

(19) (KR)  
(12) (B1)

(21)	10-2004-7004304 ( )	(65)	10-2004-0053139
(22)	2004 03 25	(43)	2004 06 23
(62)	10-2001-7016369 : 2001 12 20		2002 01 12
	2004 03 25		
(86)	PCT/US2000/016422	(87)	WO 2000/78681
(86)	2000 06 14	(87)	2000 12 28

(30) 60/140,090 1999 06 21 (US)  
60/140,159 1999 06 21 (US)  
09/596,416 2000 06 12 (US)

$$(73) \quad , \quad 49355, \quad , \quad 7575$$

(72) . . . 49316 . . . 7086

49331 1270

49408 6414

	49301	2990
	49417	1700
	94947	.6
	49505	.1054
(74)		

(54)

system)		(20)	WTS	(20)	UV	(point-of-use)	2	(WTS: water treatment
1	2	(92)	(22)	(26)	1	(74)	(24)	(90)
2	2	(24)	(22)	(26)	2	(92)	2	(24)가
2				(26)	2	가	가	(26),
				(84)				(444)
							가	(24)가
							(402)	(80)
						(82)		(24)
)	V			(400)	(24)가		가	(82, 402)
	가		가	(250)	(250)	(24)		U
				.	,	(250)	( )	
		(250)						

5

1 WTS  
2 WTS  
3 WTS  
4 가 가 WTS

5	WTS										
6a	6e				6b	6C-6C			6c	6D	
		,	6c	6E							,
7a	7f							7c	7D-7D		
8a	8c										
9a	9c						9b	9C-9C			
10a	10e										
11a	11c										
12a	12c										
13a	13c	2				13b	13C-13C				
14											
15a	15b										
16											
17											
18											
19											
20a	20b										
21a	21b										
22	UV										
23a	23d	UV			, UV						
24	23b	23d	UV								
25a	25f										
26a	26c										
27a	27f										
28a	28d						28b	28C-28C			28b
28D-28D											
29a	29c					29b	29C-29C				
30a	30c										
31a	31d								13b	31D-31D	
32a	32c										
33a	33c										
34a	34e										
35a	35b										
36a	36d					36b	36C-36C				
37	WTS	3	37-37								
38	2	38-38									
39	40	39-39									
40	39	40-40									
41	39	41-41									
42	39	42-42									
43	39	43-43									

< >  
20 :  
22 :  
24 :  
26 :  
90 :  
92 :  
96 :  
100 :  
102 :

35 U.S.C. § 199 (e)  
60/140,090 ,  
60/140,159

1999 6 21 가  
1999 6 21 가

, UV 2 . , 1 2  
2 2  
가

가

, (WTS) (20) 1 (22), (24) . 2 3 WTS  
 (20) WTS (20) . 4 (26)  
 (22) 가 (22) 가 (26) (24) (26)  
 (22) (24) 가 (22) (26) (24) (22) (24)  
 (22) (22) , (bayonet) (26) (24) WTS (20)  
 1 3 , WTS (20) (32), (34), (36) (40)  
 (42) 가 (36) (42) WTS (20)



	(26)		(94)	(94)	(150)		(92)
(152)	(100)	(174)	.	(152)	(150)	,	.
(164)	(162)	,	.	(176)	(152)	,	(102)
(170)	,	,	(102)	(104)	(92)	(92)	(150)
140)	.	,	(88)	(162)	(152)	(26)	(108)
0)	(88)	(88)	(92)	.	(94)	(96)	(104)
WTS	(184)	가	(EMAWELD)	,	(146)	EMA	(150)
가	(20)	,	.	(26)	.	.	(112)
(100)	(174)	(172)	.	(96)	(146)	(148)	.
(92)	(150)	.	.	(26)	.	.	.
가	(96)	.	.	(100)	(174)	(26)	.
(154)	.	.	.	(88)	(25)	.	(172)
)	.	.	.	.	.	(106)	.
가	(24)	가	.	.	.	(90)	(92)
(24)	.	(26)	.	(102)	(164)	(26)가	(102)
(26)	.	.	.	.	(164)	(22)	(26)
B.							
8a	8c	(24)	.	.	(24)	(72), 2	(74),
	(76),	.	(78),	.	(80), UV	(82),	O- (84),
9a	9c	(86)	.	.	(72)	(200),	O- (202),
	(204)	(72)	.	.	(210)	(212)	(214)
14)	(212)	(206)	.	.	(216)	.	(214)
0)	(206)	(230)	.	.	(220)	.	(21)
212)	(232)	WTS	(20)	L	(226)	.	.
O-	(202)	UV	.	.	(232)	(212)	.
(206)	(204)	(24)가	(234)	(230)	(58)	가	.
(76)	(204)	(204)	37	38	.	(24)	가
			O-	(202)	.	(72)	(72)
			.	.	.	(58)	.
	(76)	(240)	O-	10a	.	10b	10e
(242)	(242)	(244)	(250)	.	.	(242)	(246)가
(76)	(242)	(250)	(252)	(252)	.	.	.
)	가	.	(252)	(66)	(24)	UV	(24)
	WTS	(20)	WTS	(20)	.	가 WTS	(20)
O-	(240)	11a	11c	.	.	(260)	O- (244)
(262)	(262)	.	(260)	.	.	(264)가	.
(286)	2	(74)	(240)	.	.	8	(268)가 (274)
)	(200)	(224)	.	.	.	.	.
240)	.	.	(242)	(240)	.	.	.
11c	(214)	.	.	(276)	(240)	.	(72)( 9a)
(214)	.	.	.	.	(282)	.	.
(74)	(284, 286)가 T	.	.	.	(284, 286)	(280)	2
(242)	12a	(240)	12c	(260)	.	(290)	O- (244)
					.	(292)	(80)







(710)	28a	28d	.	(58)	(58), (714);	(704), (722)	(706), (714)
(716, 720);	(712)	(724)	L	28b	,	(726)	(24)
(232)	(714)			(728)	(728)	(726)	(730, 7
32)가		(730, 732)		(24)가	(716)	(56)	
(252)	(296)	(24)가		(56)	(734)	(712)	(7
12)		(712)	41	(714)	(676)	(252)	(734)
	(738)가		(736)	4		.	(740)가
)		(738)		(704)	(704, 710)	(742)	(736)
	(704, 710)		(58)	(704)	가	(742)	
(24)가	(58)	가	(706)	(24)	(740)	(200)	(206)
(24)가	(58)	가	,	(206)	,	(64)	(24)
	(704, 710)					(706)	
				, WTS	(706)가 (20)	,	(663)
	(32)	(620)				(744)	(714)
(50)		,		(724)		.	(750)가
37				(54)	(50)	.	(60)
	(62)		(26)	(172)	29a	29c	(54)
)				(54)	O-	(760), (770)	(762),
	(764), (760)	(766), O-		(768)	(772, 774)	가	(760)
	(775)	(762)			(776)	(764)	(766)
64)				(26)가	(50)	.	가
				WTS	(20)	,	(50)
	(54)			(26)			
				(780)가	(768)		(766)
	(768)	30c		(50)	3	31a	31d
30a						.	(56)가
		(50)					
				(50)			
	(804)				(80)		
					(650)		
	(80)						(806)
L	30b	30c	,		(50)		(810)가
			,		(26)	(180)	3
	(812)	(812)				(178)	
	(813)가	(812)				(26)가	(50)
							가
					(52)	(50)	
					(814)가	(56)	
	(56)			(22)	(50)	(610)	3
	(816)	3					(81)
6)	(817)						
	(818)						
	(820), (762)	(764)	,		31d	37	(818)
54)					(824)		(820)
					(822)		(768)
					(726)가		(56)
	가				(730)가		
	(724)						
36)	32a	32c	,	33a	33c	U	(850)
	(42)				(42)		(856)
	(850)						(852)
					(854)가		(854)
					(852)		
	(34)가	35a		35e		(902)	(904)
		(904)					
	(36)		(860)	가		(910)가	
							가



(206)	(704)		(72)	(228)
		(662) WTS		(
20)		(706)		
	(60)	WTS	(20)	

가  
가

(57)

- |       |       |       |       |       |       |        |       |
|-------|-------|-------|-------|-------|-------|--------|-------|
| 1.    |       |       |       |       |       |        |       |
|       | (24)  | (682) | 가     | UV    | (20)  | ,      |       |
|       |       |       |       |       | (66)  | 가      |       |
|       |       |       |       |       |       | (252)  |       |
|       |       |       |       |       |       |        | (22)  |
|       |       |       |       |       |       | ,      |       |
|       |       |       |       |       |       | (82)   | UV    |
|       |       |       |       |       |       | (86)   | 가     |
|       |       |       |       |       |       |        | (24)  |
| ,     |       |       |       |       |       |        |       |
|       | (252) | (682) | 가     | (24)  | (82)  | UV     | .     |
| 2.    |       |       |       |       |       |        |       |
| 1     | ,     |       | (252) | 가     |       | (82)   | UV    |
| 3.    |       |       |       |       |       |        | .     |
| 2     | ,     |       | (252) |       |       |        | .     |
| 4.    |       |       |       |       |       |        | .     |
| 2     | ,     |       |       |       |       |        | .     |
| 5.    |       |       |       |       |       |        | .     |
| 3     | ,     |       | (82)  | 1     | 2     | (444)가 | 1     |
|       |       |       |       | (440) |       | ,      | 2     |
|       |       |       |       |       |       | (252)  | ,     |
|       |       |       |       |       |       |        | 1     |
|       | 1     |       | (364) | ,     | (440) |        | 2     |
|       |       |       | (682) |       | 가     |        | ,     |
|       |       |       |       |       |       |        | 1     |
|       |       |       |       |       |       |        | 2     |
|       |       |       |       |       |       |        | (444) |
|       |       |       |       |       |       |        | 가     |
| 252)  |       |       |       |       |       |        | .     |
| 6.    |       |       |       |       |       |        |       |
| 5     | ,     |       | (82)  |       | (252) |        |       |
| U     |       |       |       |       |       |        | .     |
| 7.    |       |       |       |       |       |        |       |
| 6     | ,     | 2     | (360) |       | (82)  |        |       |
|       |       |       |       |       |       |        | .     |
| 8.    |       |       |       |       |       |        |       |
| 4     | ,     |       | (252) | 가     | (682) |        |       |
| (360) |       |       |       |       |       |        | .     |
| 9.    |       |       |       |       |       |        |       |
| 1     | ,     |       | (24)  |       | (82)  |        |       |
|       |       |       |       |       |       |        | .     |
|       |       |       |       |       |       |        | (24)  |
|       |       |       |       |       |       |        | .     |
| 10.   |       |       |       |       |       |        |       |
| 1     | ,     |       | (252) |       |       |        |       |

**11.**

1 , .

**12.**

1 , 2 (360) (402)

**13.**

$\begin{matrix} (82) \\ (444) \end{matrix}$	$\begin{matrix} UV \\ 1 & 2 \end{matrix}$	$\begin{matrix} , \\ (360), \\ (364) \end{matrix}$	$\begin{matrix} (252) \\ (362) \end{matrix}$	$\begin{matrix} (362) \\ (360) \end{matrix}$	$\begin{matrix} , \\ (360) \end{matrix}$	$\begin{matrix} (360) \\ (252) \end{matrix}$
$\begin{matrix} UV \\ 1 & 2 \end{matrix}$	$\begin{matrix} 가 \\ (82) \end{matrix}$	$\begin{matrix} , \\ (360), \\ (364) \end{matrix}$	$\begin{matrix} (252) \\ (362) \end{matrix}$	$\begin{matrix} (362) \\ (360) \end{matrix}$	$\begin{matrix} , \\ (360) \end{matrix}$	$\begin{matrix} (360) \\ (252) \end{matrix}$
$\begin{matrix} (82) \\ (252) \end{matrix}$	$\begin{matrix} UV \\ (362) \end{matrix}$	$\begin{matrix} , \\ (362) \end{matrix}$	$\begin{matrix} (362) \\ (360) \end{matrix}$	$\begin{matrix} , \\ (360) \end{matrix}$	$\begin{matrix} (360) \\ (252) \end{matrix}$	

**14.**

13 , (364) (362)

**15.**

14 , .

**16.**

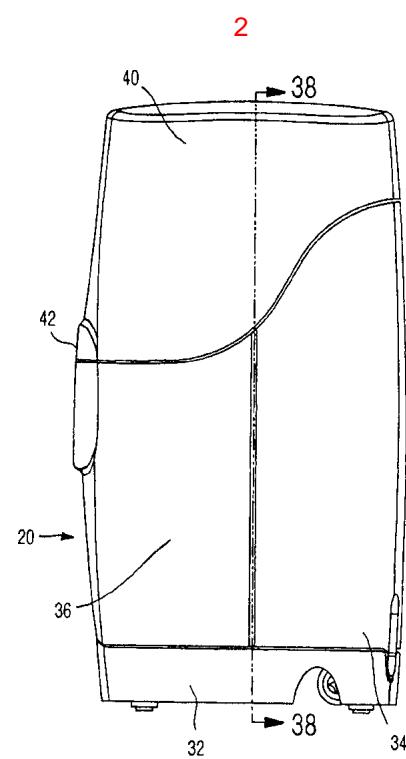
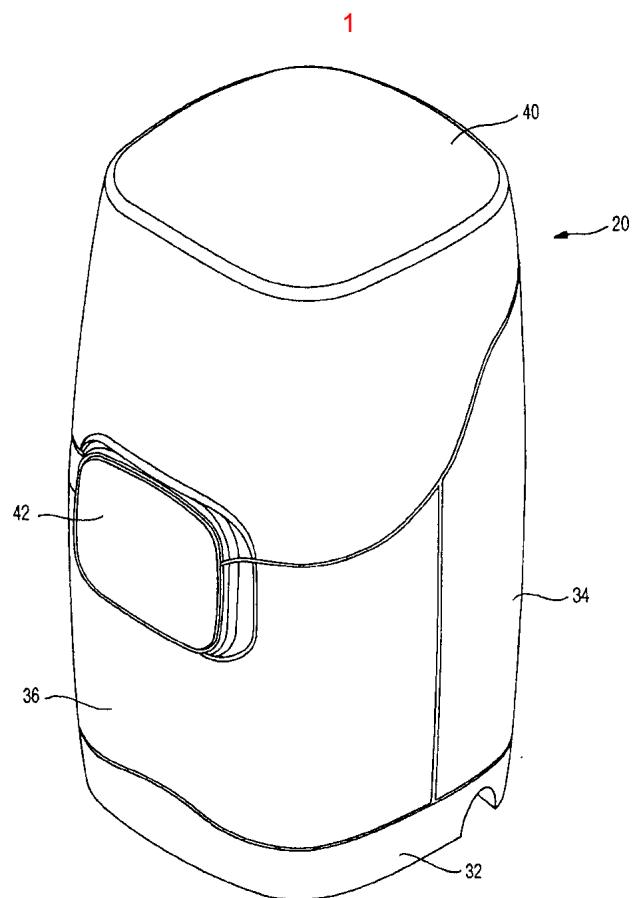
15 , (24) UV (362) 가

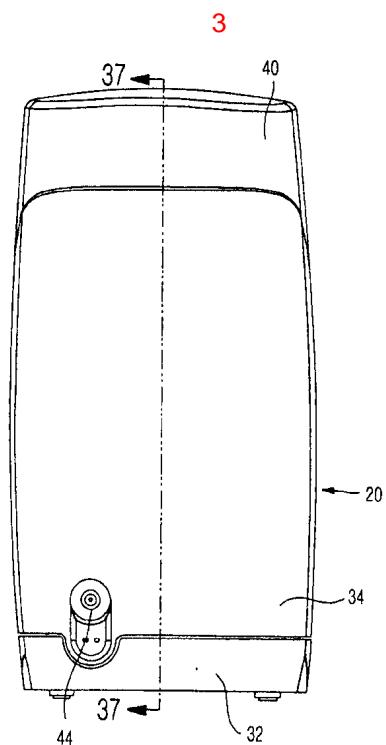
**17.**

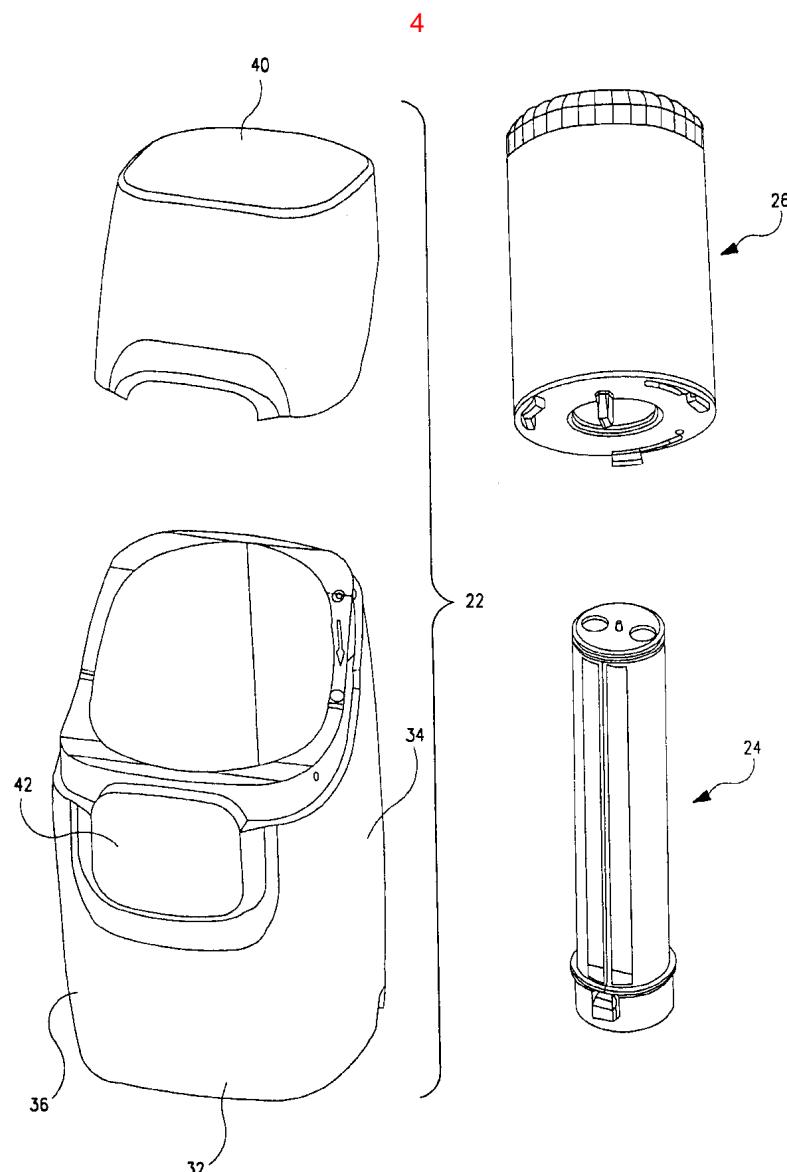
16 , (360) (82)

**18.**

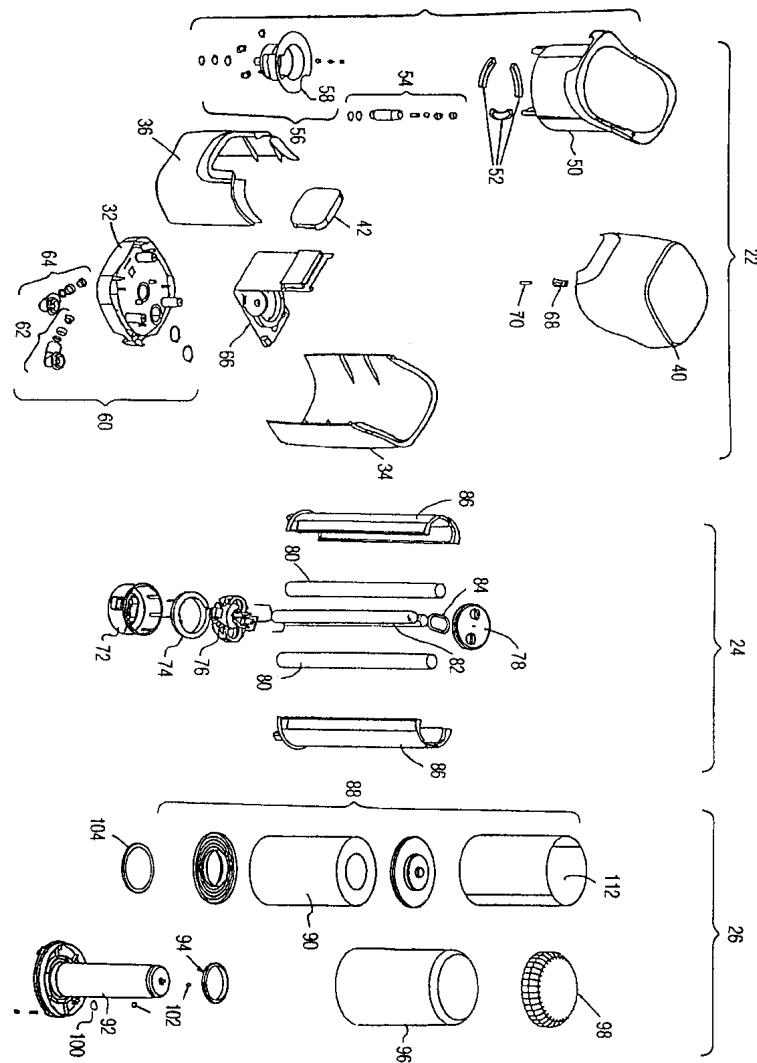
16 , (364) (440)



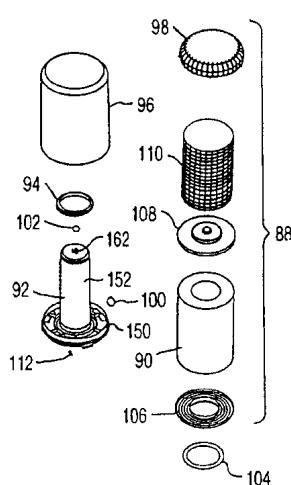




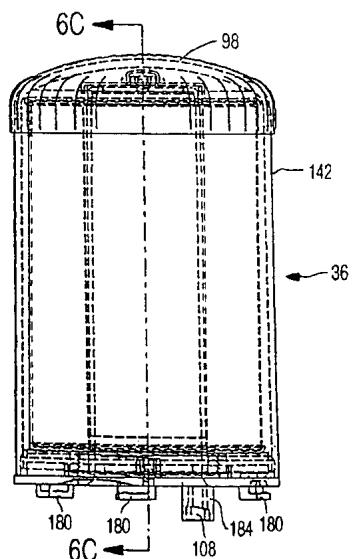
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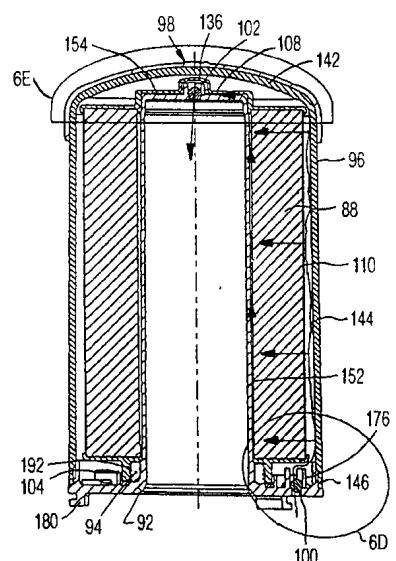
6a



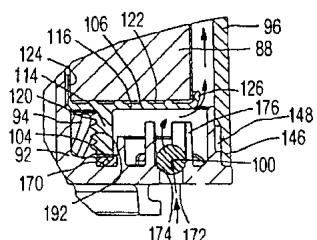
6b



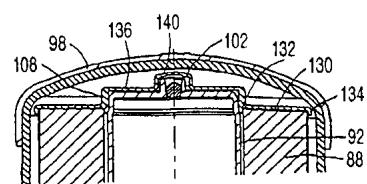
6c



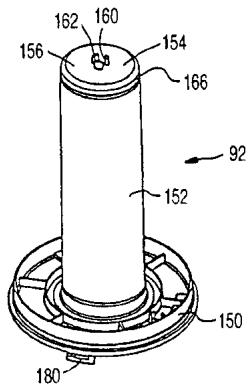
6d



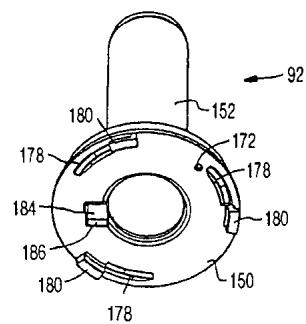
6e



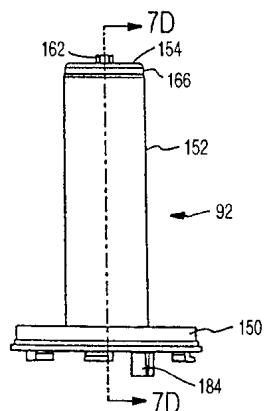
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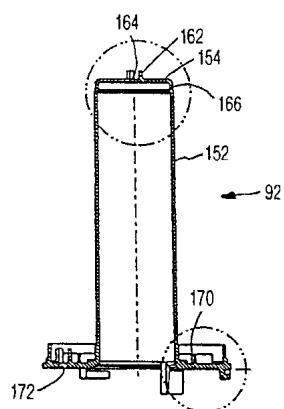
7b



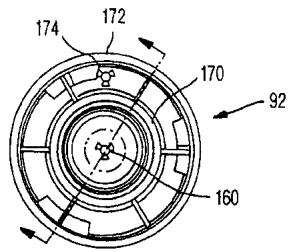
7c



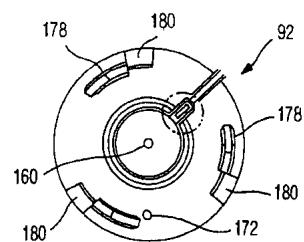
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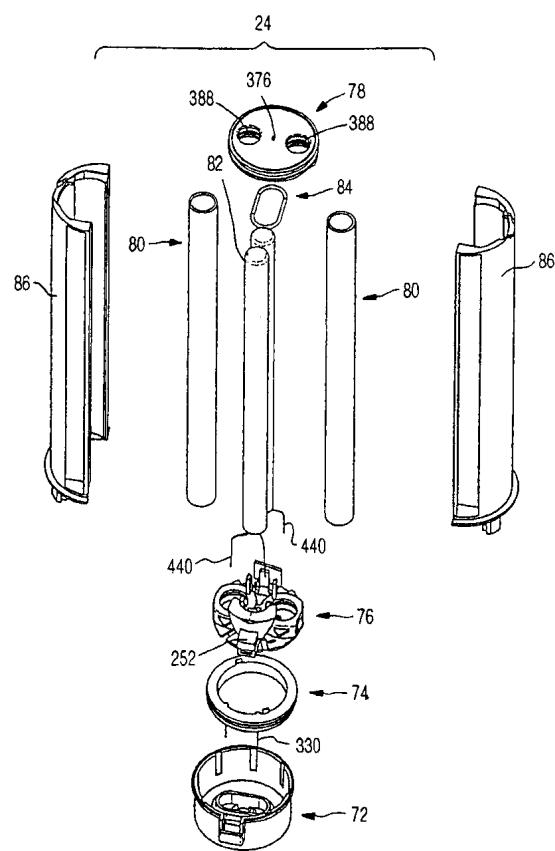
7e

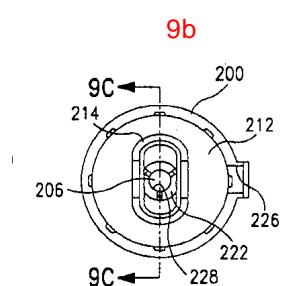
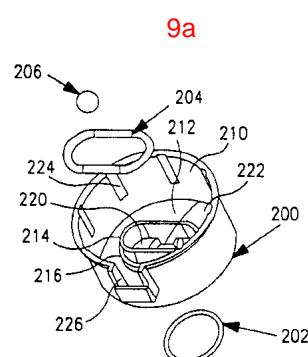
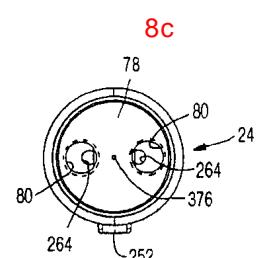
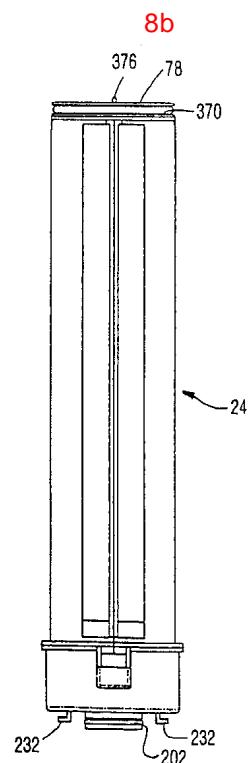


7f

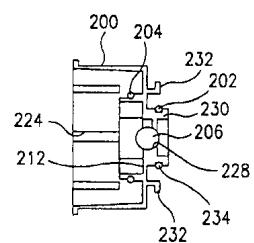


8a

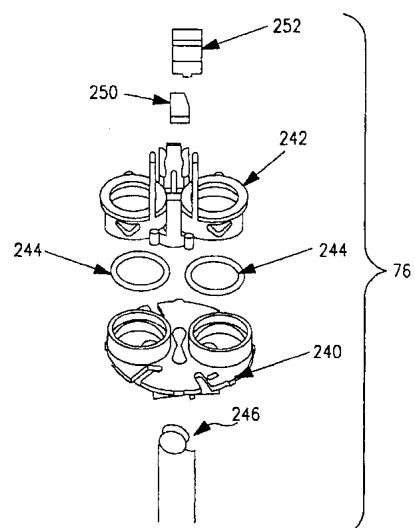




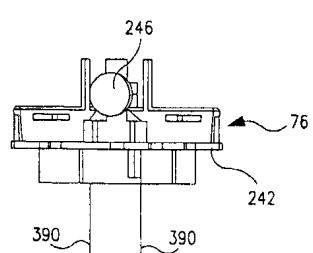
9c



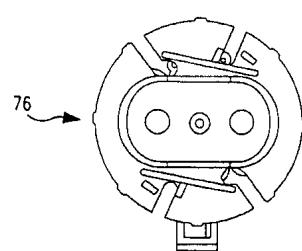
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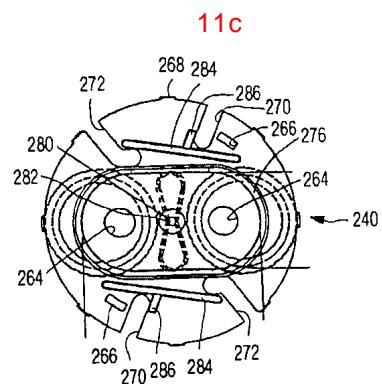
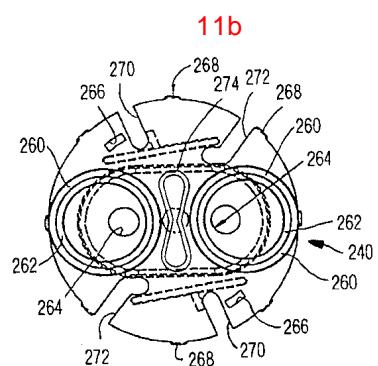
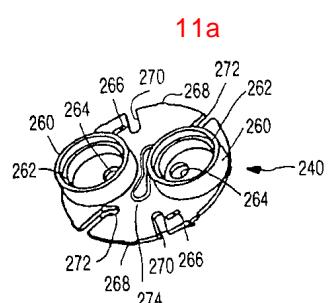
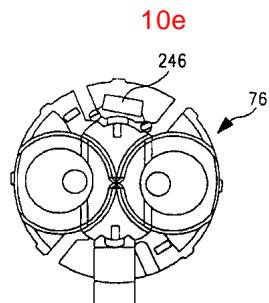
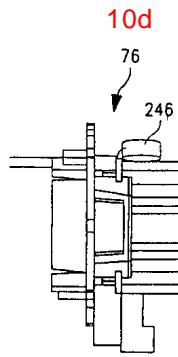


10b

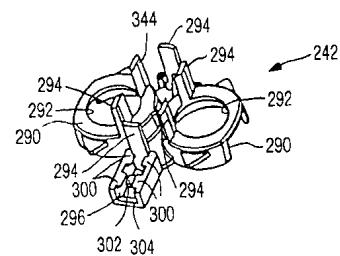


10c

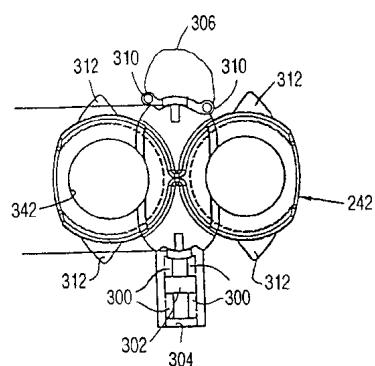




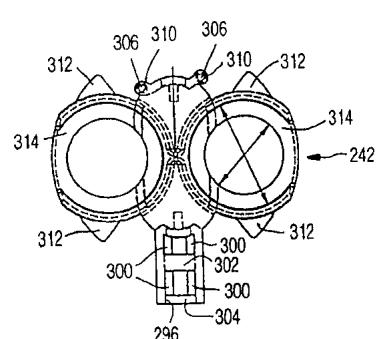
12a



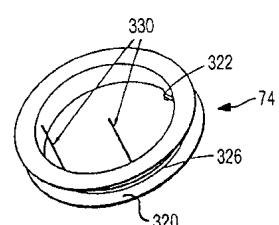
12b



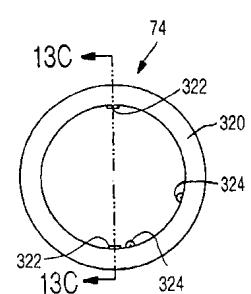
12c



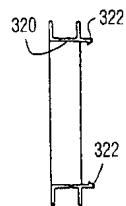
13a



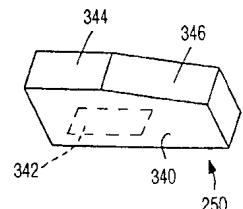
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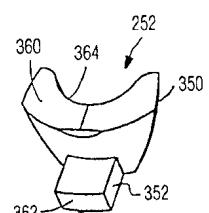
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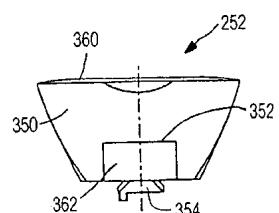
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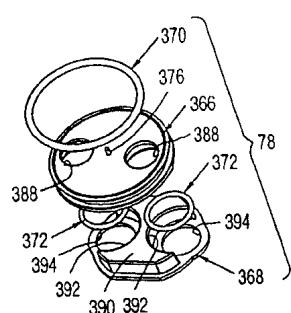
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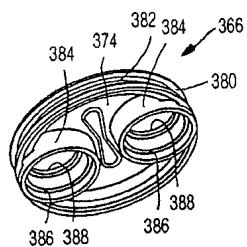
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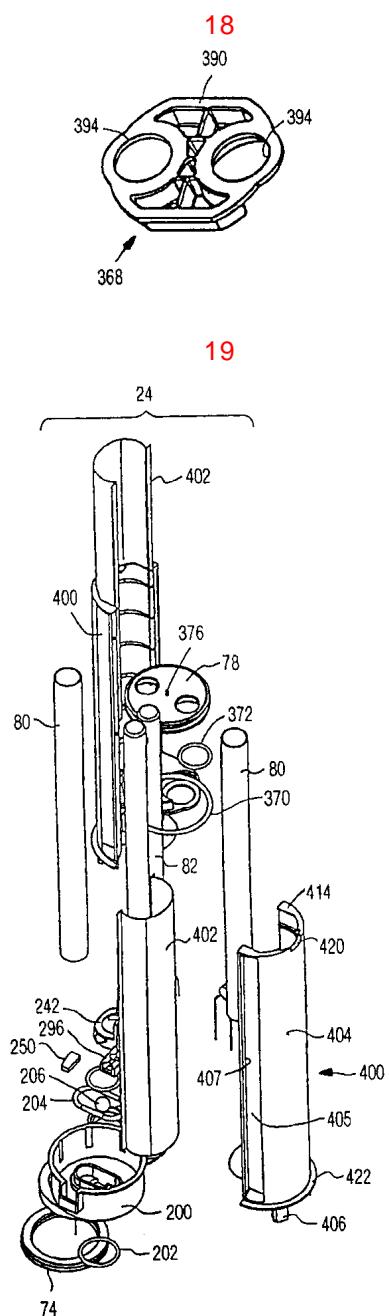


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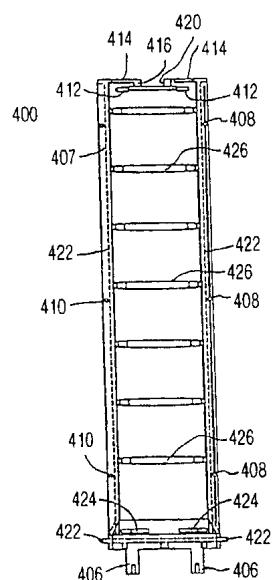


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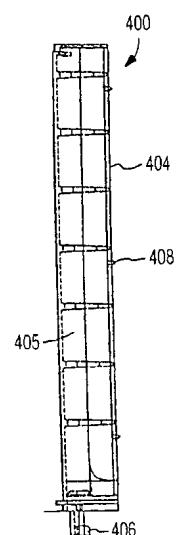




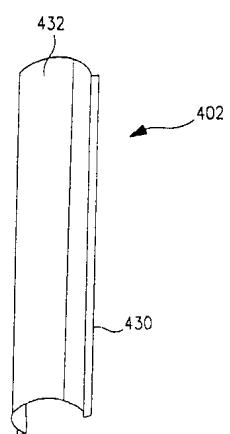
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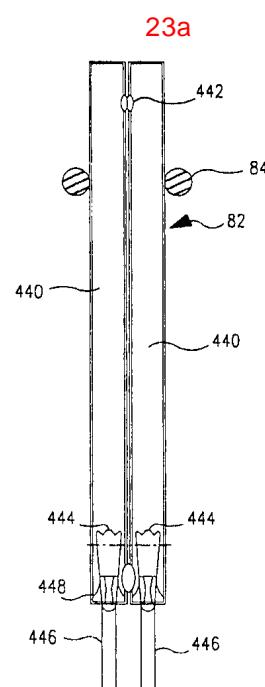
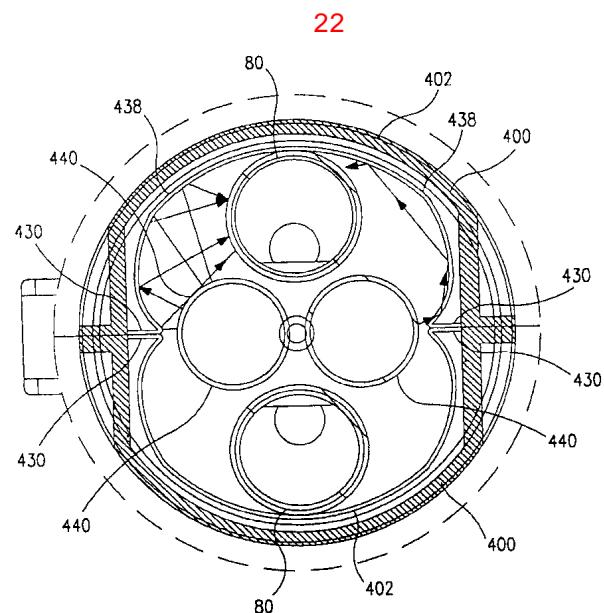
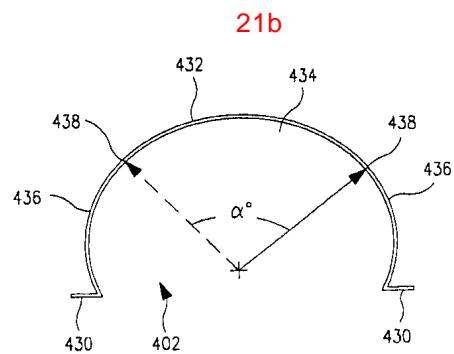


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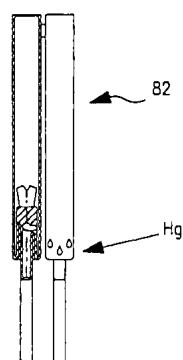


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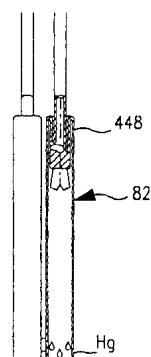




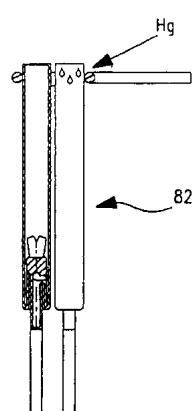
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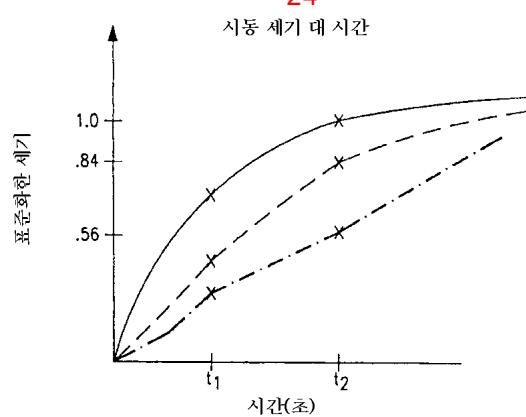


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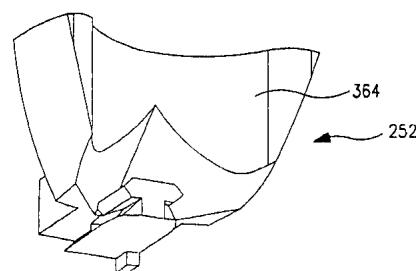
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시동 세기 대 시간

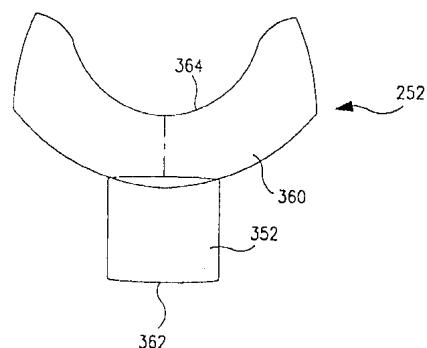


- 흡열 장치가 없고 기부가 아래로
- 흡열 장치가 없고 기부가 위로
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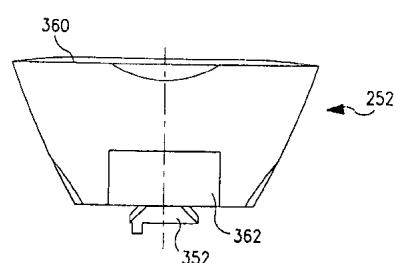
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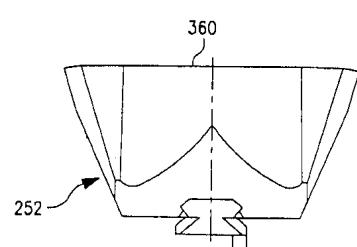
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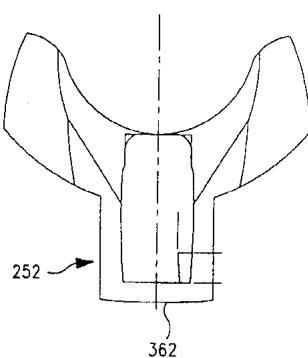
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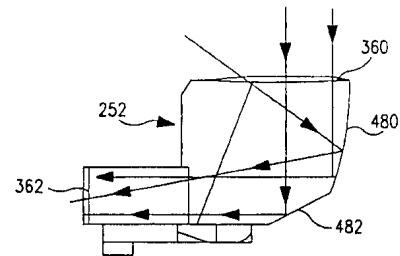
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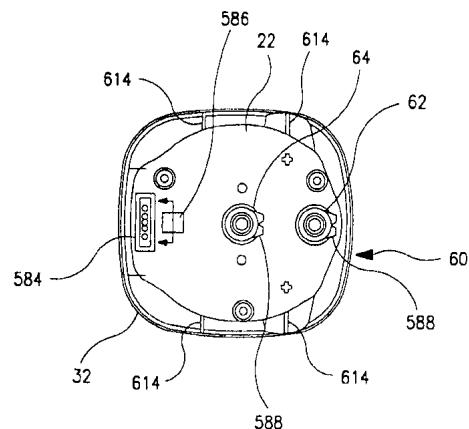
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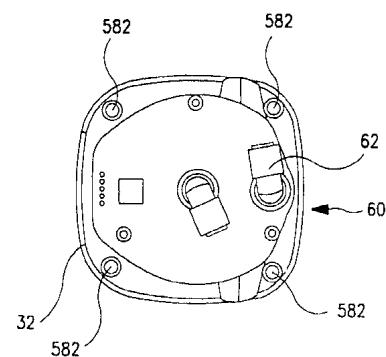
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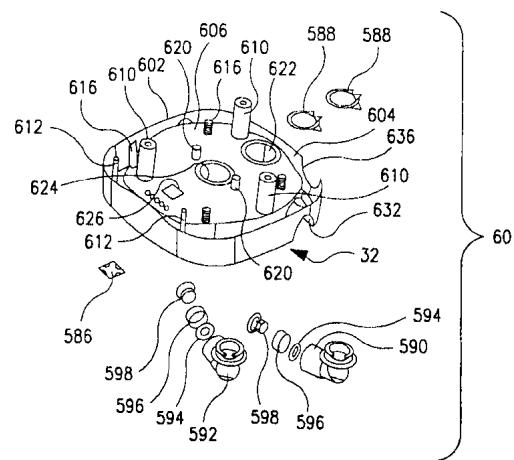
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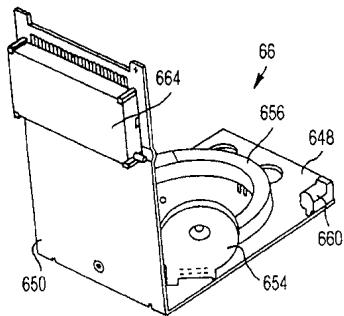
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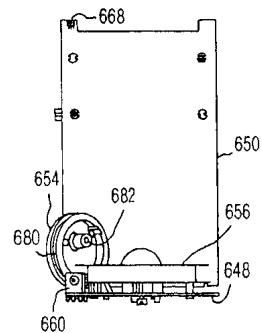
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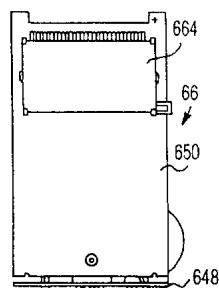
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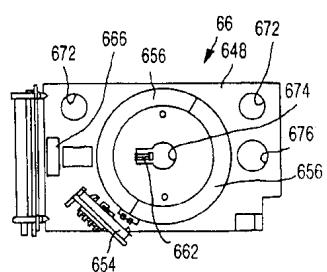
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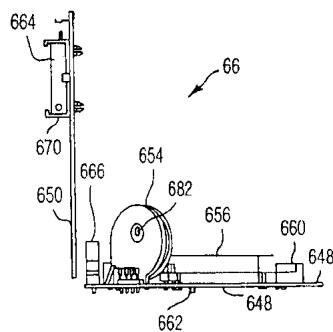
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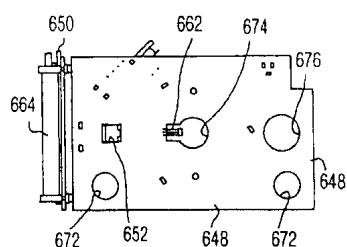
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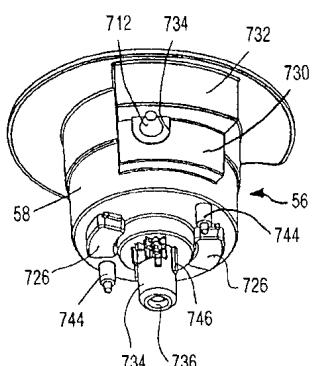
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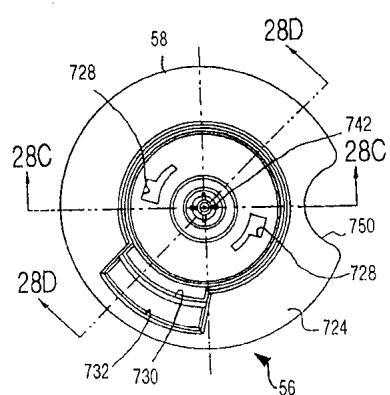
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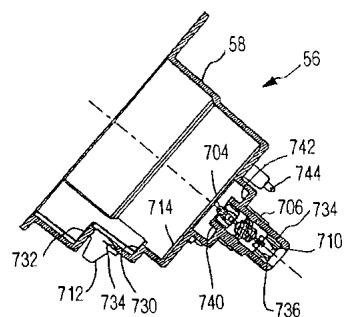
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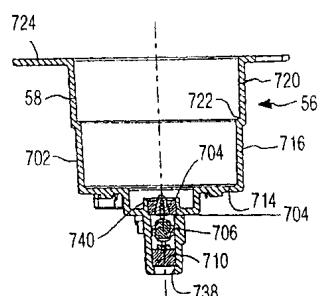
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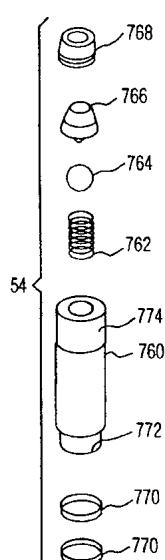
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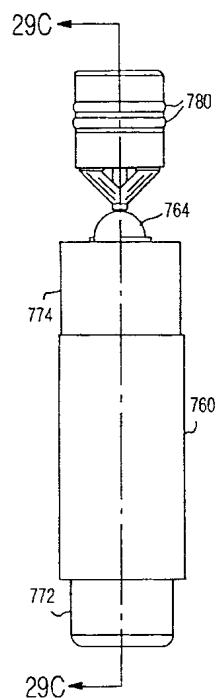
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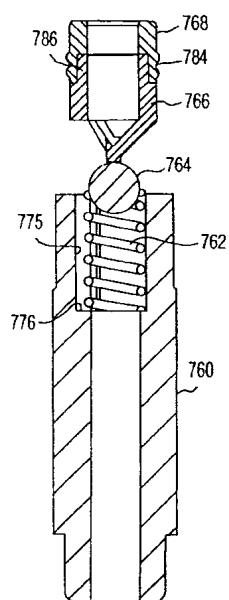
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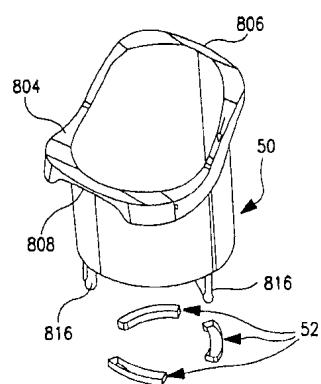
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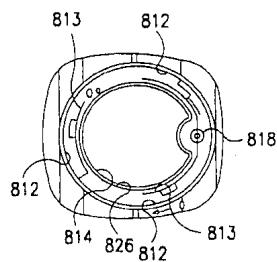
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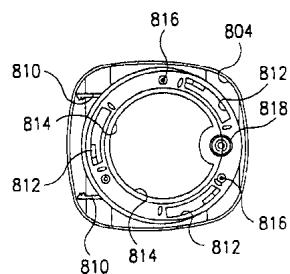
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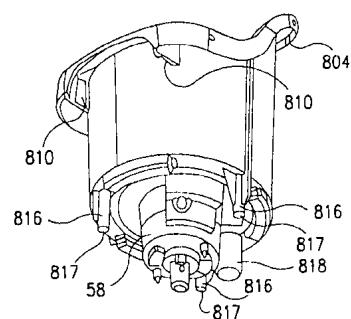
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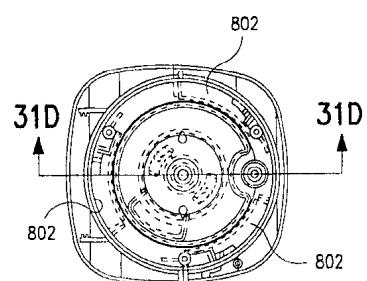
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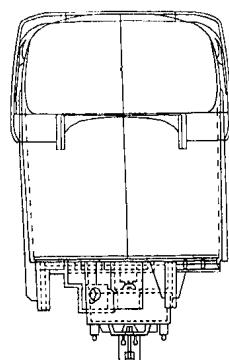
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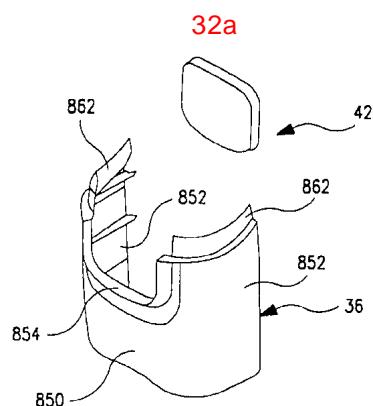
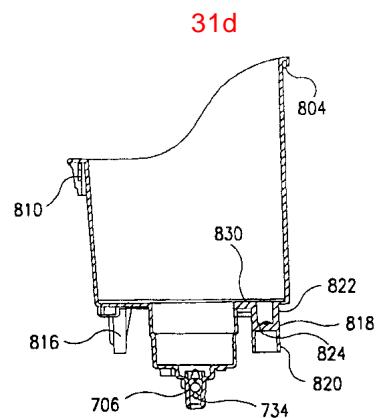
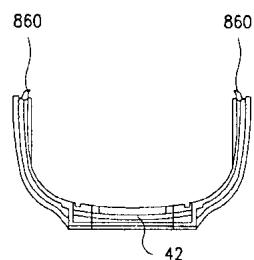
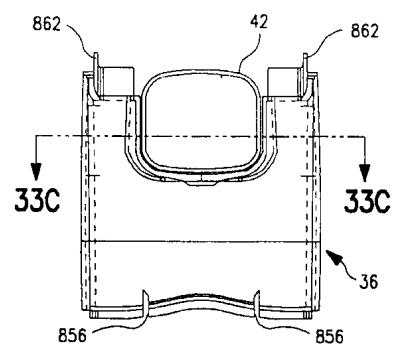


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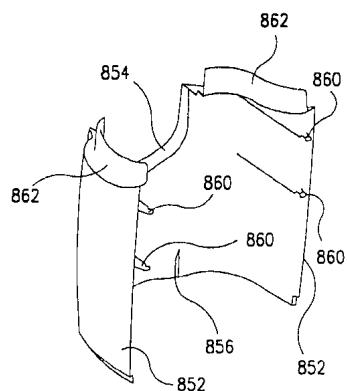


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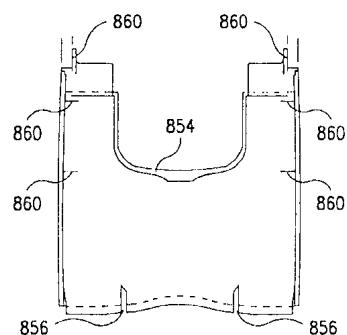


**32b****32c**

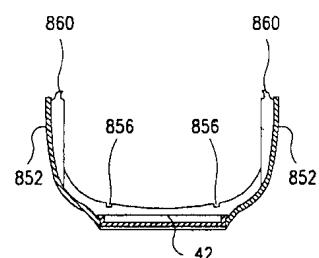
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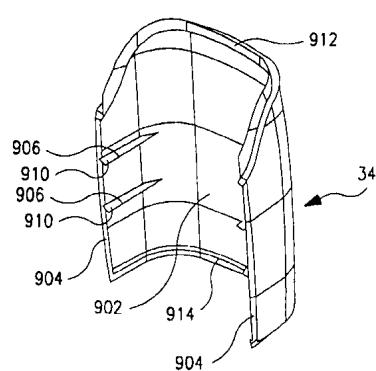
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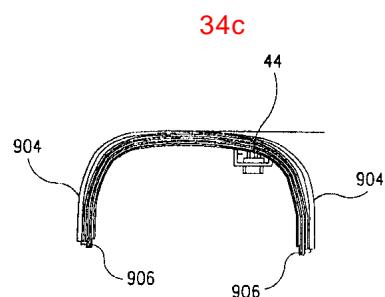
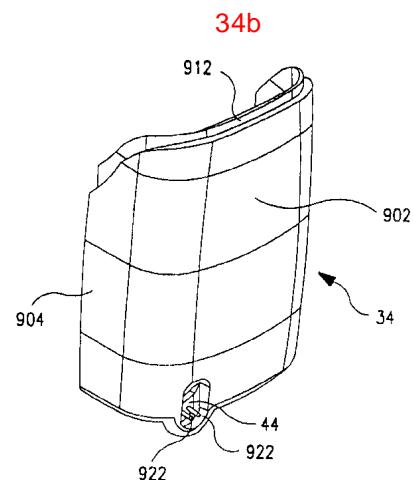


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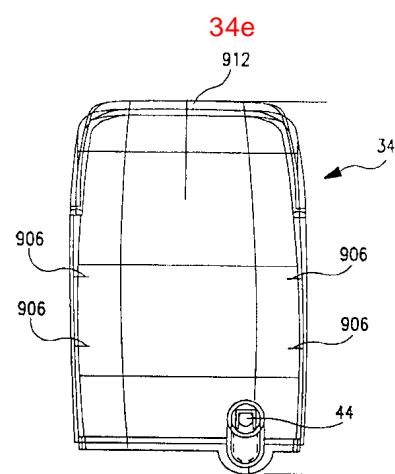
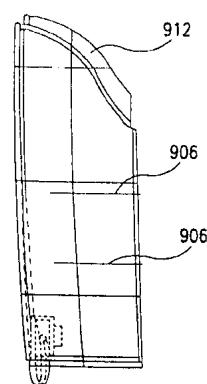


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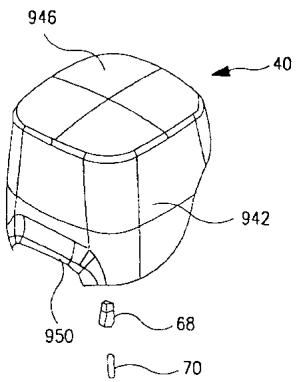




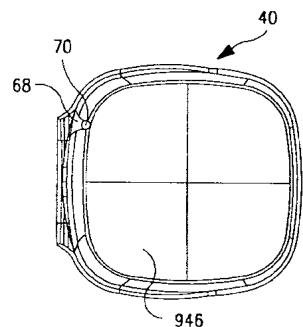
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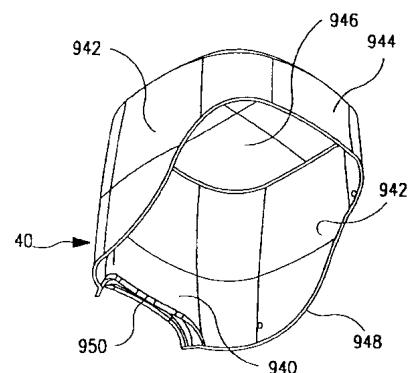
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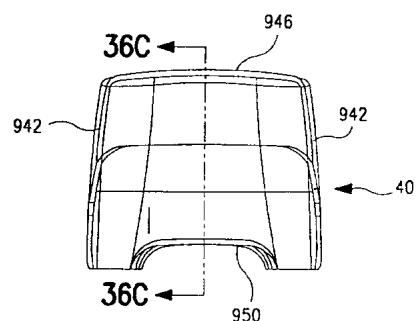
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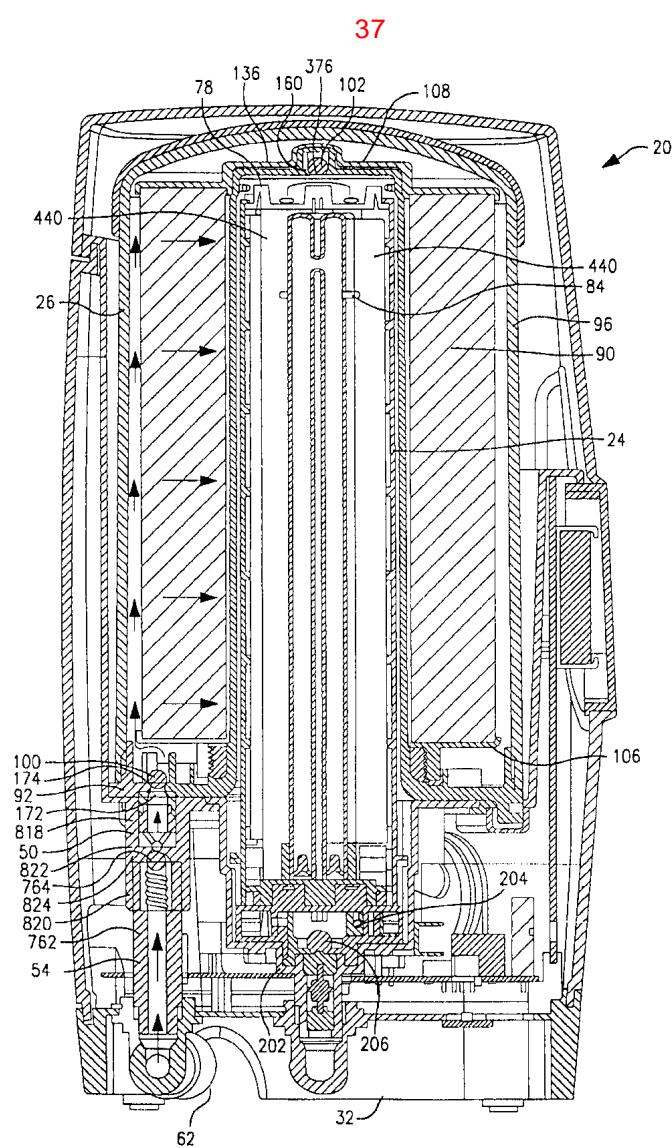
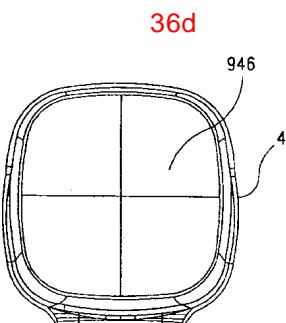
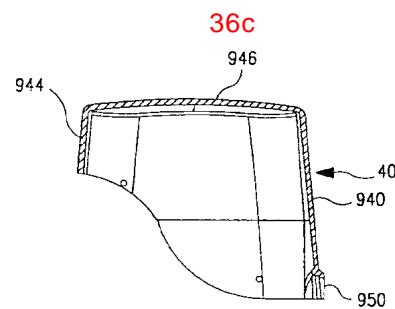


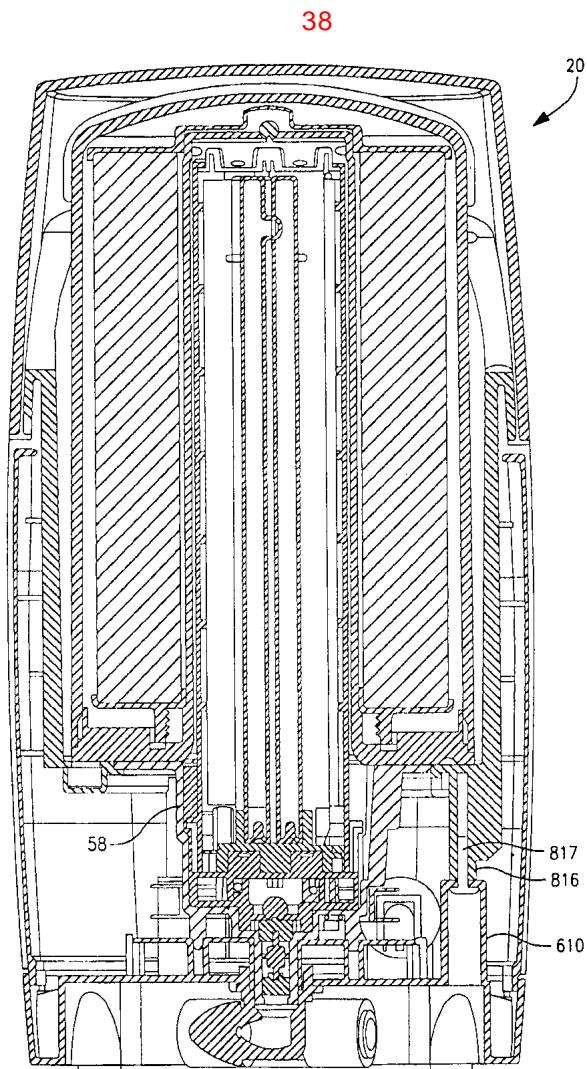
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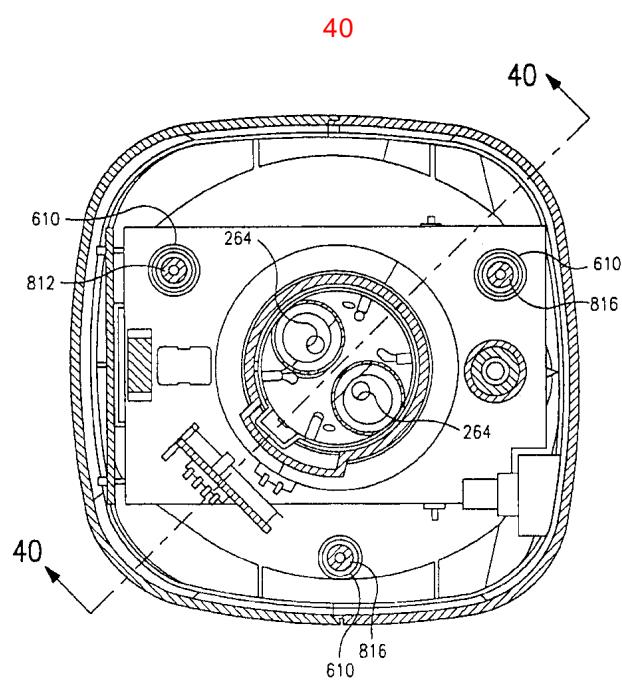
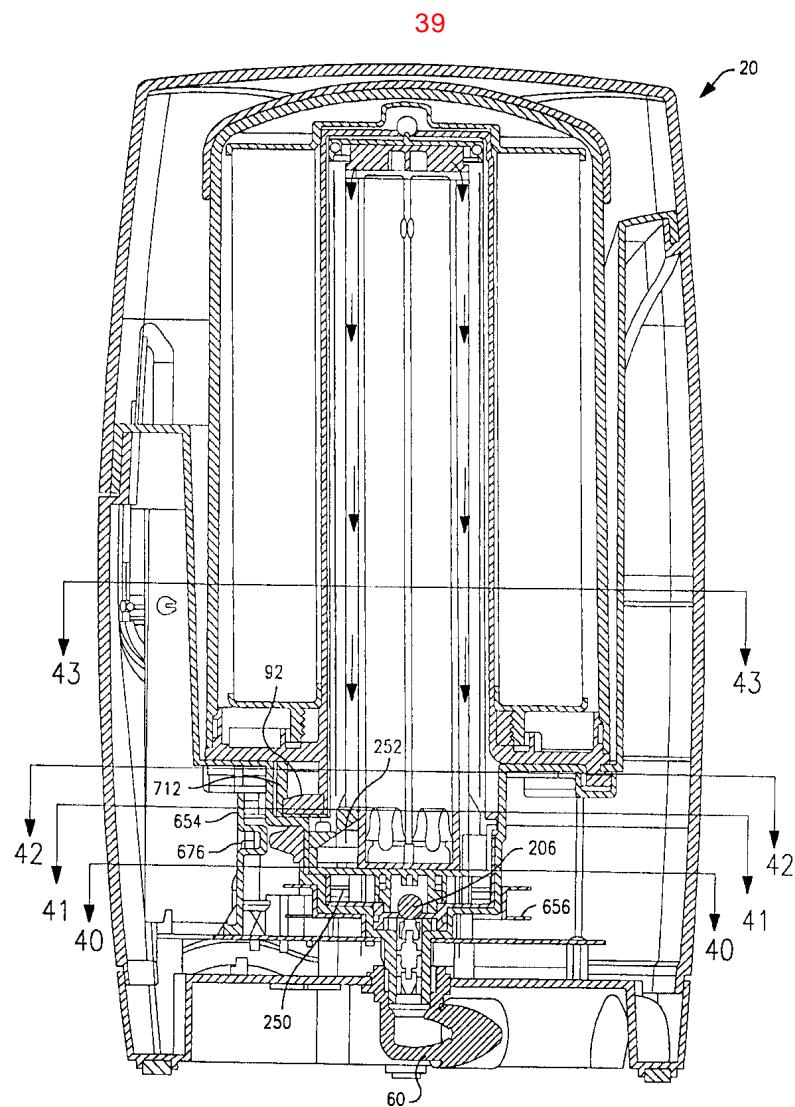


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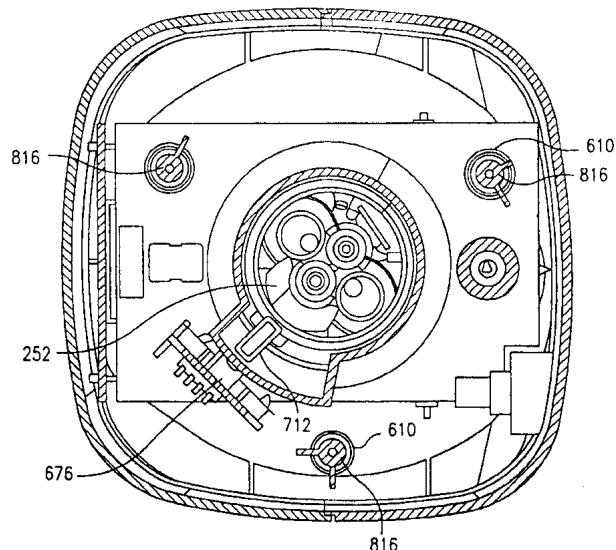




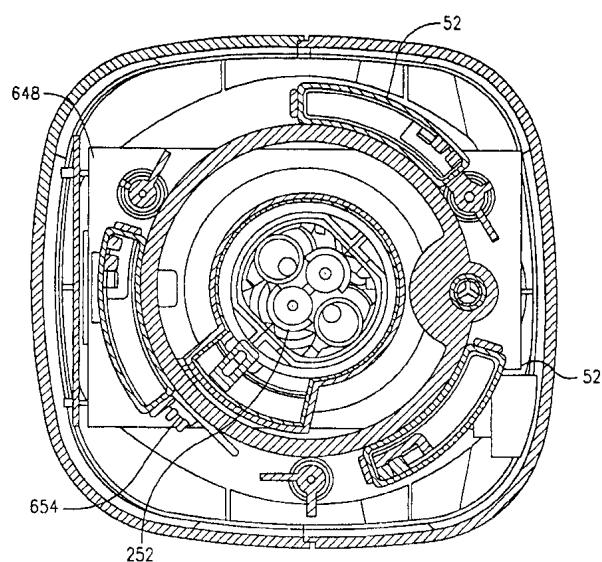




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42



43

