.S. Appl. No. 12/293,122.

Office Action dated Jul. 13, 2012 in U.S. Appl. No. 12/112,490 by Zinger.

Office Action dated Jul. 31, 2014 in U.S. Appl. No. 29/438,141 by Gilboa.

Office Action dated Jun. 1, 2010 in U.S. Appl. No. 11/568,421.

Office Action dated Jun. 14, 2012 in U.S. Appl. No. 29/376,980.

Office Action dated Jun. 15, 2011 in JP Application No. 2008-538492.

Office Action dated Jun. 15, 2012 in U.S. Appl. No. 29/413,170.

Office Action dated Jun. 21, 2012 in U.S. Appl. No. 12/596,167.

Office Action dated Jun. 8, 2010 in U.S. Appl. No. 12/112,490 by Zinger.

Office Action dated Mar. 1, 2012 in CN Application No. 200880108283.4.

Office Action dated Mar. 10, 2015 in EP Application No. 12 812 395.7.

Office Action dated Mar. 13, 2012 in CA Application No. 2,563,643.

Office Action dated Mar. 17, 2015 in U.S. Appl. No. 14/504,979 by Lev.

Office Action dated Mar. 25, 2016 in U.S. Appl. No. 29/478,726 by Lev.

Office Action dated Mar. 28, 2016 in JP Application No. 2016-507113.

Office Action dated Mar. 6, 2012 in U.S. Appl. No. 12/678,928.

Office Action dated May 12, 2011 in U.S. Appl. No. 12/063,176.

Office Action dated May 27, 2010 in U.S. Appl. No. 11/559,152.

Office Action dated May 28, 2015 in U.S. Appl. No. 14/391,792 by Lev.

Office Action dated May 31, 2013 in U.S. Appl. No. 13/505,790.

Office Action dated May 6, 2014 in U.S. Appl. No. 13/505,881 by Lev.

Office Action dated Nov. 11, 2013 in IL Application No. 218730.

Office Action dated Nov. 28, 2013 in IN Application No. 4348/DELNP/2008.

Office Action dated Nov. 29, 2010 in U.S. Appl. No. 11/568,421.

Office Action dated Oct. 5, 2005 in U.S. Appl. No. 10/062,796.

Office Action dated Oct. 5, 2015 in U.S. Appl. No. 14/385,212 by Lev.

Office Action dated Oct. 6, 2003 in U.S. Appl. No. 10/062,796.

Office Action dated Oct. 8, 2013 in CN Application No. 201080043825.1.

Office Action dated Sep. 28, 2010 in U.S. Appl. No. 12/112,490 by Zinger.

Office Action issued Jul. 31, 2012 in U.S. Appl. No. 12/598,469.

Office Action issued May 25, 2021 issued in Japanese Application No. 2020-553506.

Our Vial2Bag Advanced™ 20mm admixture device , West Pharma, WestPharma @twitter, [Postdate Mar. 19, 2021], [Siteman Jan. 25, 2022], Seen at URL: <https://twitter.com/westpharma/status/1372921057766739971> (Year: 2021).

Overview—Silicone Rubber [retrieved from http://www.knovel.com/web/portal/browse/display?EXT_KNOVEL_DISPLAY_bookid=1023&VerticalID=0 on Feb. 9, 2011].

Photographs of Alaris Medical Systems SmartSite.RTM. device, 5 pages, 2002.

Publication date of Israeli Patent Application 186290 [on-line]. [Retrieved from Internet May 24, 2010]. URL:<<http://www.ilpatsearch.justice.gov.il/UI/Requestslist.aspx>>. (1 page).

Smart Site Needle-Free Systems, Alaris Medical Systems Webpage, 4 pages, Feb. 2006.

Smart Site.RTM. Alaris Medical Systems Product Brochure, 4 pages, Issue 1, Oct. 1999.

Summit International Medical Technologies Inc., Vial Direct to Bag Spike 2020.

The MixJect transfer system, as shown in the article, "Advanced Delivery Devices," Drug Delivery Technology Jul.-Aug. 2007 vol. 7 No.7 [on-line]. [Retrieved from Internet May 14, 2010.] URL: <<http://www.drugdeliverytech-online.com/drugdelivery/200707/?pg=28pg28>>. (3 pages).

Translation of Office Action dated Apr. 15, 2013 in JP Application No. 2008-538492.

Translation of Office Action dated Jun. 18, 2012 in JP Application No. 2008-538492.

U.S. Appl. No. 14/005,751 by Denenburg, filed Sep. 17, 2013.

U.S. Appl. No. 13/505,790 by LEV, filed May 3, 2012.

U.S. Appl. No. 13/505,881 by LEV, filed May 3, 2012.

U.S. Appl. No. 13/522,410 by LEV, filed Jul. 16, 2012.

U.S. Appl. No. 13/576,461 by LEV, filed Aug. 1, 2012.

U.S. Appl. No. 13/883,289 by Lev, filed May 3, 2013.

U.S. Appl. No. 13/884,981 by Denenburg, filed May 13, 2013.

U.S. Appl. No. 14/345,094 by Lev, filed Mar. 14, 2014.

U.S. Appl. No. 14/366,306 by Lev, filed Jun. 18, 2014.

* cited by examiner

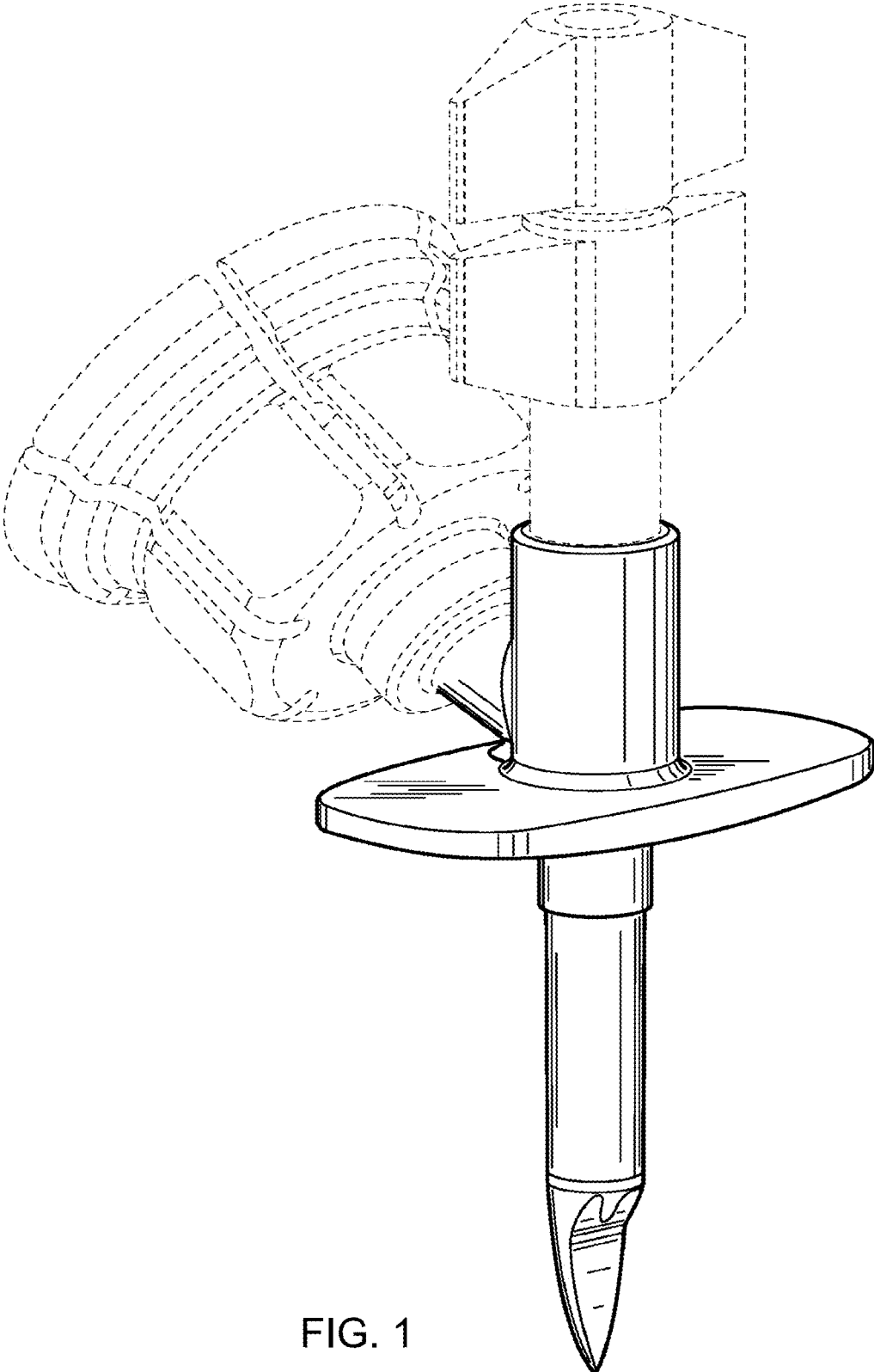


FIG. 1

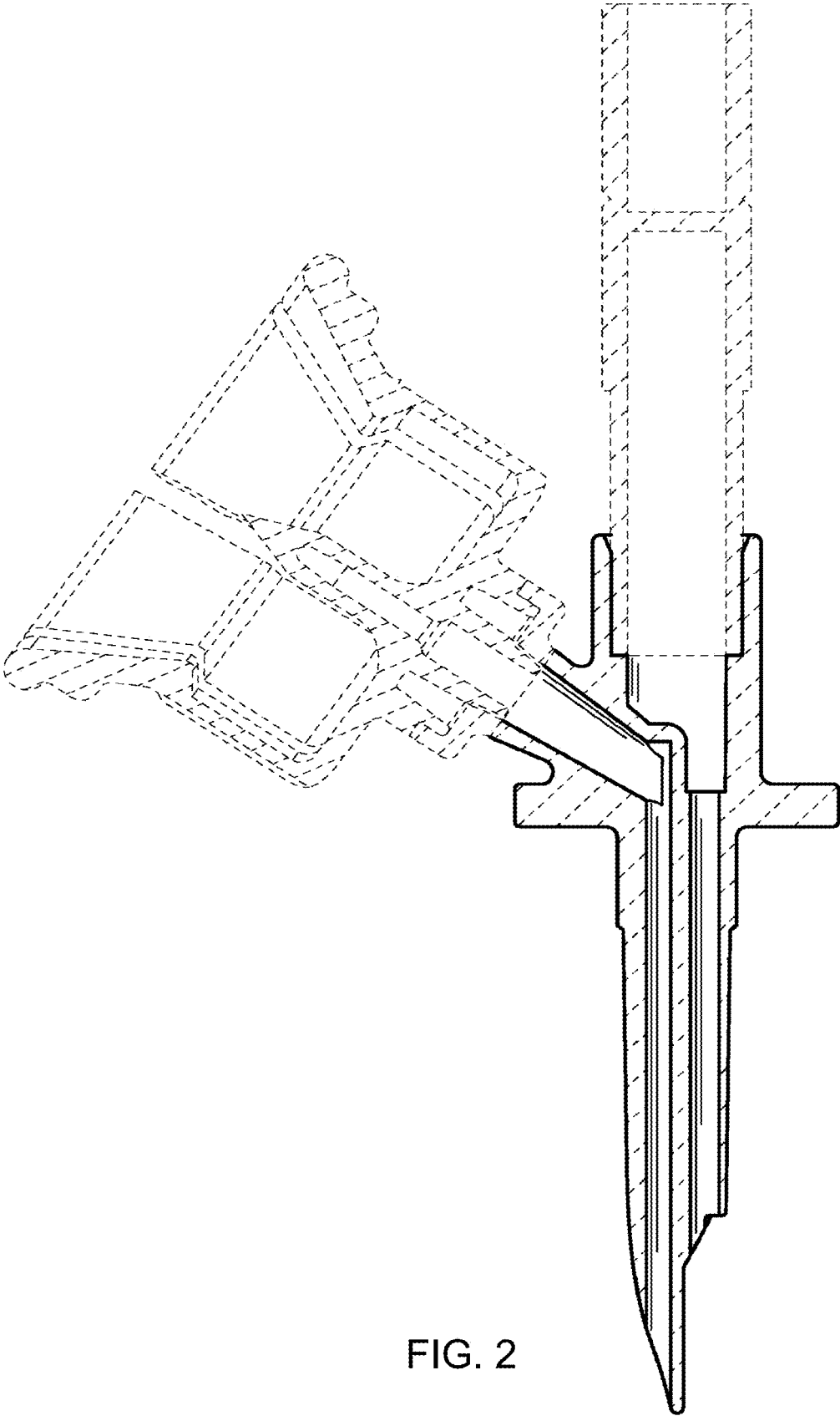


FIG. 2