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(71) 416

(72) 113 1603

474 301

463 401 504

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159 504-905

(74) :

(54) , ,

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1 가 2 , 2 가 2
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2a	1		.
2b	1		
3	2	B	.
4	3	A-A	.
5	4	C	.
6	2		.
7			.
8	3		
9	4		1 2
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10	5		.
11a	6		.
11b	11a	D-D	.
12	7		
13a	13g	8	
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14a	14b	9	
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15a	15b	10	
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16	11		.
17	12		.
18	13		.
19	14		.
20	11		
21	20		.
22	15		.

(Liquid Crystal Display device, LCD)
(optical device)

(Liquid Crystal, LC)
(liquid crystal controlling device)

가 . , (light so
urce) 2 (light guide p
anel)

1 2 가

,

12-292787

11 - 337943

13-345007
가

(snell's law)

가

가

가 12-292787
(diffusion sheet)
가

(prism sheet)가

가 , 가, 가
가 .

1 가

2 가

3 , 가

4 , 가

1 1 2 1 2 1 2 1
1 2 1 2 1

2 1 2 1 2 1 2 1
1 2 1 2 1 2 1

1 2 1 2 1 2 1 2
2 1 2 1 2 1 2 1

3 1 2 1 2 1 2 1
1 2 1 2 1 2 1

4 1 2 1 2 1 2 1
1 2 1 2 1 2 1
2 가

가

1
1 (700) (710) (720)
(710) (712), 1 (714) 2 (716)

(710) (712) (710) (710) (710) (710) (710) (710)
12) 4 (712) 3 (710) (710) (710) (710) (710) (710) (710) (710)
5 (710) (710) (710) (710) (710) (710) (710) (710)

710)

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 , (714) 2 (716) 1 (714) 2 (716) .
 1 (710) (712) (712) (710) .
 1 (714) 2 (716) (Snell's law)
 , 1 (714) 2 (716) 1 (714) 2 (716) .
 14) , 2 (716) 1 (714) 2 (716) 1 (7) .
 (700) 1 (714) 2 (716) θ_1 θ_1 .
 , 1 (714) 2 (716) θ_1 가 .
 , 1 θ_1 1 (714) 2 (716) 가 .
 , 1 가 , 1 1 (714) 2 (716) 가 .
 , (710) 1 (714) 2 (716) 가 ,
 가 .
 , (710) 1 (712) 1 (714) 2 (716) .
 , 1 (714) 2 (716) 2 (716) 1
 (714) .
 (720) 1 (710) 1 (714) 2 (716)
 1 (714) 2 (716) 가 .
 . (720) 1 (714) 2 (716)
 (720) 1 (714) (716) , 1 (714)
 , (720) 1 (714) (716) (720)
 .
 , 1 θ_1 2 θ_2 1 (714) 2 (716)
 2 (716) 1 (714) 1 (714)
 가 .
) , (720) 2 (716)
 2 (716) 2 θ_2 , (720) 1 θ_1
 (720) 2 (716)
 , (110) (720) ,

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 _____ 1
 2a 1 2b 1
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 2a 2a
 a, b 가
 2a (714) , (720) , (710) 1
 (714) (720) (720) (710) 1 (714)
 (720) (710) 1 (714)
 , 1 (714) (720) (710) 1 (714)
 (720) (710) (720) (710) 1 (714)
 (710) (712) (720) (720)
 , (720) (720) (720)
 (712) 가 (712) 가 (720) (720)
 (710) (720) (720)
 , (710) (720)
 2b
 2b (720a) (710)
 1 (714) (720a) (720a) (710) 1 (714) (720a)
 0a) (720a) (720a) (720a) (720a) 가
 , (720a) (720a) (720a) (720a) 가
 (710) 1 (714) (720a) (710) (712)
 (720a) (720a) (710) 1 (712) (712)
 , (720a) (720a) 가 (712) 가
 (720) (710) 1 (714)
 (720)

(710)
2

(720)

3 2 B . 4 3 A-A .

1, 3 4 , 1 (714) 2 (716) (720)
(720) (725) . (725) 2 (716) 2 θ_2
1 θ_1 가 .

(720) (725) 2 , 1 722 , 2 , 2
1 724 .

5 4 C .

5 , 1 (722) 2 (724) θ_3 80° 120° ,
 θ_3 1 2 θ_2 1 θ_1 가 . ,
 θ_3 82.5° , 2 θ_2 2 (716) 가 . ,
 θ_3 82.5° 가 .

1 2
가

2

6 2
1 .

6 , (720) (725) (710) (712)
(725) Y , 2 (716) 6 가 . X (710) ,
(720) (725)

7 .

1 7 가 , (710) (710) 1 (714), 2 (716) (712)
가 .

(710) (720) (725) 2 2 (716)
(720) (725) 2 (716)
가 .
가

3

8 3
7 2 2 .
2 .

8 , (710) 1 (714) (720) 1 (620)
2 (630) .

1 (620) (625) (625) (712)
Y . 1 (620) (712) 1

16) 2 (716) 2 0 2 . , 1 (620) 2 (7
 2 (630) (635) (712) 2 (716)
 , 2 (630) 1 (630) (635)
 , 2 (630)
 , 1 (620) 2 (630)
 , 1 (620) 1 (714) , 2 (630)
 1 (620)
 , 1 (620) 2 (630) , 2
 (630) 1 (620)
 , 1 2
 , 2
 , 1

4
 9 4 1 1 2 2
 3
 9 , 1 (620) (625) (712) Y
 , 2 (630) (635) X
 (625) 2 (630) (635) 1 (620)
 1 (714) , 2 (630) 1 (620)
 2 (630) 1 (620)
 , 1 2 2

5
 10 5
 1 2
 6 9 (720) (712) 가
 10 , (712) , (7
 30) (735) (730) 1
 , (730) (735) (735) 4 +
 (730) L (730) (730) (730)
 (735) , (730) (710) 2 (71
 6) 1 0 2 2 0 2 (735)
 , (730) 1
 2 (716)

6

11a 6 . 11b 11a D-D
5 .

10 (730) 2 (716)
(730) (735)
가 .

11a 11b (740) 가 (740)
(745) .
(745) 2 (716)
(735) 2 (716)
1 (714) , 1 (714)

가 .

7

1 6 (710) .

12 7 .

1 6 .

12 (700) (710) (760) ,
(760) 1 6
(760) (710) .
(710) 1.4 , (760) 1.4 가
가 .

(700) (710) 가 (710) 1
(712), 1 (714) 2 (716) (712) 1 (7
14) 2 (716) , 1 (714) 2 (716) .
(710) .

가 (710) 1 7

(720) (710) (712) 1 (714) 2 (716)
(720) 2 (716) 2 θ_2 1 θ_1 2
 θ_2 (710) (710) 1 θ_1 .
(710) .

13a 8 1

13a (710) (720) (717)
(710) (761)가

13b

13b (761) (761a) (761b) (761b)
(761b)

(761) (710) 1 (714) 2 (716)
1 (714) (761)가

13c

13c (710) (761) (762)

13d

13d (761) (762) (761) (761b)
(scraper;763) (761) (761b) 762a

13e 1

13e (761) (761b) (762a) 1
(762a) 1 (762a) (761) (710) 762b

13f

13f (761) (710) (710) (710) 1
(714) (762b) (762b) 1 (761) (762b) (762c) (762c)
(762b) (762b) (762a)

13g

13g (710) 1 (714) (762c) (763) 가 (763)
(762c) (763a) (763b) 가 (763a) (763c) 가
(762c) 가 (763a) (763c) (762c) 가
(762c) (763c) 760

가 (763a) (760) (760) (760)
3d) (760) 2 (760)

(760) (761) (761b) (710)

9

14a 9 14
b 14a A .

14a 14b , (710) (775) 1 (775e)
(775) (775a), (775c), (775d),
2 (775f) .
(775a) , (775a)
(775b) , (775b)
(775a) .
(770a) (775d) (775a) .
(770a) (775a)
(775a) (770a) (775c) , (775b)
(775a) (770a) (775b) (770a) (775a) (775b)
(775b) (770a) (770b) (775c) .
(775b) (770b) 1 (775e) (770b) 770c
1 , 가 1 (775e) 1
(775a)가 (775b) (770c) (71
(775b) (714) , 1 (714) (770c) (770c) (775b)
(770c) (714) , 1 (770c)
771 .
(714) (772) , 2 (77 (77
5f) 1 (714) 2 (771) 1 (714) (770) (771)
(714) .
8 (710) (770)
.

10

15a 10

15a 782 , 784 (782) (7
84) 1 (cavity;785) 2 (786) 1 (785) 가 1 (720)
(710) , 2 (786) 1 7
(782) (784) (782) (784)
1 (785) 2 (786) 15b (787)가
(710) (720) .
1 (710) (720) 1 7
, 가 ,

<u>11</u>									
16	11								
16		(800)	(700),	(810),	(820)				
(700)	(710)	(720)		(710)		(72	0)		
(810)	(700)	(810)	(Light Emitting Diode, LED)						
가	(discharge lamp)가								
(820)	(700)	(810)							
(820)			(700)						
(810)									
16		(800)	가			(720)	1		
1	(714)	(820)	(830)		(830)	1			
(714)		(700)		가					
		(800)	2	(716)		2			
(716)		(840)							
			가						
<u>12</u>									
17	12	1							
		11							
(820)	(700)		(820)		(700)				
(710)		(720)		(720)	(720)	(810)	(720)		
	(720)	(810)	가	(810)					
가		(810)							
<u>13</u>									
18	13	2							
		11							
18		(700)	2		(700)	2			
	1	(805)	2	(808)		1	(805)	2	(808)
	1	(805)	2	(808)			1	(805)	2
808) 가	가								

, (700) 가 , 가
(720) 1 (805) 2 (808) 가 (720) 1 (805) 2
(808) 가 (720) 가
가
14
19 14 11
19 (700) L (700) 2 (807) (700) 1
700) 2 (806) 2 (807) 1 (806) 2 (807) (700)
(700) 가
(700) 가 (720) 1 (806) 2 (807) (720) 가
(700) 가 (700) 가
20 11 21 20
2 (720) 3
2 25
3, 20 21 가 (720) 80 ° 120 ° (725) 80 ° 120
25) °
4 ° 20 21 (725) 82 ° 8
(725) 80 ° , 120 ° 가
가
21 가 8 11a
(720) 3 가

[1]

	(25)
+3	3458
+1 +1	4423
+1 + DBEF	2824
(82.5 °)	8709

+1	4950
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< 1> 11 .

11 1 2 2 가 가

15

22 11 15 14 . (800)

22 , (900) (800) (600) .

22 825 (700), (810) (830)

820 , 840 .

(600) (600) (800) (700) 500 , 가

(600) (700)

(600) (800) 가

(600) (650) (690) .

(650) TFT (610), (630) (620) . TFT (610)

(690) (680) (670) (680)

(900)가 (670)

(680) TFT (610) .

(650) 가 (800) (800)

가 , (650)

(650) (650)

(800)

(300) (600) , (600)가 (80

0)

(300) 가 (310) 가 (310)

(800) (820) (320)

(820) (320) 가 .

가 , .
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(57)

- 1. , 1 1 2 ;
1 2 1 , 2
1 2 1 .
- 2. 1 , 1 , 1
가 .
- 3. 1 , .
- 4. 2 , .
- 5. 2 , 2 1 .
- 6. 5 , 2 가 80 ° 120 ° .
- 7. 5 , 2 2 가
82 ° 84 ° .
- 8. 5 , .
- 9. 5 , 1 2 1
2
- 10. 9 , 1 2 .

11. 9 , 2 1
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12. 5 ,
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13. 5 , 1 가
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14. 1 , 1 1
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15. 1 , 1 1
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16. 1 , 1
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17. 16 ,
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18. 16 ,
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19. , 1 1 2
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1 2 2 , 2
1 2
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20. 19 , 1 가
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21. 20 ,
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20 22. , 가

20 23. , 가

19 24. ,
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1 1 1 ;

24 25. ,
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25 26. , 가 .

27. , 1 , 1 2
1 2 , 1 2
1 2 2
1 2
.

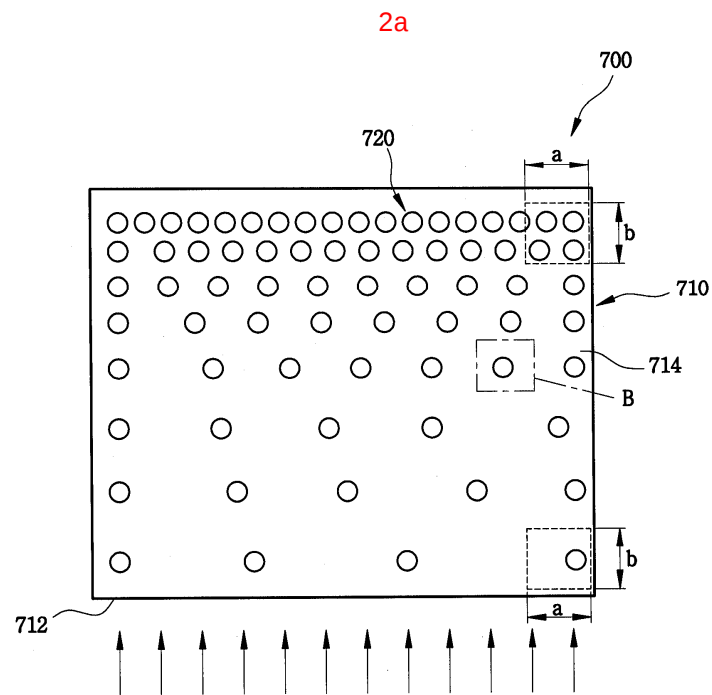
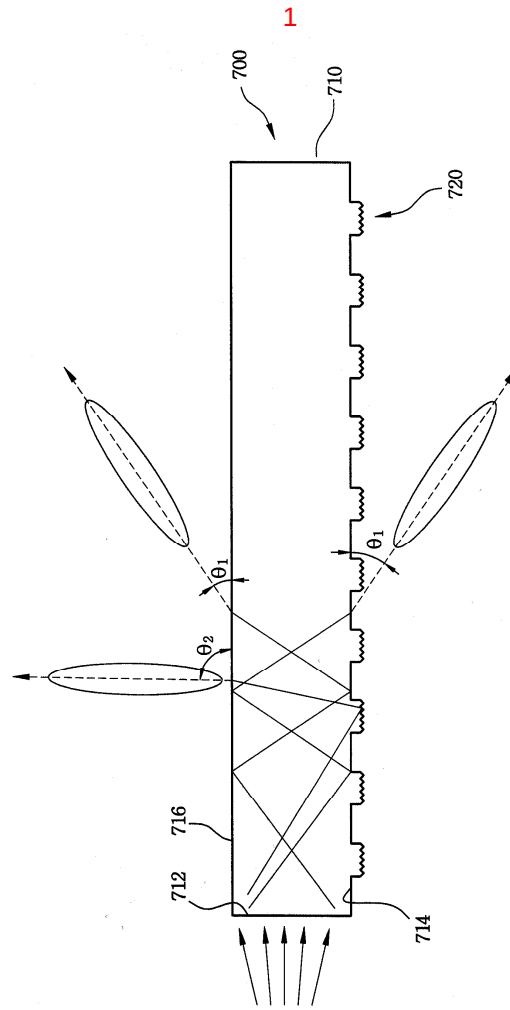
28. , 1 1 2 , 2
1 2 1 2
1 ;
;

28 29. , 1

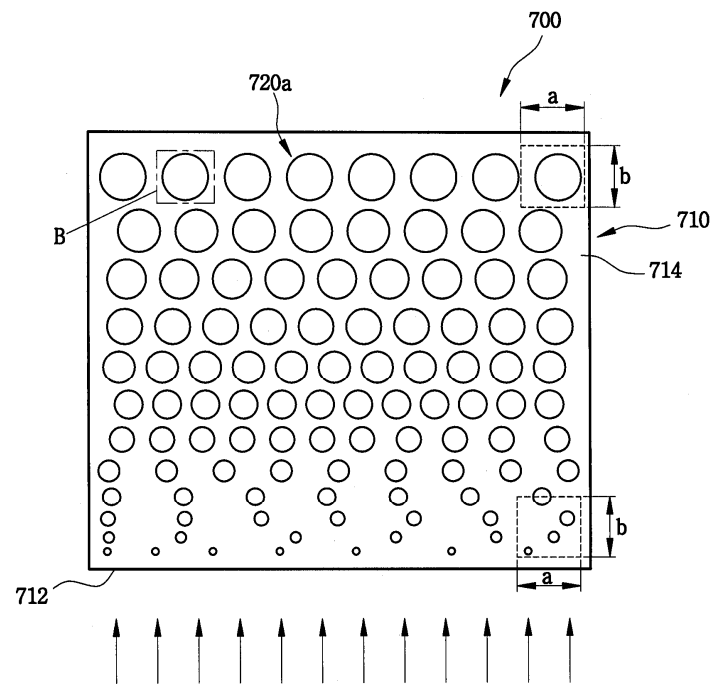
28 30. , 가

28 31. , 2

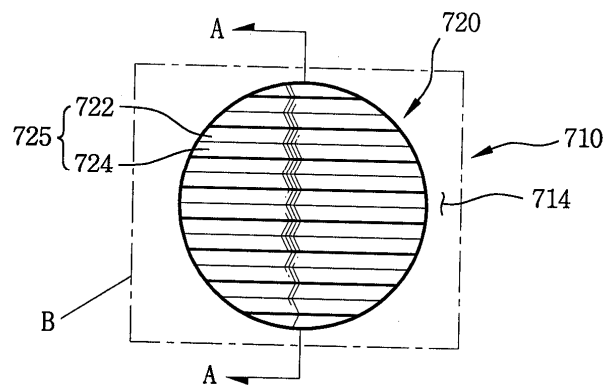
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33. 28 , .
34. 33 , 1 가 , 1 .
35. 28 , 1 2 .
36. 35 , 2 가 82 ° 84 ° .
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38. 28 , 1 .
39. 28 , 2 1 .
40. , 1 1 2 1 2 , 2 , 1 2 ;
2 가 .



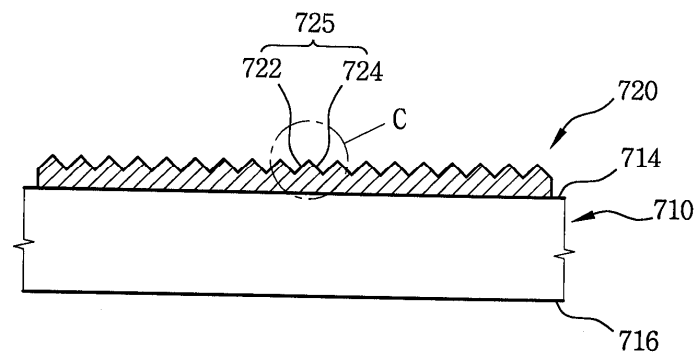
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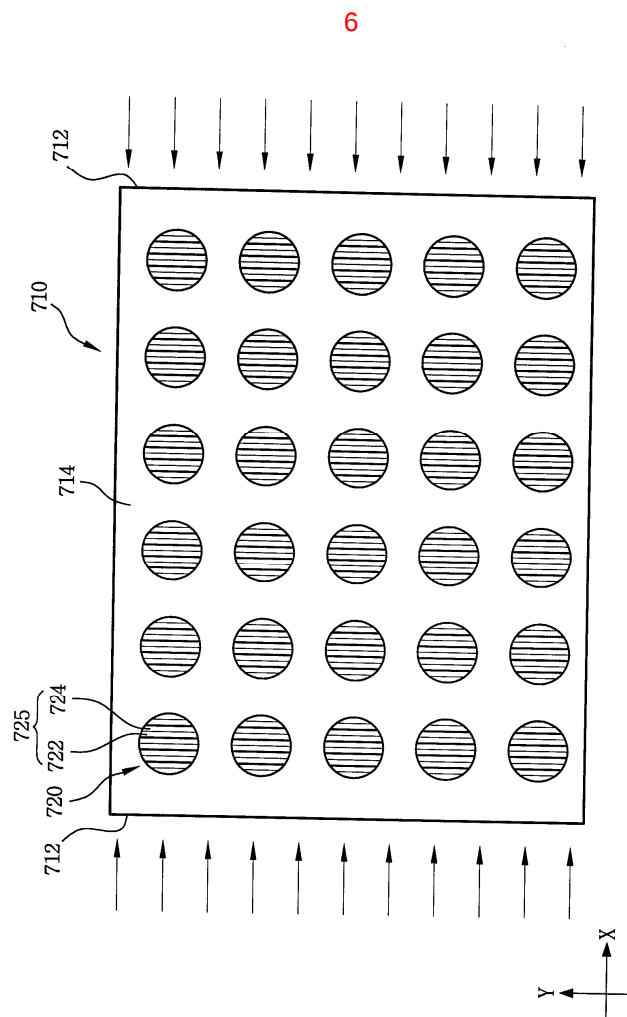
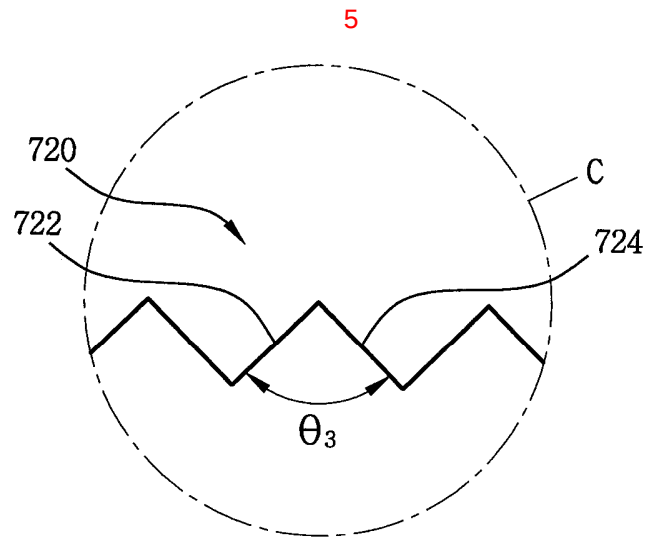


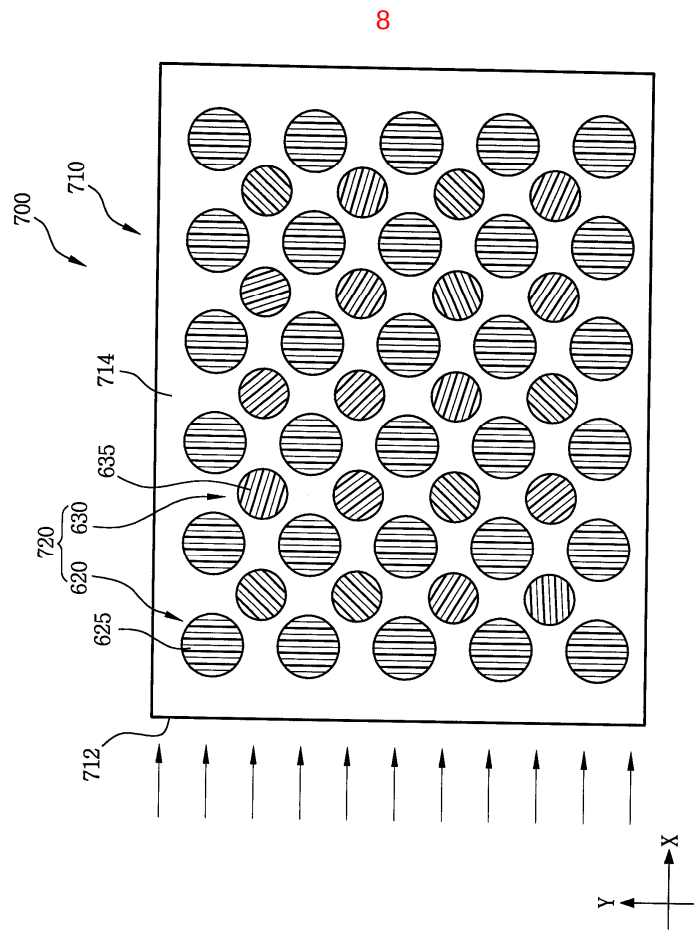
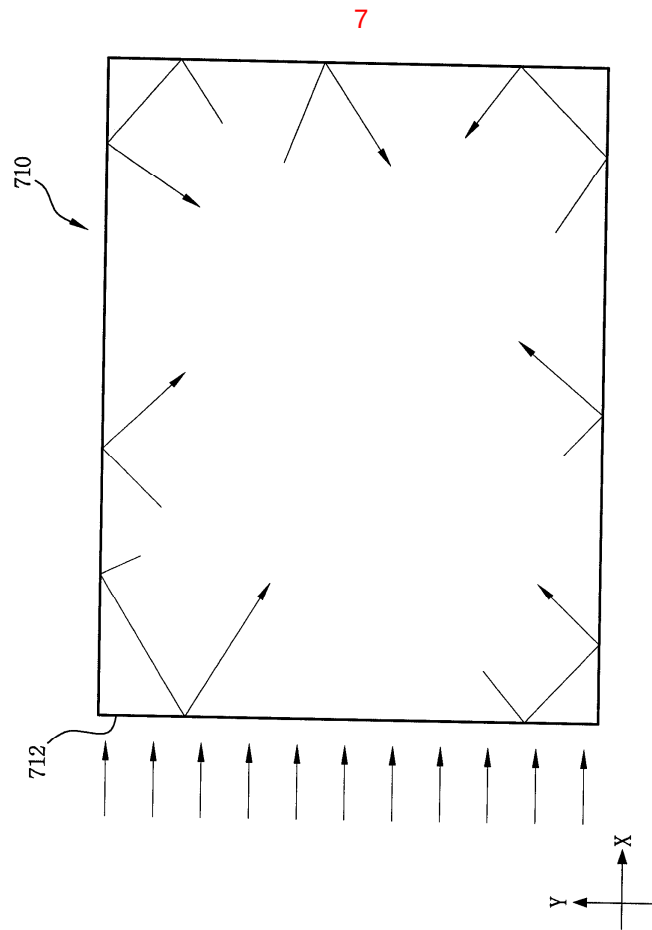
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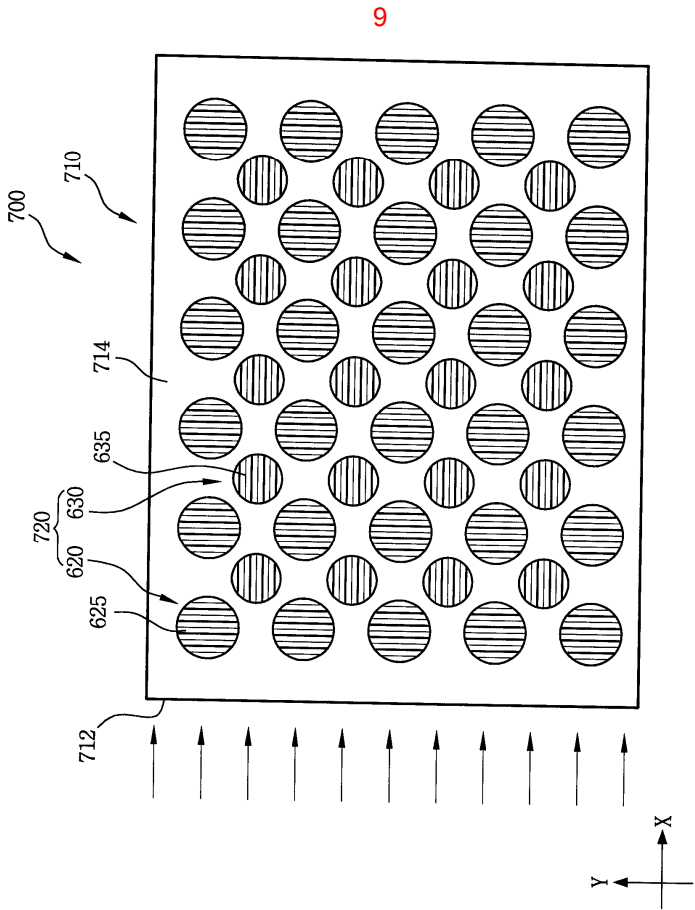


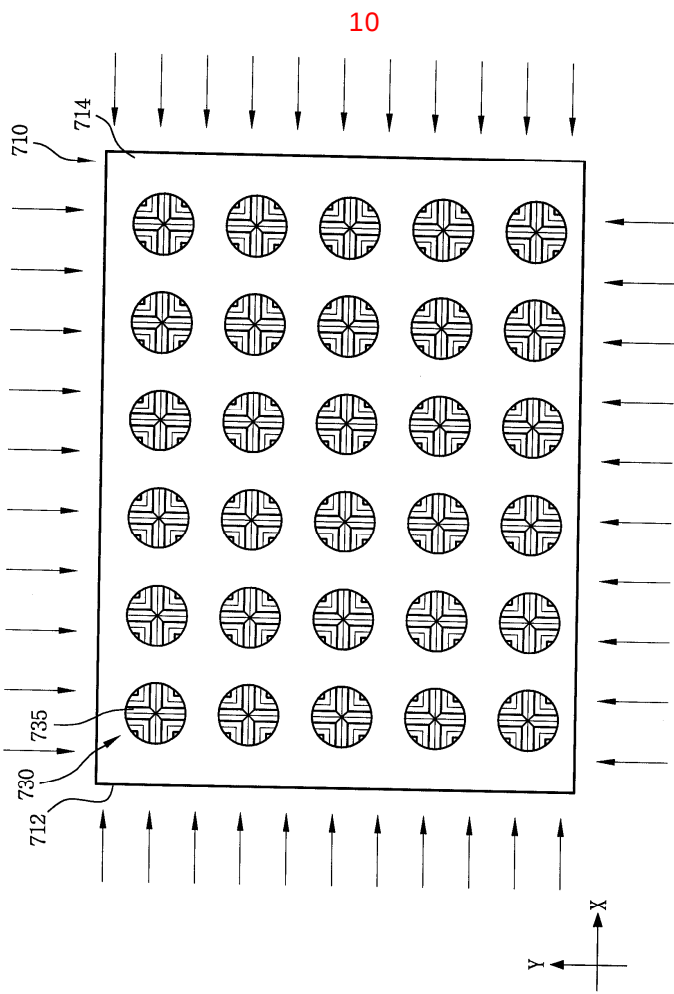
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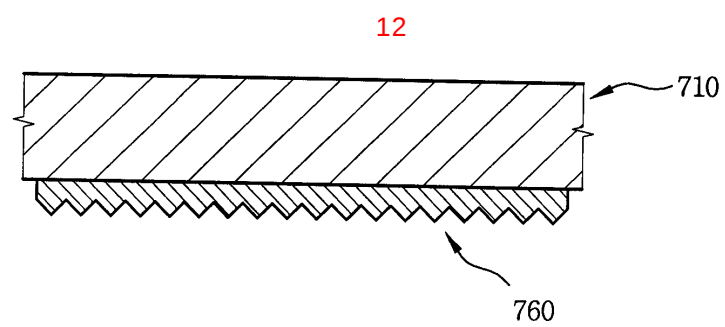
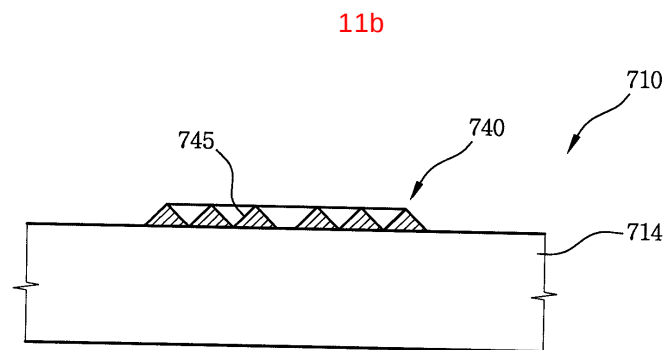
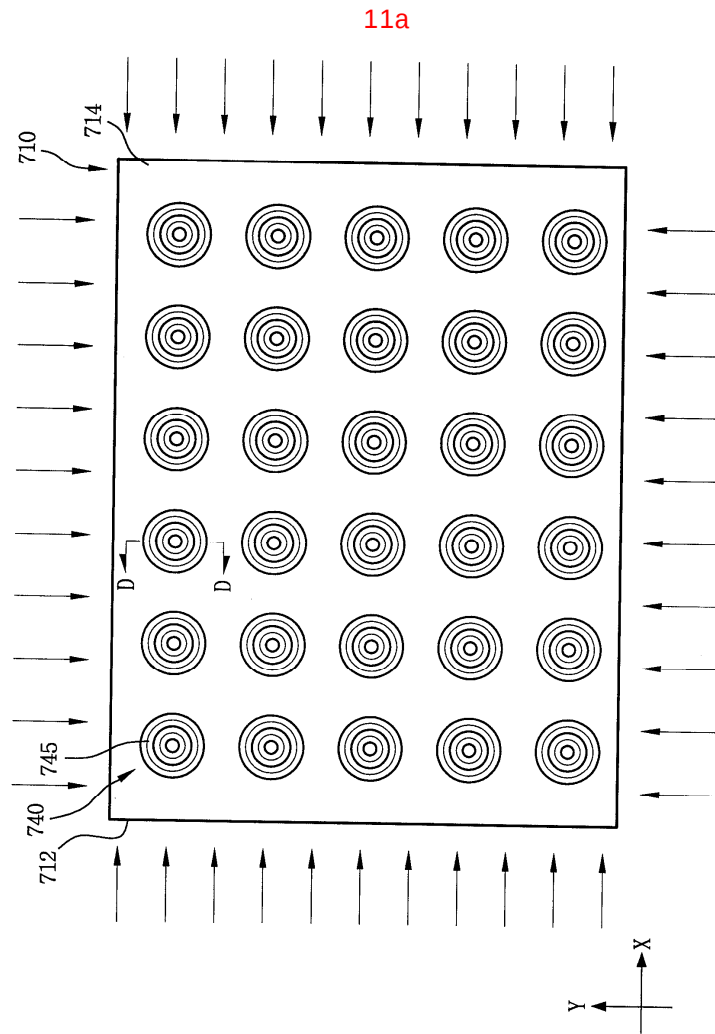


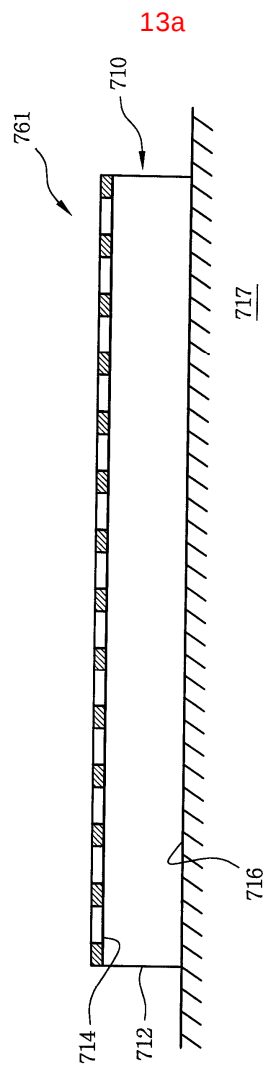


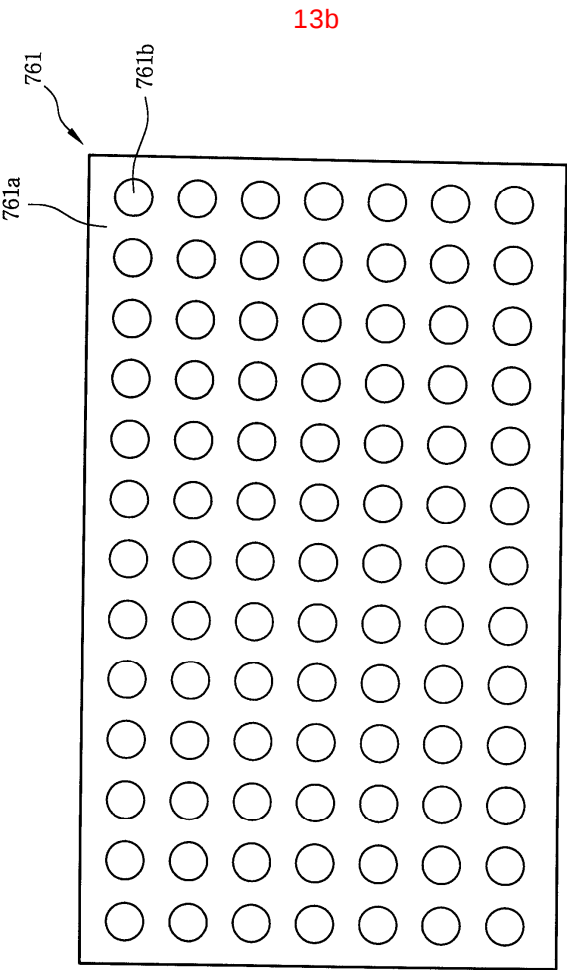


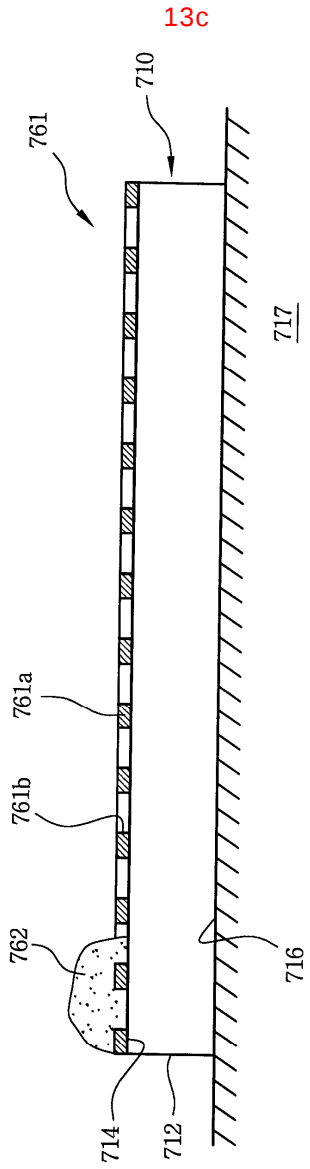


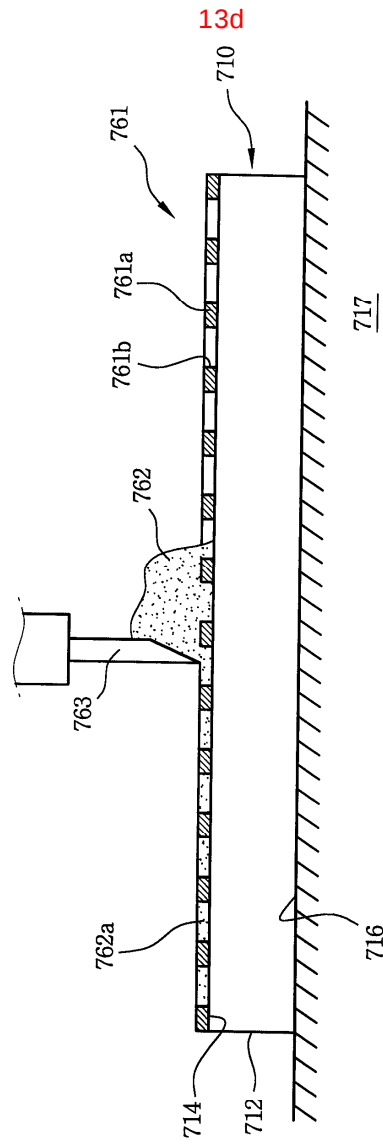


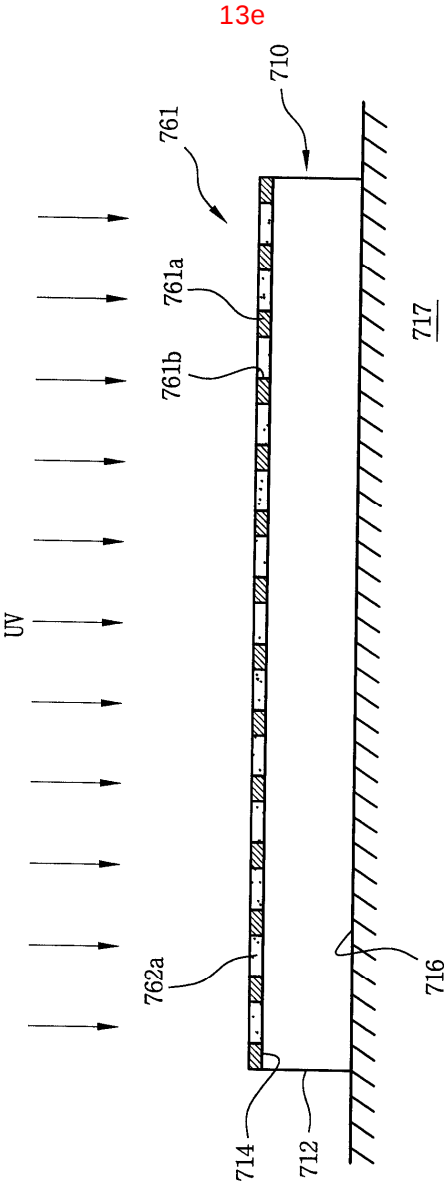


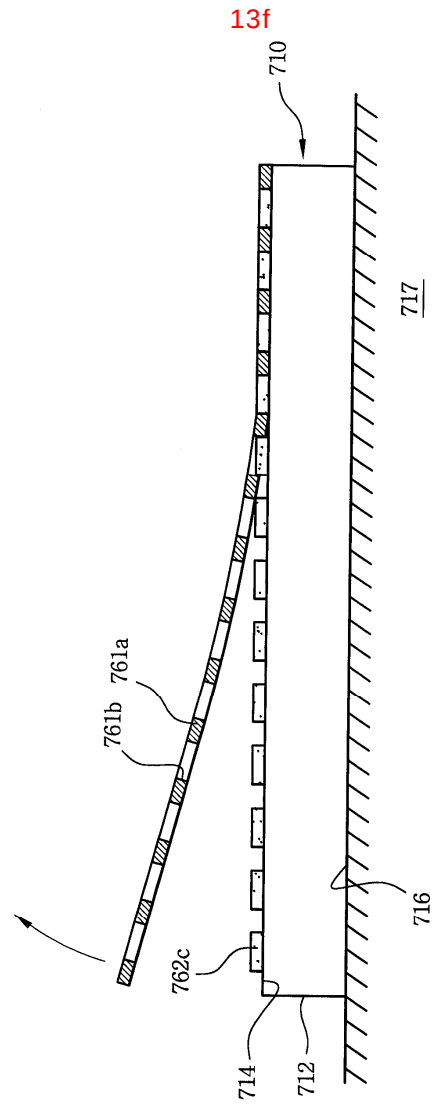




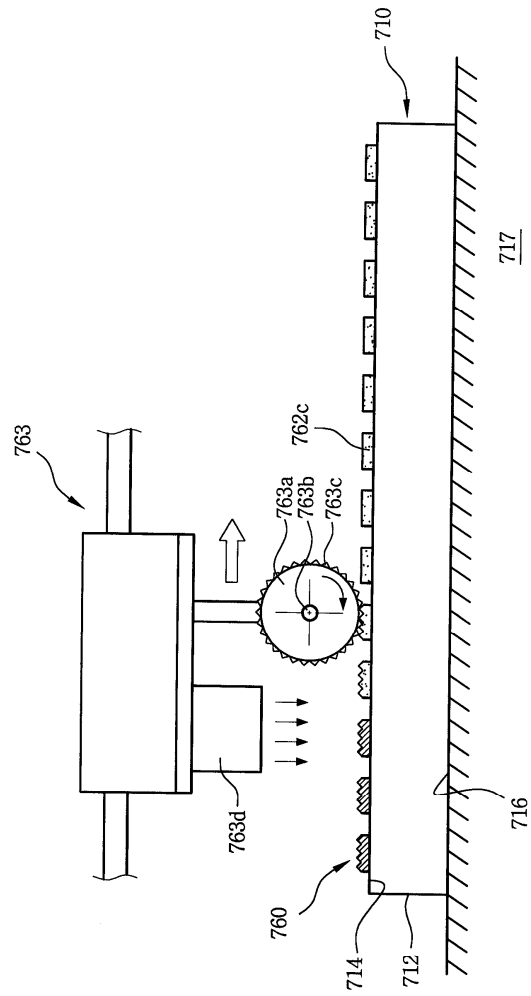


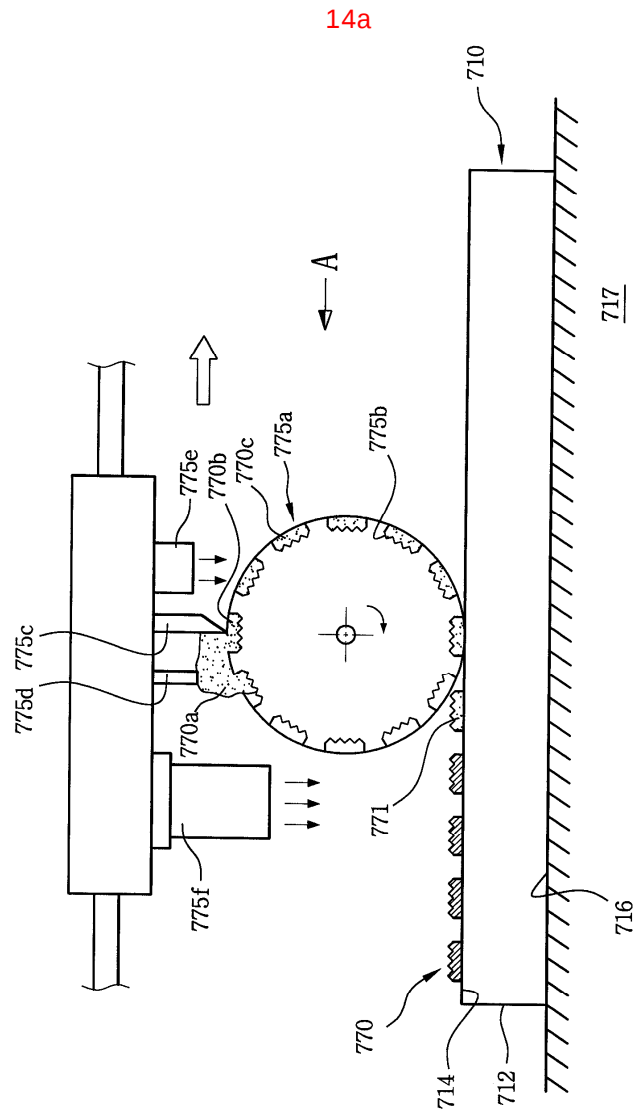


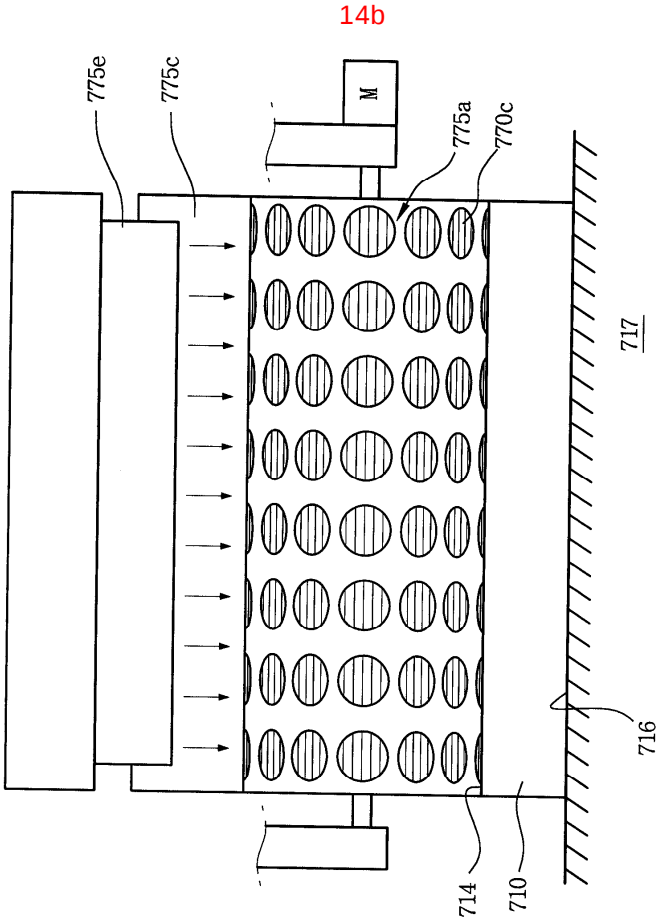


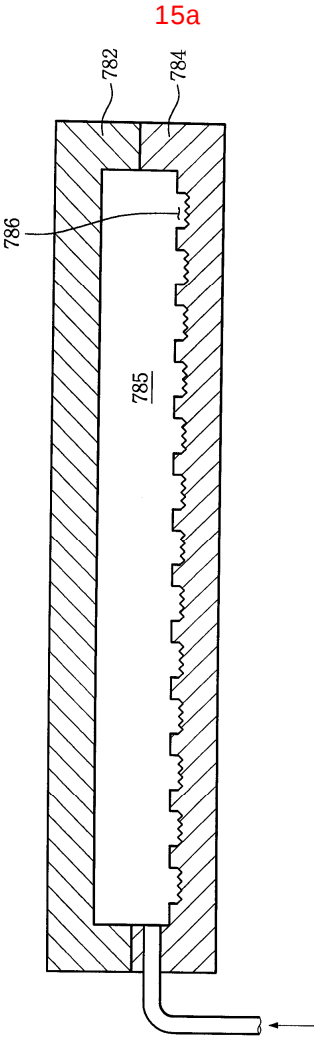


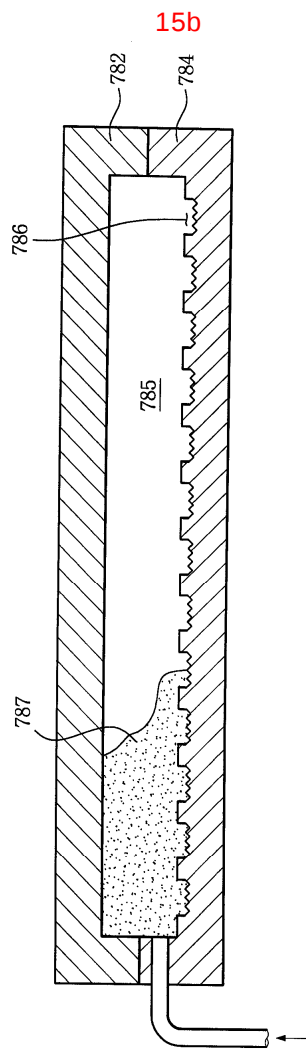
13g

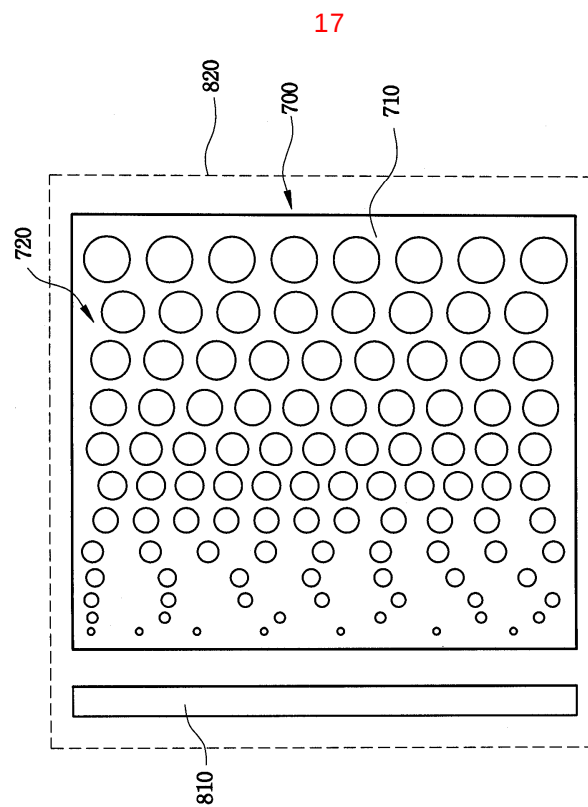
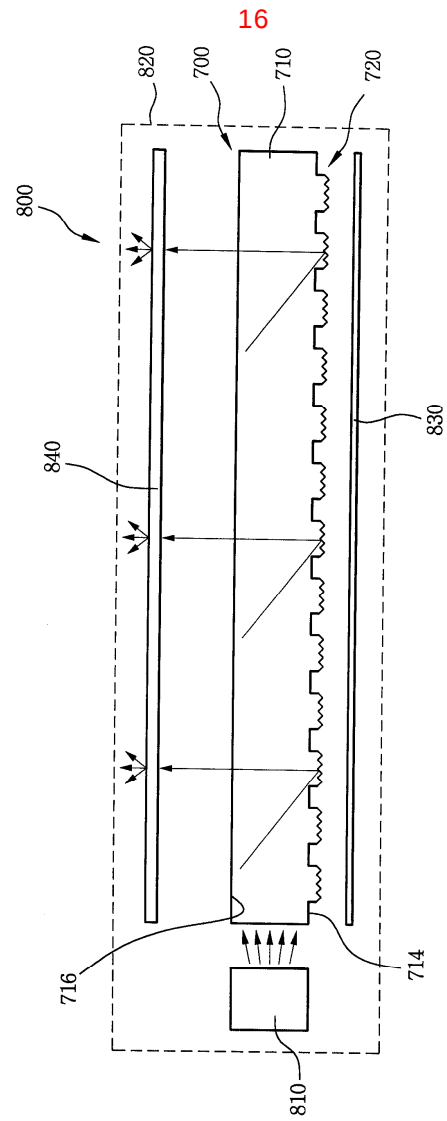


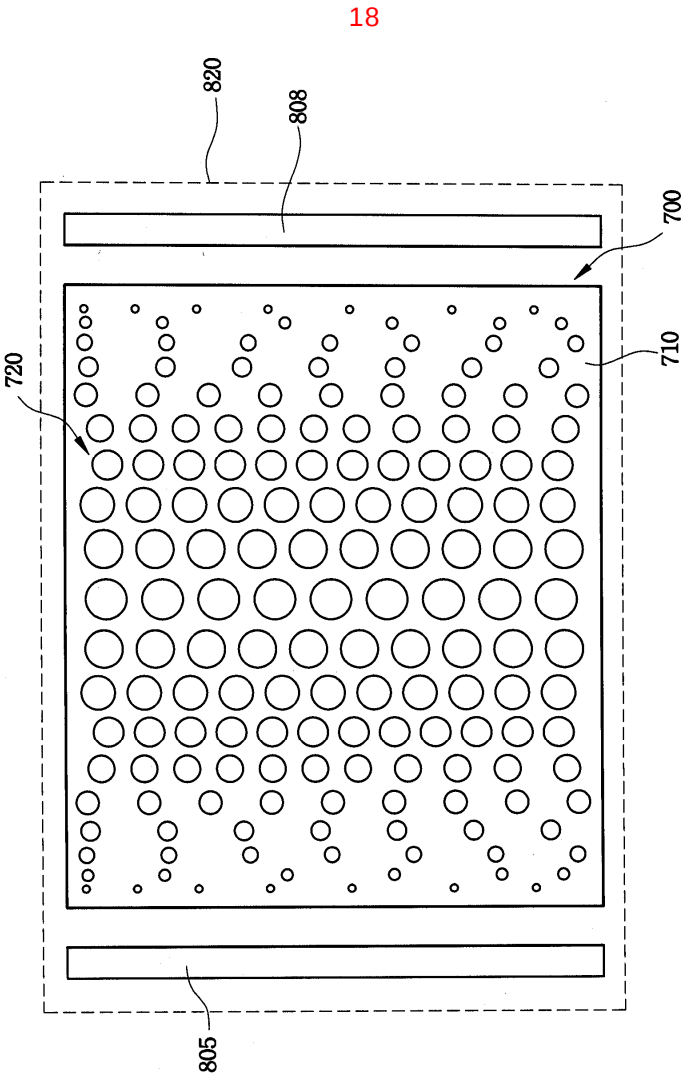




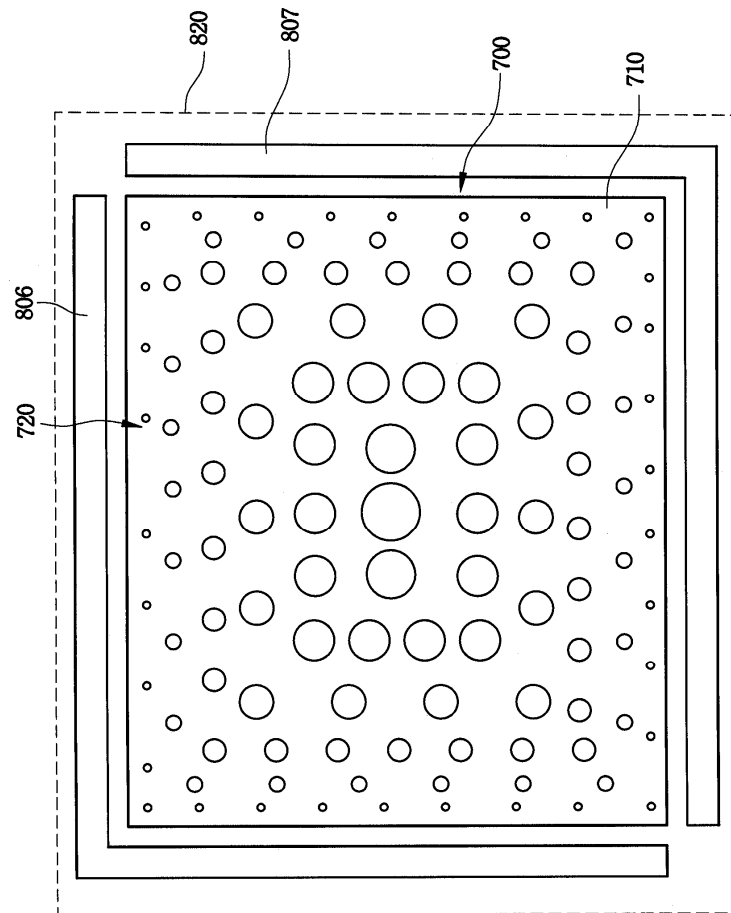




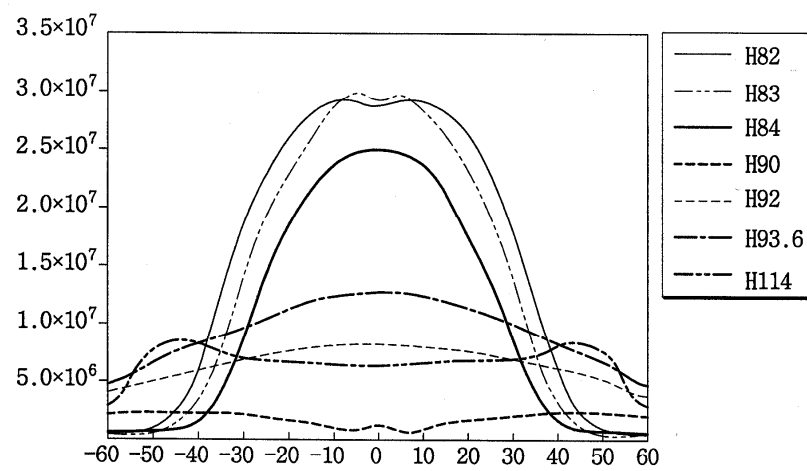




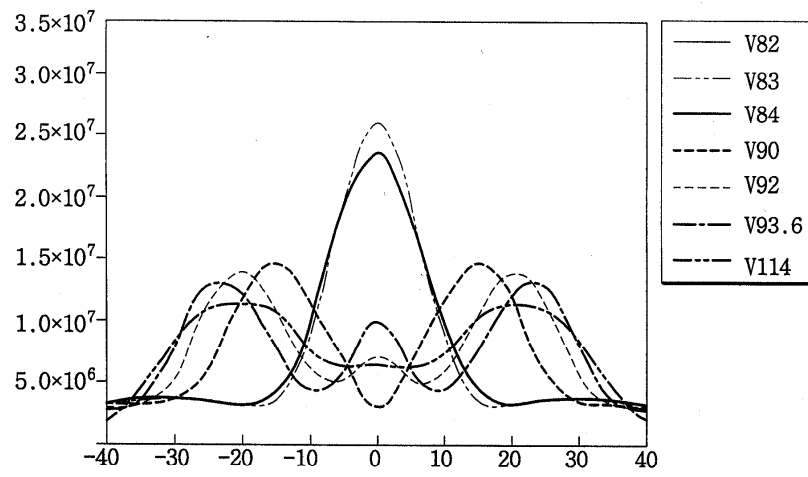
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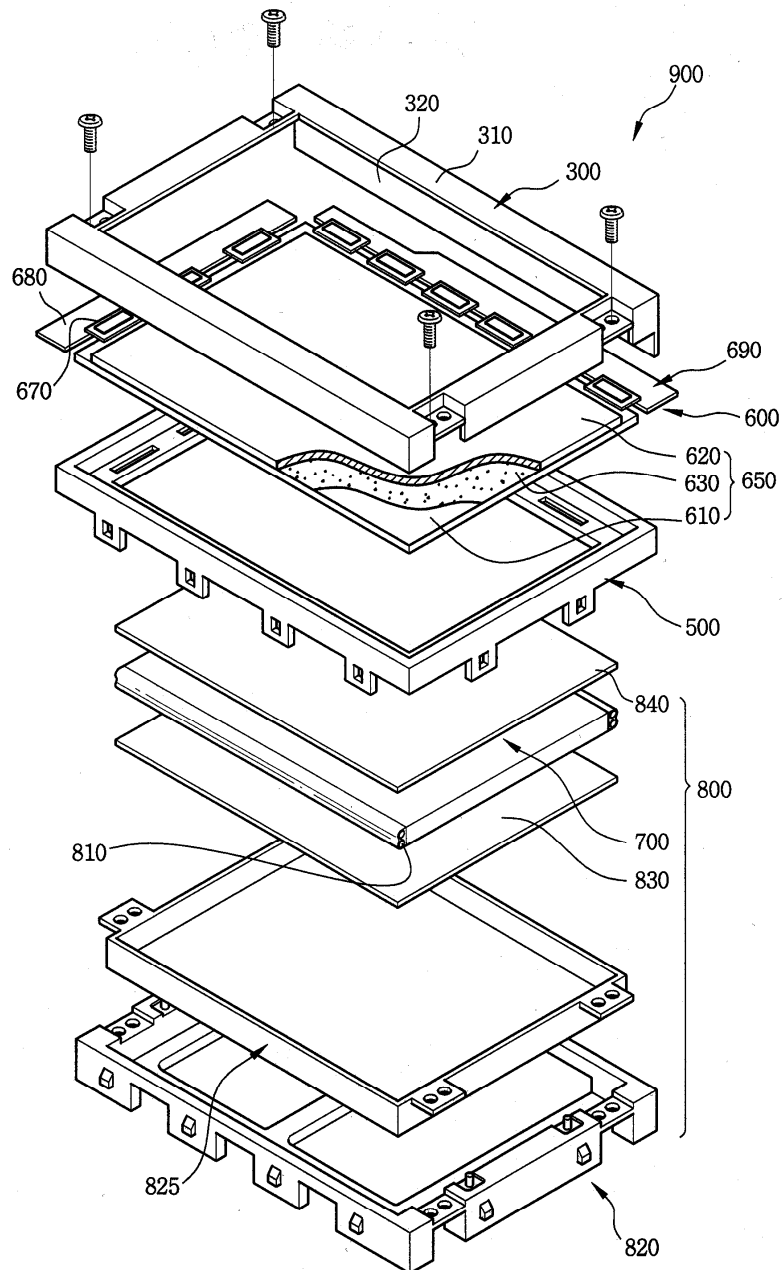
20



21



22



专利名称(译)	LGP，其制造方法，使用其的背光组件，以及使用其的液晶显示器		
公开(公告)号	KR1020040067780A	公开(公告)日	2004-07-30
申请号	KR1020030042603	申请日	2003-06-27
[标]申请(专利权)人(译)	三星电子株式会社 第一毛织株式会社		
申请(专利权)人(译)	三星电子有限公司 第一毛织有限公司		
当前申请(专利权)人(译)	三星电子有限公司 第一毛织有限公司		
[标]发明人	KIM DONG HOON 김동훈 KIM KYU SEOK 김규석 PARK JONG DAE 박종대 LEE JEONG HWAN 이정환 JUNG JAE HO 정재호 KIM MAN SUK 김만석 CHI CHUL GOO 지철구 JEONG O YONG 정오용		
发明人	김동훈 김규석 박종대 이정환 정재호 김만석 지철구 정오용		
IPC分类号	G02F1/13357		
代理人(译)	PARK , YOUNG WOO		
优先权	1020030004629 2003-01-23 KR		
其他公开文献	KR100692203B1		
外部链接	Espacenet		

摘要(译)

用途：通过改变导光板的结构，提供导光板，使导光板发出的光的发光方向靠近垂直方向，用于导光板的发光表面，从而改善发光的亮度。

