

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

(51) 。 Int. Cl.⁷
G02F 1/136

(45)
(11)
(24)

2003 09 02
10-0396638
2003 08 21

(21)	10-2002-0029015 ()	(65)	2002-0070168
(22)	2002 05 24	(43)	2002 09 05
(62)	2000-0018592		
	: 2000 04 10		2000 04 10

(30)	JP-P-1999-00106382	1999 04 14	(JP)
	JP-P-1999-00106383	1999 04 14	(JP)

(73)	가	가		가	4	6
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(72)	가					
		1	5	1	가	가
		1	5	1	가	가
		1	5	1	가	가
		1	5	1	가	가

(74)

:

(54)

2 , (2) 1 , (1) 1 , (1) 1 , (2) 2 .

1(A) , 1(B) 1(A) b-b
 2 , 가 (main chain)
 3 , 가 2
 4(A) , 4(B) 4(A) b-b
 5 ,
 6(A) ,
 6(B) 6(A) b-b ,
 7 ,
 8(A) , 8(B) 8(A) b-b
 9 ,
 10 ,
 11(A) , 11(B) 11(A) b-b
 12(A) , 12(B) 12(A) b-b
 13(A) , 13(B) 13(A) b-b
 14(A) , 14(B) 14(A) b-b
 15 ,
 16 ,
 17(A) , 17(B) 17(A) b-b
 18(A) , 18(B) 18(A) b-b
 19 ,
 20 19 ,
 21 ,
 22 ,
 23 ,
 24 ,
 25 ,
 26 ,
 27 ,
 28(A) ,
 28(B) ,
 29 ,
 30(A) 30(E) 29 ,
 31(A) 31(E) 29 ,
 32 ,
 33 .

(散在)

(散在)

가

6.3.22), 8-114809 (1996.5.7), 2907137 (1999.4.2)가 8-76131 (199

가

가

가

가

가

가

가
가

가

가

가

가

가

가

" - " (multi-domain effect)가

[]

[1]

1(A) 1(B)

1(A)

1(B) 1(A) b-b

1(A) 1(B)

((IPS))

가

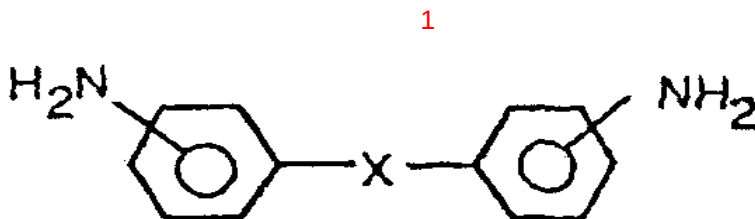
2

1997 , 1 28

5,598,285

(1) x
(2) 가
(2) 가 (TFT)
(4) (2)
(4) (4A) (4A) (4)
(4) (4A) (5) 가
(4) (5)
(1) (1) 가
(4) 가
(2) (4) (1) (2)
(4) (INS) (TFT)
(INS) (3) (4)
(Cadd) (INS) (TFT)
Si (6) (6) (3A) (5A) (2)
(inverted staggered structure) (TFT)가
(3A) (5A) (3) (5)
(3A) (5A)
1(A) y (3) (3) (3A)
(6) 가 1(A)
(5A) (3) (5) y
(5) (4A) (4A)
(5) (4A) (5) (4) (Cadd)가 (INS)
(Cadd) (5) 가 (TFT)가 (3)
(TFT) (5) (Cadd) (TFT)가
(1) (PAS)
(TFT)가 (7) (7)
가, (PAS) 가 TFT (1A) (1A) (B)
(1B) (BM) (FIL) (FIL) (1A) (1B)
M), (BM) (8) (Cadd)가 (1)
0)가 (10) (8) (TFT) (1A) (1B)
(10) (Cadd) (4)
(4) (11) (10)

(10)가 (BM) ,
 (10)가 (1B) 1(B) (10)
 (11) (11)
 (4)
 (10)가 (Cadd)가
 (Cadd)가 (4)
 (4) 가
 가, (10) (1B) TFT (1A)
 (4)
 [2]
 1 (7), (11)
 (7) (1B) (11) 가 , TFT (1A)
 (7), (11)
 (10)가 (10) (11)
 (1A) (7)
 2
 3 가
 (7), (11) 가
 , 2,2- [4-(p-50nm)]



(1 , X , -O-, -CH₂-, -SO₂-, -CO-, -CO₂-, -CONH-)

[illegible]

가

, 2,2- [4-(3,4-)] , 2,2- [4-(3,4-)] , 3,3',4,4'-

, 3,3',4,4'- , 3,3',4,4'- , 3,3',4,4'- , 3,3',4,4'-

, 3,3',4,4'- , 2,3,6,7-)

, 2,2- [4-(3,4-)] , 2,2- [4-(3,4-)]

, 1,2,3,4- (2,2,2) -7- -2,3,5,6-

, 1,2,3,4-

[3]
4A 4B , 1A 1B
1A 1B (10)가 (1B) , (10)
(BM) (15) , (15) (10)
(10)
1A 1B (10) (11) (4)
(10)

, (15) (BM)
 (15) (BM) 가
 [5 4]
 1A , 1A
 (10)가 (2) (3)
 (10) (2) (3)
 (3)

6A (INS) (2) (3)
b-b 6B (PAS) (PA
(PAS) (INS) (3)
S) 가 (3) (2) (3) (10)
(2) (3)

[5]

7
 5 , (10)가 (TFT) , 5 , (TFT)
) , (10) (TFT) (3A) (5A)
 , 8A (TFT) , b-b 8B ,
 (3A) (PAS) (PAS) 가 (PAS) (3A)
 (3A)
 (3A) , (3A) (5A) (TFT)
 , (TFT) (6) (2)
 4 (TFT) (TFT) ((10)
 [6]
 9 5 (10)가 (4) (3) , 5 ,
 4 가 (3)
 , y 가 ((7]
 [10 5 (10)가 (Cadd) , 5 (4))
 9 (10) , (10)
 , y (10)가 , ((8]
 [11A 11B (, 11B 11A b-b (twisted nematic type))
 11A 11B 가 , ()
 가 가 가
 11 가 3,918,796² 1975 11
 (2), (3), (TFT)
 (TFT) (5) , ITO(Indium-Tin-Oxide)
 (BM))
 , (5) 가 (4A) (1B) ((5), (4A)
 , (5) (10)가 (1B)
 (10) 11B (8) (8)
 (8) (10) , (4A) (11)
 , (10) (11) TFT (1A) (7)

가 (10)

11B , 가

(10) (BM)

11A, 11B 12A, 12B

3

[9]

13A 13B 11A 11B

13A 13B (10)가 (5h)가 (10) (11), (7) (5)

(5) (5h) (10)

(4A) (5) (10)

(10)가

12A 12B 14A 14B , 3

[10]

15 15 (10)

가

15 16 , x y 2

x y 2 , x

[11]

17A 17B 11A 11B

11A 11B

(10)가 (1B) (10)

(15) (BM) (BM)

18A 18B (10) TFT (1A) (17)

TFT (1A) (17) (2)

(17) (10)

TFT (15) (1A)

[12]

19 (10)

19, (10), 가 (10A)

(10), (10A), (10), (10C), (10C),

(10) 20, (10A) (10D)가 가

(10) 가 (10D)

가, 가

(10) (10C), 20

(10A) (10C)

(10C) (10A), (10A) (10A)

(10) (10)가

[21 13] (10)가

(10) (PAS) (10)

(15)가 (10) (10A) (10A)

[22 14] (1A), (1B) (20) (10) (20) (21)가

(10C) 가 (21)

(21) (10) (10) 가

[23 15] (10) (10) (10) 가 (10)

(10) 가 (10)

24 (10)

[25 16] TFT (1A) (1B)

(10)가 (10) (25B) 1 (10B)

(25A) TFT (1A) 2 (10A)

(1B) (21)

, (10A) (21) 2 (10A) , 2
 (10A) (2) (2) , 가 (2)
 , (2) (3) (3)
 , (2) (3)
 ,
 ,
 [17]
 26
 26 (2) , TFT (1A) (1B)
 (10)가 (26B) 1 (10B) ,
 (26A) (10) (seal) (20) 3 (10A) (10B)
 3 (10A)
 , (1B) () (22)
 , 3 (10A) TFT (1A) 3 (10A)
 (22) (23) (20) (22)
 (23) TFT (1A) , (22)
 , TFT (1A) (1B) (22) 3 (10A)
 (22) TFT (1A) 가
 ,
 [18]
 TFT
 ,
 가
 ,
 TFT
 가 ,
 , TFT 가 TFT
 ,
 , TFT
 ,
 [19]
 27 (1B) (10) (BM), (FIL)가 ,
 (1B) (8) (10)가 (10)
 , (8) (10) 가 ,
 (10) ,
 ,
 (1B) , TFT (1A)
 [20]
 28A (BM) (10)
 ,
 (10)가 (10)
 (10)
 ,
 ()
 [21]

28B (20) 20 (10) 가

[22]

29 , 1B (10)

29 (10)가 (30)가 (10)

Si

30A 30E

1. (10) (10) (30A).

2. 가 가 (10) (30)

(30B).

3. (10) (30)가 (30C).

4. (30D).

5. 가 (30) (10)

(30E).

31A 31E

1. (10) (10) (31A).

2. (30)가 가 (31) (31)

(31B).

3. (10) (30)가 (31C).

4. (31D).

5. 가 (30) (10)

(31E).

[23]

32 (10)가 가 (40)

32 (40) , TFT (1A) (PAS) ,

(10) 가 (40) 가 , TFT (1A)

33 (40) (

)(42)

가

(10) 가 가

(10)가 가

(, 가

),

(10) 가

(57)

1.

가

가
가

2.

1

3.

1

4.

1

가

가

가

5.

1

6.

가

가

가

7.

6

8.

6

가

9.

6

가

가

가

10.

6

11.

7

12.

가
가

가 , 가 .

12 **13.** ,

12 **14.** ,
가

12 **15.** , 가 , 가 .

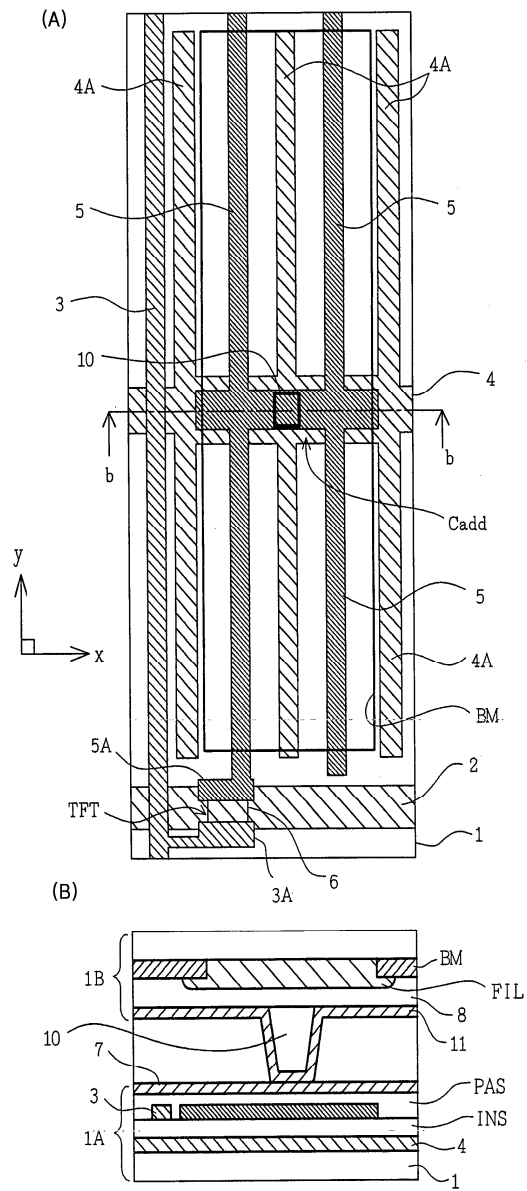
12 **16.** ,

1 **17.** 16 ,
가

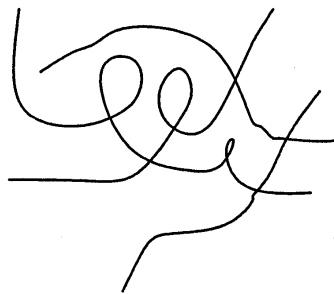
1 **18.** 16 ,
가

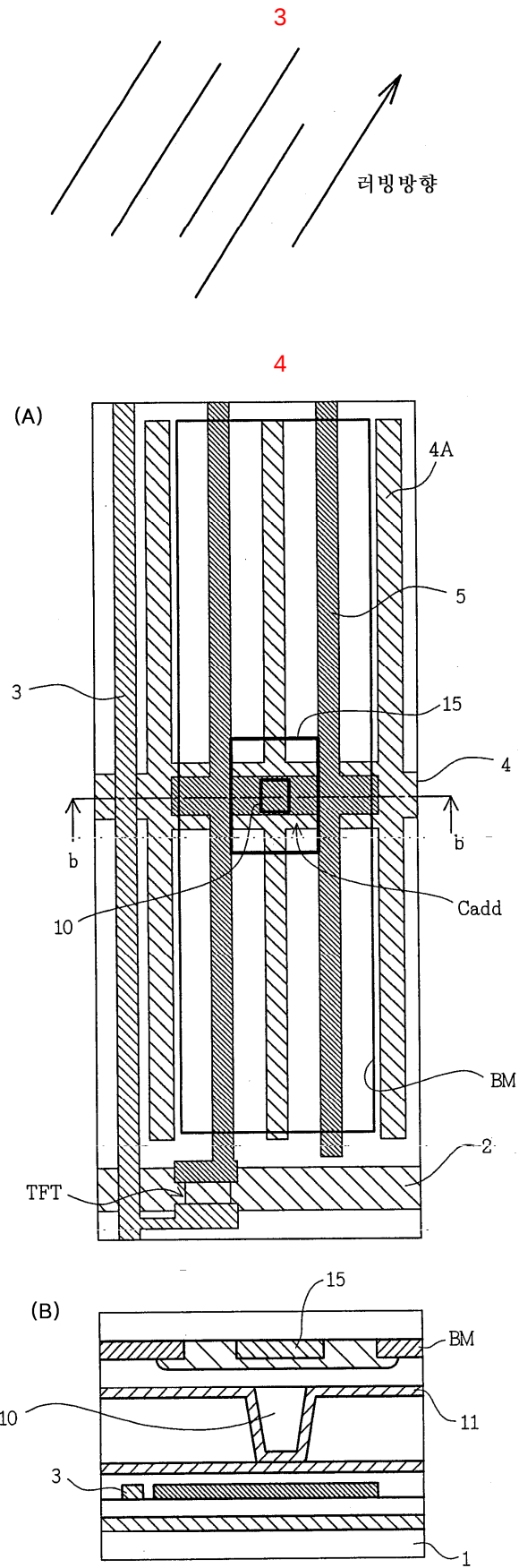
19. 2 , 3 , 4 , 8 13 ,

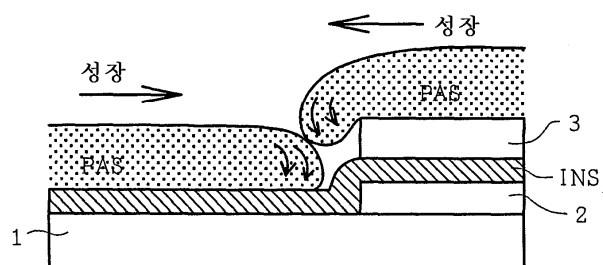
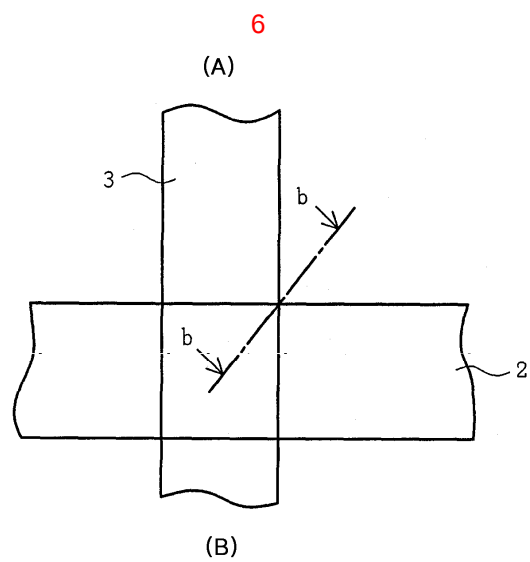
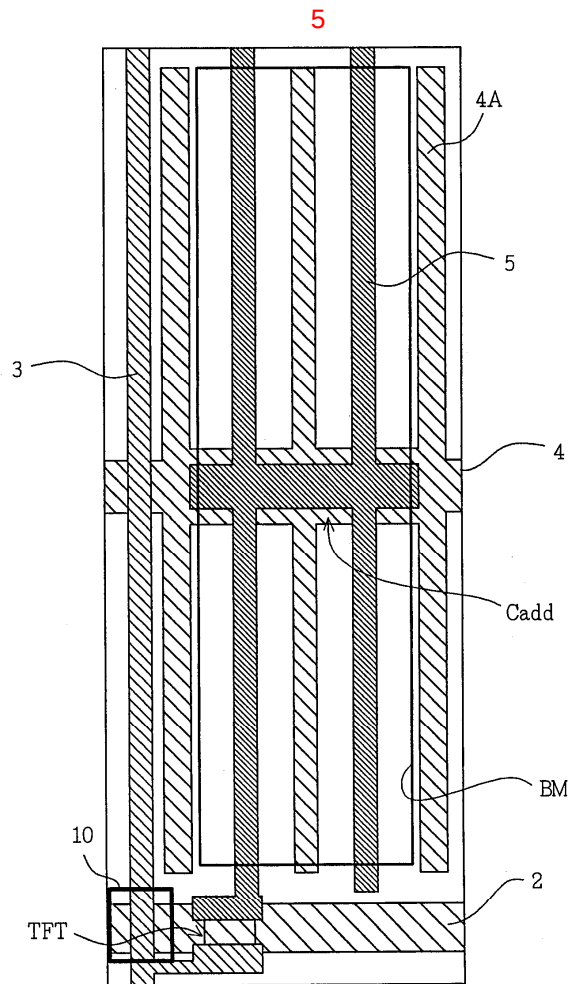
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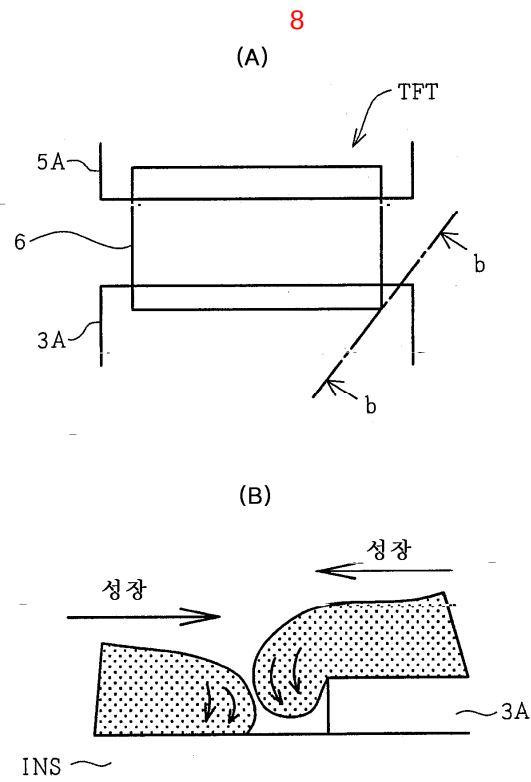
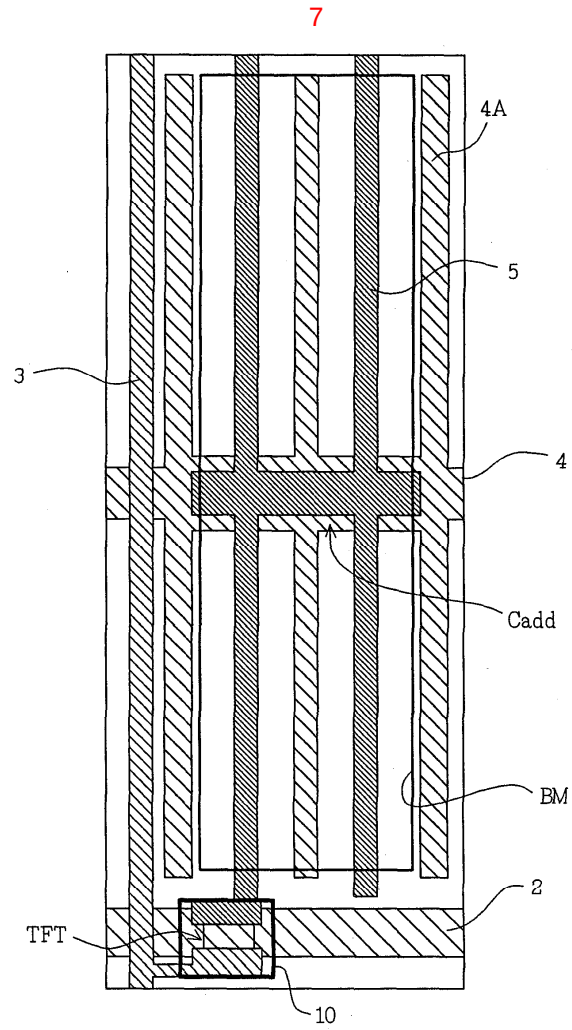


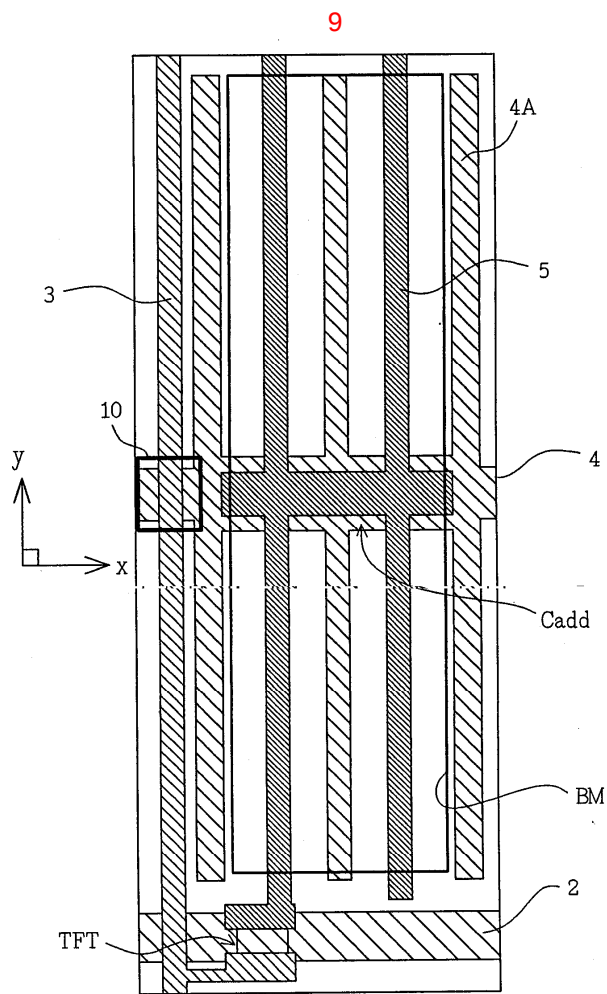
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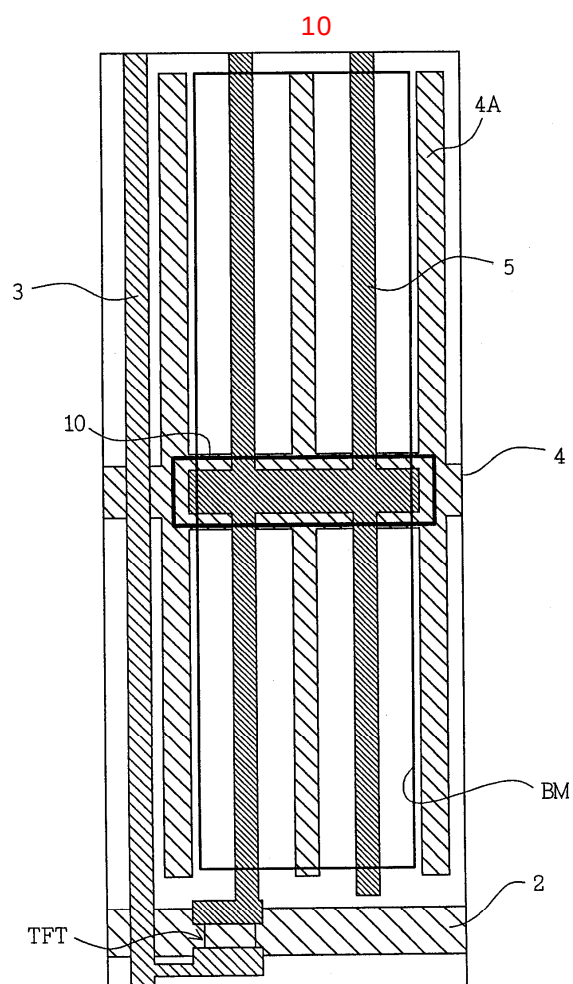




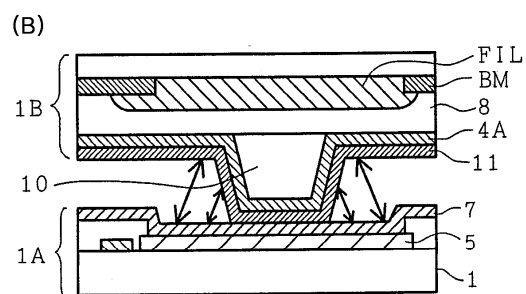
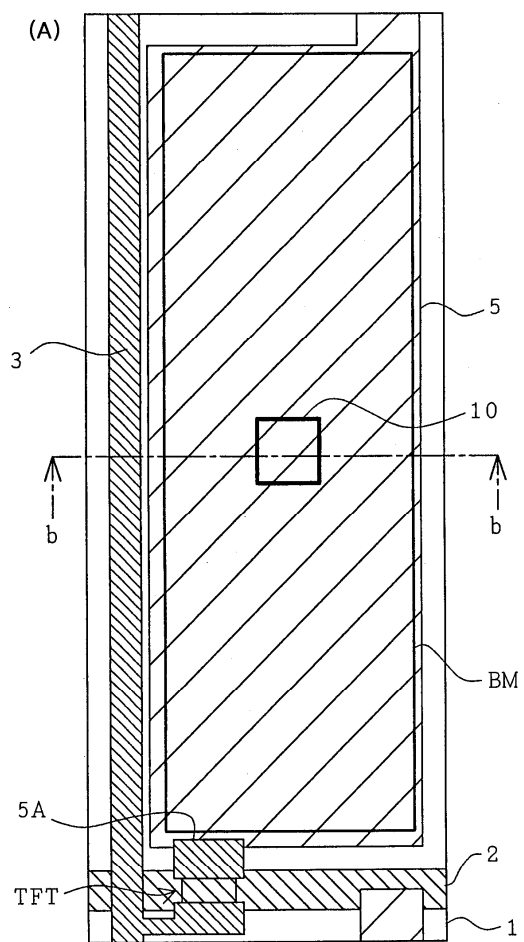




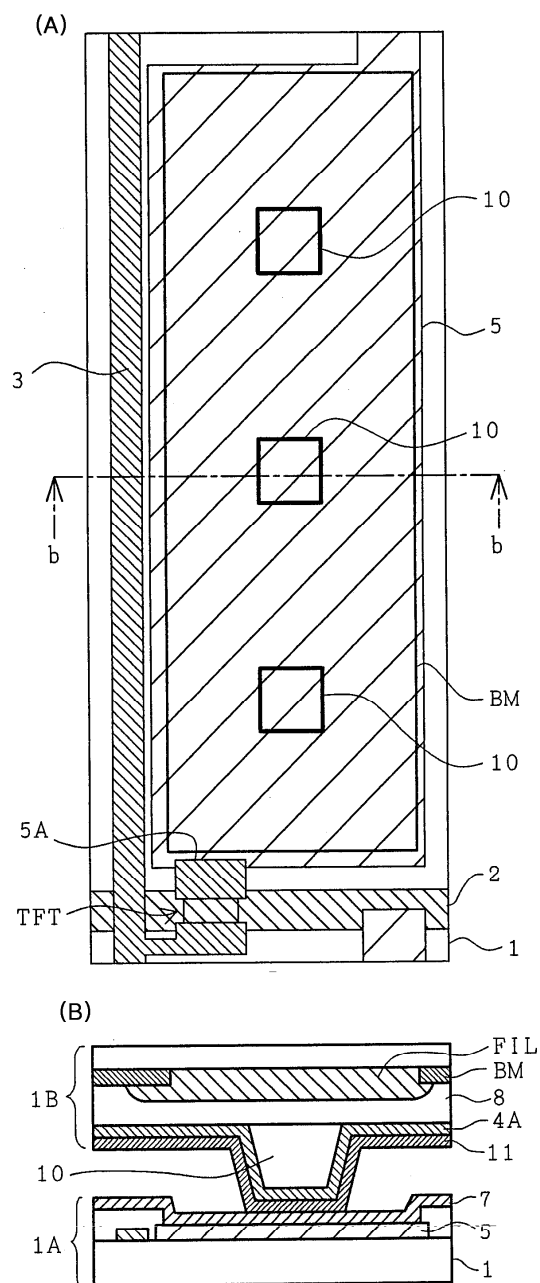




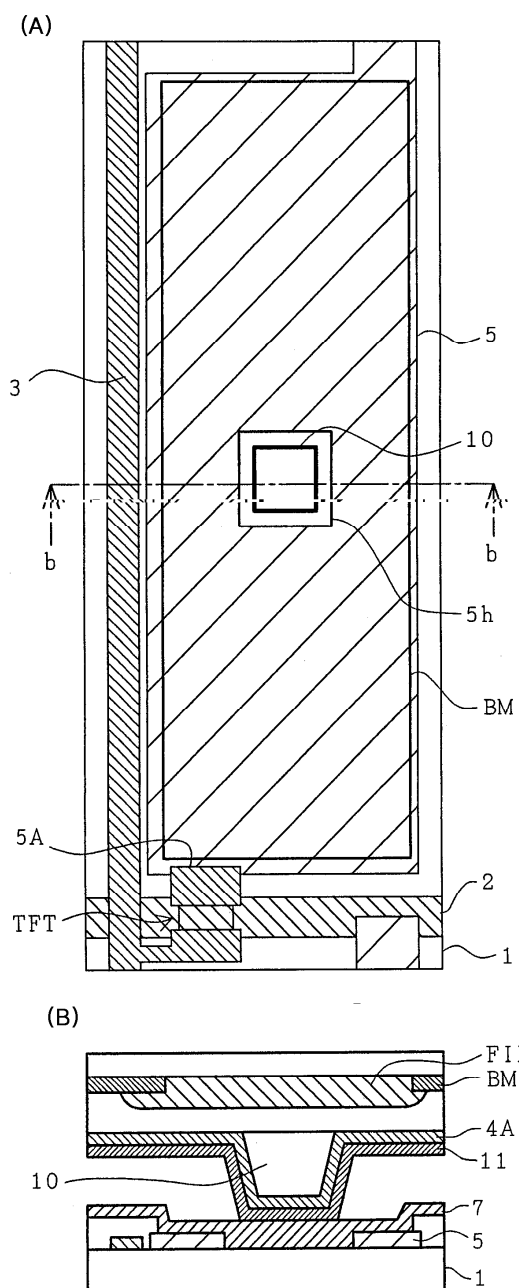
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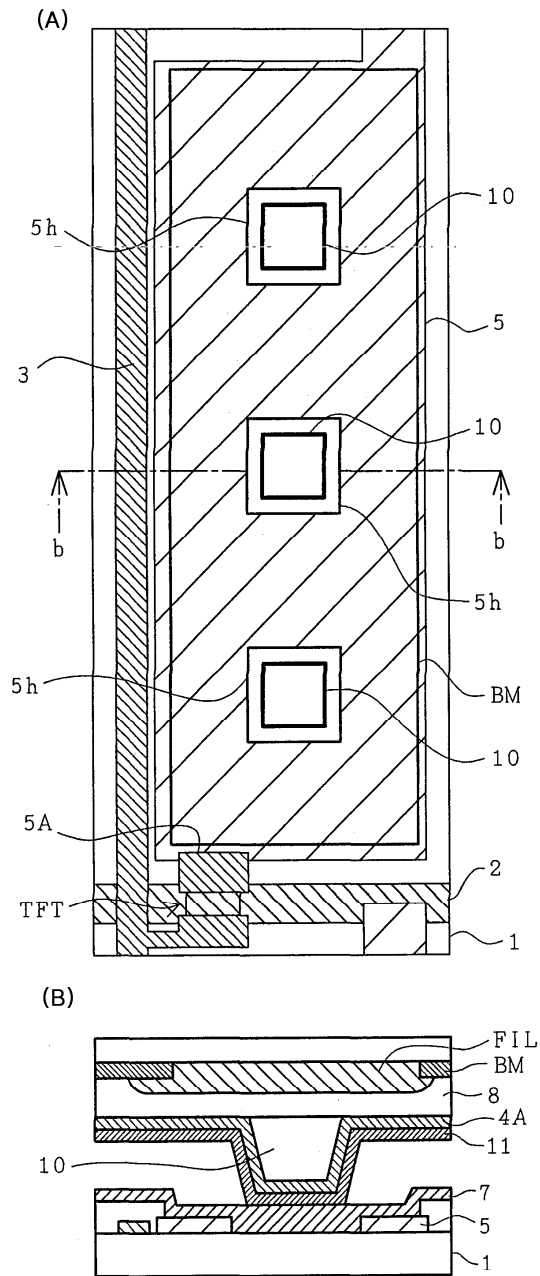
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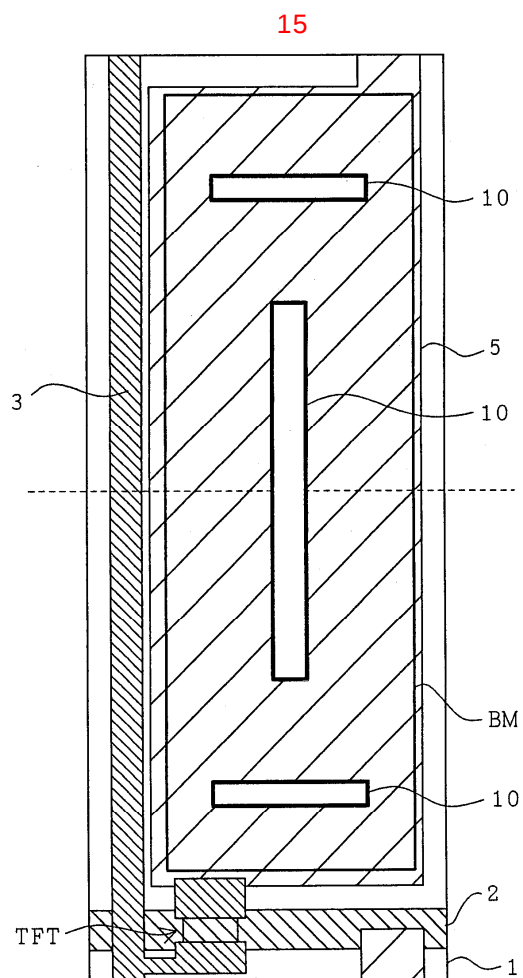


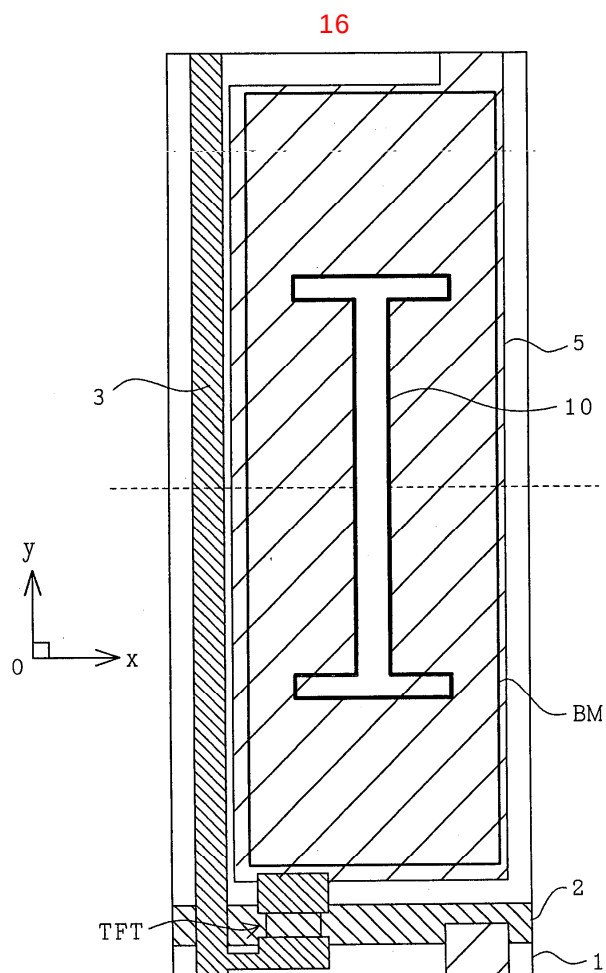
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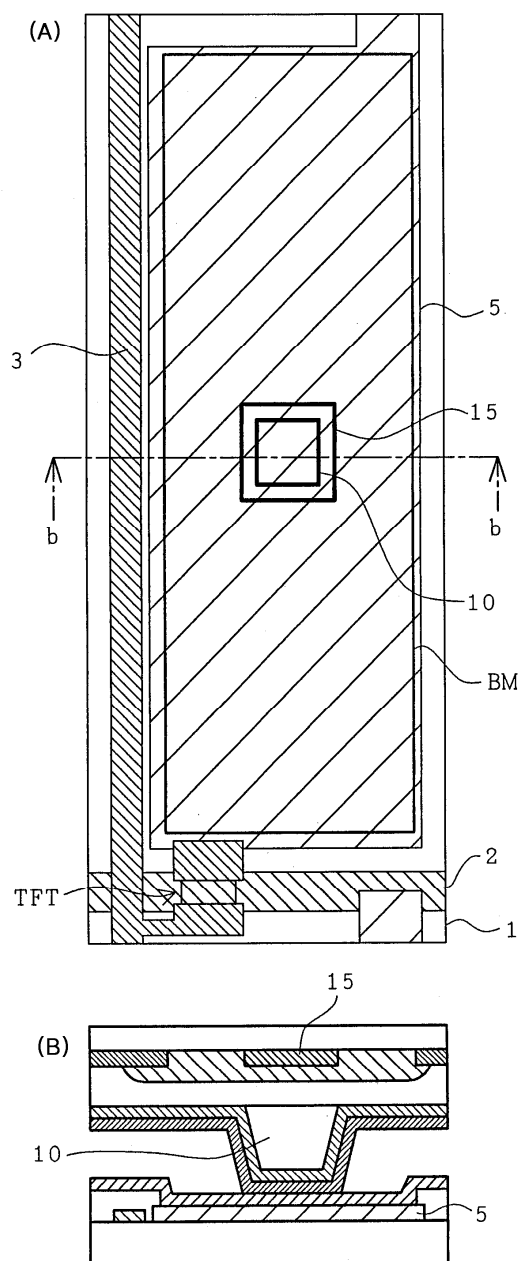
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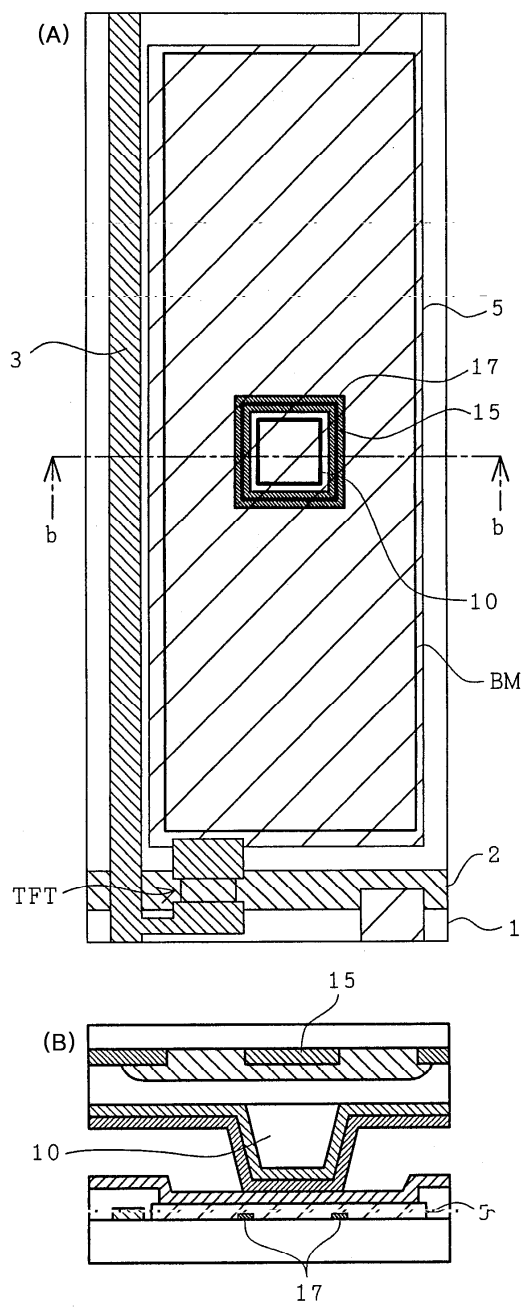




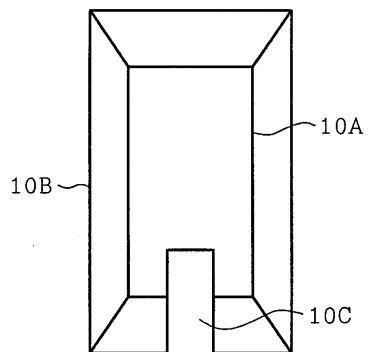
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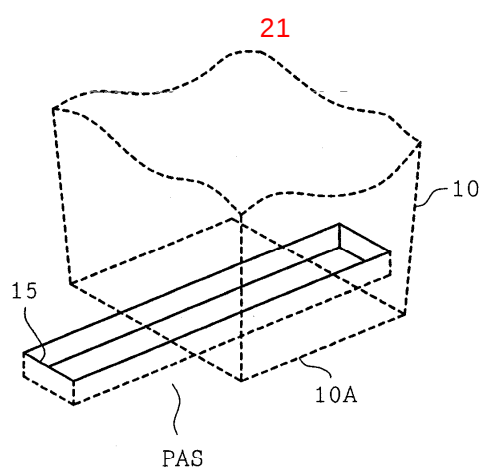
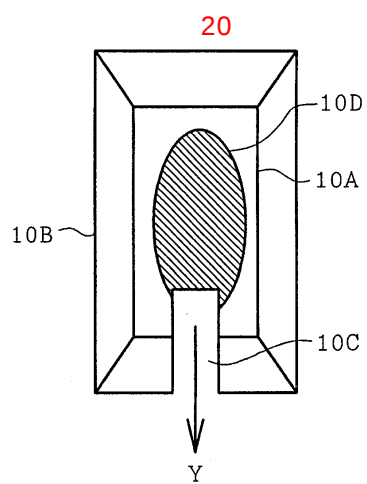


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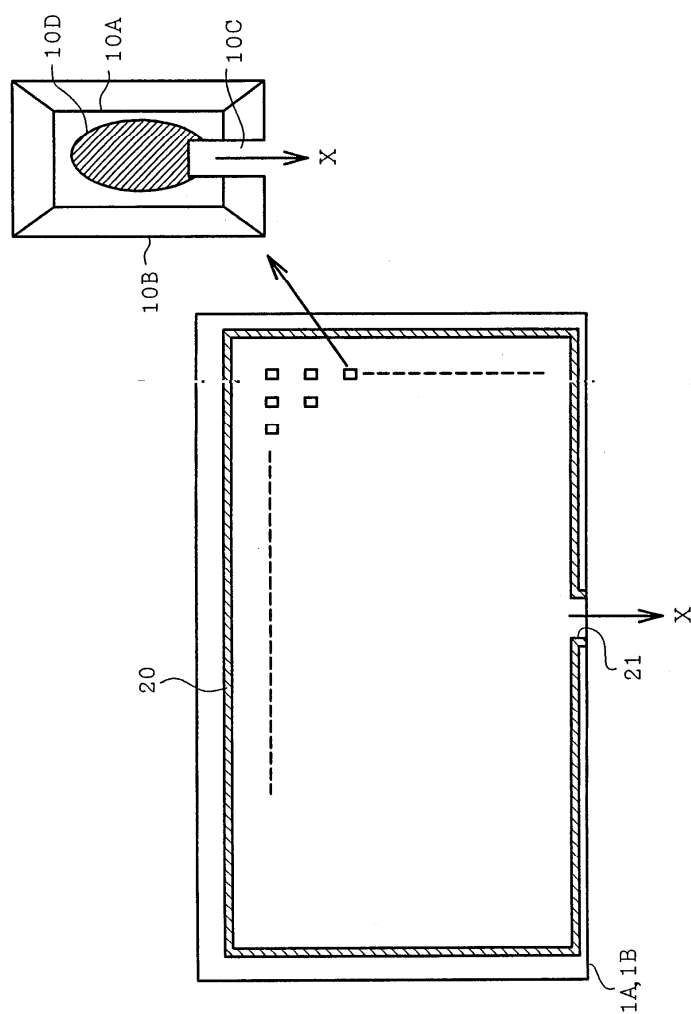


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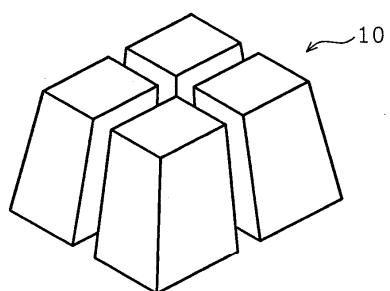




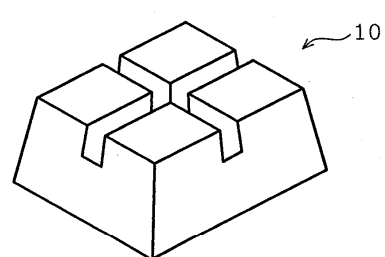
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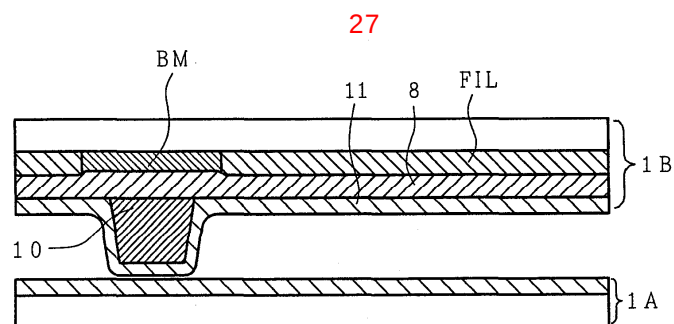
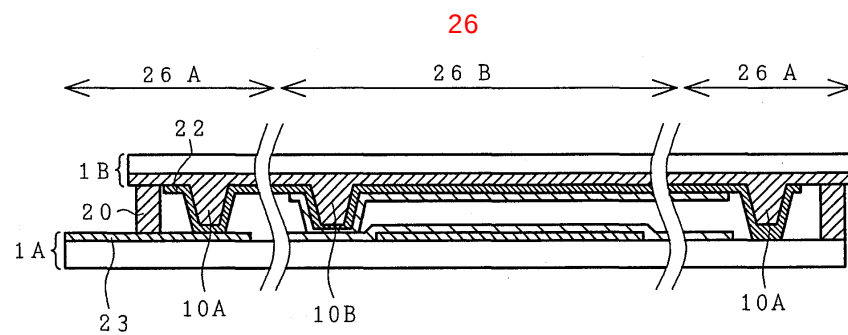
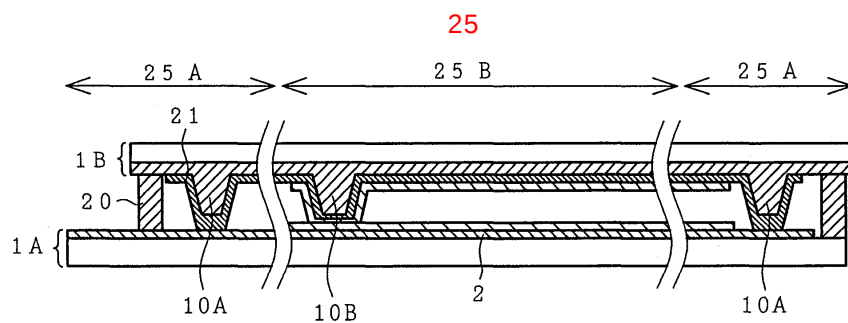


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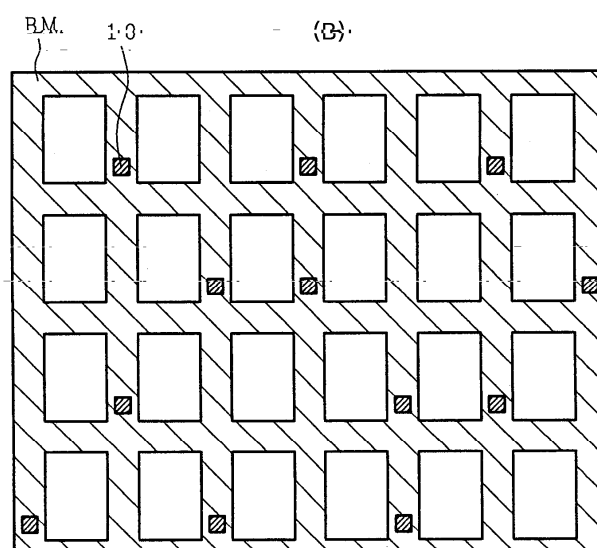
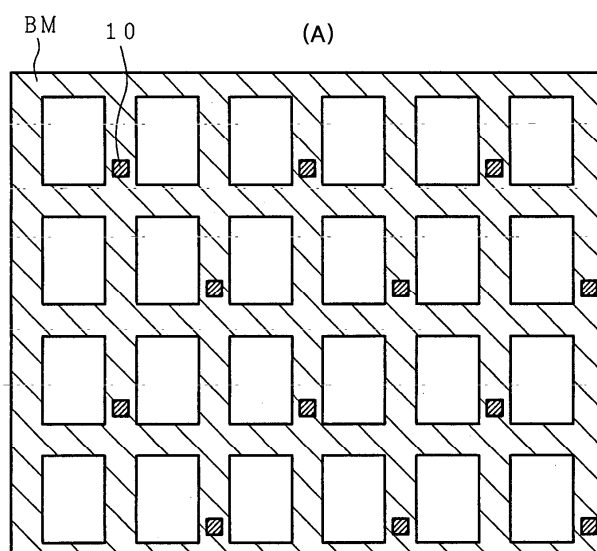


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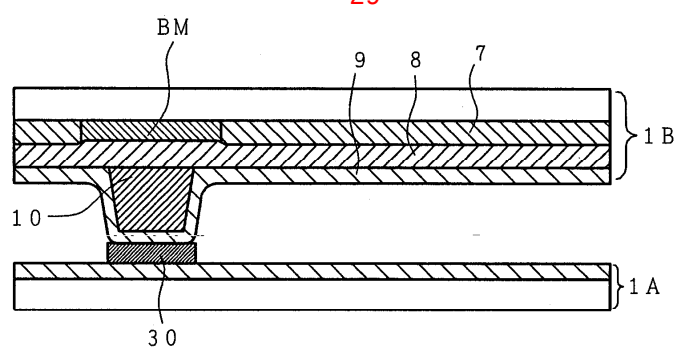




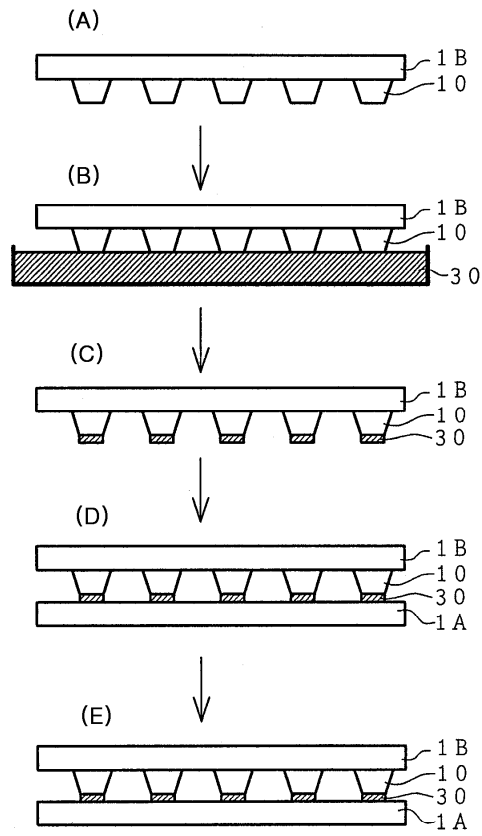
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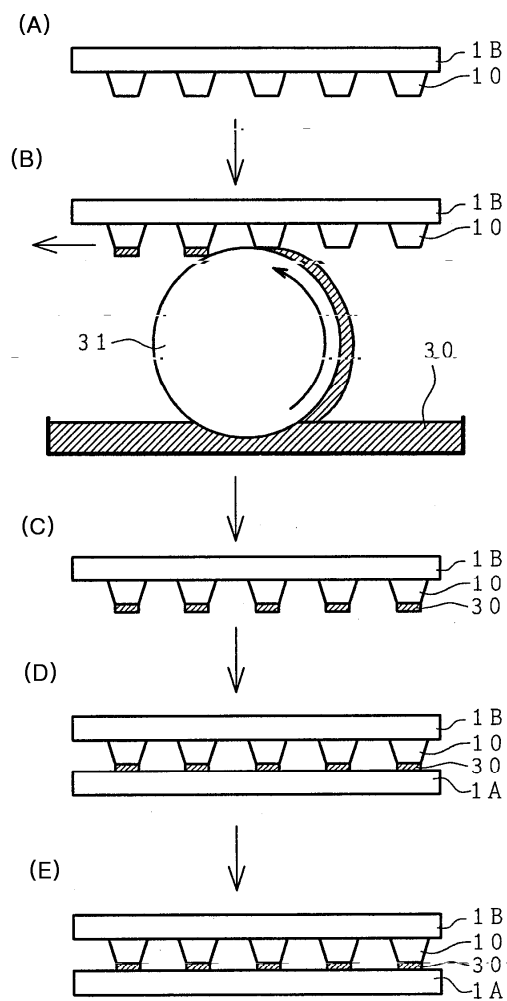
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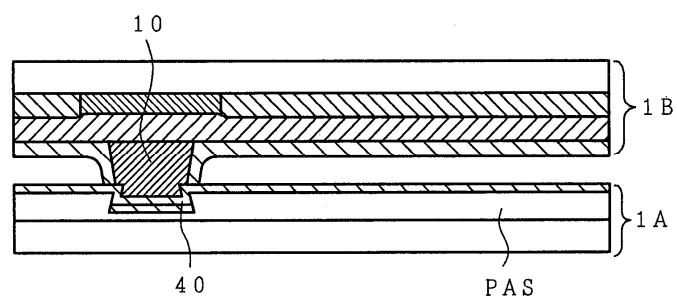
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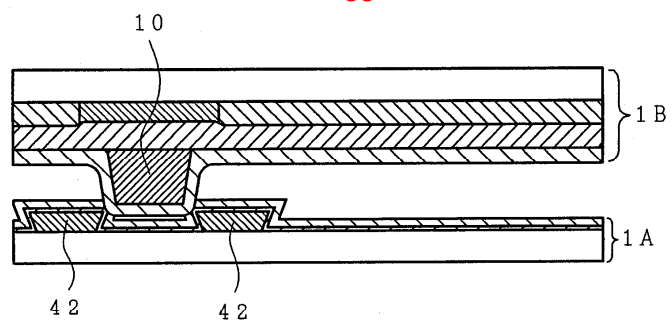
31



32



33



专利名称(译)	液晶显示器		
公开(公告)号	KR100396638B1	公开(公告)日	2003-09-02
申请号	KR1020020029015	申请日	2002-05-24
[标]申请(专利权)人(译)	日立HITACHI SEISAKUSHODBA		
申请(专利权)人(译)	株式会社日立制作所		
当前申请(专利权)人(译)	株式会社日立制作所		
[标]发明人	YANAGAWA KAZUHIKO 야나가와카즈히코 ASHIZAWA KEIICHIRO 아시자와케이이치로 ISHII MASAHIRO 이시이마사히로 HIKIBA MASAYUKI 히키바마사유키		
发明人	야나가와카즈히코 아시자와케이이치로 이시이마사히로 히키바마사유키		
IPC分类号	G02F1/1335 G02F1/1362 G02F1/1368 G02F1/1337 G02F1/136 G02F1/1333 G02F1/1339 G02F1/1343		
CPC分类号	G02F1/133707 G02F1/13394 G02F1/136213 G02F1/134363 A01G18/65 A01G18/68		
优先权	1999106382 1999-04-14 JP 1999106383 1999-04-14 JP		
其他公开文献	KR1020020070168A		
外部链接	Espacenet		

摘要(译)

一种液晶显示装置，包括：一对对置基板，夹在对置基板之间的液晶膜，排列在对置基板的一个内表面上的多个第一类型的电极，以限定多个像素，(1)(2)第二类型中的至少一个设置在相对基板中的另一个的内表面上，以便面对第一类型的多个电极，并且并且至少一个间隔物基本上设置在多个像素中的至少一个像素的中心处，以在对向基板和相对基板之间设置间隙。至少一个间隔物固定到相对的基板中的一个上，并且被(1)第一类型的多个电极中的相应一个电极覆盖，以及(2)第二类型的至少一个电极中的相应一个电极中的一个。1

