

3b

CD, DVD,

(laser beam)

(objective len

s)

, CD DVD

가

CD DVD

CD , 780nm

, DVD , 650nm
(working distance)가,

CD 1.3mm , DVD

1.7mm

(focus servo mechanism) , 1

(100)가

, (pick - up; 101)

(101) ,

(focus error signal detection circuit; 102)

(phase compensation dr

ive amplifier; 103)

(feedback circuit)

가

(100)

2a , (101L)가 (101c)

(excitation)

2b

(101L) (100)

(101L) (100)

가

가

1

가

2

(periphery)

3

4

1

2a 2b

3a, 3b 3c

4

5

(1) 3a 5 3a, 3b 3c ,
 (1a) (1b)가
 (1b) (1a) (ring) (1a) (1c)
 (1d)
 (1b) (hardness) (rubber),
 (butyl), (VitonTM)
 가 (Delrin), (Torlon) (polyc
 arbonate)가 (cotton),

3b (1) (1p) (1p)
 (1b) (1b) (1a) (1c) (1d)
 p)가 (1) (1b) (1p) (1) (1
 (1a) (1b) (1p)
 (1a) (1c) (1b) 가
 (1b)가
 (1p) (1b)가 (1a)
 (1b)가 가
 가 (focus servo)가

3c (1) (1b) (1b) (1b) (
 mold) (bonding), (melting) (1)
 (1b) (1a) (1c) (1d)

3a, 3b 3c (1b)가 (1a)
 (1b)가 (1a)

(1p)가 (1a)
 (1p) (1b)
 (1p)가 (1b) (1b)
 (1p) (1b)
 (1b)가 (1)

4 (14), 5 (15) (10), (aperture), (12), (collimator lens; 13),
 (1) (incident light) (100) 가 (100) (reflected light) (10) (10)
 (14) (15) (12) (13)

5 (12) 4 (100) (12) (10) (100)
 (12) (10) 4 5 (1) 3a, 3b 3c

(1d) 3a, 3b 3c (1b)가 (1a) (1c)
 가 가 가

가 가

(57)

1.

;

;

;

;

;

가

2.

1 , 가

3.

1 , 가

4.

1 , 가

5.

1 , 가

6.

1 , 가

7.

6 , 가

8.

6 , 가

9.

;

;

;

, 가

10.

9 , 가

11.

9 , 가 .
12.

9 , 가 .
13.

9 , 가 .
14.

9 , (mold) .
15.

14 , .
16.

10 , .
17.

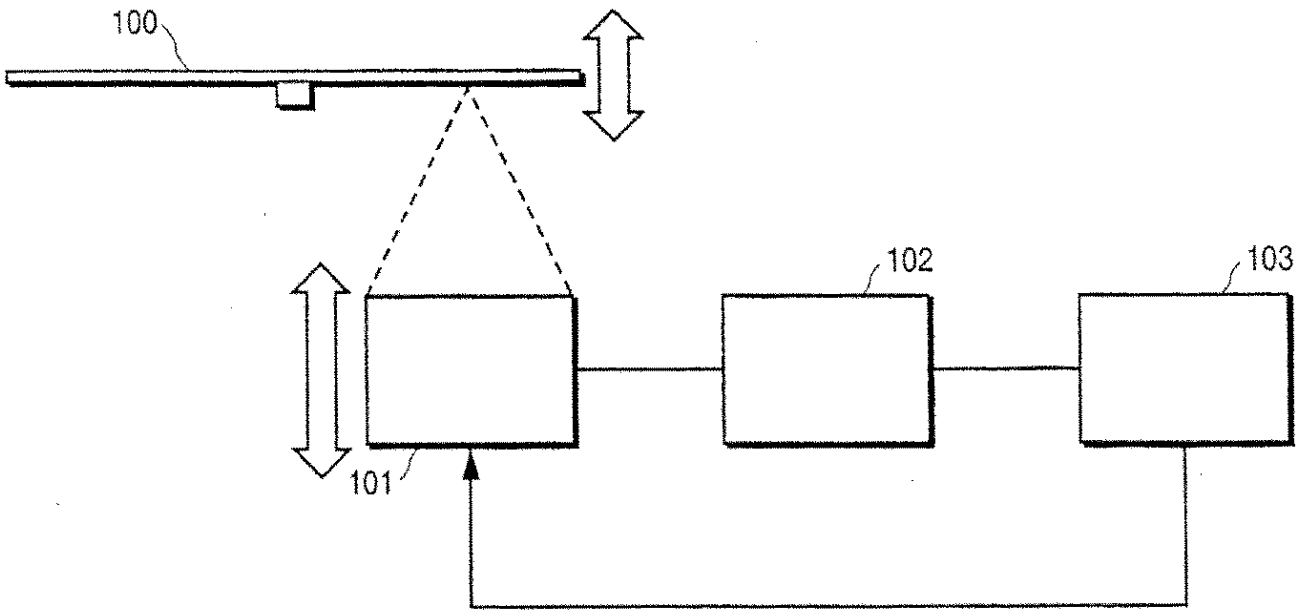
14 , 가 .
18.

14 , 가 .
19.

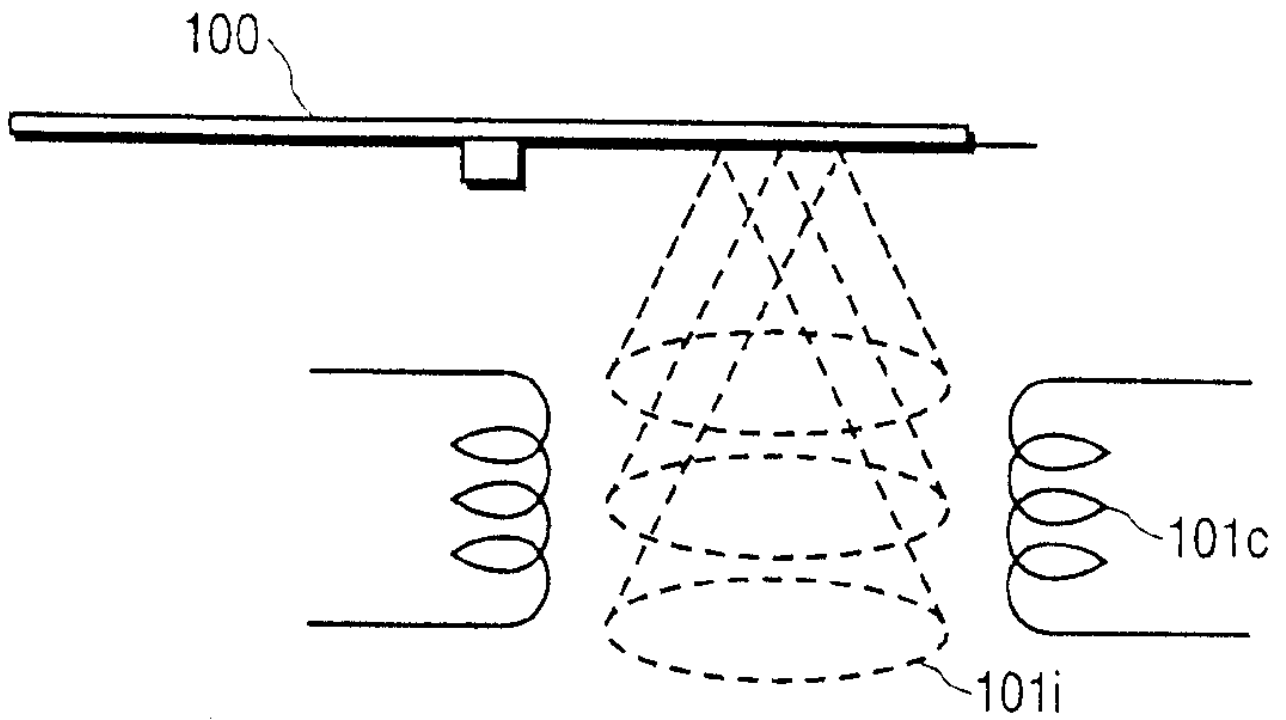
;
;
;
가 ;
;

20.
19 , 가 가 .

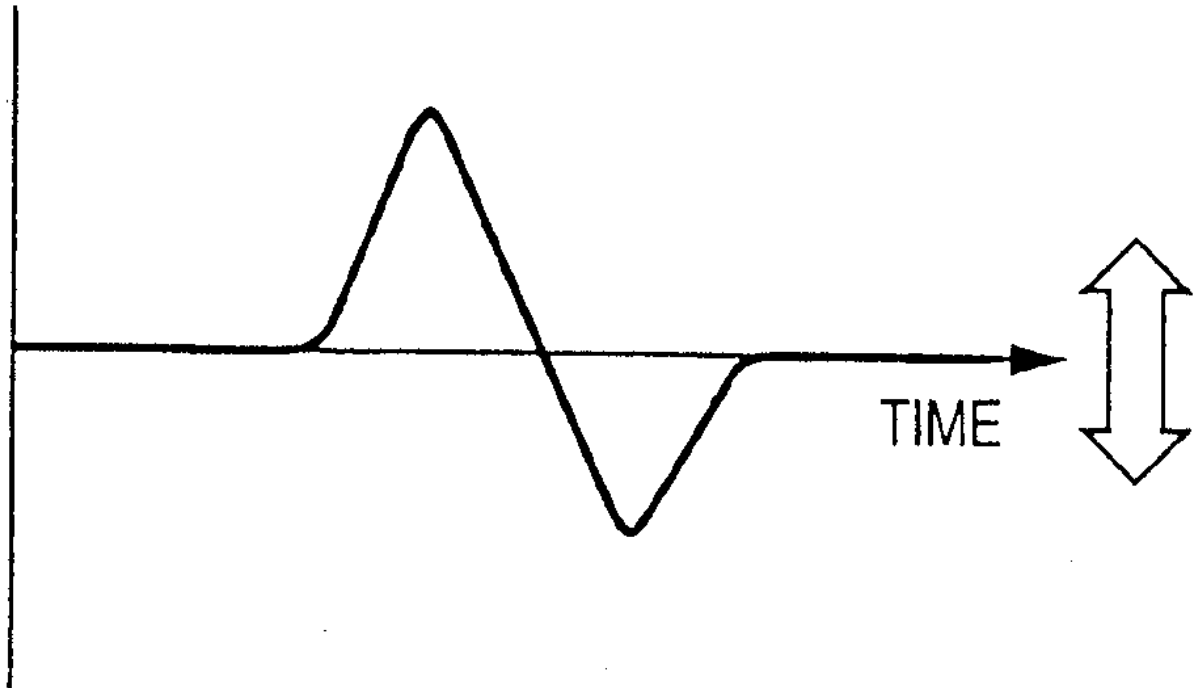
1



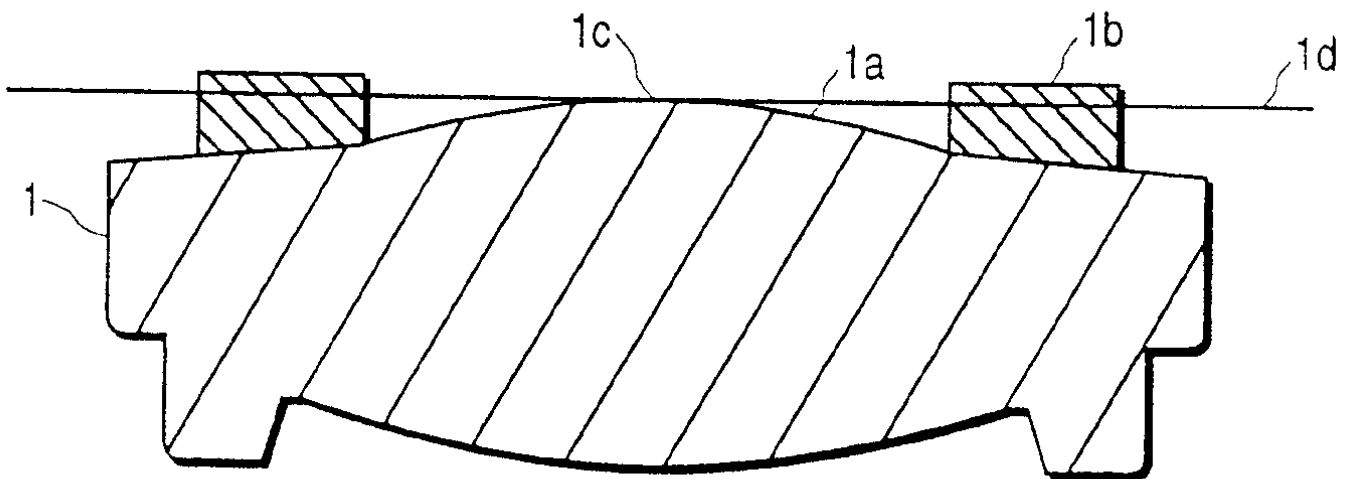
2a



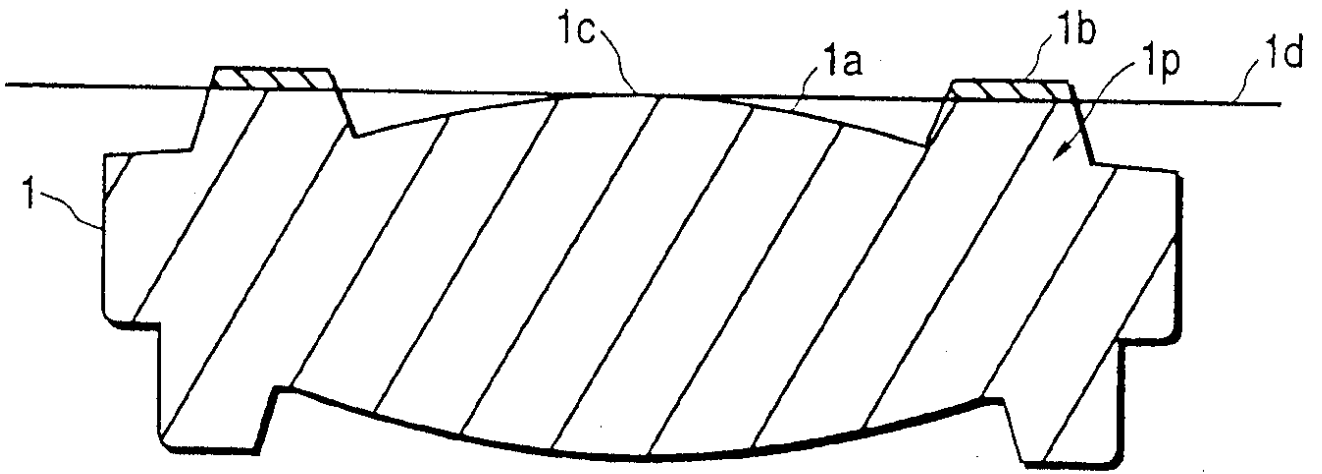
2b



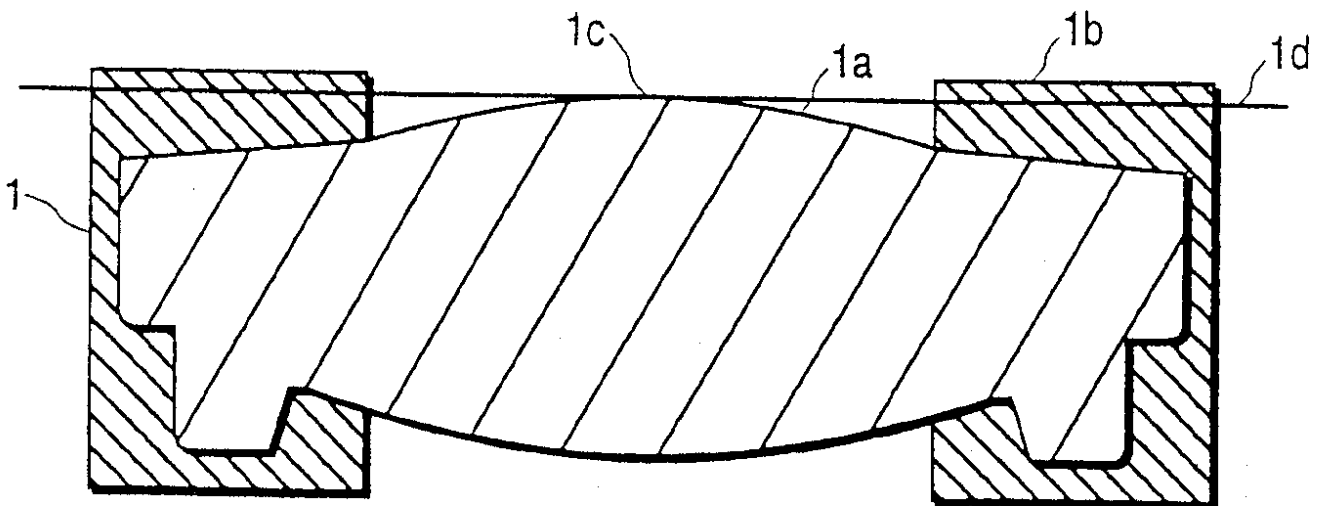
3a



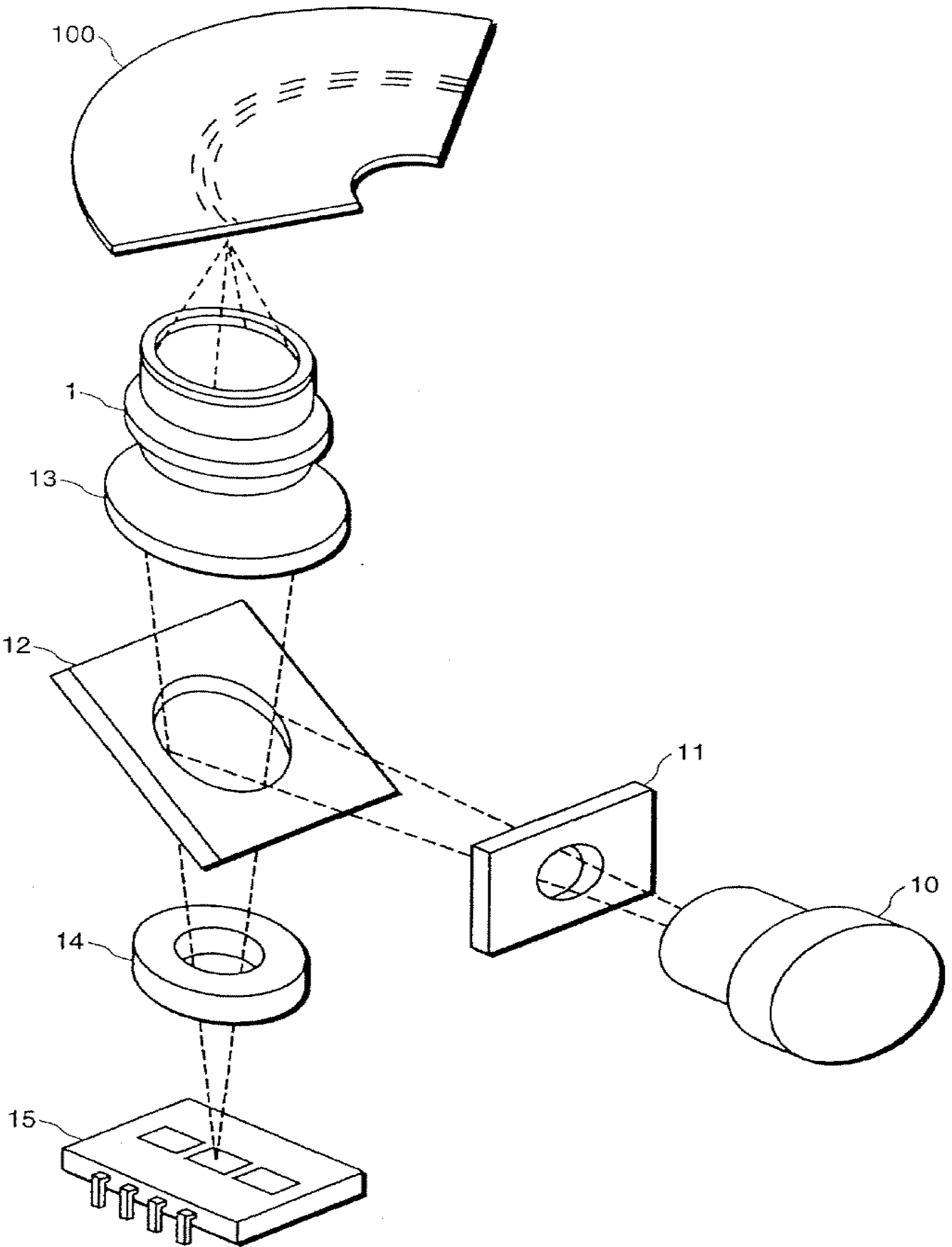
3b



3c



4



5

