

(19)  
(12)(KR)  
(A)(51) 。 Int. Cl. <sup>7</sup>  
G02F 1/1333(11)  
(43)2001 - 0112314  
2001 12 20(21) 10 - 2001 - 7011472  
(22) 2001 09 10  
2001 09 10  
(86) PCT/JP2001/00007  
(86) 2001 01 04(87)  
(87)WO 2001/51985  
2001 07 19

(81) : , , , , ,

(30) JP - P - 2000 - 0000 2000 01 13 (JP)  
4627

(71) 가 가

2 4 - 1

(72) 가 3 3 5 가 가  
가 3 3 5 가 가  
가 3 3 5 가 가  
가 3 3 5 가 가

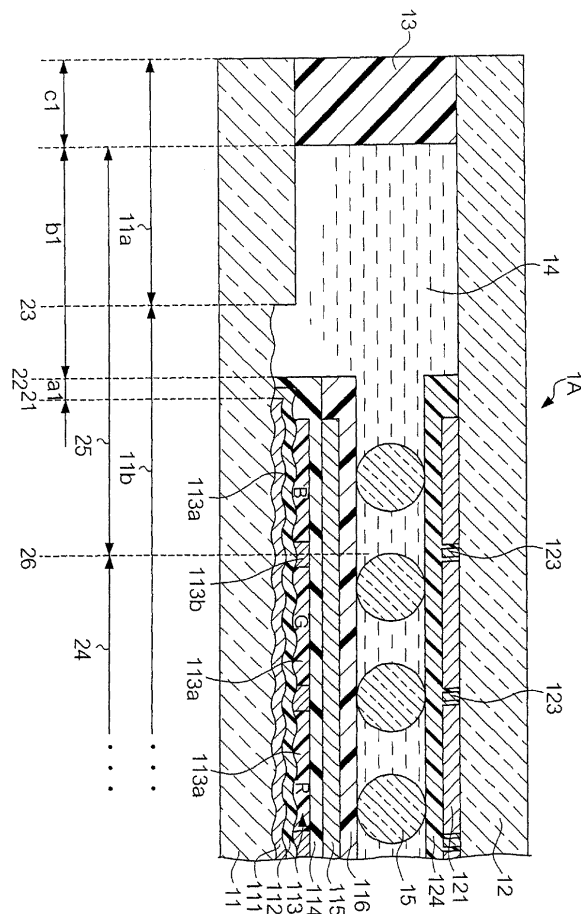
(74)

:

(54) ,

11) (13) (111) , (11, 12) , (14) , (116) (11b) , (11b) (13)  
(11a) (116) (11b) ,

(11a)



가 가

(前面) ( )

가

가

11  
(passive matrix)

(5A)가

A) (背面) (51)

(52)

(53)

(5

(54)

(52)

(54)

(521)

(521)

(52)

(522)

(522) , 가 (54) 가  
 , (51) (54) , (511), (512), (513) (514)  
 (511) (511) ( ( , (513a) ) (512) (513b)  
 (514) (513) (514) , (521)  
 (522) 가 (515) (515) (514)  
 , (51) (516) (52) (522) (球) (55)가  
 (55) (51) (52) ( , 「 」 )  
 11) , (52) , (52) (54) , (5  
 , 가 (54) (52) ,  
 , (511) (specular surface) , 12  
 (5A) H ( (正) ) , 12  
 $\theta$ 가 가  $\theta$ 가 ,  
 , 가 13  
 , 13 11 (5B) (52)  
 (56) ,  
 (52) (5B) , (52) (56) ,  
 (54) (511) , (54)  
 (52) (56) ,  
 (5B) , 가 (56)  
 , (5A) ,  
 ,  
 , (5B) , (5B)  
 (56) 2 ,  
 가  
 , 가 14  
 , 14 11  
 ,

14 (粗面化) (5C) (51) (54) (517)가  
(517)가

(517) (5C) (52) (517) (52) (54)가  
(517) (54) (52)  
(5A) (5C)  
(5B)

15 11 14

15 (5D) (51) (57)  
(57) (571) (572) (571) (571) (cold cathode tube)  
(5D) (572) (571) (5C) (517) (519)  
(519) (519a)가

(519) (52) (54) (52)  
(54) (52)

(571)가 (571) (519) (519a),  
(572) (51) (51),  
(54) (52)가

(5C 5D) 14 15  
(51) (53) (53)가  
(53) (51)  
(54) (51)  
(52) ) (54)  
가 가 가

(glass fibers)가 (53)가  
(53)가

, (51) (53)가  
 , (53) (51) ,  
 , ,  
 , (53) 1 3  
 , 14 15 (53) 1  
 가 (53) 1  
 (64) , (63)  
 , (51) (6  
 3) 가 , 16 (51) (51)  
 (63)  
 , (51) , 가 (sand blast)  
 16 , ( , (63) (64) (65)) h가  
 ) (64) , (63) (63) (h  
 (51) h , 16 (513) (516) h  
 가 가 (513) (516) 가  
 , 가  
 , (55) (516) , (516) 가 ,  
 , (55)가 가 ,  
 가 , STN(Super Twisted Nematic)  
 , (516) 가 (516)  
 (63) , (516) 가 (516)  
 (54) , 가 (63) 가  
 (63)  
 , 11 15 , TFD(  
 Thin Film Diode) 2 , TFT(Thin Film Transistor) 3  
 가

가

가

가  
가

가  
가

가

가

가

가

가

가

(溶出) 가

1

(ammonium hydrogen difluoride), (ammonium sulfate), (ammonium hydrochloride)

(borosilicate glass), (barium borosilicate glass), (soda lime glass), (aluminosilicate glass)

(aqueous solution of hydrofluoric acid)

가

가

가

가

가

|   |     |       |        |   |   |   |
|---|-----|-------|--------|---|---|---|
| 6 | (a) |       | 1      | , | 가 |   |
|   |     | ,     |        |   |   |   |
| 6 | (b) | 6 (a) | B - B' | , |   |   |
| 6 | (c) |       | 1      | , | 가 |   |
|   |     | ,     |        |   |   |   |
| 6 | (d) |       | 1      | , | 가 | , |
| 6 | (e) |       | 1      | , |   |   |
|   |     | ,     |        |   |   |   |
| 6 | (f) |       | 1      | , |   |   |
|   |     | ,     |        |   |   |   |
| 7 | (a) |       | 1      | , |   |   |
|   |     | ,     |        |   |   |   |
| 7 | (b) | 1     | ,      | 가 | , |   |
| 7 | (c) | 1     | ,      | 1 | , |   |
| 7 | (d) | 1     | ,      | 가 | , |   |
| 7 | (e) | 1     | ,      | 2 | , |   |
| 8 | (a) |       | 2      | , |   |   |
|   |     | ,     |        |   |   |   |
| 8 | (b) | 2     | ,      | 가 | , |   |
| 8 | (c) | 2     | ,      |   | , |   |
| 8 | (d) | 2     | ,      |   | , |   |
| 8 | (e) | 2     | ,      | 가 | , |   |
| 9 | (a) |       | 2      | , |   |   |
|   |     | ,     |        |   |   |   |
| 9 | (b) | 9 (a) | C - C' | , |   |   |
| 9 | (c) | 2     | ,      | 가 |   |   |
|   |     | ,     |        |   |   |   |
| 9 | (d) | 2     | ,      |   | , |   |
| 9 | (e) | 2     | ,      |   | , |   |

9 (f) 2 , ,

10 (a) ,

10 (b) ,

10 (c) ,

11 ,

12 ,

13 ,

14 ,

15 ,

16

(A: )

(A - 1 : 1)

1 TF  
D(Thin Film Diode)

1 (1A) 2 (1A)  
1 (1A) 2 (11) A - A' (12) (13)  
(14) (11) (12)  
(11) (14)  
(12) (14)  
(121) (14) (121)  
(121) ITO(Indium Tin Oxide)  
(12) (14) (12  
3) (121) (123) TFD(122)  
1 (121), TFD(122) (123) (12) (1  
24) (124) 가 (14)  
가 (124)

, 1 (11b) (11) (14) (11a) (11b)  
 . (11b) 0.5 × 10<sup>-6</sup> 2.5 × 10<sup>-6</sup> m . (11b) (11b)  
 10 × 10<sup>-6</sup> 15 × 10<sup>-6</sup> m  
 . (11a)

, 3 (11) (11a) (11b) 가  
 , (11a) (11) 가 (11b)( 3  
 )  
 (13) c1( 1 ) , 0.8 × 10<sup>-3</sup> 1.1 × 10<sup>-3</sup> m (13) (11a)  
 (11a) (11b) (11)

, 1 (11) (11b) (111) (111)  
 (12) . (111)  
 . 1 (111) (11b)  
 가 가 (111)  
 가 (111) (112) (112) (111)  
 , 1 (112) (111)  
 가

(112) (113a) (113b) (113)  
 (113a) , R( ), G( ) B( ) . 2  
 (113a) (113a) , (color re  
 sist method), (113b) (113a)  
 . (113b) ,

(113) (114) (114) (113)  
 . 1 (114) (111), (112) (113)  
 . (111) 가 (21) (114) 가 (22) a1 ,  
 0.02 × 10<sup>-3</sup> 0.05 × 10<sup>-3</sup> m (114) 가 (22) (13)  
 b1 0.1 × 10<sup>-3</sup> 1.1 × 10<sup>-3</sup> m .

(114) (115) 2 (115)  
 (123) (115) (12)  
 (121) (115)  
 (116) (116) (12) (124) 가

(12) (124) (11) (116) (15)가 (15)  
 2 . (15)

, (111), (112), (113), (114) (116) (11)  
 (11b) . 1 (114)  
 가 (22)가 (111) 가 (21) ( , (13) ) . ,

(116) (114) . , (11) (114) 가  
 (22)가, (12) 가 . , 3 ,  
 (114) (11) (11b) . , (111), (112),  
 (113), (114) (116) 가 (11b) . , (11)  
 (11a) (11b) (23) . ,  
 1 (13) 가  
 (25) , (25) (26) . , 3  
 (26) (12) , (26) 가 (11b)  
 .

b) , , (11) (14) (11a) (11  
 . , (111), (112), (113), (114) (116) 가  
 (11b) . , (11) (11b) (11a) (11b)  
 (23) (11a) (11b)  
 가 , 가 ,  
 (116) 가 , 가  
 .

, (13)가 (11a) , (13) (11) (14)  
 . , (13)  
 , (11a) . ,  
 .

(A - 2 : 2)

1 (1A) 가 . ,  
 , 가 가 .  
 가 , 가  
 가 4 (1B) . , 4  
 1 , .

4 , (1B) (11) (16)  
 . (16) (161) (162) (161) ,  
 , (162) (162) (161) (11)  
 .

(1B) , (1A) (111) ,  
 (117) (117) (117a)  
 , 4 , (117a)가 (162)  
 (11) (117a) (11) , 가  
 . , 1 (117a) ,  
 .

, (117) , (117) 가 . (11)

, 1 가 가 . , ,

(A - 3 : 3)

, 5 3 (1C) . , 5  
1 , .

116) 1 2 , (12) (124) (11) ( (15) 가 , ( (11a) (12) (17)가 , (17) (球) 5 , (17) (11) (11a) ( 12) . , (17) (15) . , (15) (17) .

(116) , 1 가 가 . , (124)  
(11) , (11) (11a) (12) (17)가

(A - 4 : )

(1) (11) (11b) 1, 4 5 . ,  
(11b) (11b)( 2 (117))  
, (11b) .

(2) 1 3 , (11) (113) , (12) TF  
D(124)가 . , (11) TFD(124) , (12) (113)  
, (111) TFD (122), (121)  
(123) . , 가 (111) (124) . ,  
(11) TFD(122) , (111) , (121)

(3) 1 3 , 가 . , 1 3 ,  
2 TFD(122) . , TFT(Thin Film Transistor)  
3 가 .

(4) 1 3 , (11) (111)(  
(117)), (112), (113), (114), (116) 가 (11b)  
, 가 (11b) , (116)  
(11b) . , (116) (114) , (11  
4) (11b) .

(B : )

, 4 1 3 , 1  
(多面)

(B - 1 : 1 )

, 6 (a) 6 (f) , 1 .

, 4 (31) (31) (11)  
(11a) (32)가 , 6 (a) 6 (b) ,  
(31) 4 ( (11) ) 가 (32)  
가 , (32) ,

, 6 (c) , (31) (32)  
 , 6 (d) , (32)가  
(31) (32)가 (11a) ,  
(11b)

, 6 (e) , (11a) (11b) (31)  
(33) , (33) ,  
(33) , 6 (f) , (11b)  
(11b) (33) (33)  
(11b) (111) (111) (11b)

(11) (11b) (112), (113), (114), (115) (116)  
 , 2 (1B) , (111)  
(117a) (117) , (11b)  
(11a) (13)가 .

(111) (13) (31) , (13)  
(31) (14) , (13)  
(14)

, (11) (11b) ( , 6 (a)  
6 (d) ) .

(1) 1

1 , (31) .

7 (a) (31) , (31)  
(311) , (311) (31)  
2) (311) ,  
(312) ,

, (31) , (31) , 5wt% , 25 5 .

, 7 (b) (31) (11a) (32)가 (32) (a) 6 (b) .

30 (31) 30wt% 25 (311) ( , 「 1 」 ). , (312) , 7 (c) , (31) (313)가 (311) (31) ( , ) (31) , (313)가 (314)가 .

, 7 (d) , (32)가 (32)가 1 , .

, (31) ( , 「 2 」 ). , 50wt% , 40wt% 1:3 , (31) 25 20 (313) , (3 14) ( )가 , 7 (e) (31) (32)가 (11b) , (32) 가 (11a) .

, (32) , (31) 2 , (32)가 2 , (11a) (11b) 가 2 , (31) (11a) (11b) 가 , (32)가 (31) 2 , (11a) (1 1b) 가 .

(2) 2 , 8 (a) 8 (e) , (11) 2 , (31) .

(31) , 8 (a) , (311) (312) , 1 (31) 가 , 8 (a) (31) (31)가 (312)가 (31) , 1 (31) .

, 25 (31) 5 . , 8 (b) . , (31) 5wt% (31) (11a) (32)가 (32) 6 (a) 6 (b) (

, (31) , 30wt%, 45wt% 25 15 (31) 8 (c) , (31) (312)가 (311)가 (31) 8 (d) , (311) (11b) 8 (e) , (32)가 (11a) (11b) (31) .

(B - 2 : 2 )

, 9 (a) 9 (f) , 1 3 2 (11) , 1 가 , 1 (31) 4 . , 9 (a) 9 (b) , (31) (34) (31) (11b) (34a)가 . (31) 9 (c) , 가 (35)가 (34) (31) 가 (35) (34) (34a) 가 (35) 가 (35)가 , . , (31) 가 가 , (31) 가 (35) , 가 (35) (31) (40wt%) 1:3 , (31) 9 (d) , (11a) (11b) (33) , 1 가 , 9 (e) , (31) (33) , 9 (f) , (111) . , 1 가 . , 1 2 , 가 (11b) 1 2 , 가 (35) (311) (11b) , (11b) (111) ( , (117)) (11b) (31) (11b) , (11a) (31) (13) (11a) , (11) (13) .

(C : )

, (1A 1C) .

10 (a) .  
(41) (411)가 .

10 (b) .  
(42) (422) (423) ,  
(421) .

10 (c) .  
(43) (431) (432)가 .

10 (a) 10 (c) ,  
.

(57)

1.

, , ,  
,

(粗面) ,

,  
,

2.

1 ,  
가

3.

1 2 ,

4.

1 3 ,

,  
.

5.

1 4 .

6.

7.

6 ,

1 ,

1 2 ,  
1 2 (溶出) 가

1                      2                      (溶出)                      가

1

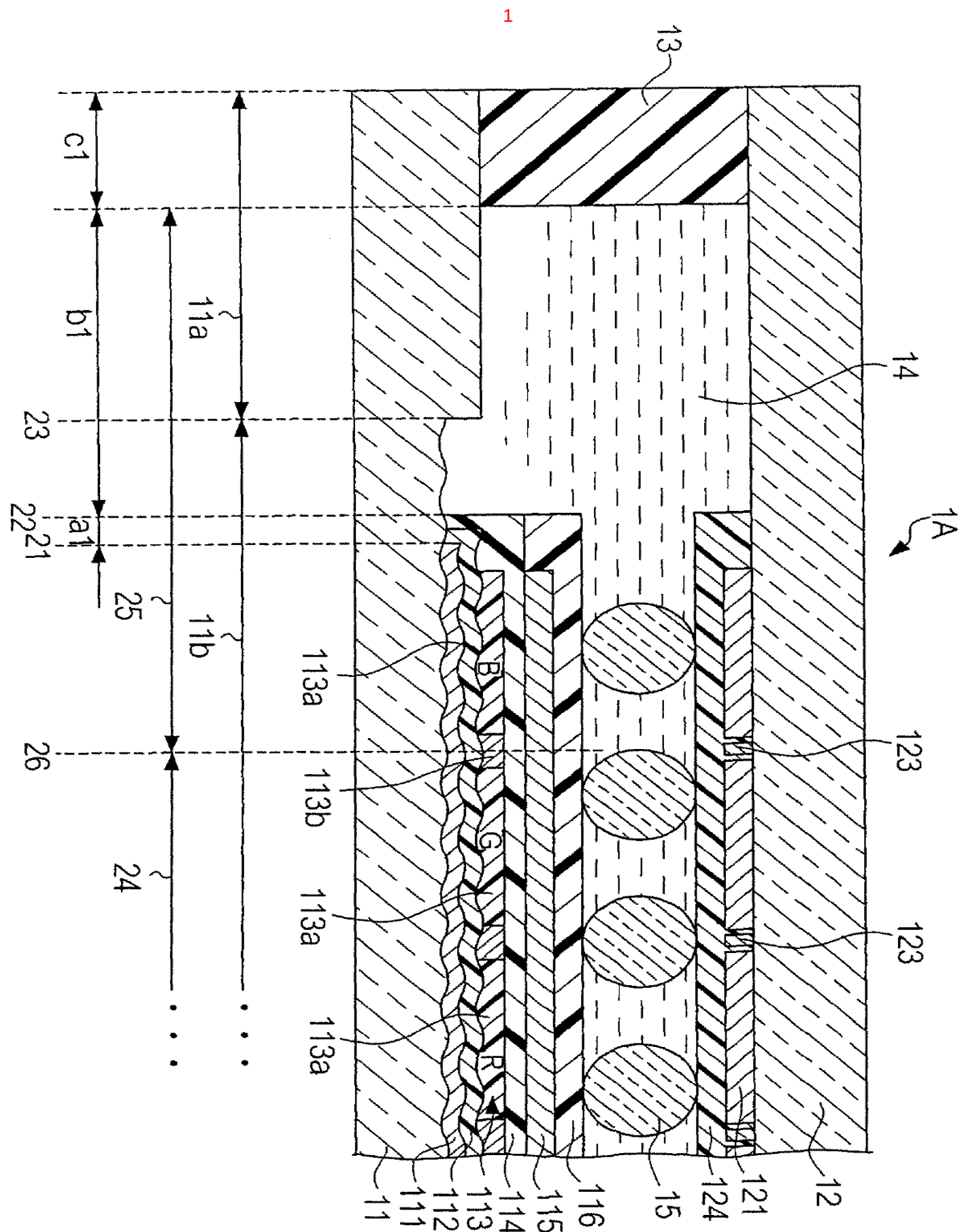
8.

6 ,

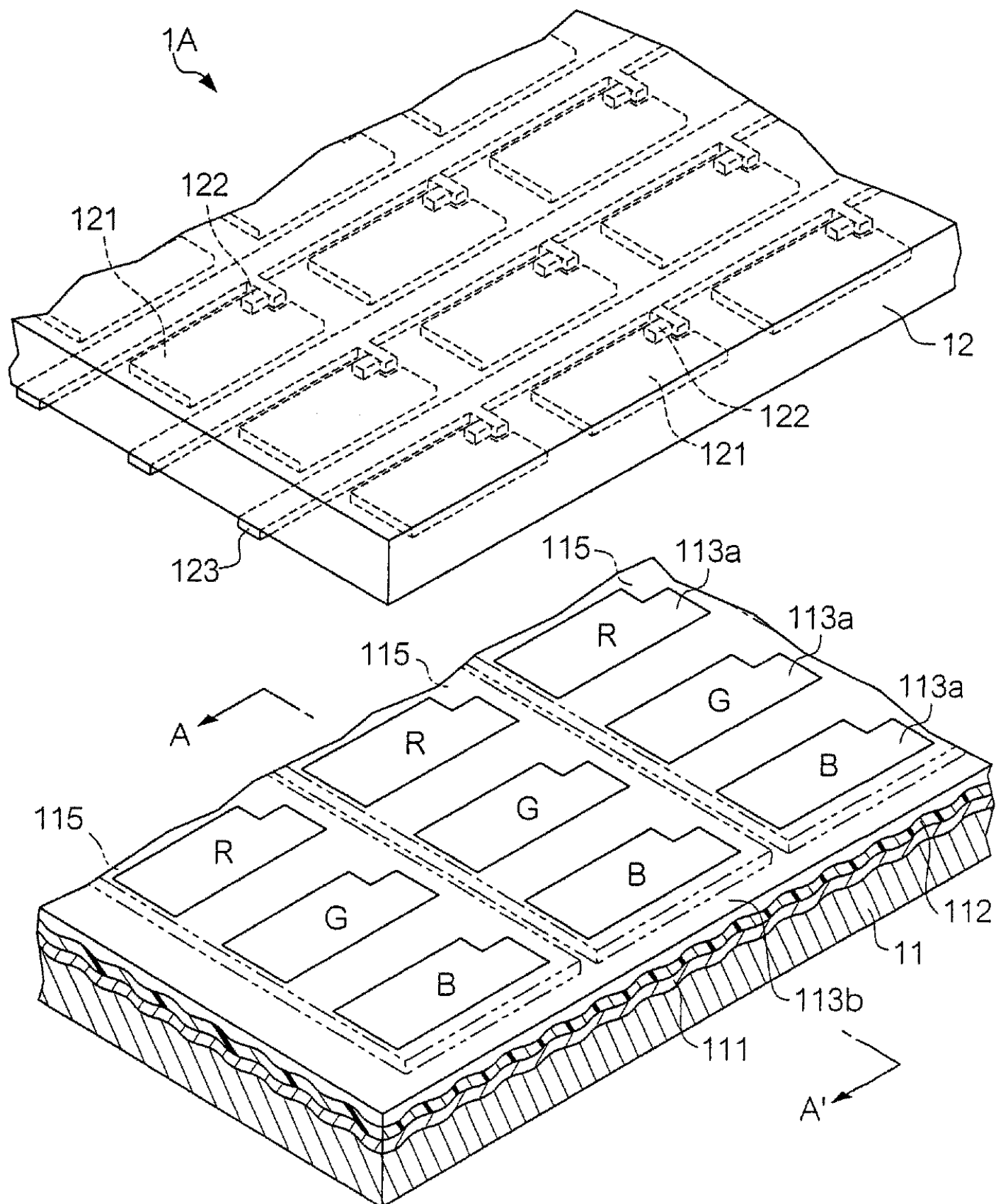
9.

6 8 ,

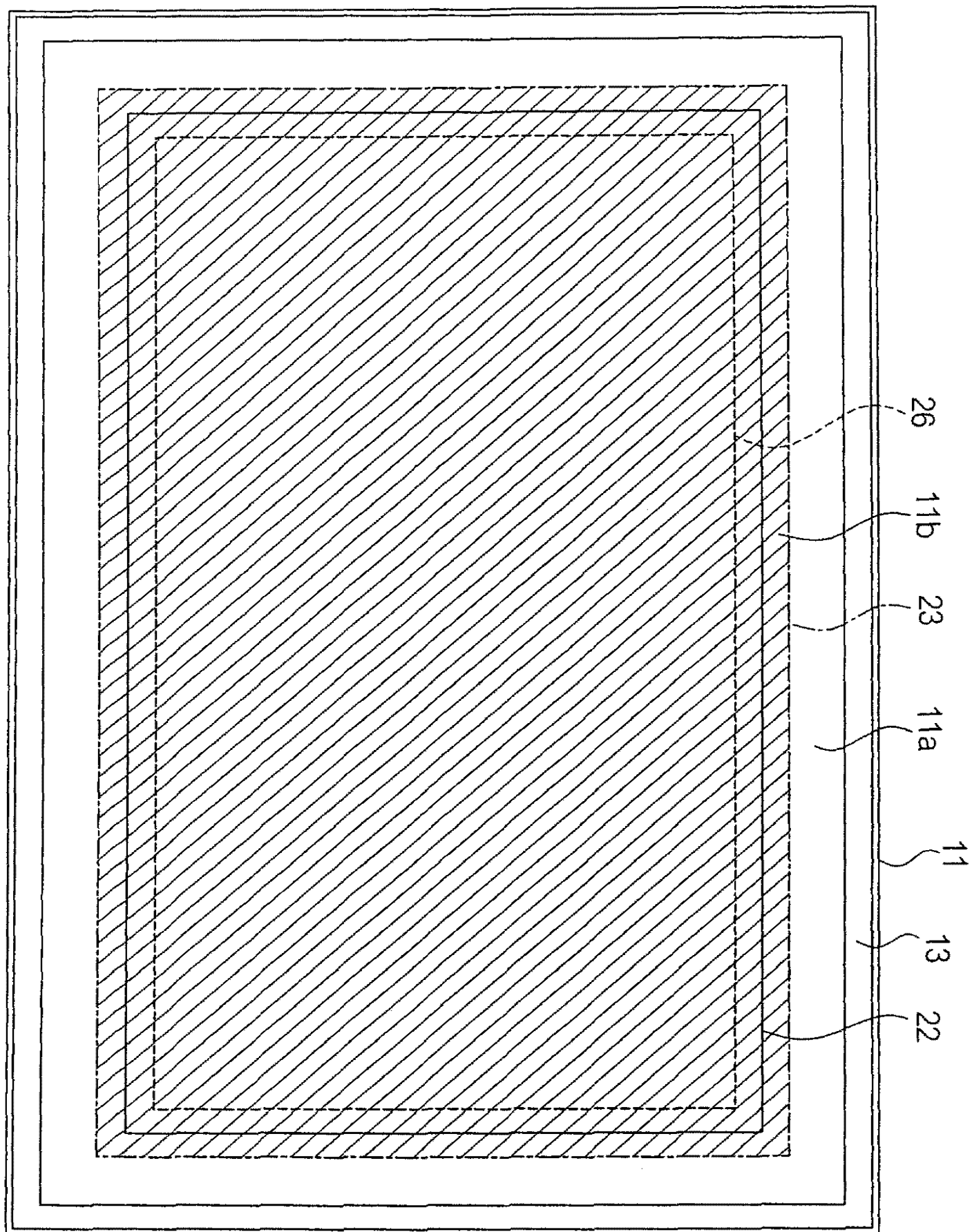


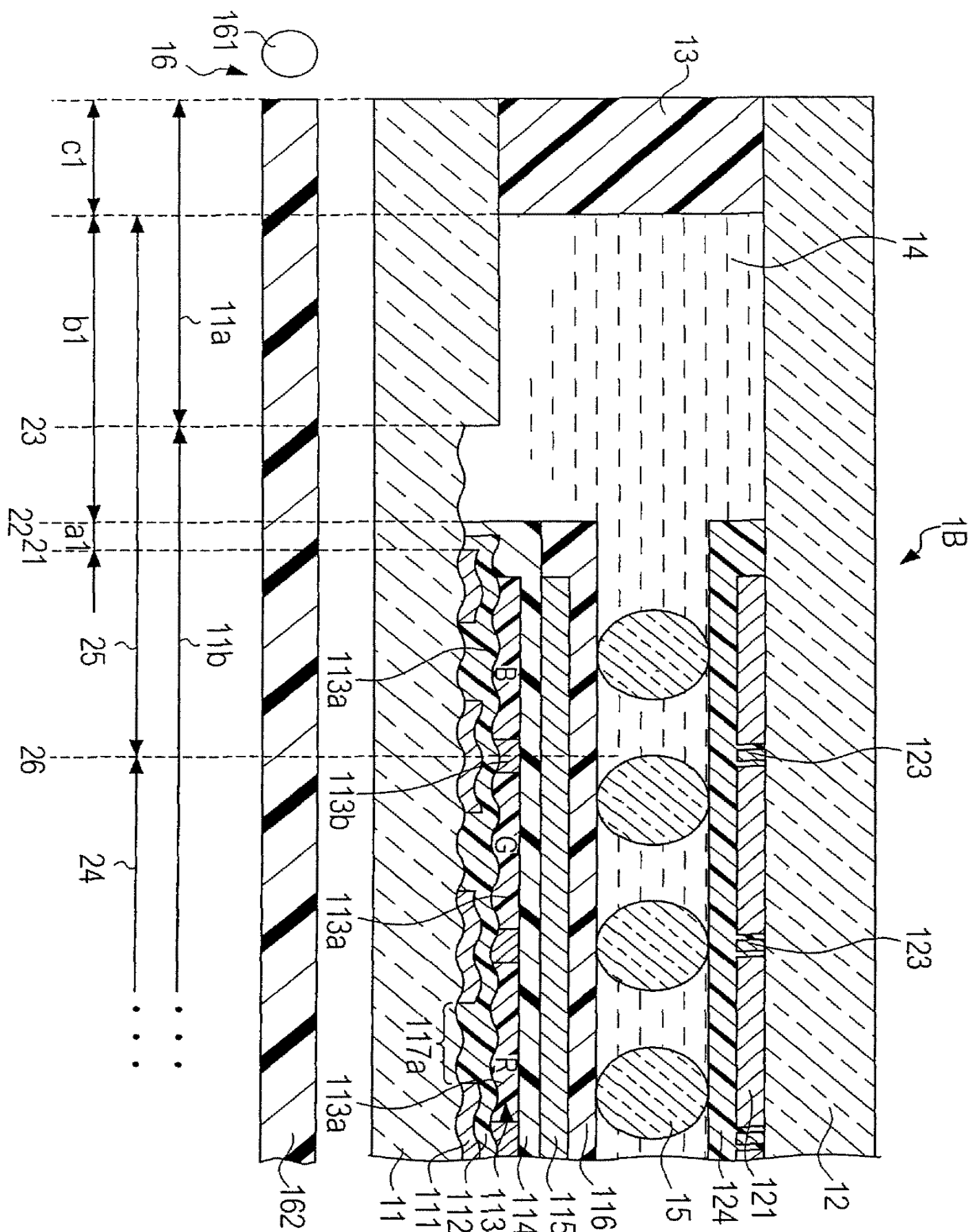


2

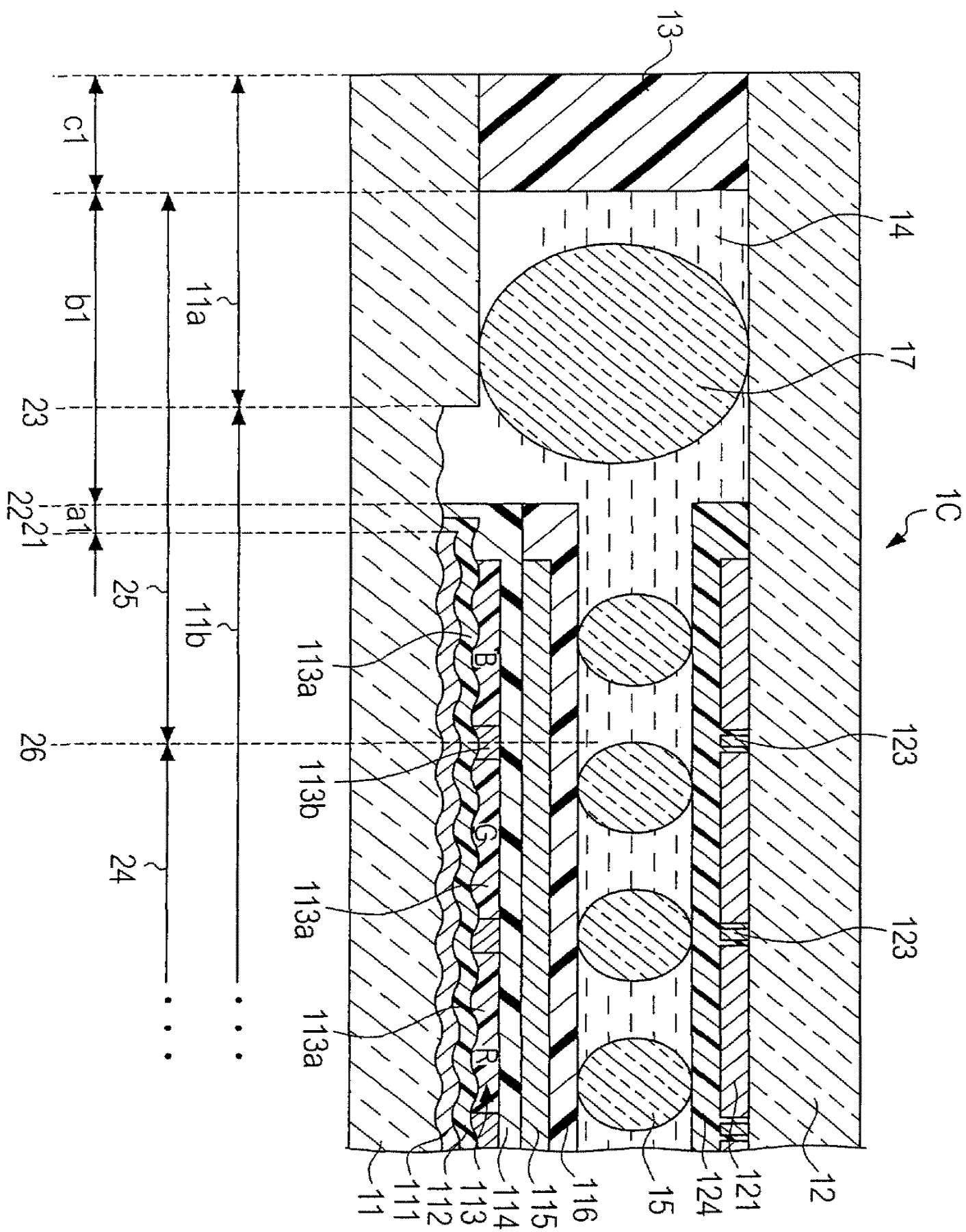


3

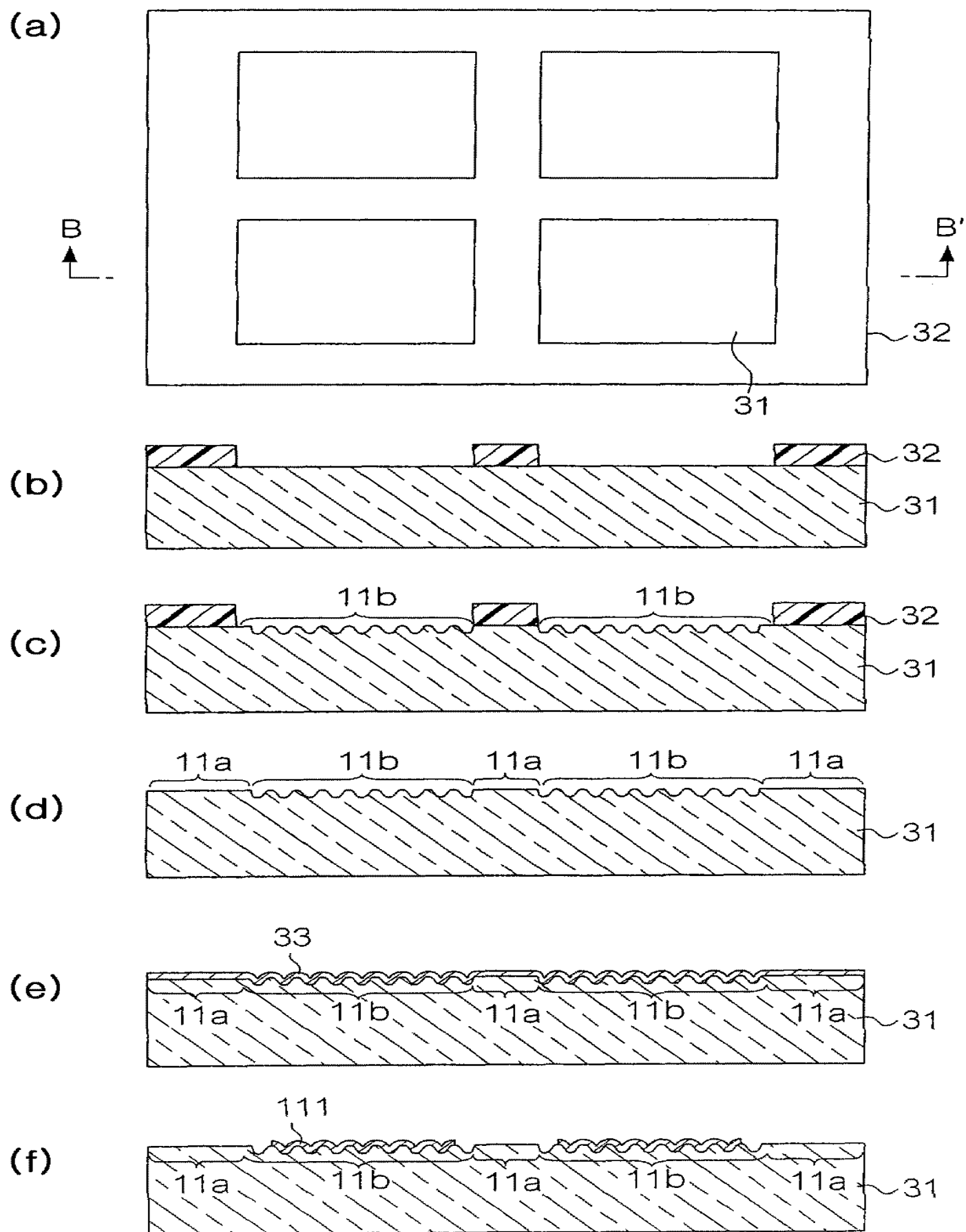




5

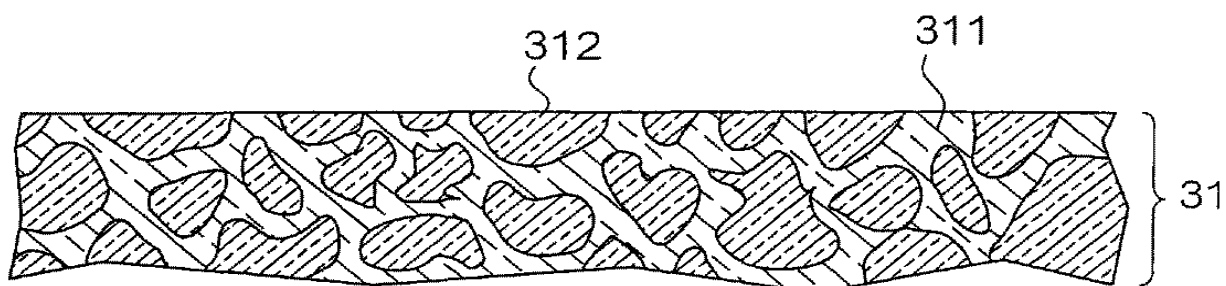


6

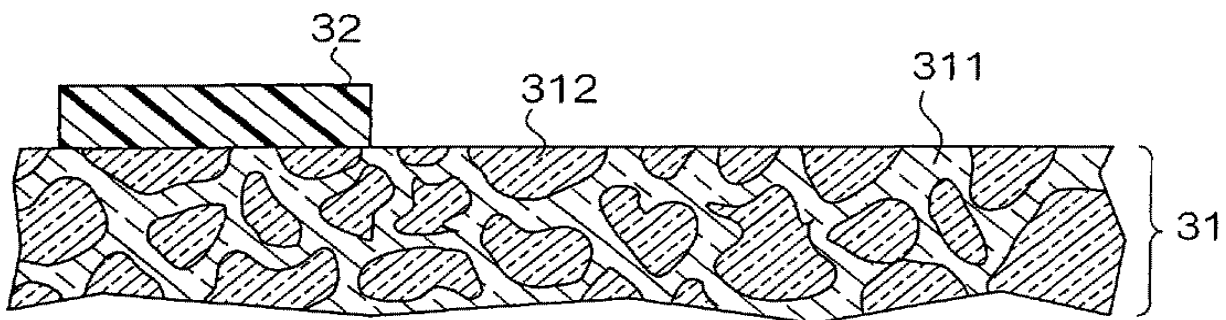


7

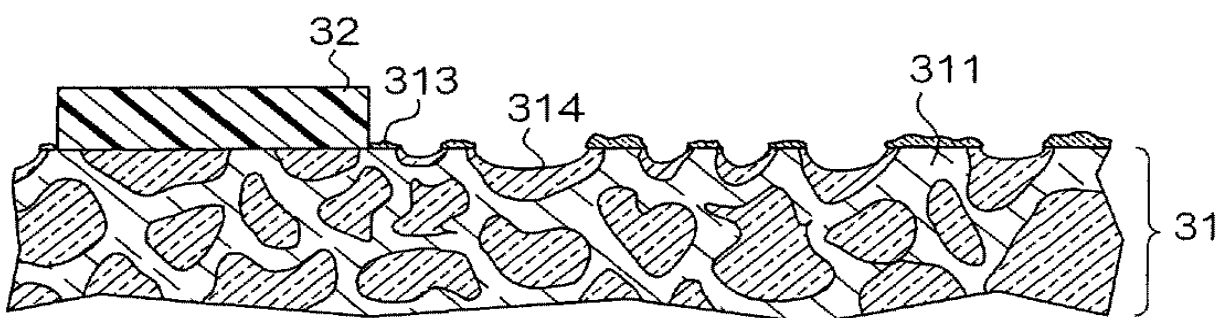
(a)



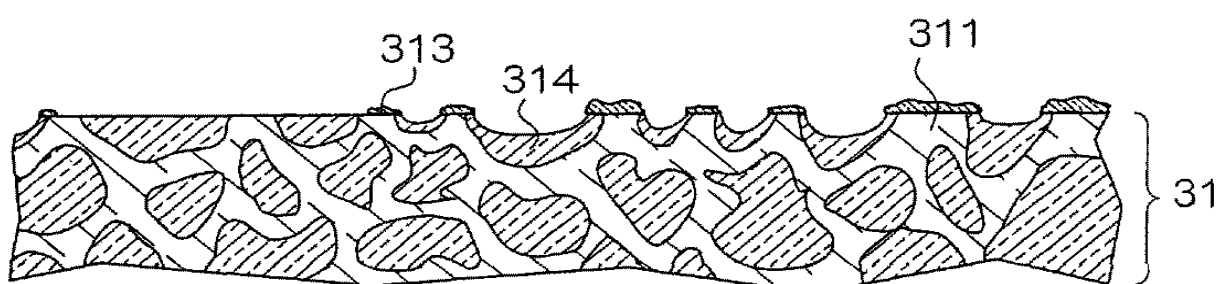
(b)



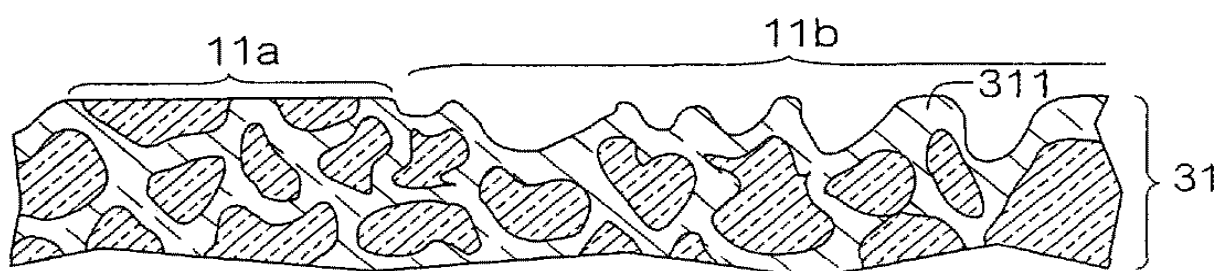
(c)



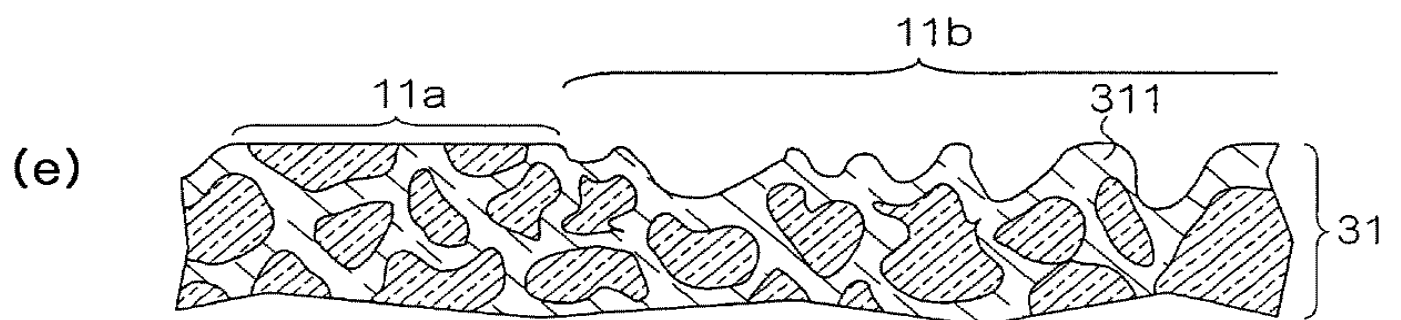
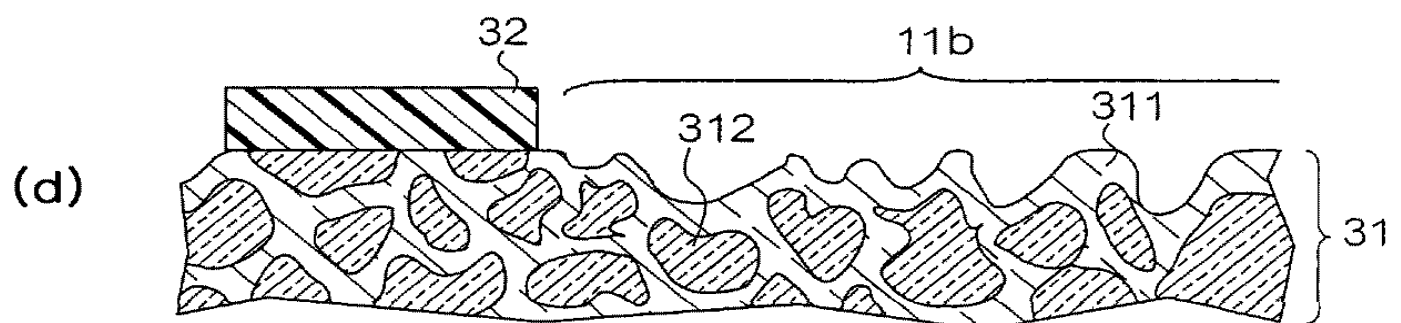
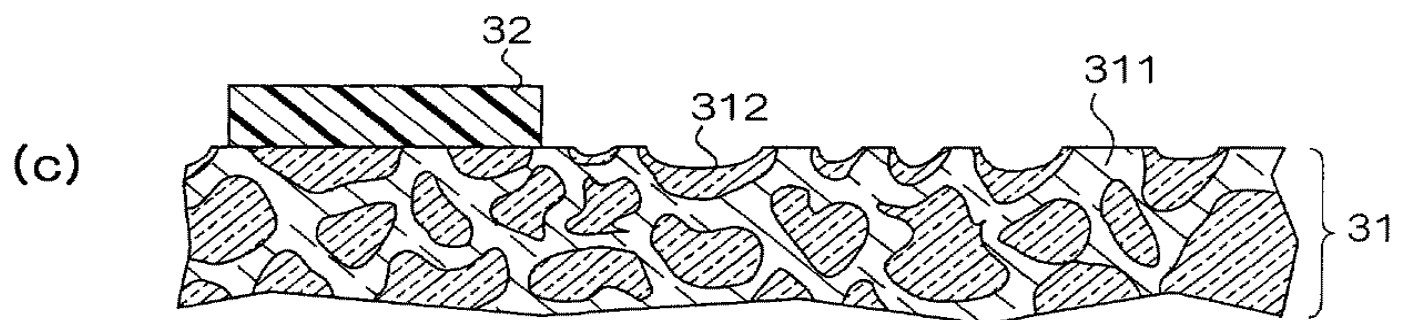
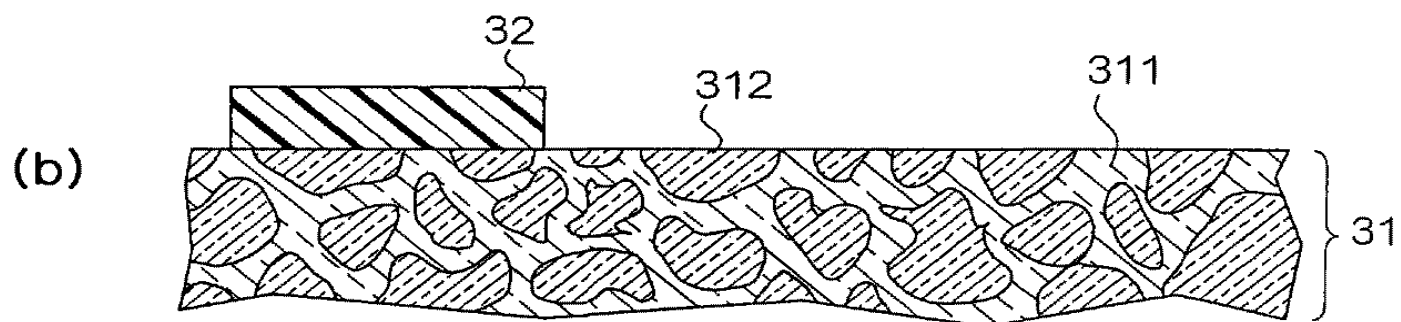
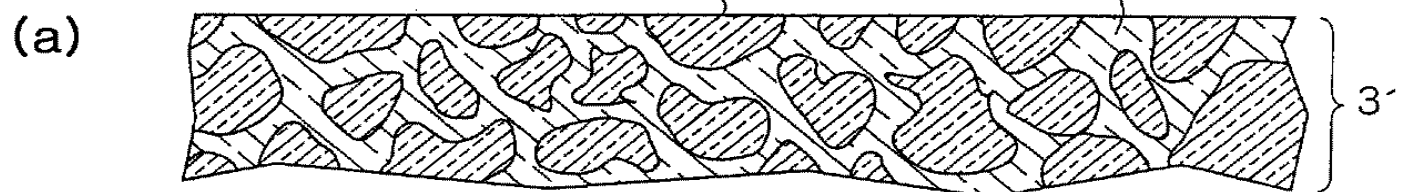
(d)



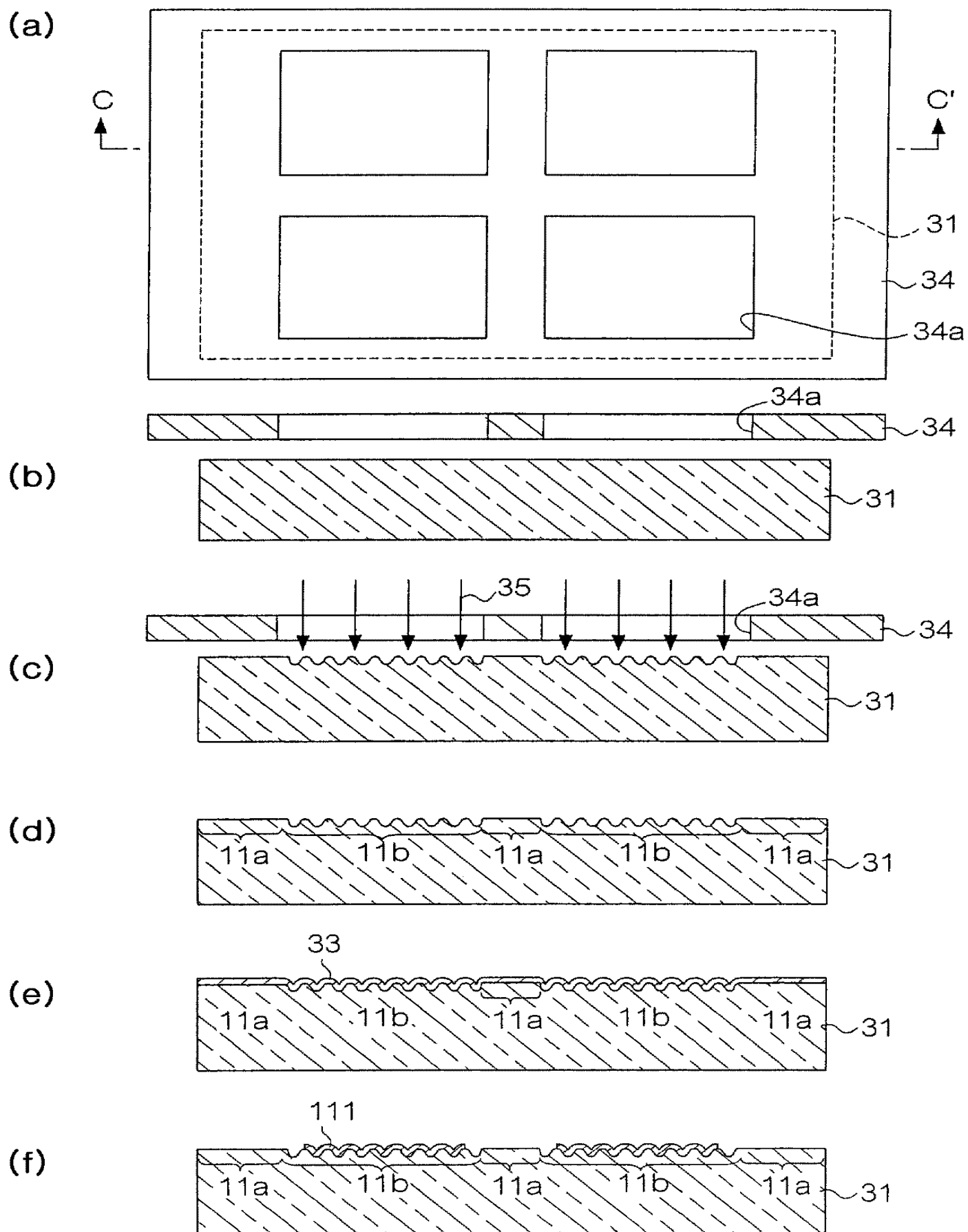
(e)



8

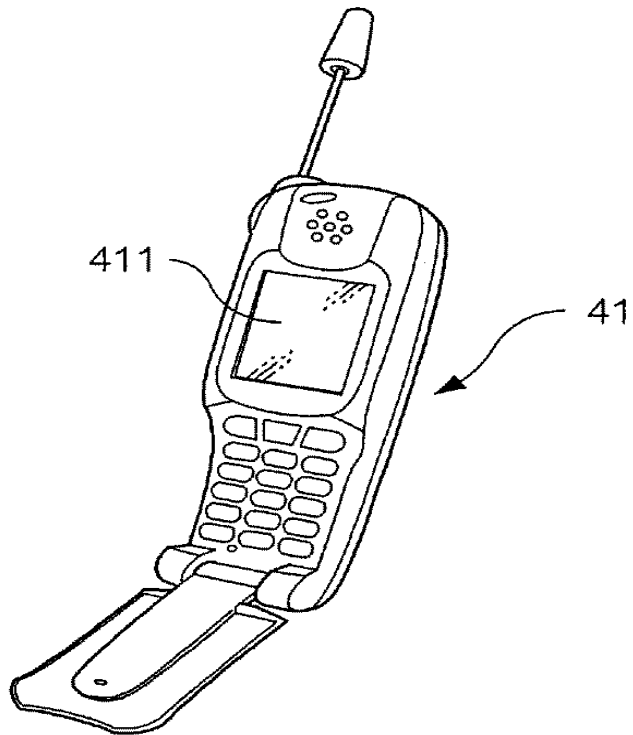


9

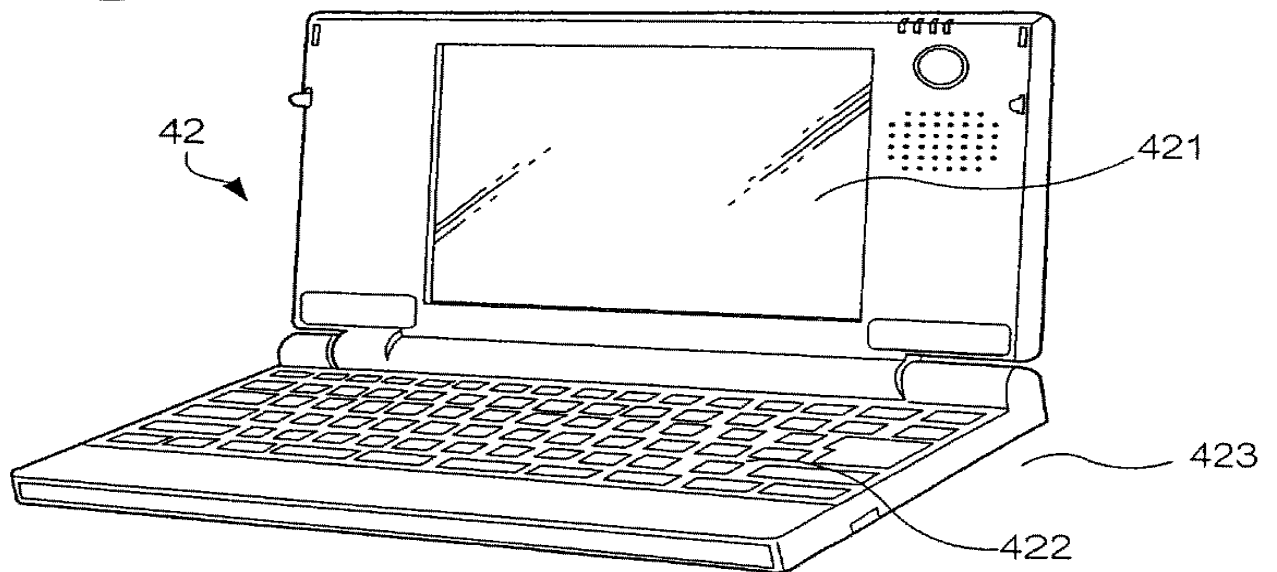


10

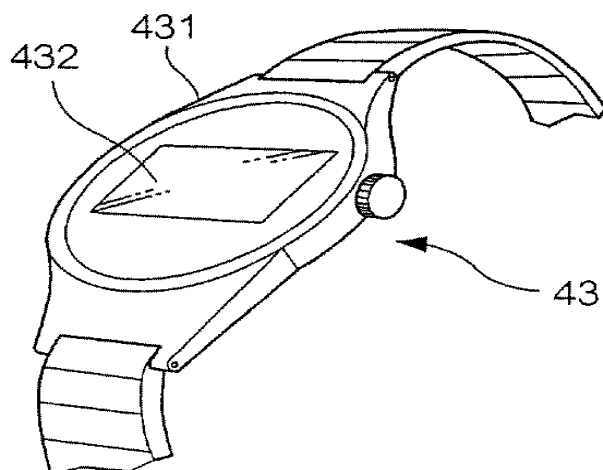
(a)



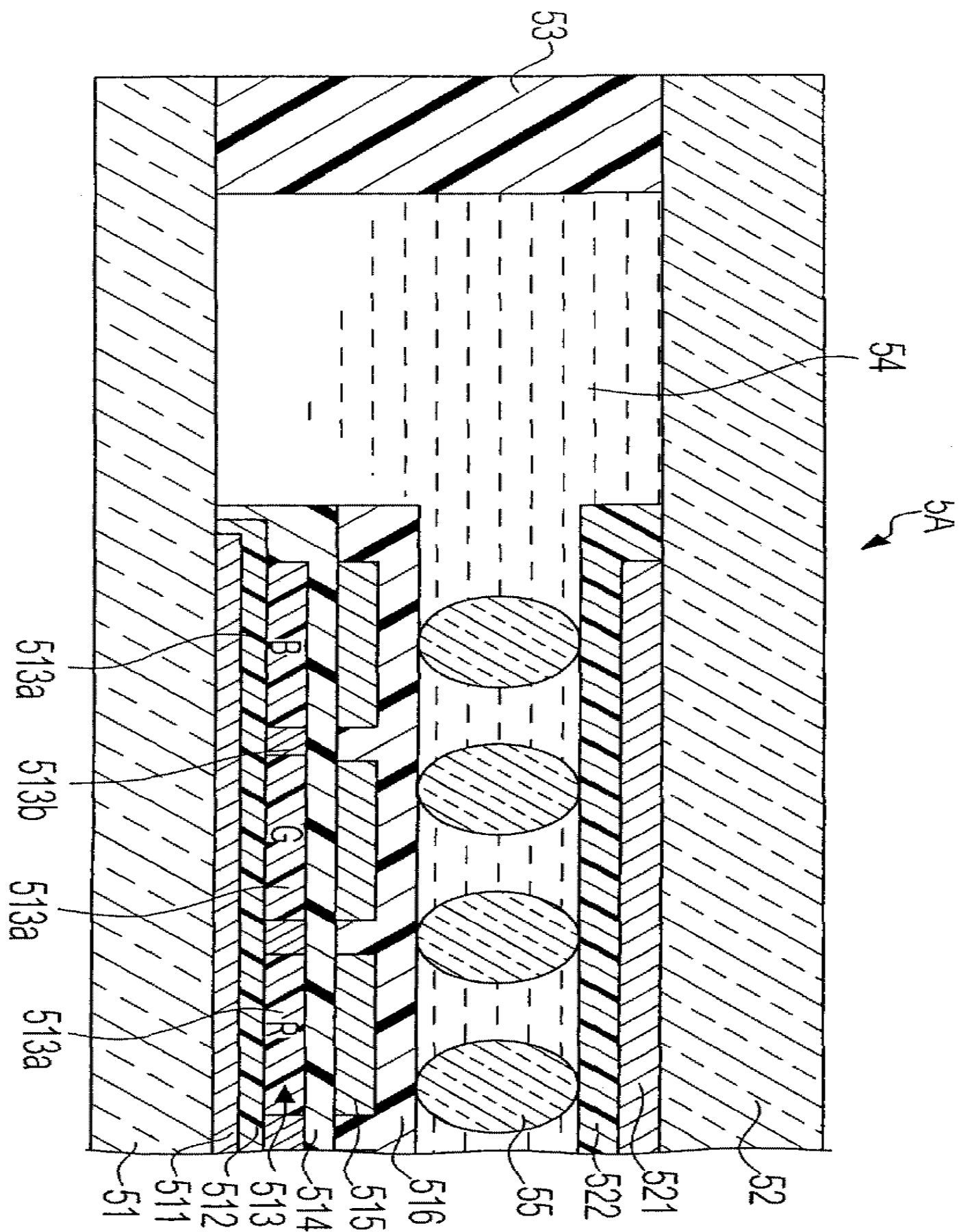
(b)

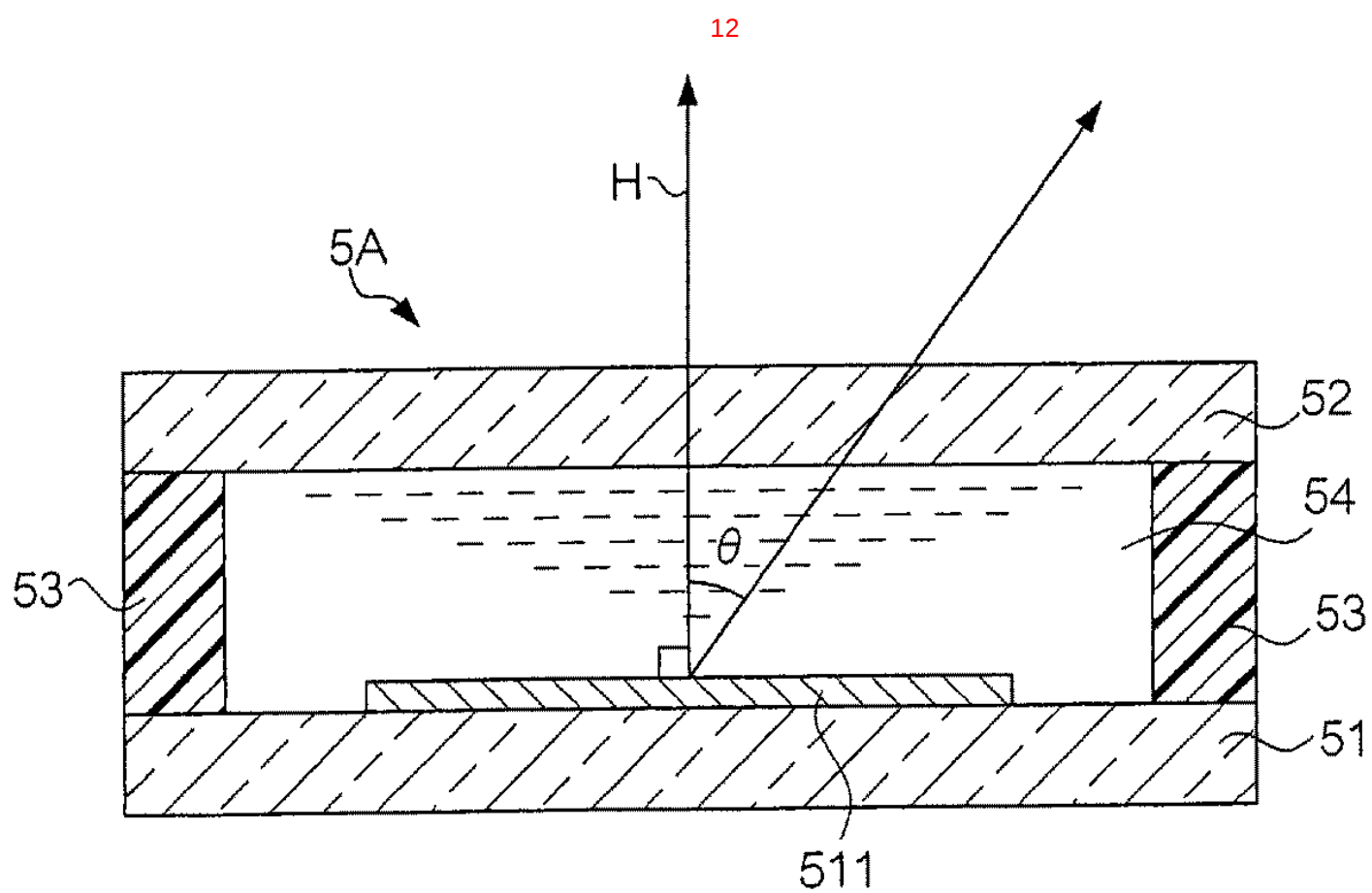


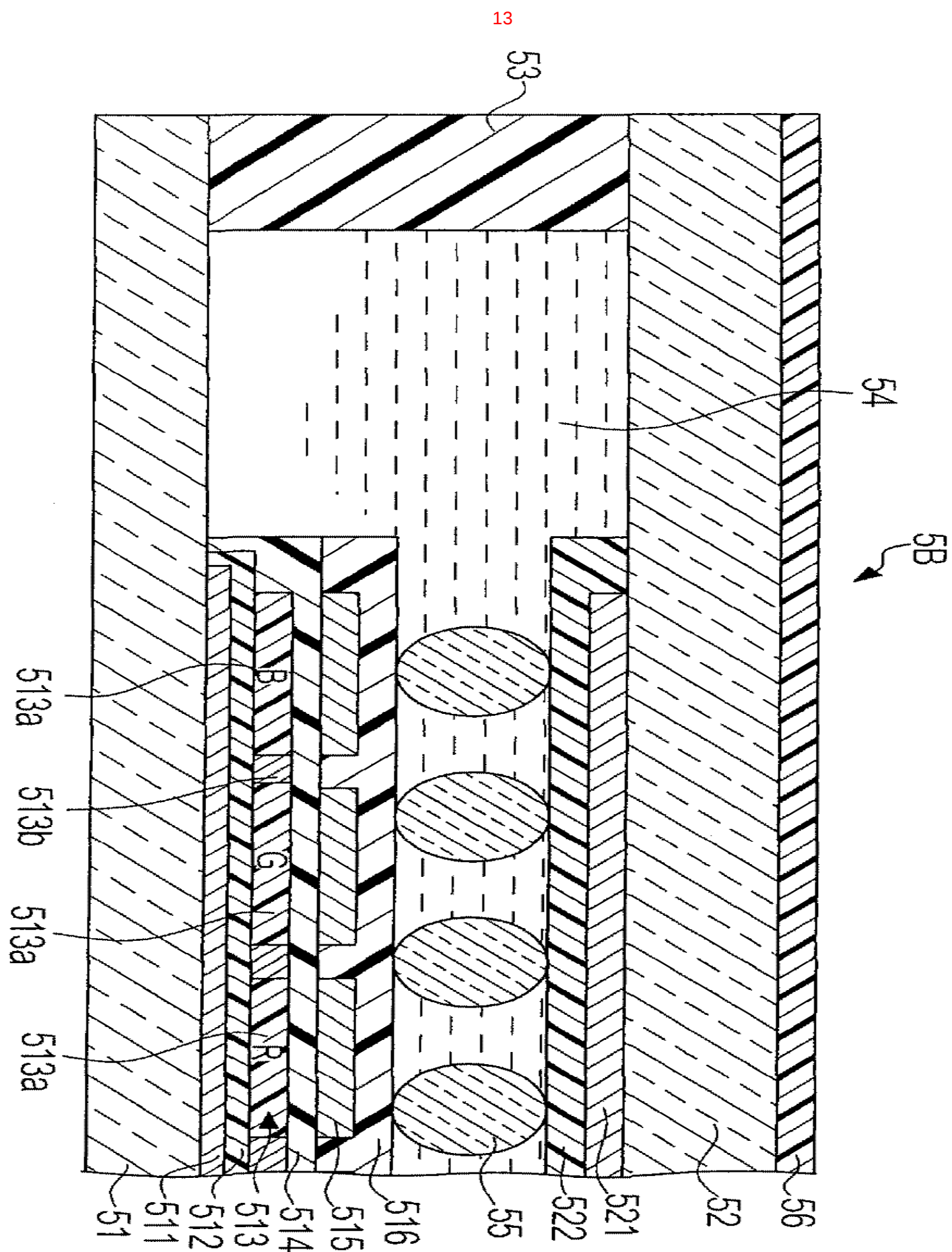
(c)



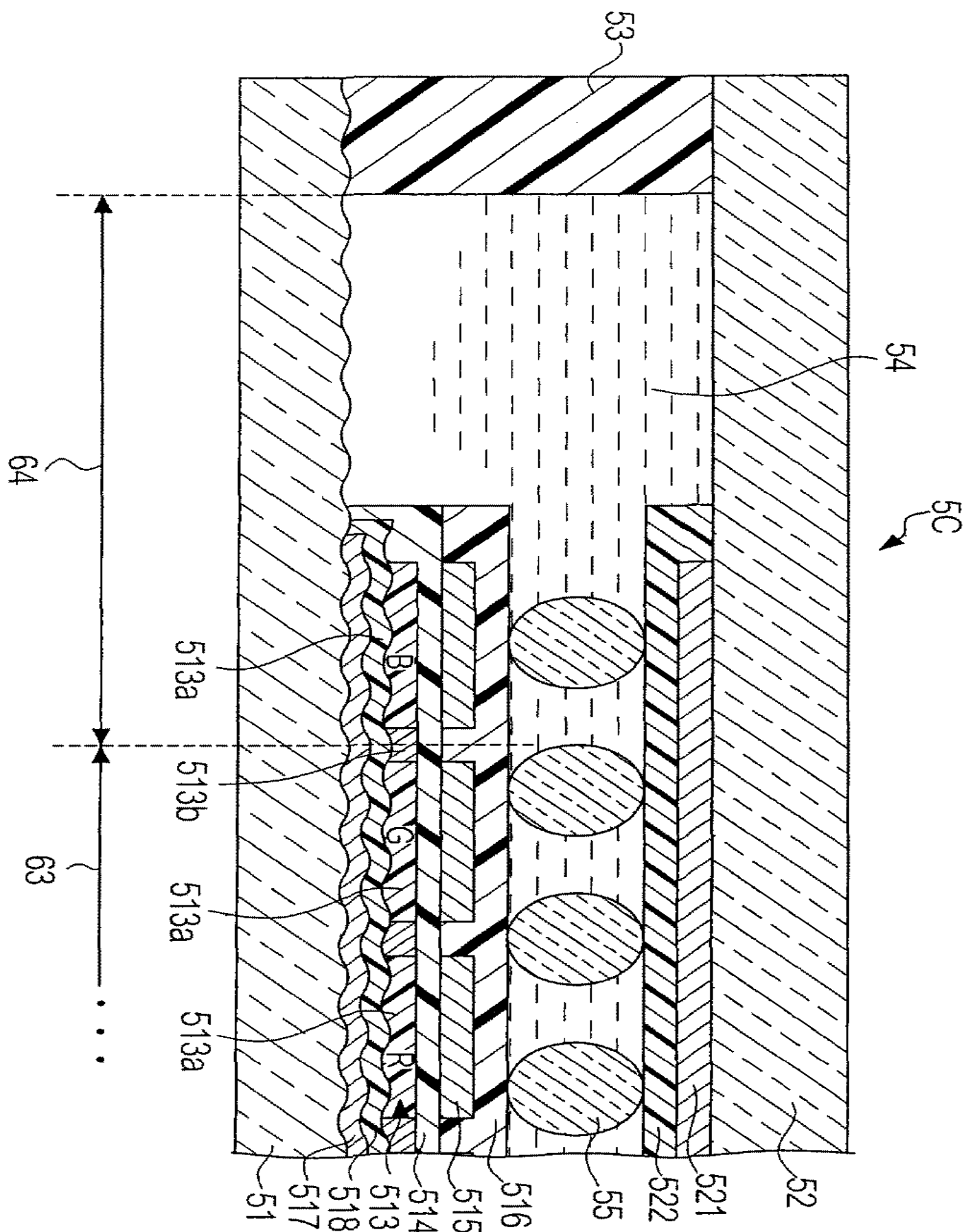
11



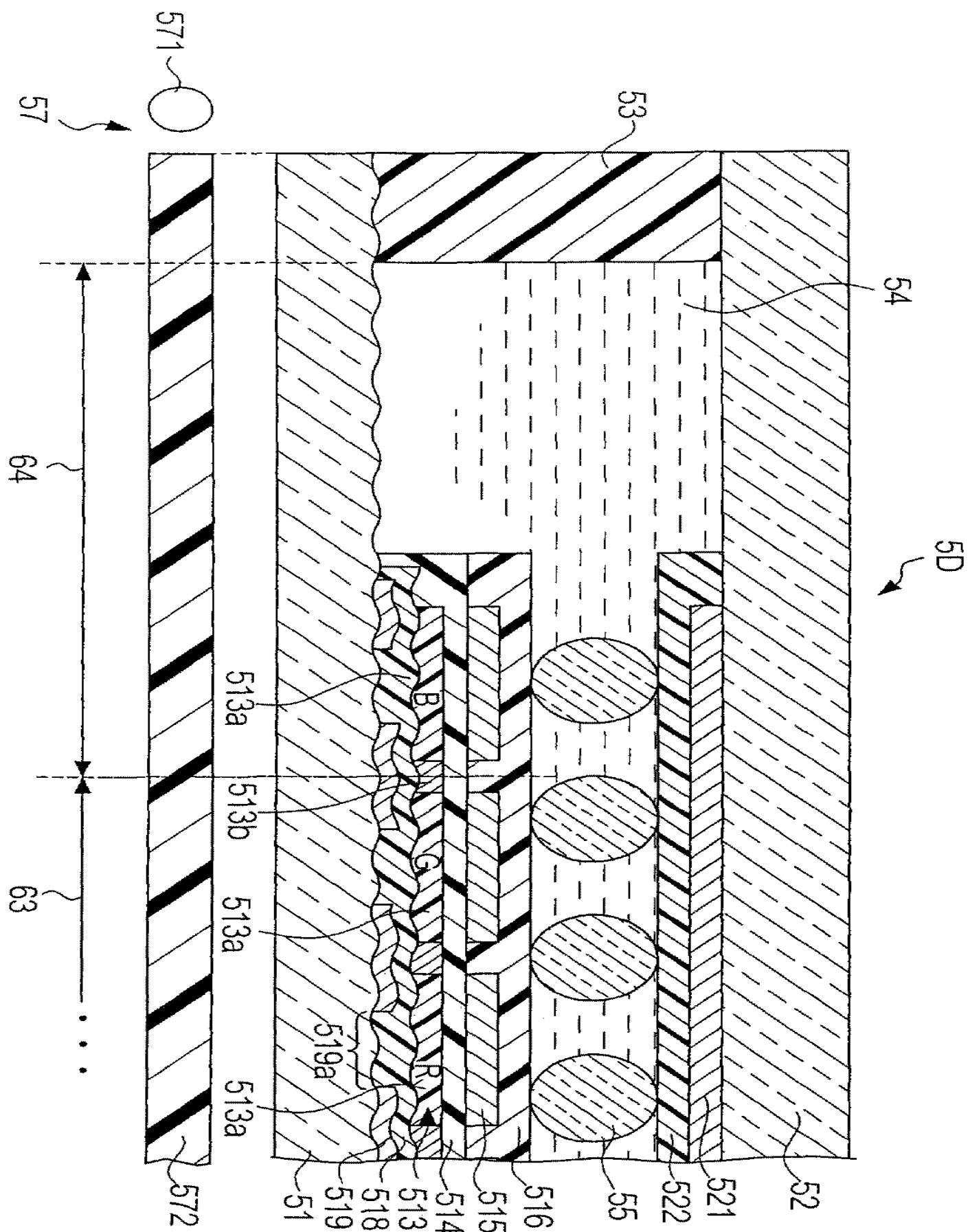




14

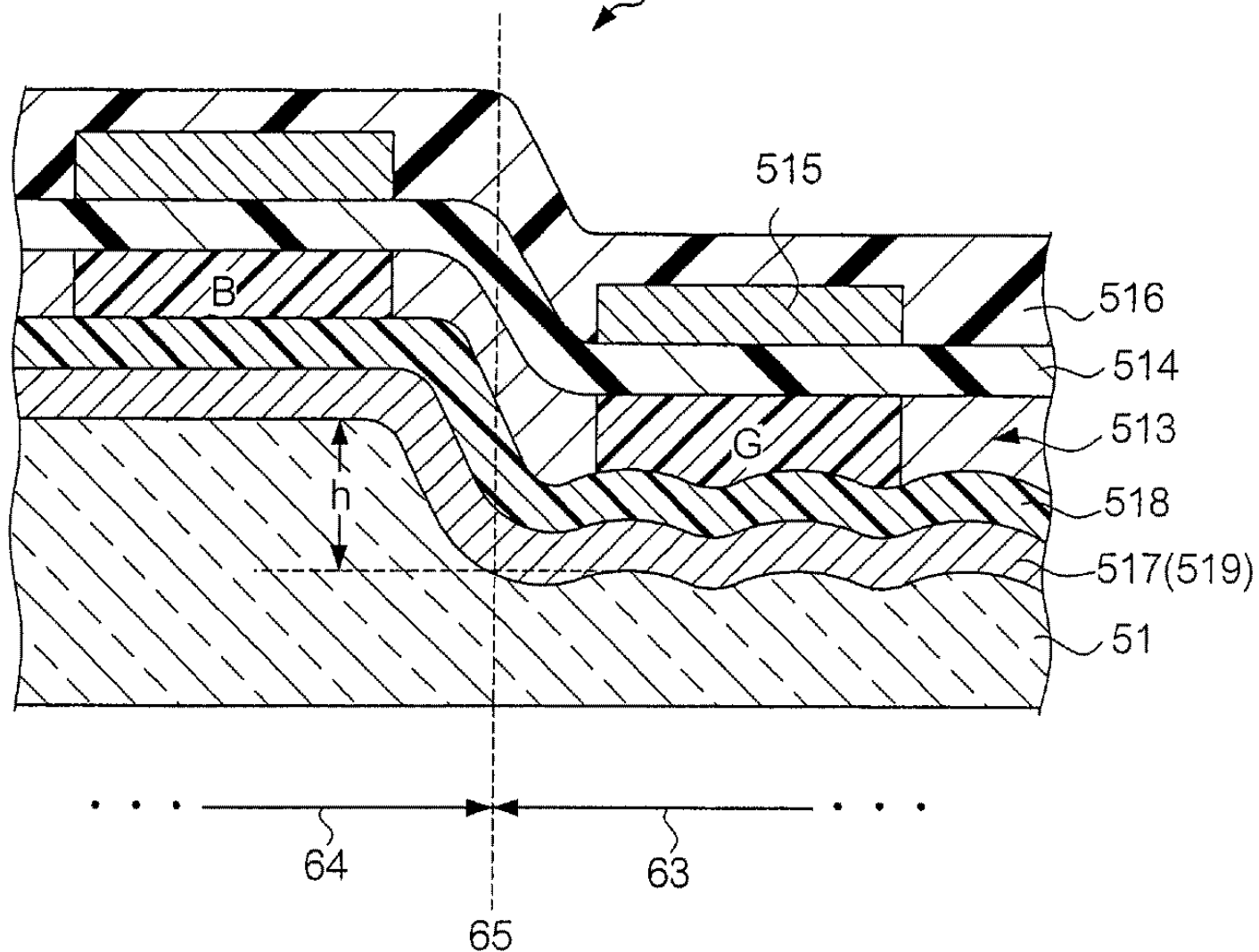


15



16

5C(5D)



|                |                                                                                                                   |         |            |
|----------------|-------------------------------------------------------------------------------------------------------------------|---------|------------|
| 专利名称(译)        | 液晶显示装置，其制造方法以及电子设备                                                                                                |         |            |
| 公开(公告)号        | <a href="#">KR1020010112314A</a>                                                                                  | 公开(公告)日 | 2001-12-20 |
| 申请号            | KR1020017011472                                                                                                   | 申请日     | 2001-01-04 |
| [标]申请(专利权)人(译) | 精工爱普生株式会社                                                                                                         |         |            |
| 申请(专利权)人(译)    | 精工爱普生株式会社                                                                                                         |         |            |
| 当前申请(专利权)人(译)  | 精工爱普生株式会社                                                                                                         |         |            |
| [标]发明人         | MIWA NAONORI<br>미와나오노리<br>TAKIZAWA KEIJI<br>다키자와게이지<br>USHIKI TAKEYOSHI<br>우시키다케요시<br>YAMAGUCHI YOSHIO<br>야마구치요시오 |         |            |
| 发明人            | 미와나오노리<br>다키자와게이지<br>우시키다케요시<br>야마구치요시오                                                                           |         |            |
| IPC分类号         | G02F1/1333 G02F1/1335 G02F1/1339                                                                                  |         |            |
| CPC分类号         | G02F1/1333 G02F1/133504 G02F1/133553 G02F1/1339 G02F2001/133302 G02F2001/133388                                   |         |            |
| 代理人(译)         | KIM, CHANG SE                                                                                                     |         |            |
| 优先权            | 2000004627 2000-01-13 JP                                                                                          |         |            |
| 其他公开文献         | KR100441329B1                                                                                                     |         |            |
| 外部链接           | <a href="#">Espacenet</a>                                                                                         |         |            |

# 摘要(译)

液晶显示器包括形成在基板(11,12)，s和液晶(14)的液晶侧的反射层(111)，保持在两个基板和基板(11)之一，以及取向层(116)形成在相应的反射层(111)的液晶侧。一个基板(11)的液晶侧的表面具有包围蚀刻的轧棉区域(11b)的均匀平坦区域(11a)和轧棉区域(11b)。取向层(116)形成在轧棉区域(11b)内。密封材料(13)形成在平坦区域(11a)内。

