

(19)
(12)

(KR)
(B1)

(51) 。 Int. Cl. ⁷
G11B 7/135

(45)
(11)
(24)

2001 10 24
10 - 0296068
2001 05 07

(21)
(22)

10 - 1993 - 0018764
1993 09 17

(65)
(43)

1994 - 0007808
1994 04 28

(30)

07/947,248

1992 09 18

(US)

(73)

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75265

13500

(72)

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75074

2005

(74)

:

(54)

(10)

micro - mirror device: DMD)(130)

DMD(130) , DMD

(140)

DMD

(image capture device)(170)

(deformable
(120)
(160)

가

가

가

(image capture)

가

1000 × 1000

가 x - y

1 2 (10) (10) (110)
 (110a) (118) (110a) (110b)
 (120) 가 (DMD, 130) (140)
 (110b) (140) (150) (160)
 (170)

(160) DMD(130) (160)
 (160) (160) (10)
 DMD(130) DMD(130)
 가 가 (140) (140)
 DMD
 DMD(130)

(140) DMD " "
 , DMD(130) (120) DMD(1
 30) (140) DMD(130) , DMD(
 130) (150) (160)

(160) (120) (170) , , DMD(130)

(160) (160) (unique) , " "

1 2 , (110) (160) 가 , (160) (164) (162) , (164) (rods, 166) (160) (162) (rim) (160) (212) , (160) (214) 2 가 , (110) 1 2 , (110) x (160) y

3 1 2 , (164 212) 가 (302) , 2 (take - up) (304) (282) , (164 212) (stepper motor, 306) 가

3 , x - y x y (160) , x - y x y (110)

2 , (150) (160) (160)

4 4 , (160) , (150) 가 4 4 6

1 가 가 , DMD(130) () (170) () / (180) (180a) () DMD(130) () 가 (130a 170a) () (120)

(120) 1 , (120) 1 2 가 (120)

(120) , (110) , (112)
 (120) (110)
 (120)
 (120) (160)
 , DMD(130)
 (140) (120)
 " (instrumentation lamp)"
 (120) (122) (123) , (123) DMD
 (130) (123) 가 (123) (123)
 (110) (123)
 (122 123)
 , DMD(130)
 DMD(130) (118) , DMD(130) -
 2 DMD(130)
 DMD(130) 4 DMD(130) 2 (41)
 (41) (42) , (41) (41)
 (41) , (43)
 가 /
 5 (41) (51) 가 (flexible hinge, 52)가
 4 5 , (51) (52) (44)
 , (41) (42) (41) , (51)
 가 (42) (cantilever type
 mirror element) , (41) " " " "
 DMD(130) (140) , (160)
 (41) , (140) , (160) (41)
 4 5 - DMD 가
 , , 가
 , DMD

DMD(130) 가 DMD
4,566,935 , 4,596,992 , 4,615,595 , 4,662,746 , 4,710,732

DMD(130) 1024 × 1024 (41) (41) 0.8m
- inch × 0.8m - inch , DMD(130) 0.8inch × 0.8inch (160)
10) 가 DMD(130) 5 , 5.25 inch ×
5.25 inch 가 , (5.25/0.16) ² 1000 (160)

1 2 , (135) DMD(130) (140)
(135) , (140) ,
 , (135)
 . DMD(130) (160) " (light
trap)" (baffle)

(140) (135) 2 DMD(130) , (140)
(150) (160) , DMD(130) (160)
 , (140) (160)

(110a) " Printing System Exposure Module Alignment Method and
Apparatus of Manufacture" 5,105,369

DMD

, 1 (110b) , (150) (140) (160)
 (135) (152) (stray light) (160)

(160) ,

(160)

(160)

(160)

2

(110)

(110)

DMD(130)

DMD

(Sampsell)

4,954,

789

(120)

(170)

(160)

(120)

DMD(130)

DMD(130)

(41)

DMD(130)

(160)

(170)

(170)

(CCD)

2 (170) (170) 2 (DRAM) DMD(130)
 (41)
 (110) (110) (170) (110)

6 (150)
 5 (140) 가 (405) (410)
 (150) (420) (405) 가 4 (10)
 가 (150) (160)
 (110) (110) (160)
 가

(150) (160)
 " x" (150) (160)
 (160) (110) (150)

(420) (150) (160)
 (150) DMD(130)
 (150) (160)
 (160) 가

7 DMD(130) (310) (160) (150) 2
 MD(130) B A B a b (150) D
 DMD(130) A (150)
 (405) 가 (150) (405)

7 (405) (420) (150)
 " " " (intelligent)" (420)
 (410) (420) 2가
 (410 420)

7 (430) (150) (170)
 (175) (110) 가 (150) (170) (175)
 (150) (160) (170) (160)

[]

가 , 가 , 가 . , .

[]

1000 × 1000 . , , . , .

(57)

1.

(optical recorder) , r) ,

(micro - mirror spatial light modulator)

1 1 , 2 1 2

2.

1 , , (housing) , 1 2 .

3.

1 , 가 (holder) , 1 2

4.

1 , (actuator) , 가 가 , 가

5.

4 , 가

6.

4 가 , ,

7.

1 ,

8.

1 , (image capture device)

9.

,
,

- (micro - mechanical mirror elements) ,

dulator) - (micro - mirror spatial light mo
- ,

- ,

,

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,

,

, 가

10.

9 ,

11.

9 ,

12.

9 , , ,

13.

12 , ,

14.

12 , 가 ,

15.

9 , - , ,

16.

, / / ,

,

- (digital micro - mirror device)

,

- (micro - mechanical mirror elements)

, (micro - mirror spatial light modula

tor) -

, ,

, - ,

,

,

(image capture device),

1 1 ,

1 2

2

.

17.

16 , , , (housing) , 1

2 .

18.

16 , 가 (holder) , 1 2

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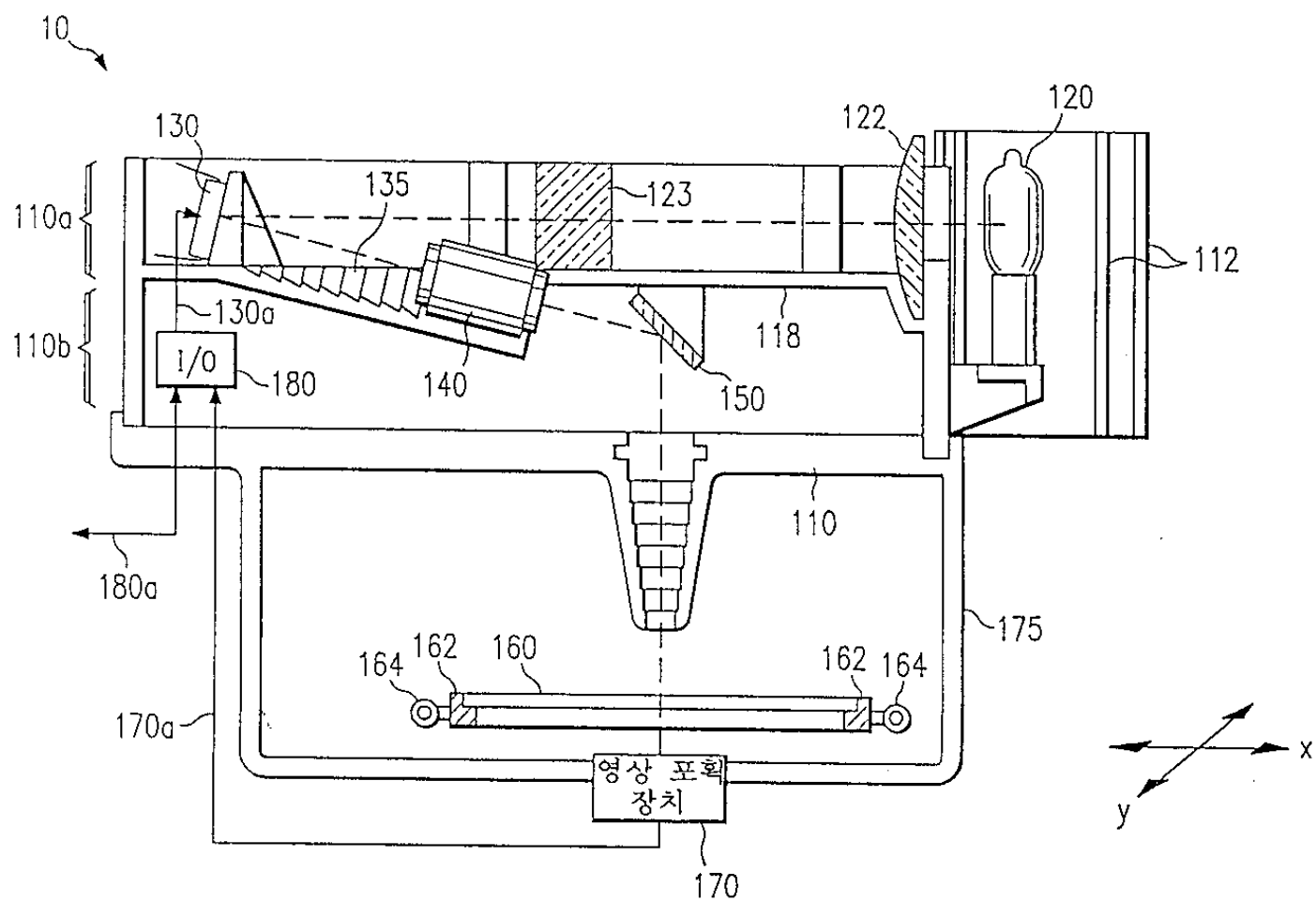
19.

16 , 가 가 가

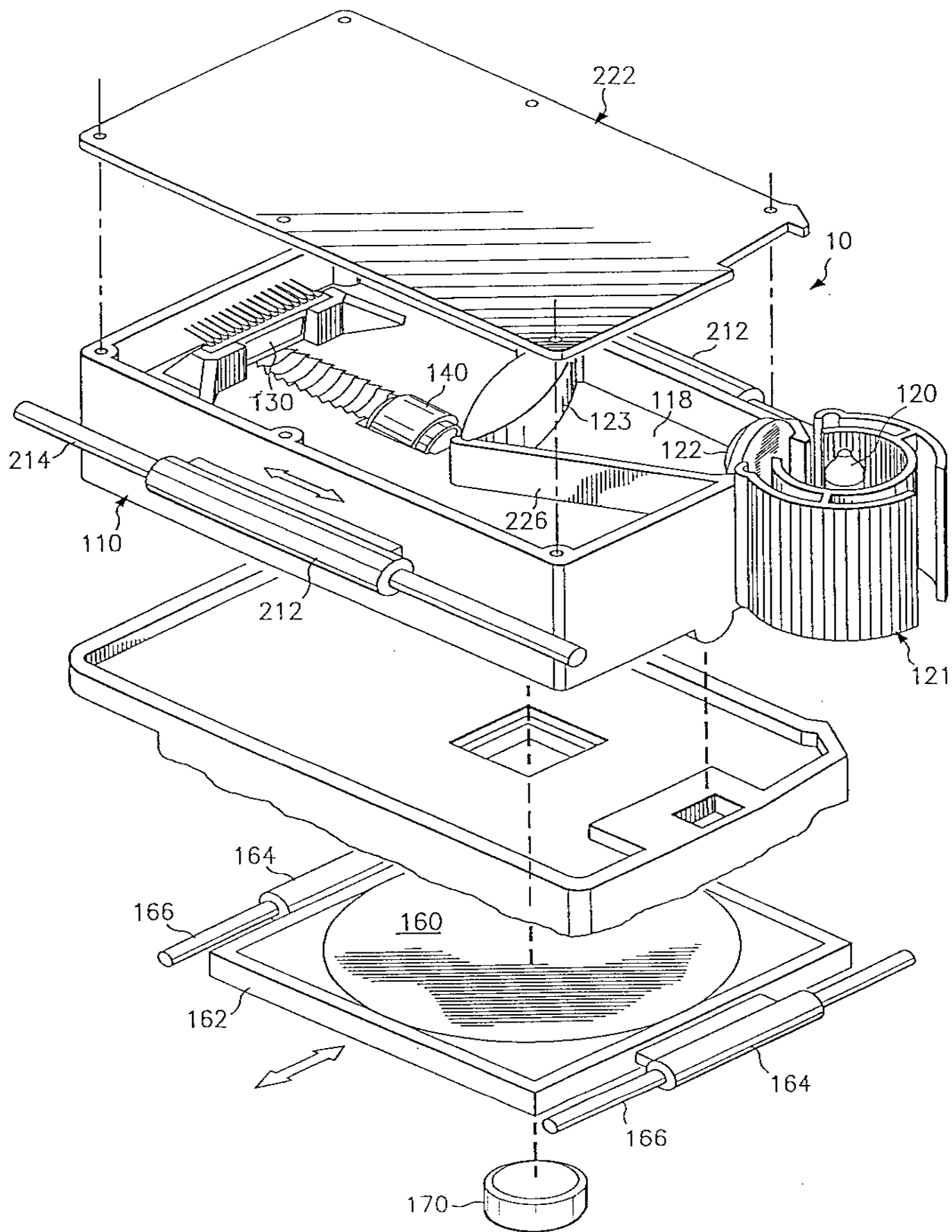
, 가

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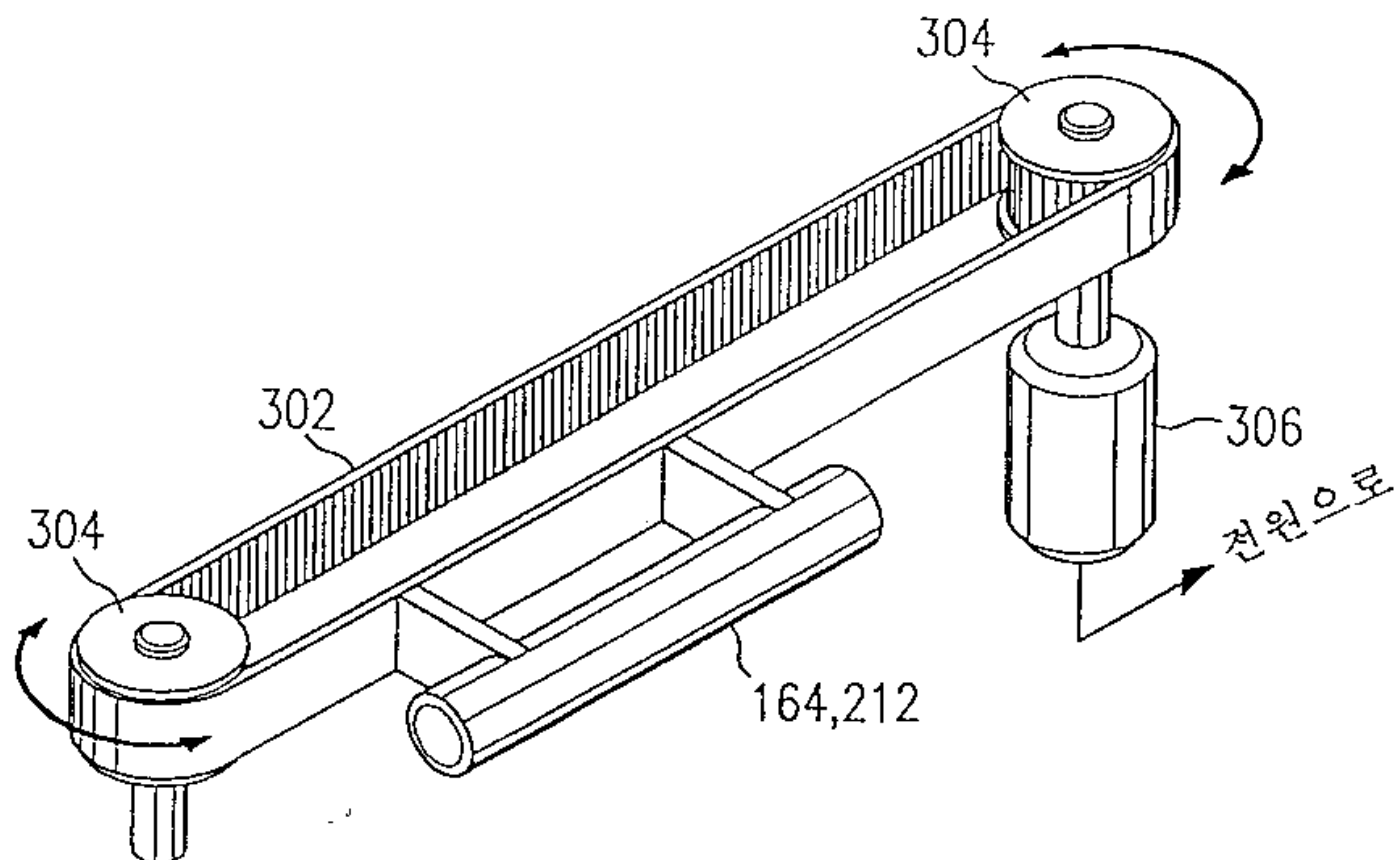
1



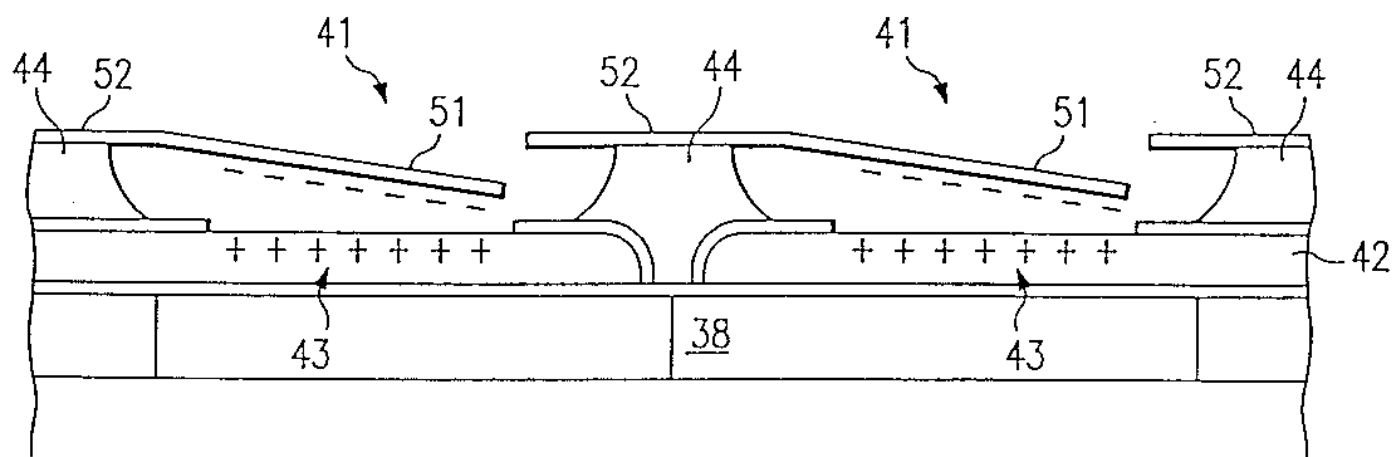
2



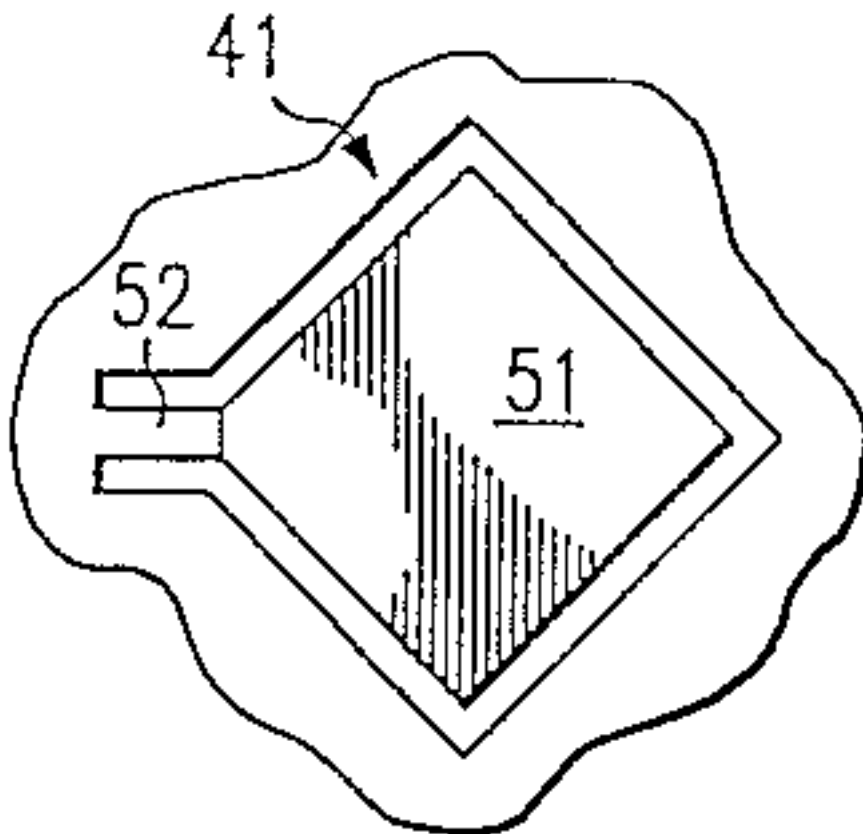
3



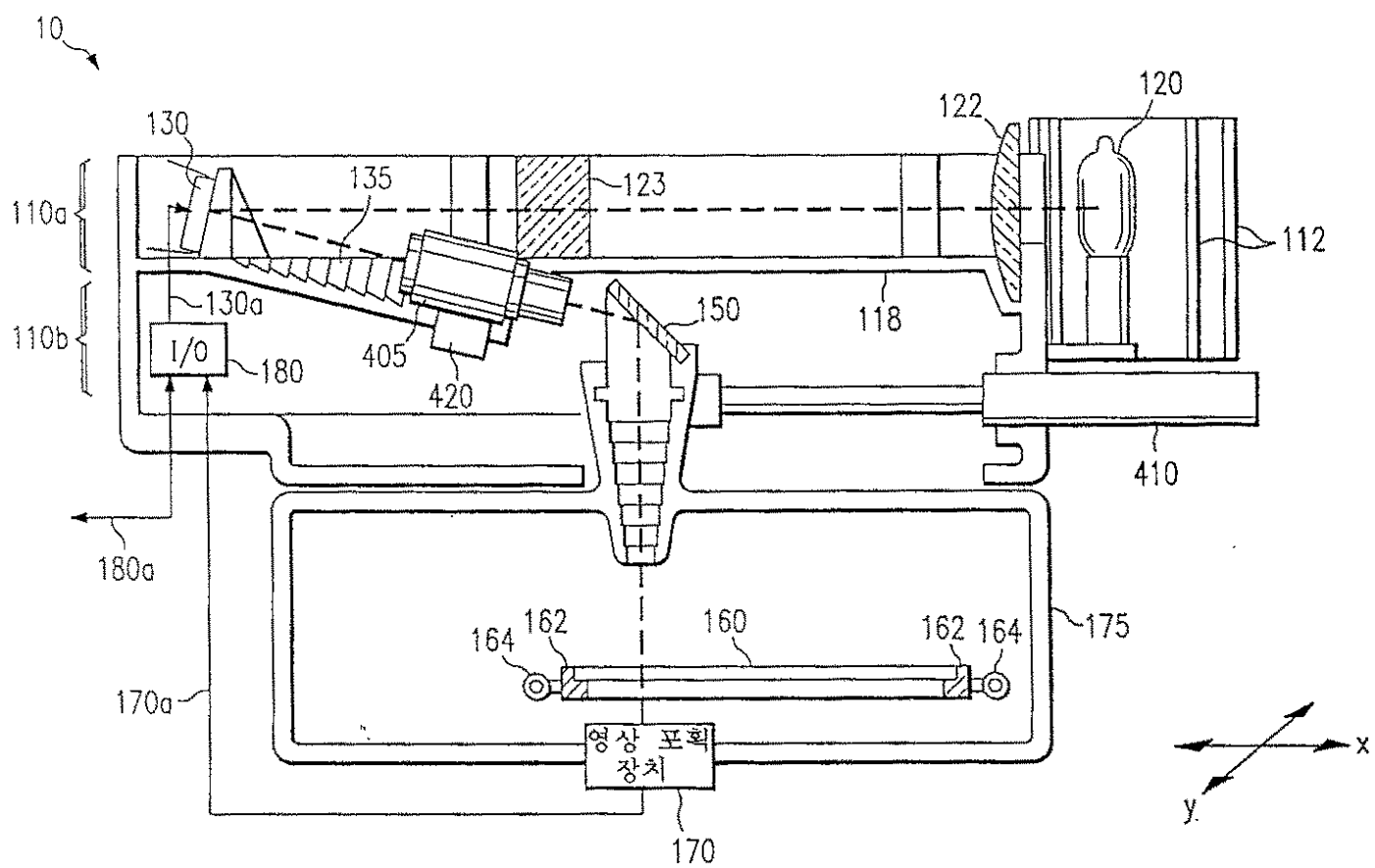
4



5



6



7

