



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

(10) **Patent No.:** **US D701,601 S**  
(45) **Date of Patent:** **\*\* Mar. 25, 2014**

(54) **CONDENSATE VIAL OF AN EXHALATION MODULE**

(71) Applicant: **Covidien LP**, Boulder, CO (US)

(72) Inventor: **David Phillip Winter**, Encinitas, CA (US)

(73) Assignee: **Covidien LP**, Mansfield, MA (US)

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

(21) Appl. No.: **29/447,977**

(22) Filed: **Mar. 8, 2013**

(51) **LOC (10) Cl.** ..... **24-02**

(52) **U.S. Cl.**  
USPC ..... **D24/127; D24/216**

(58) **Field of Classification Search**  
USPC ..... D24/127, 121, 123, 224, 216, 110.6;  
604/317-325; 422/500, 547, 554;  
128/203.12, 205.24, 205.12

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

3,444,857 A	5/1969	Godel	
3,481,333 A	12/1969	Garrison	
3,485,243 A	12/1969	Bird et al.	
3,688,794 A	9/1972	Bird et al.	
4,241,756 A	12/1980	Bennett et al.	
D266,190 S *	9/1982	Herman	D24/121
4,527,557 A	7/1985	DeVries et al.	
4,608,976 A	9/1986	Suchy	
4,699,137 A	10/1987	Schroeder	
RE32,553 E	12/1987	Bennett et al.	
4,712,580 A	12/1987	Gilman et al.	
4,727,871 A	3/1988	Smargiassi et al.	
4,747,403 A	5/1988	Gluck et al.	
4,752,089 A	6/1988	Carter	
4,880,411 A *	11/1989	Fangrow et al.	604/319
4,921,642 A	5/1990	LaTorraca	

4,954,799 A	9/1990	Kumar	
4,956,148 A *	9/1990	Grandone	422/64
4,957,107 A	9/1990	Sipin	
4,991,576 A	2/1991	Henkin et al.	
4,993,269 A	2/1991	Guillaume et al.	
5,000,173 A	3/1991	Zalkin et al.	
5,020,532 A	6/1991	Mahoney et al.	
5,057,822 A	10/1991	Hoffman	
5,072,729 A	12/1991	DeVries	
5,072,737 A	12/1991	Goulding	
5,109,838 A	5/1992	Elam	
5,127,400 A	7/1992	DeVries et al.	

(Continued)

**FOREIGN PATENT DOCUMENTS**

WO WO 2007/102866 9/2007

**OTHER PUBLICATIONS**

7200 Series Ventilator, Options, and Accessories: Operator's Manual. Nellcor Puritan Bennett, Part No. 22300 A, Sep. 1990, pp. 1-196.

(Continued)

*Primary Examiner* — David Muller

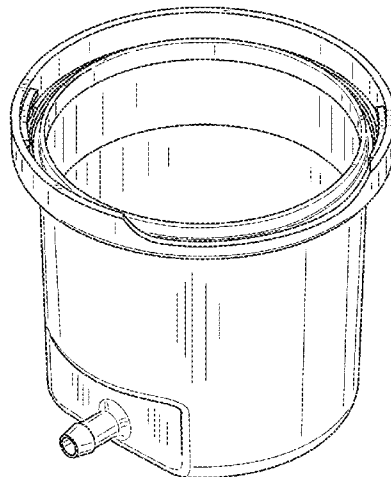
(57) **CLAIM**

The ornamental design for a condensate vial of an exhalation module, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of a condensate vial of an exhalation module showing the new design.  
FIG. 2 is a front view thereof;  
FIG. 3 is a rear view thereof;  
FIG. 4 is a right side view thereof;  
FIG. 5 is a left side view thereof;  
FIG. 6 is a top view thereof; and,  
FIG. 7 is a bottom view thereof.

**1 Claim, 7 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

5,134,995 A	8/1992	Gruenke et al.	5,697,363 A	12/1997	Hart
5,150,291 A	9/1992	Cummings et al.	5,701,883 A	12/1997	Hete et al.
5,161,525 A	11/1992	Kimm et al.	5,701,889 A	12/1997	Danon
5,168,868 A	12/1992	Hicks	D390,668 S *	2/1998	Lewandowski et al. .... D24/224
5,178,155 A	1/1993	Mault	5,715,812 A	2/1998	Deighan et al.
5,237,987 A	8/1993	Anderson et al.	5,762,480 A	6/1998	Adahan
5,255,675 A	10/1993	Kolobow	5,765,550 A *	6/1998	Pсарos et al. .... 128/205.12
5,259,373 A	11/1993	Gruenke et al.	5,771,884 A	6/1998	Yarnall et al.
5,269,293 A	12/1993	Loser et al.	5,791,339 A	8/1998	Winter
5,271,389 A	12/1993	Isaza et al.	5,794,614 A	8/1998	Gruenke et al.
5,277,175 A	1/1994	Riggs et al.	5,794,986 A	8/1998	Gansel et al.
5,279,549 A	1/1994	Ranford	5,797,393 A	8/1998	Kohl
5,299,568 A	4/1994	Forare et al.	D398,993 S *	9/1998	Jones ..... D24/121
5,301,667 A	4/1994	McGrail et al.	5,803,064 A	9/1998	Phelps et al.
5,301,921 A	4/1994	Kumar	5,813,399 A	9/1998	Isaza et al.
5,303,699 A	4/1994	Bonassa et al.	5,823,179 A	10/1998	Grychowski et al.
5,309,901 A	5/1994	Beaussant	5,826,575 A	10/1998	Lall
5,319,540 A	6/1994	Isaza et al.	5,829,441 A	11/1998	Kidd et al.
5,325,861 A	7/1994	Goulding	5,845,636 A	12/1998	Gruenke et al.
5,331,995 A	7/1994	Westfall et al.	5,857,458 A	1/1999	Tham et al.
5,333,606 A	8/1994	Schneider et al.	5,864,938 A	2/1999	Gansel et al.
5,339,807 A	8/1994	Carter	5,865,168 A	2/1999	Isaza
5,343,857 A	9/1994	Schneider et al.	5,868,133 A	2/1999	DeVries et al.
5,343,858 A	9/1994	Winefordner et al.	5,871,476 A *	2/1999	Hand ..... 604/319
5,351,522 A	10/1994	Lura	5,875,783 A	3/1999	Kullik
5,357,946 A	10/1994	Kee et al.	5,876,352 A	3/1999	Weismann
5,360,000 A	11/1994	Carter	5,881,717 A	3/1999	Isaza
5,368,019 A	11/1994	LaTorraca	5,881,722 A	3/1999	DeVries et al.
5,368,021 A	11/1994	Beard et al.	5,881,723 A	3/1999	Wallace et al.
5,383,449 A	1/1995	Forare et al.	5,884,623 A	3/1999	Winter
5,385,142 A	1/1995	Brady et al.	5,909,731 A	6/1999	O'Mahony et al.
5,390,666 A	2/1995	Kimm et al.	5,915,379 A	6/1999	Wallace et al.
5,398,677 A	3/1995	Smith	5,915,380 A	6/1999	Wallace et al.
5,401,135 A	3/1995	Stoen et al.	5,915,382 A	6/1999	Power
5,402,796 A	4/1995	Packer et al.	5,918,597 A	7/1999	Jones et al.
5,407,174 A	4/1995	Kumar	5,921,238 A	7/1999	Bourdon
5,413,110 A	5/1995	Cummings et al.	5,934,274 A	8/1999	Merrick et al.
5,438,980 A	8/1995	Phillips	5,937,856 A	8/1999	Jonasson et al.
5,443,075 A	8/1995	Holscher	5,941,846 A	8/1999	Duffy et al.
5,452,714 A	9/1995	Anderson et al.	5,957,130 A	9/1999	Krahbichler et al.
5,467,766 A	11/1995	Ansita et al.	6,024,089 A	2/2000	Wallace et al.
5,484,270 A	1/1996	Adahan	6,041,777 A	3/2000	Faithfull et al.
5,494,028 A	2/1996	DeVries et al.	6,041,780 A	3/2000	Richard et al.
5,497,767 A	3/1996	Olsson et al.	6,047,860 A	4/2000	Sanders
5,503,140 A	4/1996	Winefordner et al.	D425,984 S *	5/2000	Niermann et al. .... D24/216
5,513,631 A	5/1996	McWilliams	6,073,630 A	6/2000	Adahan
5,517,983 A	5/1996	Deighan et al.	6,076,523 A	6/2000	Jones et al.
5,520,071 A	5/1996	Jones	6,095,139 A	8/2000	Pсарos
5,524,615 A	6/1996	Power	6,102,038 A	8/2000	DeVries
5,531,221 A	7/1996	Power	6,116,240 A	9/2000	Merrick et al.
5,540,220 A	7/1996	Gropper et al.	6,116,242 A	9/2000	Frye et al.
5,542,415 A	8/1996	Brady	6,116,464 A	9/2000	Sanders
5,542,416 A	8/1996	Chalvignac	6,119,686 A	9/2000	Somerson et al.
5,544,674 A	8/1996	Kelly	6,123,073 A	9/2000	Schlawin et al.
5,546,935 A	8/1996	Champeau	6,123,074 A	9/2000	Hete et al.
5,549,106 A	8/1996	Gruenke et al.	6,131,571 A	10/2000	Lampotang et al.
5,568,910 A	10/1996	Koehler et al.	6,135,106 A	10/2000	Dirks et al.
5,575,283 A	11/1996	Sjostrand	6,135,967 A	10/2000	Fiorenza et al.
5,596,984 A	1/1997	O'Mahony et al.	6,142,150 A	11/2000	O'Mahony et al.
5,606,968 A	3/1997	Mang	6,148,814 A	11/2000	Clemmer et al.
5,617,847 A	4/1997	Howe	6,152,132 A	11/2000	Pсарos
5,630,411 A	5/1997	Holscher	6,152,135 A	11/2000	DeVries et al.
5,632,270 A	5/1997	O'Mahony et al.	6,158,432 A	12/2000	Biondi et al.
5,645,048 A	7/1997	Brodsky et al.	6,161,539 A	12/2000	Winter
5,657,750 A	8/1997	Colman et al.	D435,906 S *	1/2001	Wilkinson et al. .... D24/121
5,660,171 A	8/1997	Kimm et al.	6,176,234 B1	1/2001	Salter et al.
5,662,099 A	9/1997	Tobia et al.	6,192,885 B1	2/2001	Jalde
5,664,560 A	9/1997	Merrick et al.	6,217,524 B1	4/2001	Orr et al.
5,664,562 A	9/1997	Bourdon	6,220,245 B1	4/2001	Takabayashi et al.
5,671,767 A	9/1997	Kelly	6,269,812 B1	8/2001	Wallace et al.
5,672,041 A	9/1997	Ringdahl et al.	6,273,444 B1	8/2001	Power
5,673,689 A	10/1997	Power	6,283,119 B1	9/2001	Bourdon
5,678,537 A	10/1997	Bathe et al.	6,287,264 B1	9/2001	Hoffman
5,683,232 A	11/1997	Adahan	6,295,330 B1	9/2001	Skog et al.
5,692,497 A	12/1997	Schnitzer et al.	6,295,985 B1	10/2001	Kock et al.
			6,305,373 B1	10/2001	Wallace et al.
			6,306,098 B1	10/2001	Orr et al.
			6,308,706 B1	10/2001	Lammers et al.
			6,309,360 B1	10/2001	Mault

(56)

## References Cited

## U.S. PATENT DOCUMENTS

6,321,748 B1	11/2001	O'Mahoney	7,152,604 B2	12/2006	Hickle et al.
6,325,785 B1	12/2001	Babkes et al.	7,168,597 B1	1/2007	Jones et al.
6,349,922 B1	2/2002	Rydin	7,195,013 B2	3/2007	Lurie
6,357,438 B1	3/2002	Hansen	7,210,478 B2	5/2007	Banner et al.
6,360,745 B1	3/2002	Wallace et al.	7,222,623 B2	5/2007	DeVries et al.
6,369,838 B1	4/2002	Wallace et al.	7,241,269 B2	7/2007	McCawley et al.
6,371,113 B1	4/2002	Tobia et al.	7,270,126 B2	9/2007	Wallace et al.
6,412,483 B1	7/2002	Jones et al.	7,275,540 B2	10/2007	Bolam et al.
6,415,788 B1	7/2002	Clawson et al.	7,291,115 B2	11/2007	Cardona Burrul
6,419,634 B1	7/2002	Gaston, IV et al.	7,302,949 B2	12/2007	Pelerossi et al.
6,439,229 B1	8/2002	Du et al.	7,320,321 B2	1/2008	Pranger et al.
6,457,472 B1	10/2002	Schwartz et al.	7,320,324 B2	1/2008	Willeford
6,467,478 B1	10/2002	Merrick et al.	7,347,825 B2	3/2008	Vaughan et al.
6,523,537 B1	2/2003	Mas Marfany	7,369,757 B2	5/2008	Farbarik
6,523,538 B1	2/2003	Wikefeldt	7,370,650 B2	5/2008	Nadjafizadeh et al.
6,526,970 B2	3/2003	DeVries et al.	7,392,806 B2	7/2008	Yuen et al.
D472,636 S *	4/2003	Haynes ..... D24/216	7,428,902 B2	9/2008	Du et al.
6,543,449 B1	4/2003	Woodring et al.	7,460,959 B2	12/2008	Jafari
6,546,930 B1	4/2003	Emerson et al.	7,475,685 B2	1/2009	Dietz et al.
6,550,479 B1	4/2003	Duxbury	7,484,508 B2	2/2009	Younes
6,553,991 B1	4/2003	Isaza	7,487,773 B2	2/2009	Li
6,557,553 B1	5/2003	Borrello	7,487,778 B2	2/2009	Freitag
6,557,554 B1	5/2003	Sugiura	7,500,483 B2	3/2009	Colman et al.
6,564,798 B1	5/2003	Jalde	7,509,957 B2	3/2009	Duquette et al.
6,571,795 B2	6/2003	Bourdon	7,525,663 B2	4/2009	Kwok et al.
6,572,561 B2	6/2003	Mault	7,533,670 B1	5/2009	Freitag et al.
6,572,827 B2 *	6/2003	Wilkinson et al. .... 422/547	7,547,285 B2	6/2009	Kline
6,575,164 B1	6/2003	Jaffe et al.	7,556,038 B2	7/2009	Kirby et al.
6,575,165 B1	6/2003	Cook et al.	7,556,042 B2	7/2009	West et al.
6,575,918 B2	6/2003	Kline	7,562,657 B2	7/2009	Blanch et al.
6,584,973 B1	7/2003	Biondi et al.	7,588,033 B2	9/2009	Wondka
D478,659 S *	8/2003	Hall et al. .... D24/111	7,610,914 B2	11/2009	Bolam et al.
6,606,994 B1	8/2003	Clark	7,617,824 B2	11/2009	Doyle
6,616,615 B2	9/2003	Mault	7,621,271 B2	11/2009	Brugnoli
6,619,289 B1	9/2003	Mashak	7,634,998 B1	12/2009	Fenley
6,622,725 B1	9/2003	Fisher et al.	7,654,802 B2	2/2010	Crawford, Jr. et al.
6,622,726 B1	9/2003	Du	7,686,019 B2	3/2010	Weiss
6,629,934 B2	10/2003	Mault et al.	7,694,677 B2	4/2010	Tang
6,631,716 B1	10/2003	Robinson et al.	7,699,788 B2	4/2010	Kuck et al.
6,644,310 B1	11/2003	Delache et al.	7,717,113 B2	5/2010	Andrieux
6,668,824 B1	12/2003	Isaza et al.	7,721,735 B2	5/2010	Hamilton et al.
6,675,801 B2	1/2004	Wallace et al.	7,721,736 B2	5/2010	Urias et al.
6,718,974 B1	4/2004	Moberg	D618,356 S	6/2010	Ross
6,722,359 B2	4/2004	Chalvignac	7,740,591 B1	6/2010	Starr et al.
6,723,055 B2	4/2004	Hoffman	7,753,052 B2	7/2010	Tanaka
6,725,447 B1	4/2004	Gilman et al.	7,779,840 B2	8/2010	Acker et al.
6,729,331 B2	5/2004	Kay	7,784,461 B2	8/2010	Figueiredo et al.
6,739,334 B2	5/2004	Valeij	7,810,497 B2	10/2010	Pittman et al.
6,739,337 B2	5/2004	Isaza	7,814,908 B2	10/2010	Psaros
6,761,167 B1	7/2004	Nadjafizadeh et al.	7,819,815 B2	10/2010	Younes
6,761,168 B1	7/2004	Nadjafizadeh et al.	7,823,588 B2	11/2010	Hansen
6,763,829 B2	7/2004	Jaffe et al.	7,828,741 B2	11/2010	Kline et al.
6,772,762 B2	8/2004	Piesinger	7,846,739 B2	12/2010	von Bahr et al.
6,805,121 B1	10/2004	Flood et al.	7,849,854 B2	12/2010	DeVries et al.
6,814,074 B1	11/2004	Nadjafizadeh et al.	7,855,716 B2	12/2010	McCreary et al.
6,866,040 B1	3/2005	Bourdon	7,861,716 B2	1/2011	Borrello
6,877,511 B2	4/2005	DeVries et al.	7,870,857 B2	1/2011	Dhuper et al.
6,886,558 B2	5/2005	Tanaka	D632,796 S	2/2011	Ross et al.
6,896,713 B1	5/2005	Eckerbom et al.	D632,797 S	2/2011	Ross et al.
6,938,619 B1	9/2005	Hickle	7,883,471 B2	2/2011	Aljuri et al.
6,960,854 B2	11/2005	Nadjafizadeh et al.	7,885,771 B2	2/2011	Roecker et al.
6,968,840 B2	11/2005	Smith et al.	7,891,354 B2	2/2011	Farbarik
D518,172 S	3/2006	Britten et al.	7,893,560 B2	2/2011	Carter
7,032,589 B2	4/2006	Kerechanin, II et al.	7,900,626 B2	3/2011	Daly
7,036,504 B2	5/2006	Wallace et al.	7,913,690 B2	3/2011	Fisher et al.
7,040,315 B1	5/2006	Strömberg	D638,852 S	5/2011	Skidmore et al.
7,040,321 B2	5/2006	Göbel	7,984,714 B2	7/2011	Hausmann et al.
7,043,979 B2	5/2006	Smith et al.	D643,535 S	8/2011	Ross et al.
7,066,175 B2	6/2006	Hamilton et al.	7,992,557 B2	8/2011	Nadjafizadeh et al.
7,066,177 B2	6/2006	Pittaway et al.	8,001,967 B2	8/2011	Wallace et al.
7,077,131 B2	7/2006	Hansen	D645,158 S	9/2011	Sanchez et al.
RE39,225 E	8/2006	Isaza et al.	8,021,310 B2	9/2011	Sanborn et al.
7,117,438 B2	10/2006	Wallace et al.	D649,157 S	11/2011	Skidmore et al.
7,118,537 B2	10/2006	Baddour	D652,521 S	1/2012	Ross et al.
7,121,277 B2	10/2006	Ström	D652,936 S	1/2012	Ross et al.
			D653,749 S	2/2012	Winter et al.
			8,113,062 B2	2/2012	Graboi et al.
			D655,405 S	3/2012	Winter et al.
			D655,809 S	3/2012	Winter et al.

(56)

## References Cited

## U.S. PATENT DOCUMENTS

D656,237	S	3/2012	Sanchez et al.	2009/0084381	A1	4/2009	DeVries et al.
D659,254	S *	5/2012	Miyashita et al. .... D24/216	2009/0090359	A1	4/2009	Daviet et al.
8,181,648	B2	5/2012	Perine et al.	2009/0114223	A1	5/2009	Bonassa
8,210,173	B2	7/2012	Vandine	2009/0133695	A1	5/2009	Rao et al.
8,210,174	B2	7/2012	Farbarik	2009/0137919	A1	5/2009	Bar-Lavie et al.
8,240,684	B2	8/2012	Ross et al.	2009/0165795	A1	7/2009	Nadjafizadeh et al.
8,267,085	B2	9/2012	Jafari et al.	2009/0171176	A1	7/2009	Andersohn
8,272,379	B2	9/2012	Jafari et al.	2009/0188502	A1	7/2009	Tiedje
8,272,380	B2	9/2012	Jafari et al.	2009/0205661	A1	8/2009	Stephenson et al.
8,302,600	B2	11/2012	Andrieux et al.	2009/0205663	A1	8/2009	Vandine et al.
8,302,602	B2	11/2012	Andrieux et al.	2009/0217923	A1	9/2009	Boehm et al.
2002/0026941	A1	3/2002	Biondi et al.	2009/0221926	A1	9/2009	Younes
2002/0138213	A1	9/2002	Mault	2009/0229612	A1	9/2009	Levi et al.
2003/0062045	A1	4/2003	Woodring et al.	2009/0235935	A1	9/2009	Pacey
2004/0138577	A1	7/2004	Kline	2009/0241948	A1	10/2009	Clancy et al.
2004/0261793	A1	12/2004	Stromberg et al.	2009/0241951	A1	10/2009	Jafari et al.
2005/0039748	A1	2/2005	Andrieux	2009/0241952	A1	10/2009	Nicolazzi et al.
2005/0098177	A1	5/2005	Haj-Yahya et al.	2009/0241953	A1	10/2009	Vandine et al.
2005/0139211	A1	6/2005	Alston et al.	2009/0241955	A1	10/2009	Jafari et al.
2005/0139212	A1	6/2005	Bourdon	2009/0241956	A1	10/2009	Baker, Jr. et al.
2005/0150494	A1	7/2005	DeVries et al.	2009/0241957	A1	10/2009	Baker, Jr.
2005/0217671	A1	10/2005	Fisher et al.	2009/0241958	A1	10/2009	Baker, Jr.
2006/0032499	A1	2/2006	Halsnes	2009/0241962	A1	10/2009	Jafari et al.
2006/0129054	A1	6/2006	Orr et al.	2009/0241964	A1	10/2009	Aljuri et al.
2006/0130839	A1	6/2006	Bassovitch	2009/0247891	A1	10/2009	Wood
2006/0201507	A1	9/2006	Breen	2009/0250054	A1	10/2009	Loncar et al.
2006/0249148	A1	11/2006	Younes	2009/0250059	A1	10/2009	Allum et al.
2006/0249153	A1	11/2006	DeVries et al.	2009/0255533	A1	10/2009	Freitag et al.
2007/0000494	A1	1/2007	Banner et al.	2009/0260625	A1	10/2009	Wondka
2007/0017515	A1	1/2007	Wallace et al.	2009/0263279	A1	10/2009	Kline et al.
2007/0028921	A1	2/2007	Banner et al.	2009/0270752	A1	10/2009	Coifman
2007/0062531	A1	3/2007	Fisher et al.	2009/0277448	A1	11/2009	Ahlmén et al.
2007/0068530	A1	3/2007	Pacey	2009/0293877	A1	12/2009	Blanch et al.
2007/0073183	A1	3/2007	Kline	2009/0299430	A1	12/2009	Davies et al.
2007/0077200	A1	4/2007	Baker	2009/0301486	A1	12/2009	Masic
2007/0095347	A1	5/2007	Lampotang et al.	2009/0301487	A1	12/2009	Masic
2007/0113854	A1	5/2007	Mcauliffe	2009/0301490	A1	12/2009	Masic
2007/0125377	A1	6/2007	Heinonen et al.	2009/0301491	A1	12/2009	Masic et al.
2007/0144521	A1	6/2007	DeVries et al.	2010/0011307	A1	1/2010	Desfossez et al.
2007/0144523	A1	6/2007	Bolam et al.	2010/0012126	A1	1/2010	Gandini
2007/0157930	A1	7/2007	Soliman et al.	2010/0024820	A1	2/2010	Bourdon
2007/0157931	A1	7/2007	Parker et al.	2010/0031961	A1	2/2010	Schmidt
2007/0163579	A1	7/2007	Li et al.	2010/0051026	A1	3/2010	Graboi
2007/0225612	A1	9/2007	Mace et al.	2010/0051029	A1	3/2010	Jafari et al.
2007/0227537	A1	10/2007	Bemister et al.	2010/0059058	A1	3/2010	Kuo
2007/0232952	A1	10/2007	Baddour	2010/0069761	A1	3/2010	Karst et al.
2007/0255160	A1	11/2007	Daly	2010/0071689	A1	3/2010	Thiessen
2007/0284361	A1	12/2007	Nadjafizadeh et al.	2010/0071692	A1	3/2010	Porges
2008/0045825	A1	2/2008	Melker et al.	2010/0071695	A1	3/2010	Thiessen
2008/0053438	A1	3/2008	DeVries et al.	2010/0071696	A1	3/2010	Jafari
2008/0053441	A1	3/2008	Gottlieb et al.	2010/0071697	A1	3/2010	Jafari et al.
2008/0060646	A1	3/2008	Isaza	2010/0078017	A1	4/2010	Andrieux et al.
2008/0060656	A1	3/2008	Isaza	2010/0078026	A1	4/2010	Andrieux et al.
2008/0072896	A1	3/2008	Setzer et al.	2010/0081119	A1	4/2010	Jafari et al.
2008/0072902	A1	3/2008	Setzer et al.	2010/0081955	A1	4/2010	Wood, Jr. et al.
2008/0078390	A1	4/2008	Milne et al.	2010/0099999	A1	4/2010	Hemnes et al.
2008/0083644	A1	4/2008	Janbakhsh et al.	2010/0101577	A1	4/2010	Kaestle et al.
2008/0092894	A1	4/2008	Nicolazzi et al.	2010/0106037	A1	4/2010	Kacmarek et al.
2008/0097234	A1	4/2008	Nicolazzi et al.	2010/0125227	A1	5/2010	Bird
2008/0135044	A1	6/2008	Freitag et al.	2010/0137733	A1	6/2010	Wang et al.
2008/0183094	A1	7/2008	Schonfuss et al.	2010/0139660	A1	6/2010	Adahan
2008/0196720	A1	8/2008	Kollmeyer et al.	2010/0147302	A1	6/2010	Selvarajan et al.
2008/0202517	A1	8/2008	Mitton et al.	2010/0147303	A1	6/2010	Jafari et al.
2008/0202518	A1	8/2008	Mitton et al.	2010/0170512	A1	7/2010	Kuyppers et al.
2008/0214947	A1	9/2008	Hunt et al.	2010/0175695	A1	7/2010	Jamison
2008/0230062	A1	9/2008	Tham	2010/0179392	A1	7/2010	Chang et al.
2008/0257349	A1	10/2008	Hedner et al.	2010/0180897	A1	7/2010	Malgouyres
2008/0276939	A1	11/2008	Tiedje	2010/0185112	A1	7/2010	Van Kesteren et al.
2009/0000621	A1	1/2009	Haggblom et al.	2010/0186744	A1	7/2010	Andrieux
2009/0007914	A1	1/2009	Bateman	2010/0198095	A1	8/2010	Isler
2009/0050153	A1	2/2009	Brunner	2010/0218765	A1	9/2010	Jafari et al.
2009/0056708	A1	3/2009	Stenzler et al.	2010/0218766	A1	9/2010	Milne
2009/0056719	A1	3/2009	Newman, Jr.	2010/0218767	A1	9/2010	Jafari et al.
2009/0071478	A1	3/2009	Kalfon	2010/0222692	A1	9/2010	McCawley et al.
2009/0078251	A1	3/2009	Zucchi et al.	2010/0236553	A1	9/2010	Jafari et al.
				2010/0236555	A1	9/2010	Jafari et al.
				2010/0241019	A1	9/2010	Varga et al.
				2010/0242961	A1	9/2010	Mougel et al.
				2010/0249584	A1	9/2010	Albertelli

(56)

## References Cited

## U.S. PATENT DOCUMENTS

- |              |    |         |                   |              |    |         |                      |
|--------------|----|---------|-------------------|--------------|----|---------|----------------------|
| 2010/0252042 | A1 | 10/2010 | Kapust et al.     | 2012/0030611 | A1 | 2/2012  | Skidmore             |
| 2010/0268106 | A1 | 10/2010 | Johnson et al.    | 2012/0060841 | A1 | 3/2012  | Crawford, Jr. et al. |
| 2010/0268131 | A1 | 10/2010 | Efthimiou         | 2012/0071729 | A1 | 3/2012  | Doyle et al.         |
| 2010/0269834 | A1 | 10/2010 | Freitag et al.    | 2012/0090611 | A1 | 4/2012  | Graboi et al.        |
| 2010/0282258 | A1 | 11/2010 | Taylor et al.     | 2012/0096381 | A1 | 4/2012  | Milne et al.         |
| 2010/0282259 | A1 | 11/2010 | Figueiredo et al. | 2012/0133519 | A1 | 5/2012  | Milne et al.         |
| 2010/0286544 | A1 | 11/2010 | Tanaka et al.     | 2012/0136222 | A1 | 5/2012  | Doyle et al.         |
| 2010/0288283 | A1 | 11/2010 | Campbell et al.   | 2012/0137249 | A1 | 5/2012  | Milne et al.         |
| 2010/0292601 | A1 | 11/2010 | Dompeling et al.  | 2012/0137250 | A1 | 5/2012  | Milne et al.         |
| 2010/0300446 | A1 | 12/2010 | Nicolazzi et al.  | 2012/0167885 | A1 | 7/2012  | Masic et al.         |
| 2010/0324437 | A1 | 12/2010 | Freeman et al.    | 2012/0185792 | A1 | 7/2012  | Kimm et al.          |
| 2010/0324439 | A1 | 12/2010 | Davenport         | 2012/0197578 | A1 | 8/2012  | Vig et al.           |
| 2011/0004108 | A1 | 1/2011  | Peyton            | 2012/0197580 | A1 | 8/2012  | Vij et al.           |
| 2011/0009762 | A1 | 1/2011  | Eichler et al.    | 2012/0211008 | A1 | 8/2012  | Perine et al.        |
| 2011/0011400 | A1 | 1/2011  | Gentner et al.    | 2012/0216809 | A1 | 8/2012  | Milne et al.         |
| 2011/0023878 | A1 | 2/2011  | Thiessen          | 2012/0216810 | A1 | 8/2012  | Jafari et al.        |
| 2011/0023879 | A1 | 2/2011  | Vandine et al.    | 2012/0216811 | A1 | 8/2012  | Kimm et al.          |
| 2011/0023880 | A1 | 2/2011  | Thiessen          | 2012/0226444 | A1 | 9/2012  | Milne et al.         |
| 2011/0023881 | A1 | 2/2011  | Thiessen          | 2012/0247471 | A1 | 10/2012 | Masic et al.         |
| 2011/0029910 | A1 | 2/2011  | Thiessen          | 2012/0272960 | A1 | 11/2012 | Milne                |
| 2011/0041849 | A1 | 2/2011  | Chen et al.       | 2012/0272961 | A1 | 11/2012 | Masic et al.         |
| 2011/0041850 | A1 | 2/2011  | Vandine et al.    | 2012/0272962 | A1 | 11/2012 | Doyle et al.         |
| 2011/0066060 | A1 | 3/2011  | von Bahr et al.   | 2012/0277616 | A1 | 11/2012 | Sanborn et al.       |
| 2011/0126829 | A1 | 6/2011  | Carter et al.     | 2012/0279501 | A1 | 11/2012 | Wallace et al.       |
| 2011/0126832 | A1 | 6/2011  | Winter et al.     | 2012/0304995 | A1 | 12/2012 | Kauc                 |
| 2011/0126834 | A1 | 6/2011  | Winter et al.     | 2012/0304997 | A1 | 12/2012 | Jafari et al.        |
| 2011/0126835 | A1 | 6/2011  | Winter et al.     | 2013/0000644 | A1 | 1/2013  | Thiessen             |
| 2011/0126836 | A1 | 6/2011  | Winter et al.     | 2013/0006133 | A1 | 1/2013  | Doyle et al.         |
| 2011/0126837 | A1 | 6/2011  | Winter et al.     | 2013/0006134 | A1 | 1/2013  | Doyle et al.         |
| 2011/0128008 | A1 | 6/2011  | Carter            | 2013/0008443 | A1 | 1/2013  | Thiessen             |
| 2011/0132361 | A1 | 6/2011  | Sanchez           | 2013/0025596 | A1 | 1/2013  | Jafari et al.        |
| 2011/0132362 | A1 | 6/2011  | Sanchez           | 2013/0025597 | A1 | 1/2013  | Doyle et al.         |
| 2011/0132364 | A1 | 6/2011  | Ogilvie et al.    | 2013/0032151 | A1 | 2/2013  | Adahan               |
| 2011/0132365 | A1 | 6/2011  | Patel et al.      | 2013/0047989 | A1 | 2/2013  | Vandine et al.       |
| 2011/0132366 | A1 | 6/2011  | Ogilvie et al.    | 2013/0053717 | A1 | 2/2013  | Vandine et al.       |
| 2011/0132367 | A1 | 6/2011  | Patel             | 2013/0074844 | A1 | 3/2013  | Kimm et al.          |
| 2011/0132368 | A1 | 6/2011  | Sanchez et al.    | 2013/0081536 | A1 | 4/2013  | Crawford, Jr. et al. |
| 2011/0132369 | A1 | 6/2011  | Sanchez           | 2013/0104896 | A1 | 5/2013  | Kimm et al.          |
| 2011/0132371 | A1 | 6/2011  | Sanchez et al.    | 2013/0146055 | A1 | 6/2013  | Jafari et al.        |
| 2011/0133936 | A1 | 6/2011  | Sanchez et al.    | 2013/0167842 | A1 | 7/2013  | Jafari et al.        |
| 2011/0138308 | A1 | 6/2011  | Palmer et al.     | 2013/0167843 | A1 | 7/2013  | Kimm et al.          |
| 2011/0138309 | A1 | 6/2011  | Skidmore et al.   | 2013/0192599 | A1 | 8/2013  | Nakai et al.         |
| 2011/0138311 | A1 | 6/2011  | Palmer            | 2013/0220324 | A1 | 8/2013  | Jafari et al.        |
| 2011/0138315 | A1 | 6/2011  | Vandine et al.    | 2013/0255682 | A1 | 10/2013 | Jafari et al.        |
| 2011/0138323 | A1 | 6/2011  | Skidmore et al.   | 2013/0255685 | A1 | 10/2013 | Jafari et al.        |
| 2011/0146681 | A1 | 6/2011  | Jafari et al.     |              |    |         |                      |
| 2011/0146683 | A1 | 6/2011  | Jafari et al.     |              |    |         |                      |
| 2011/0154241 | A1 | 6/2011  | Skidmore et al.   |              |    |         |                      |
| 2011/0175728 | A1 | 7/2011  | Baker, Jr.        |              |    |         |                      |
| 2011/0196251 | A1 | 8/2011  | Jourdain et al.   |              |    |         |                      |
| 2011/0209702 | A1 | 9/2011  | Vuong et al.      |              |    |         |                      |
| 2011/0209704 | A1 | 9/2011  | Jafari et al.     |              |    |         |                      |
| 2011/0209707 | A1 | 9/2011  | Terhark           |              |    |         |                      |
| 2011/0213215 | A1 | 9/2011  | Doyle et al.      |              |    |         |                      |
| 2011/0230780 | A1 | 9/2011  | Sanborn et al.    |              |    |         |                      |
| 2011/0249006 | A1 | 10/2011 | Wallace et al.    |              |    |         |                      |
| 2011/0259330 | A1 | 10/2011 | Jafari et al.     |              |    |         |                      |
| 2011/0259332 | A1 | 10/2011 | Sanchez et al.    |              |    |         |                      |
| 2011/0259333 | A1 | 10/2011 | Sanchez et al.    |              |    |         |                      |
| 2011/0265024 | A1 | 10/2011 | Leone et al.      |              |    |         |                      |
| 2011/0271960 | A1 | 11/2011 | Milne et al.      |              |    |         |                      |
| 2011/0273299 | A1 | 11/2011 | Milne et al.      |              |    |         |                      |
| 2012/0000467 | A1 | 1/2012  | Milne et al.      |              |    |         |                      |
| 2012/0000468 | A1 | 1/2012  | Milne et al.      |              |    |         |                      |
| 2012/0000469 | A1 | 1/2012  | Milne et al.      |              |    |         |                      |
| 2012/0000470 | A1 | 1/2012  | Milne et al.      |              |    |         |                      |
| 2012/0029317 | A1 | 2/2012  | Doyle et al.      |              |    |         |                      |

## OTHER PUBLICATIONS

- 7200 Ventilatory System: Addendum/Errata. Nellcor Puritan Bennett, Part No. 4-023576-00, Rev. A, Apr. 1998, pp. 1-32.
- 800 Operator's and Technical Reference Manual. Series Ventilator System, Nellcor Puritan Bennett, Part No. 4-070088-00, Rev. L, Aug. 2010, pp. 1-476.
- 840 Operators and Technical Reference Manual. Ventilator System, Nellcor Puritan Bennett, Part No. 4-075609-00, Rev. G, Oct. 2006, pp. 1-424.
- U.S. Appl. No. 29/448,065, Notice of Allowance mailed Jul. 10, 2013, 9 pgs.
- U.S. Appl. No. 29/448,082, Notice of Allowance mailed Jul. 9, 2013, 9 pgs.
- U.S. Appl. No. 29/448,065, Notice of Allowance mailed Sep. 12, 2013, 2 pgs.
- U.S. Appl. No. 29/448,065, Notice of Allowance mailed Sep. 30, 2013, 2 pgs.
- U.S. Appl. No. 29/448,082, Notice of Allowance mailed Sep. 17, 2013, 2 pgs.
- U.S. Appl. No. 29/448,082, Notice of Allowance mailed Sep. 30, 2013, 2 pgs.

\* cited by examiner

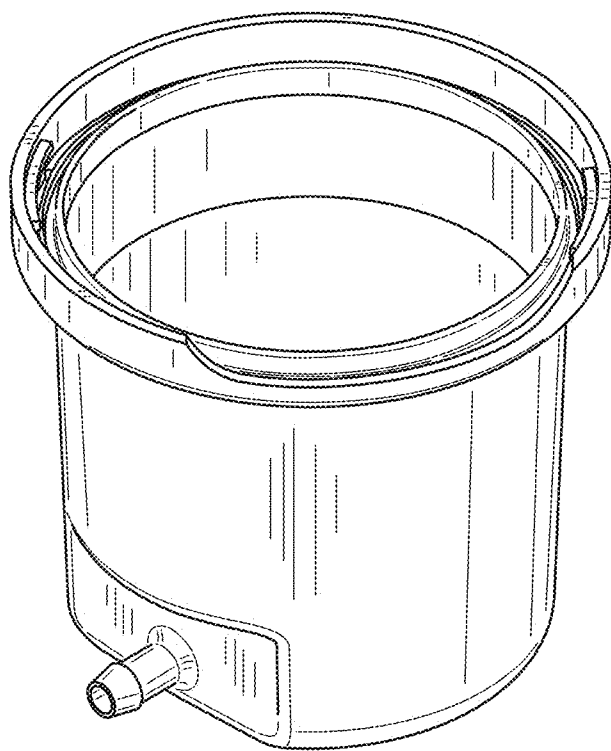


FIG.1

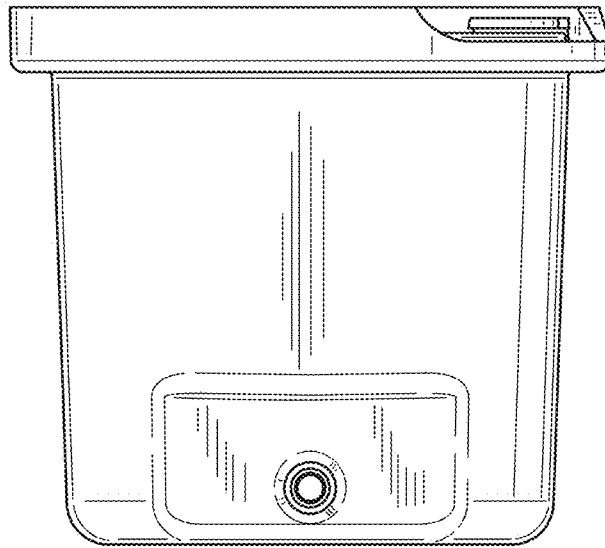


FIG.2

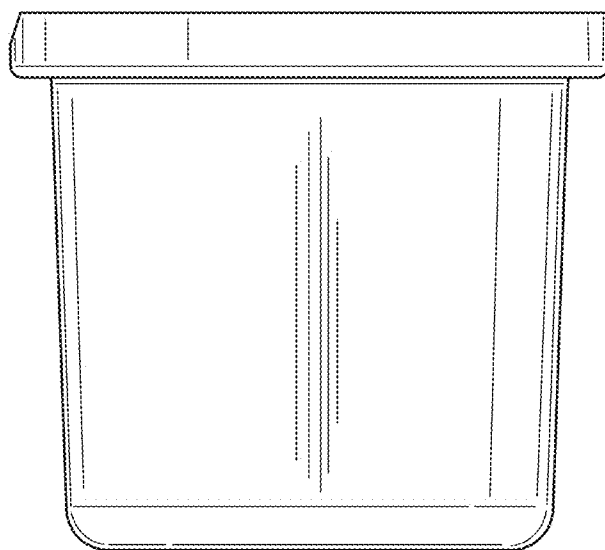


FIG. 3

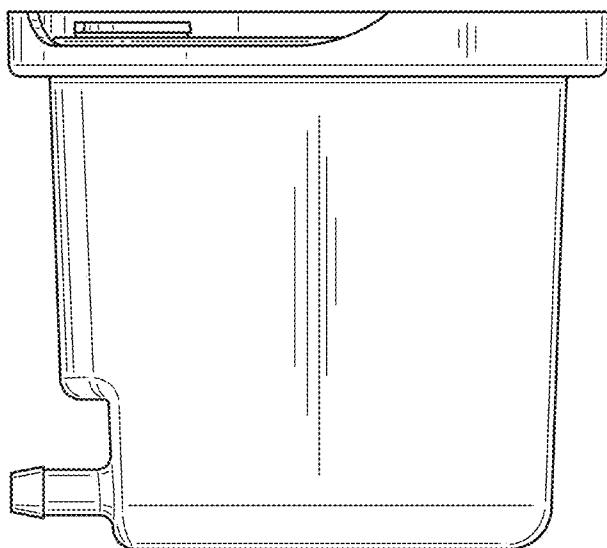


FIG.4

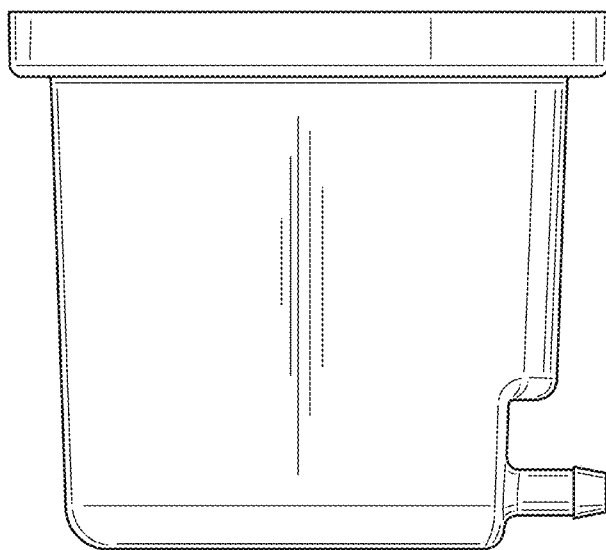


FIG. 5

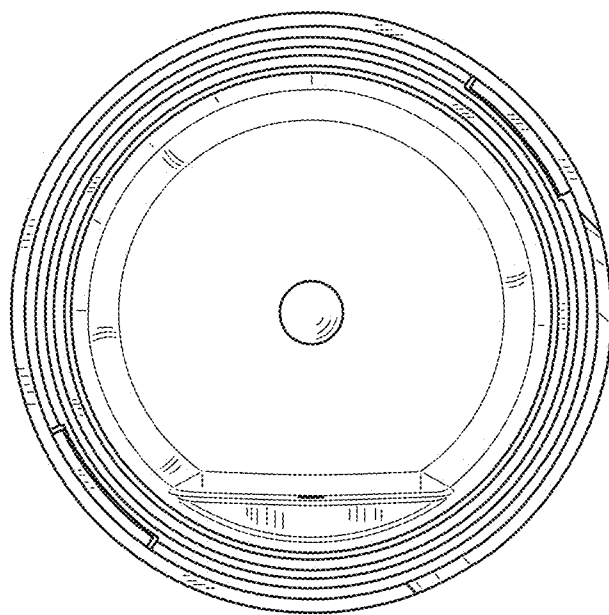


FIG.6

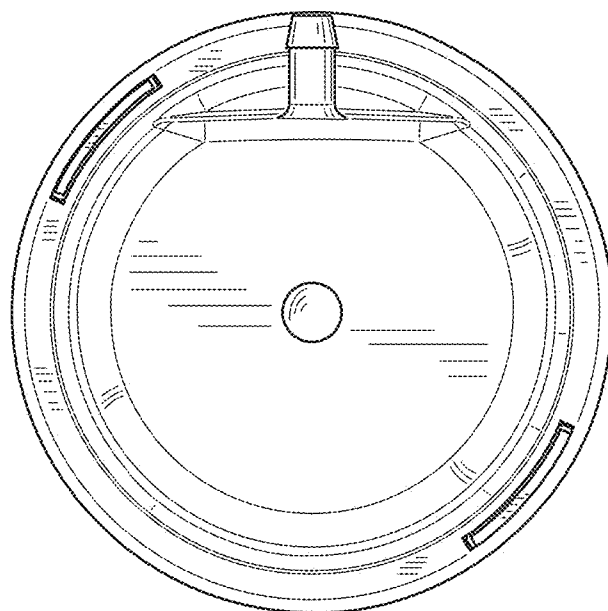


FIG.7