

(19)
(12)

(KR)
(B1)

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H01L 21/027

(45)
(11)
(24)

2001 10 24
10 - 0295019
2001 04 24

(21) 10 - 1995 - 0032781
(22) 1995 09 29

(65) 1996 - 0012298
(43) 1996 04 20

(30) 94 - 259155 1994 09 29 (JP)

(73)	가	가	가	가	가	가
			1375	41		
	가					
		가				
			5	3	6	

(72)	가	2331 - 23	가	202
		가	1618 - 4	201

(74)

•

•

(54)

1

$$[\quad]$$

[]

1. 가

2 , .

3.

6. , .

$$7 \quad , \quad X$$

10 , .

11 , .

$$12 \quad a \sim 12 \quad f, \quad , \quad .$$

13 .

< >

$$2 : \quad 8 :$$

10 : 11 :

12 : 14 :

12a,14a,16a : 20 :

20a : 22 :

24 : 26 :

107 : 108 :

140 : 142 :

144 : 146,148 :

150 : 160 : 가

165 : 170 :

180 : CR :

W : G1 ~ G5 :

EXT : COT :

DEV : COL :

AD: ALIM :

PREBAKE : POBAKE :

EXTCOL : • BR :

DR : ₁ :

₂ : J₁ :

J₂ : R₁ :

[]

가 , .

,
.

, , , 1

가

,

,

가 ,

가 .

13 (J₁)가 (W) (R₁) (2) (2) (W) (22) (20) 가
 (22) , Y Z 가 , , 가 , (2
 () (CR) . , (2
 2) , 3 (ALIM) (EXT)

1 (12) (24)가 .
 (24) 5 (G1),(G2),(G3),(G4),(G5)가 .
 (G1),(G2),(G3),(G4),(G5) 2 , 1
 2 (G1),(G2) 3 , 3
 (G3) (10) , 4 (G4) (14)
 . 1 , 5 (G5)

2 (8) (W) , 1 (G1) (COT) (DEV) ,
 , (46) . (50)가 , /
 , 가

4 (COT), (DEV) (24)
 (DR)가 . (DR)
 (24) 가 , ()가 .
 (W)

, (CR) (W) 1 (22)
 (ALIM) . (W) (24) (AD)
 , (W) (24)
 (COL) , (W) (COT), (PREBAK
 E), . (EXTCOL), , (144) (142) .

(142) 1 (146),(148) , (146) (150)
 . (150) , (140) (70) X
 . (70) , (8) () (8) ()

10 (70) () (82)
 (80) 1 (80) 6mm , 1.8mm .
 () (82) , 6 42mm , 8 60mm , 12
 84mm . (80) 1/5 ~ 1/2

(70) 2 가 . 1 (100),(102),(104) (90a),(92a)
 (165) , (2) 2 (94),(96),(98)
 (90b),(92b) () ,
 (106) (106) (108) (107)
 (108) (80) (2) , (104) ,
 가 (106) (107) (108) , (80) ,
 가 (92a) (165) .

(70) (2) , (90a) (80) (90b) (84)
 .

13 , 6 10 , (70) (80) , (1)
 2) (80) (W) (1)
 (1) 45 .

8 9 (70) (76) , (76)
 (1) 1 (80) Y (1)
 . (2) 10 ° , (1) 5~20 °

, 11 , 12 a~ 12 f, 13 .

8 (W) , (W)
 () (DEV) (S1). 12 a ,
 (60) (W) , (70) .

(69) (8) , N₂가 (68a) (65) (1)
 S2). (65) (67) (69) N₂가 . 가
 , (67) , (W) (2)
 . , (67) 가 가 , (W) (2)

(60) (W) 1000rpm (S3).
 12 b , (70) (69) ,
 (69) (70) (2) 0.5 (S4).

12 c 8 , (W) , (2) (70)
 (W) (S5). (70) 60mm~10mm . (70)
 , (80) (80) (W) 1/4 ,
 S9 (70) (2) , (W) S4 2~
 10mm , 2~4mm .

1 3 , (W) (1) (2) , (2)
 (J₁)가 (W) (R₁) , (2) (W)
 . (2) (W)

15.

14 , (b) (c) 2~10mm

16.

14 , (b)

17.

14 , , 30 ° ~60 °

18.

14 , , 15 ° ~45 °

19.

14 , 가 , ,

20.

19 , 가

21.

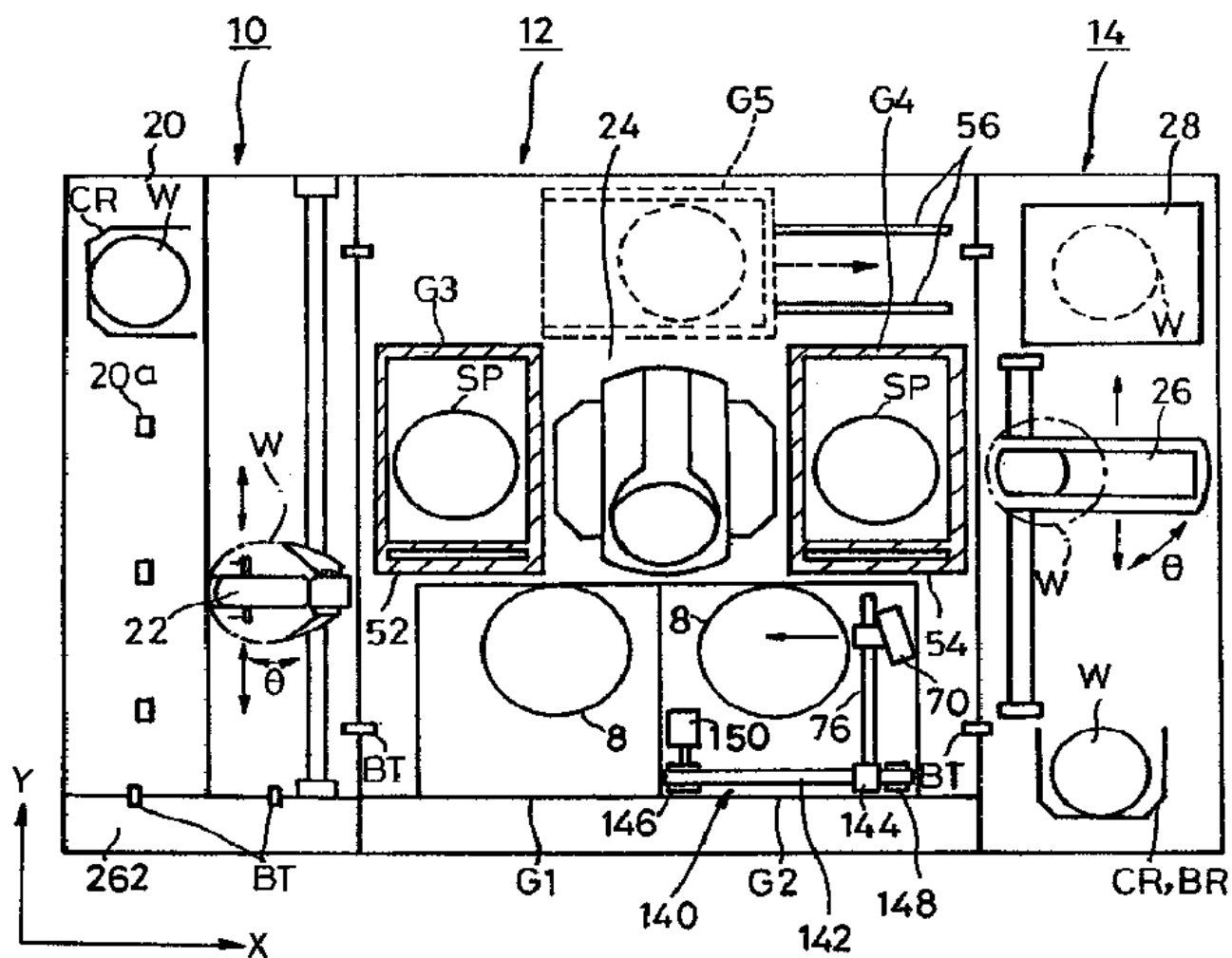
14 , (c) 3

22.

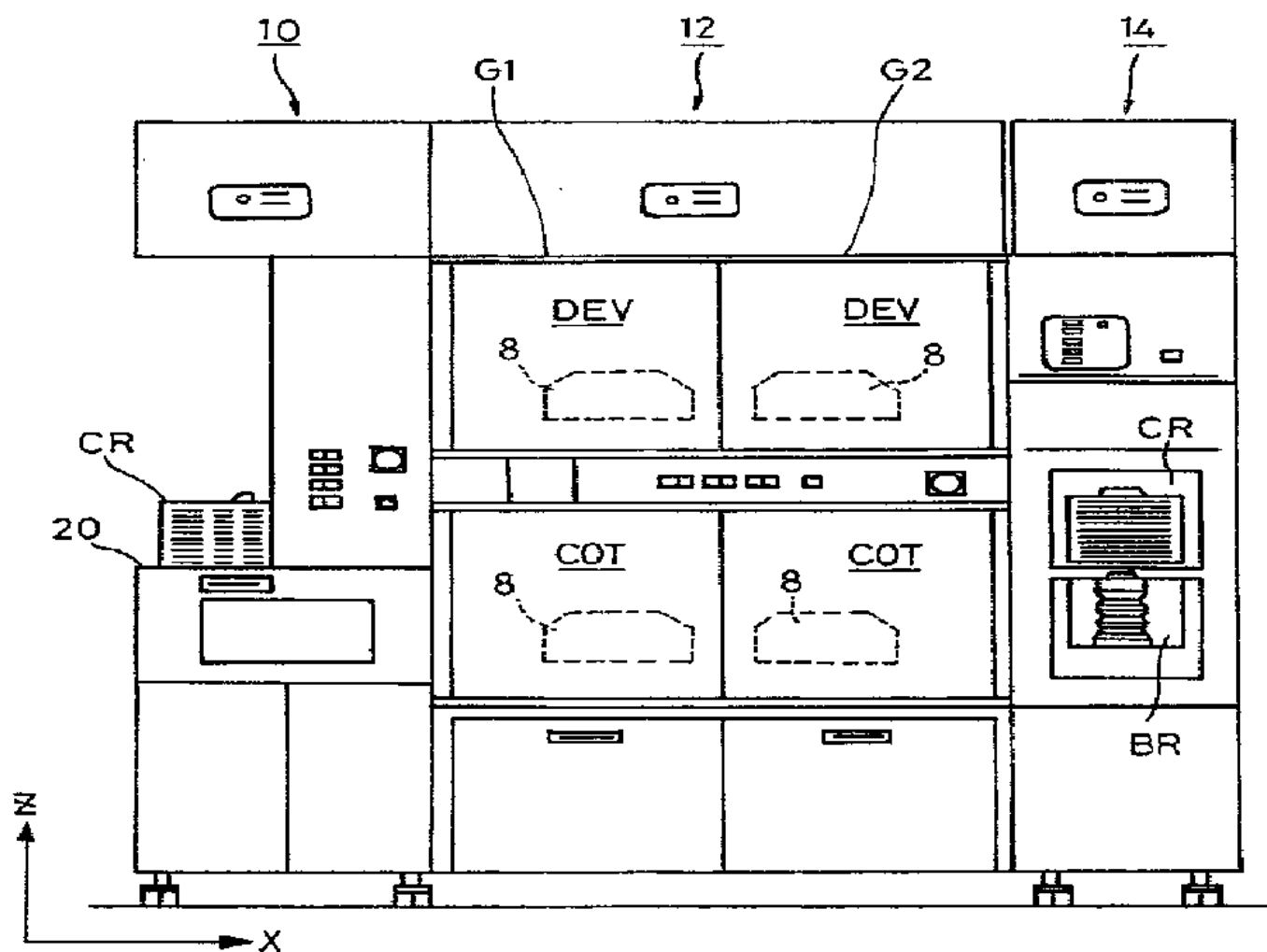
14 , 1 1000 ± 2 rpm, 2 100 ± 0.5 rpm, 3
30 ± 0.5 rpm, 4 1000 ± 2 rpm

23.

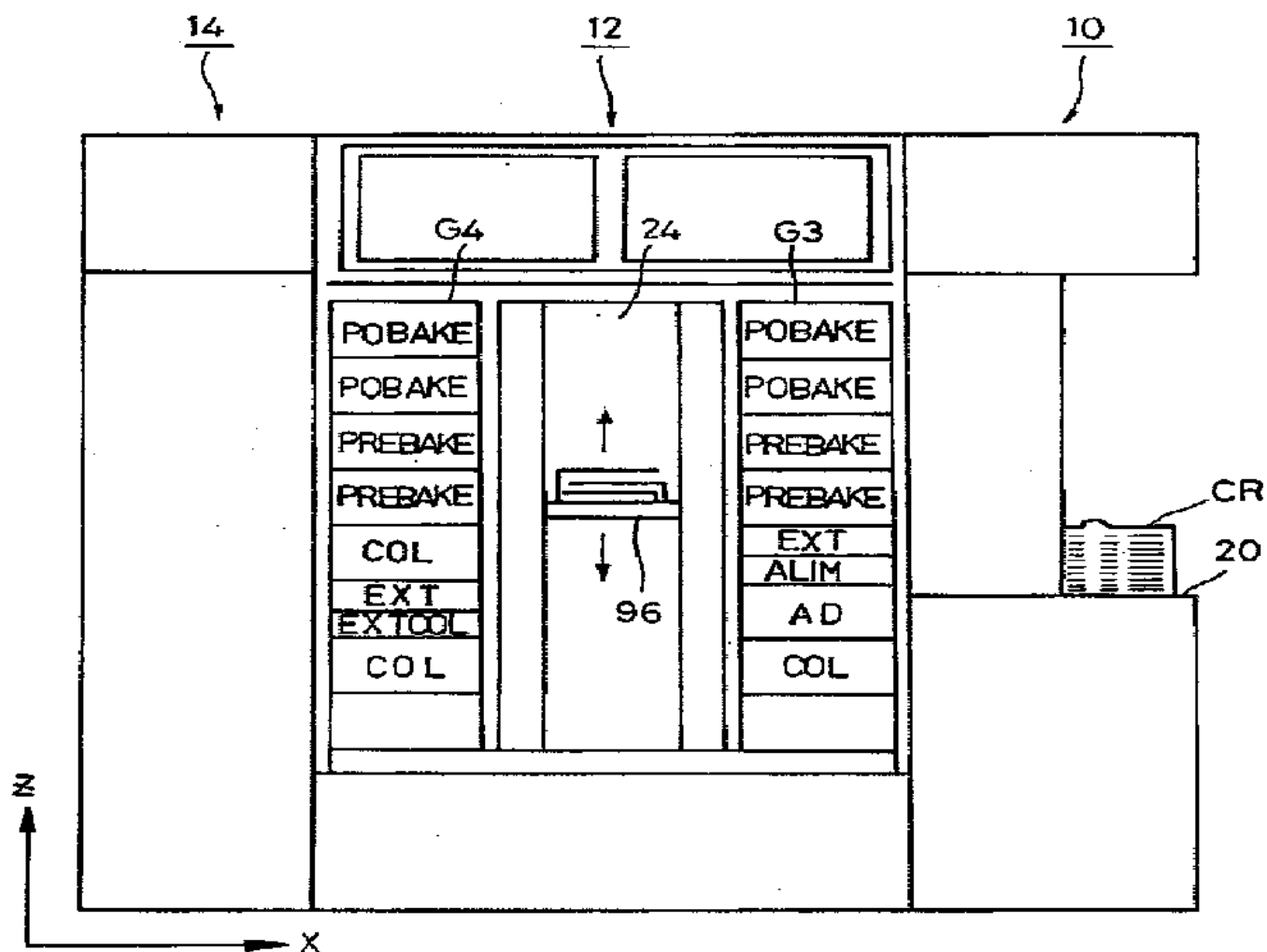
14 , (b)



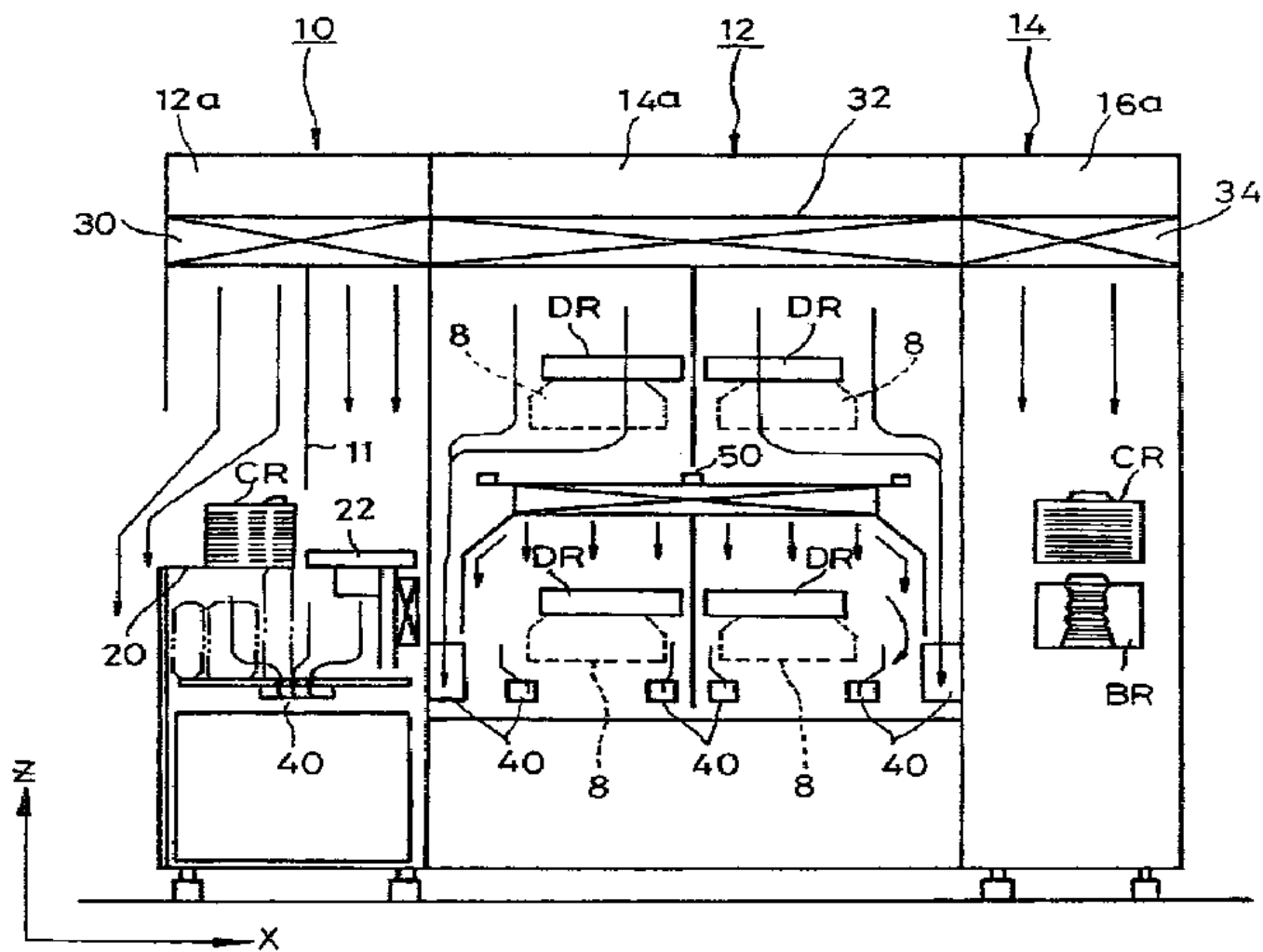
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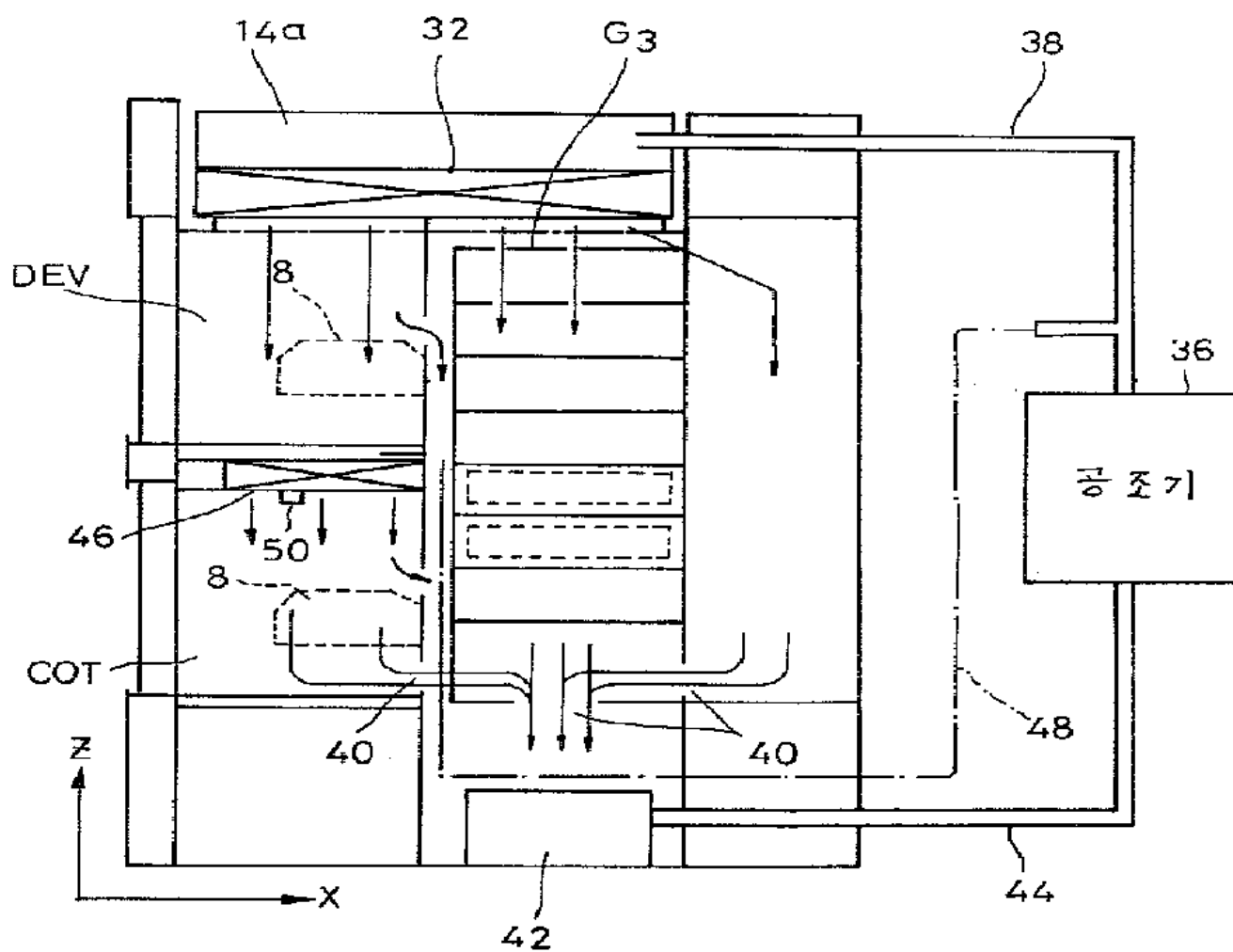
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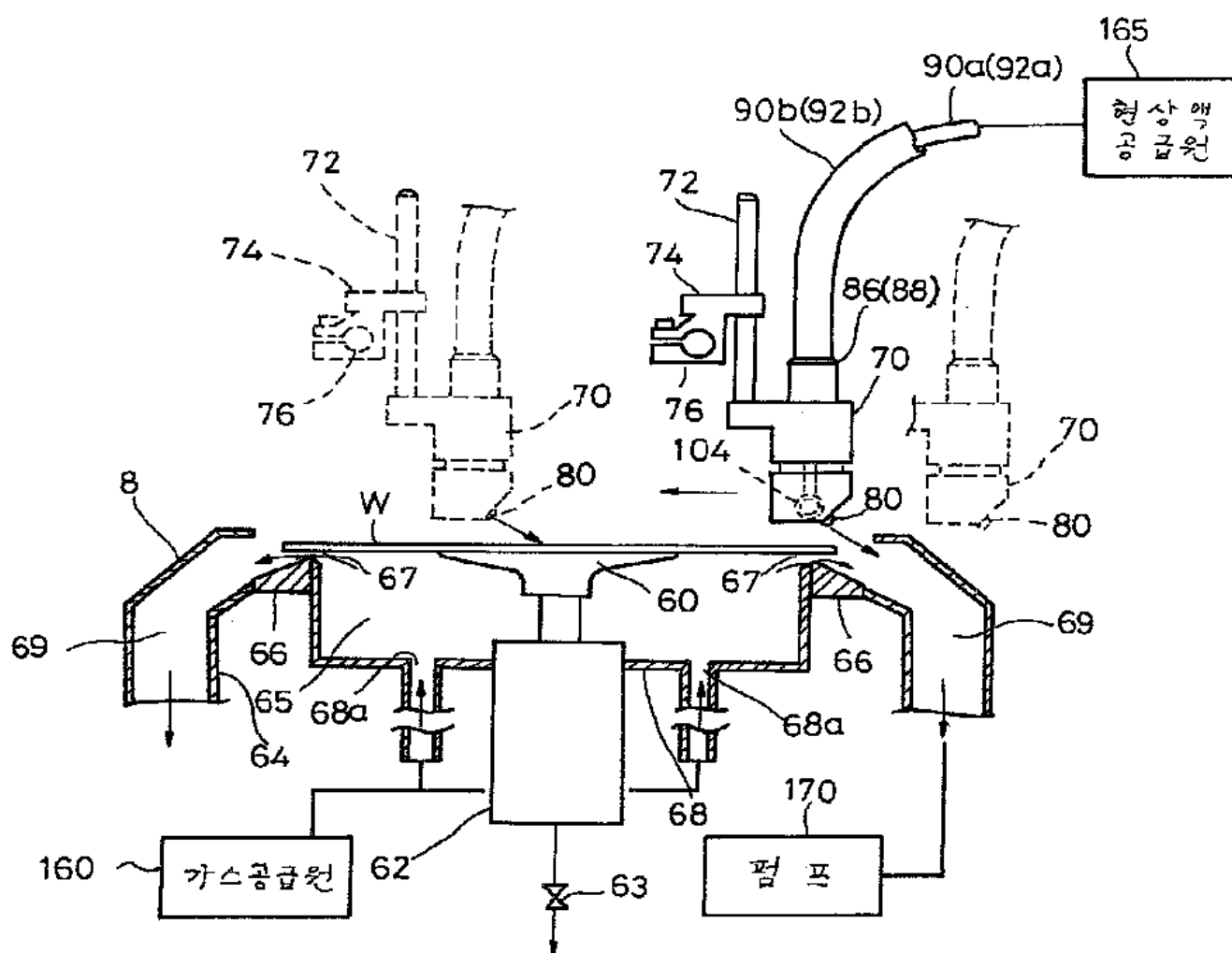
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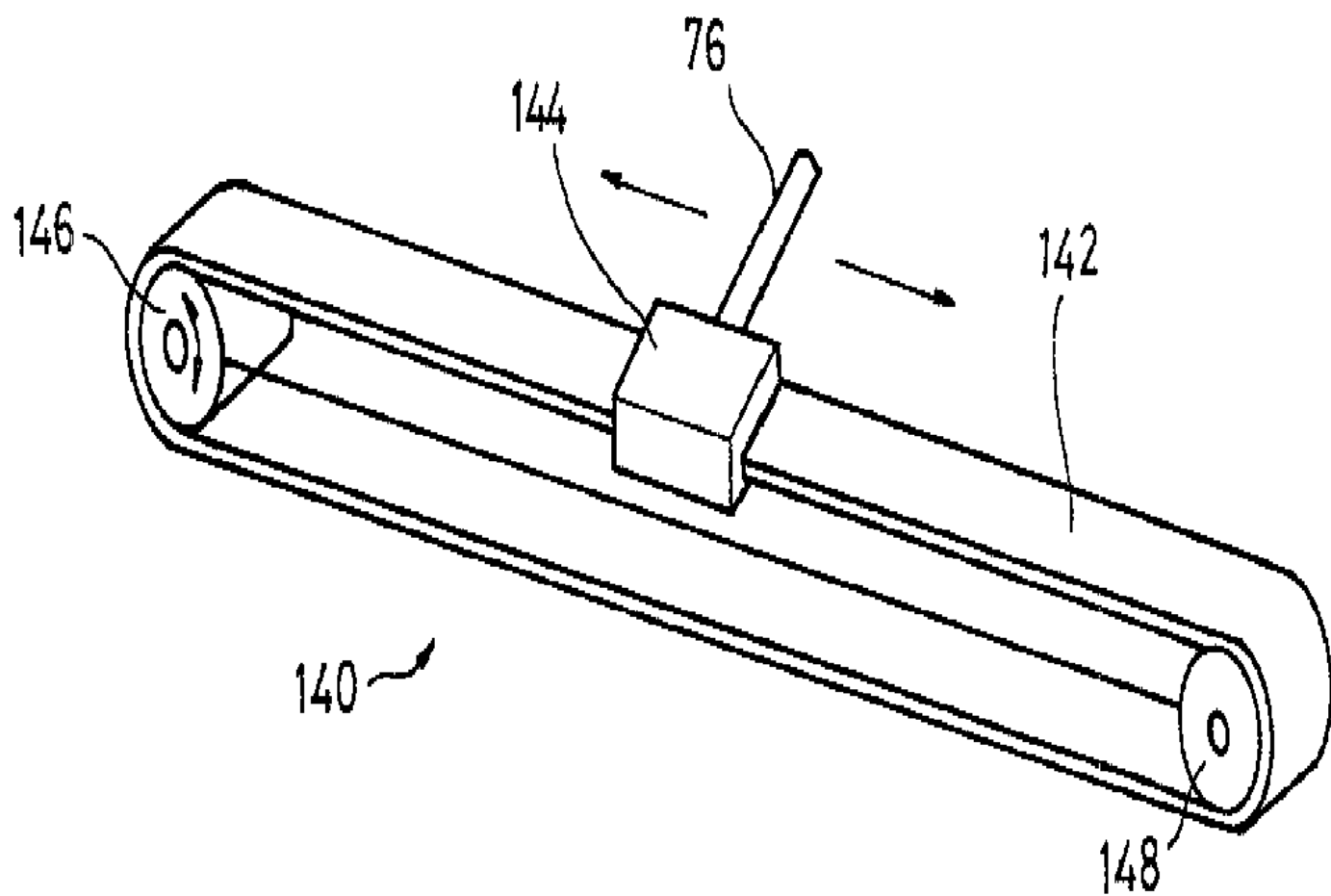
5



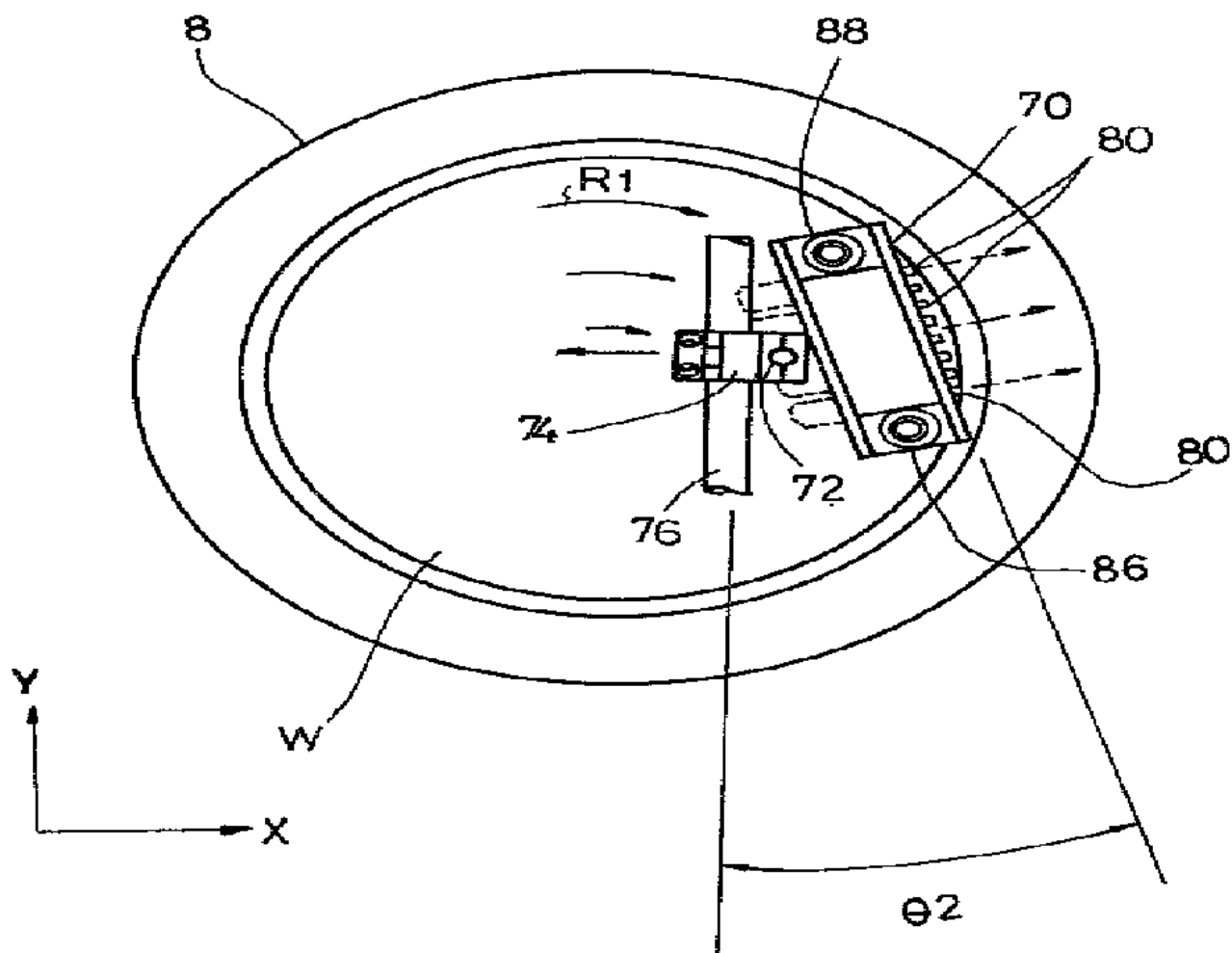
6

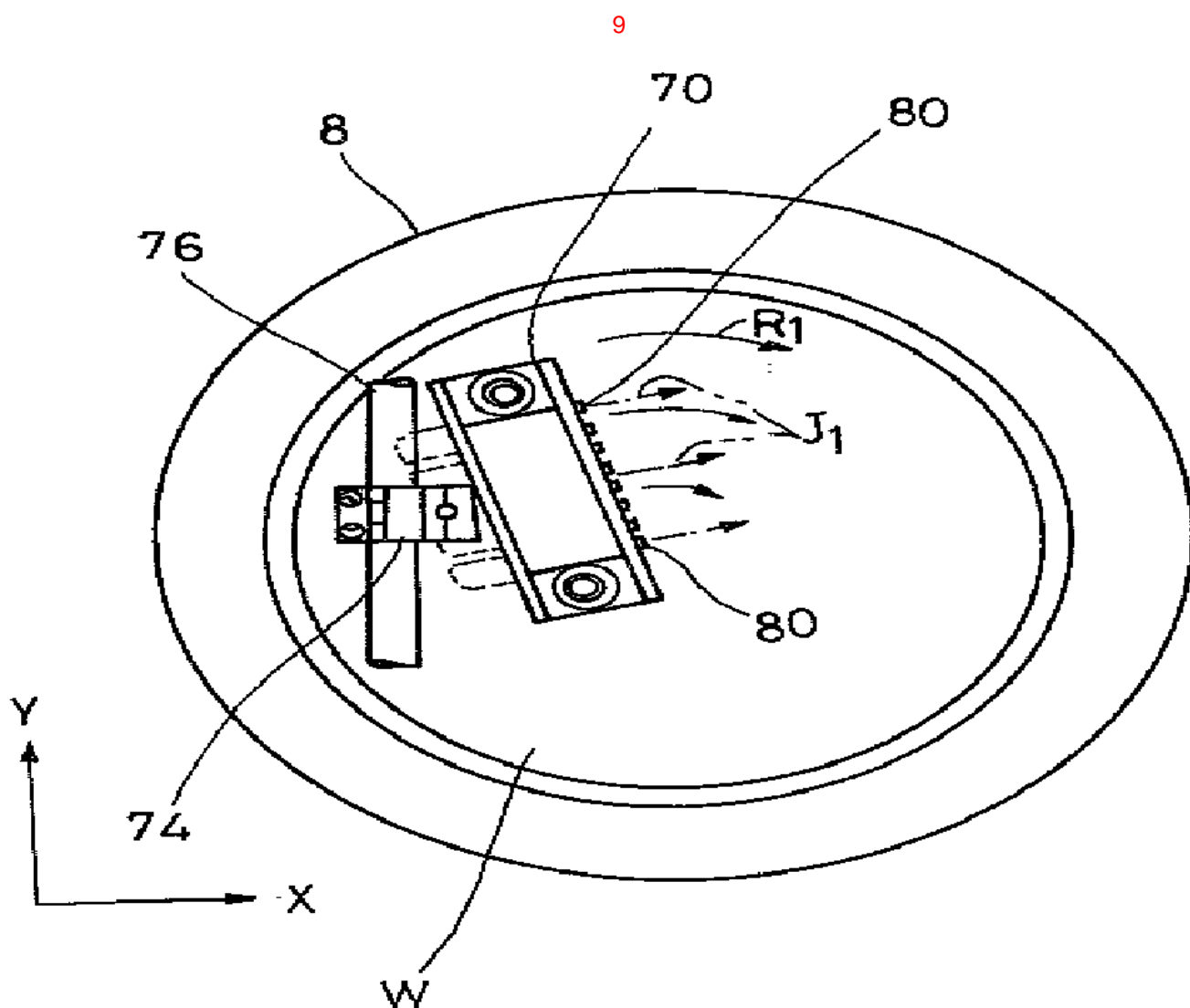


7

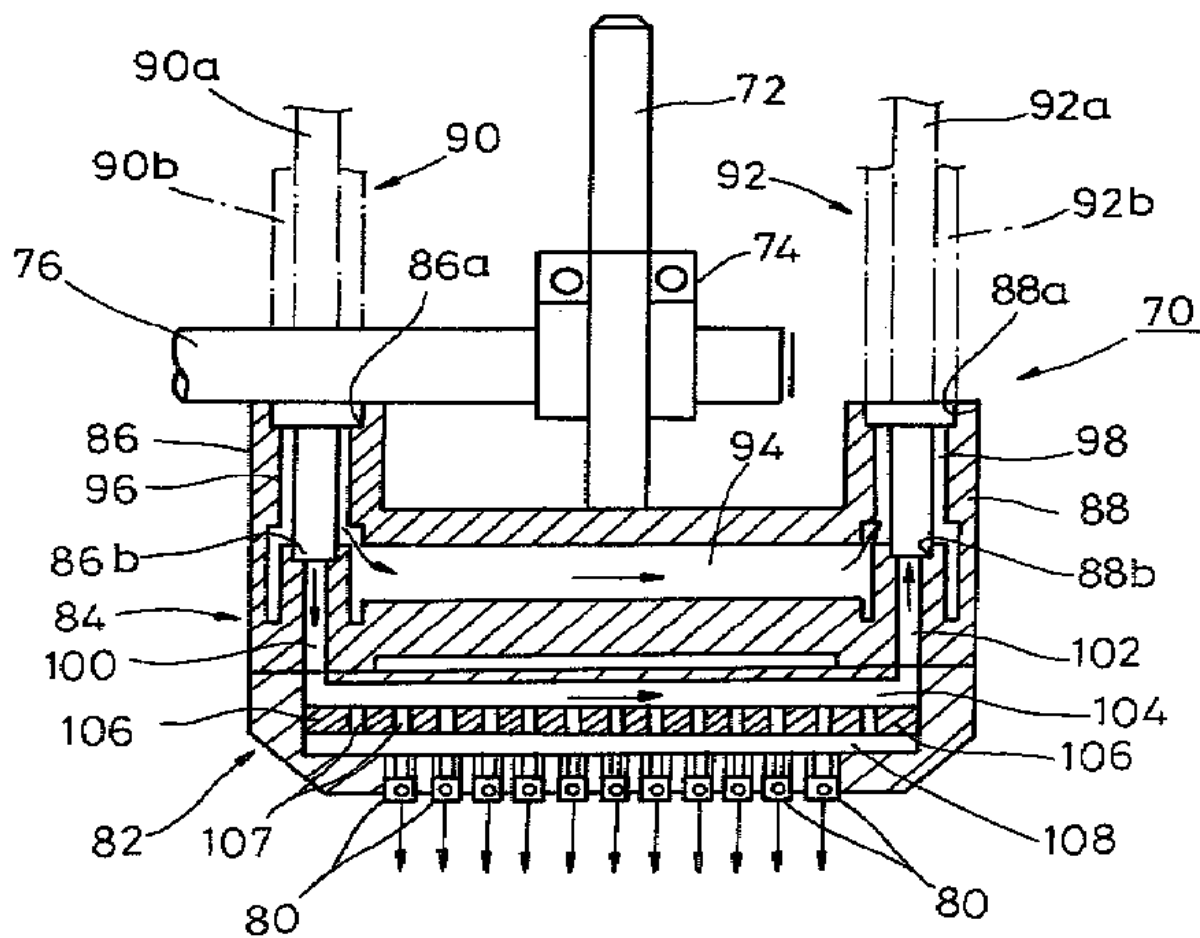


8

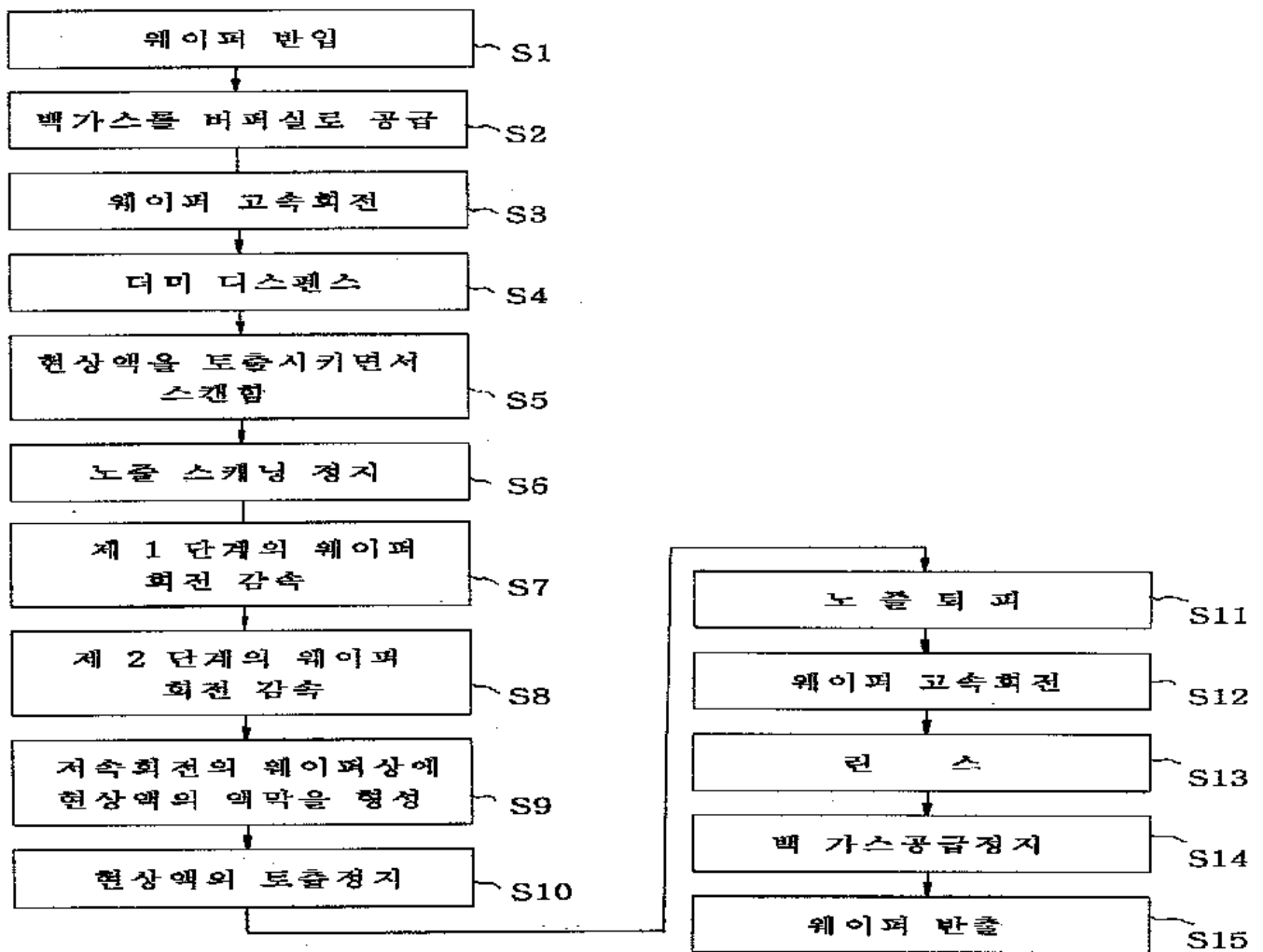




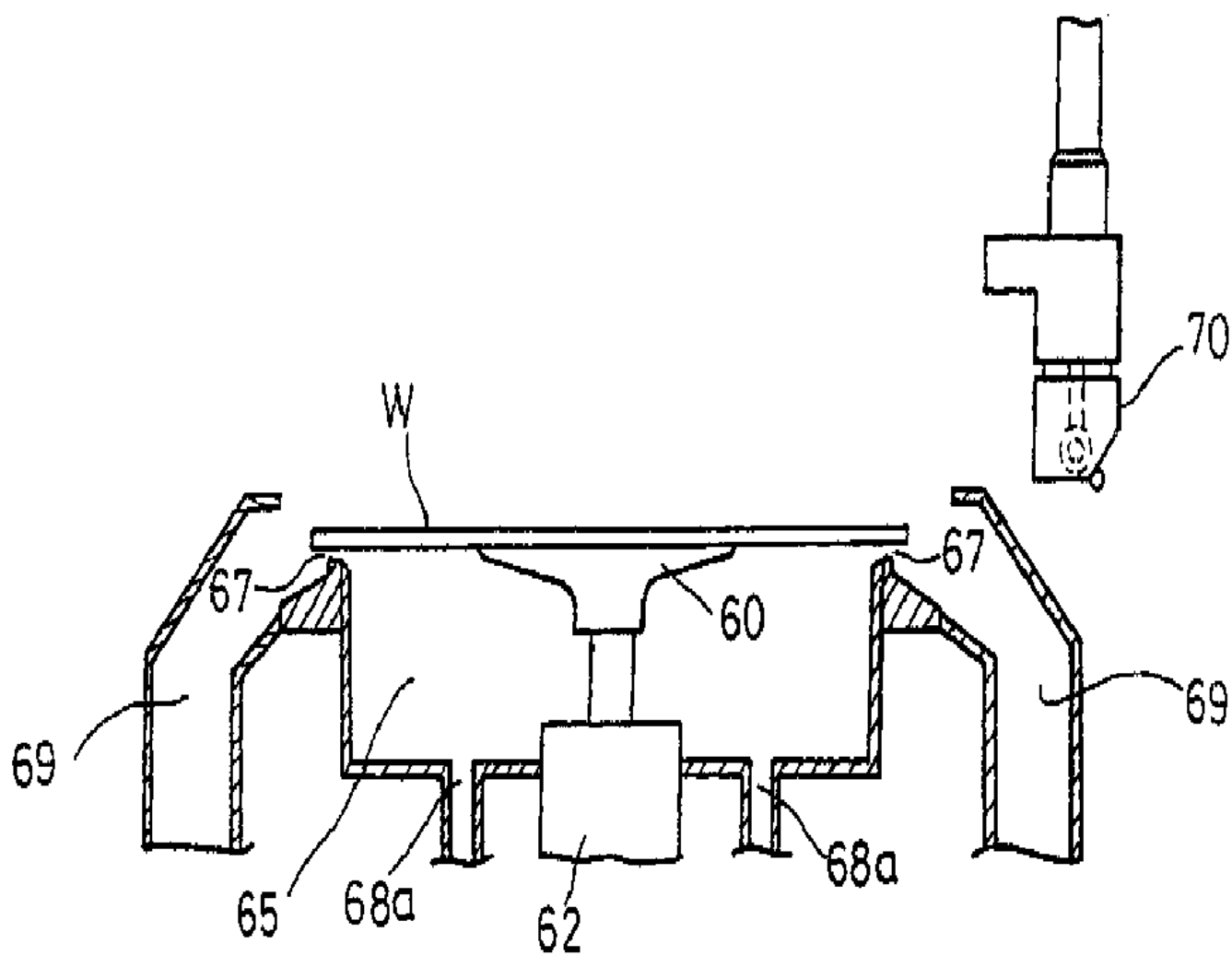
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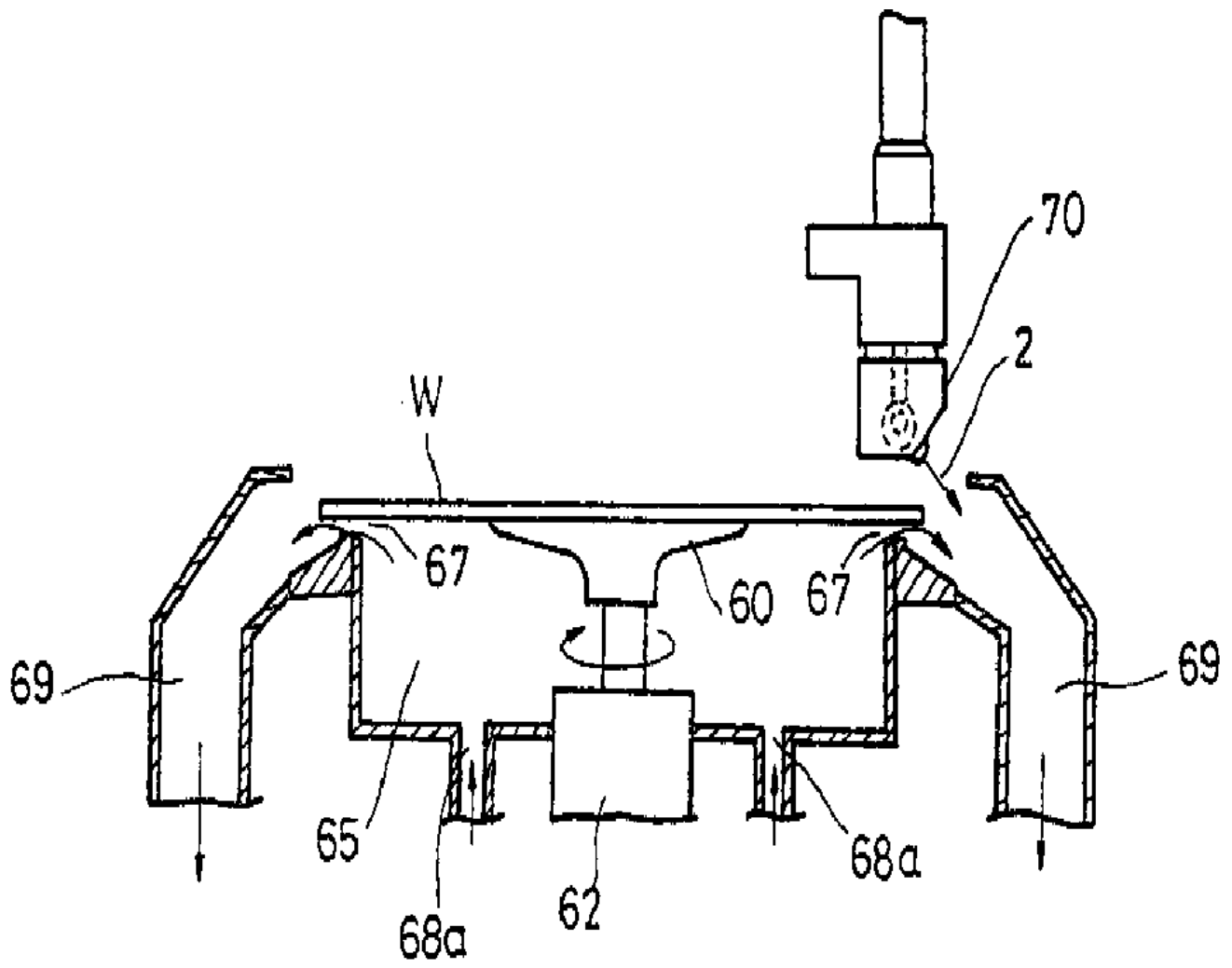
11



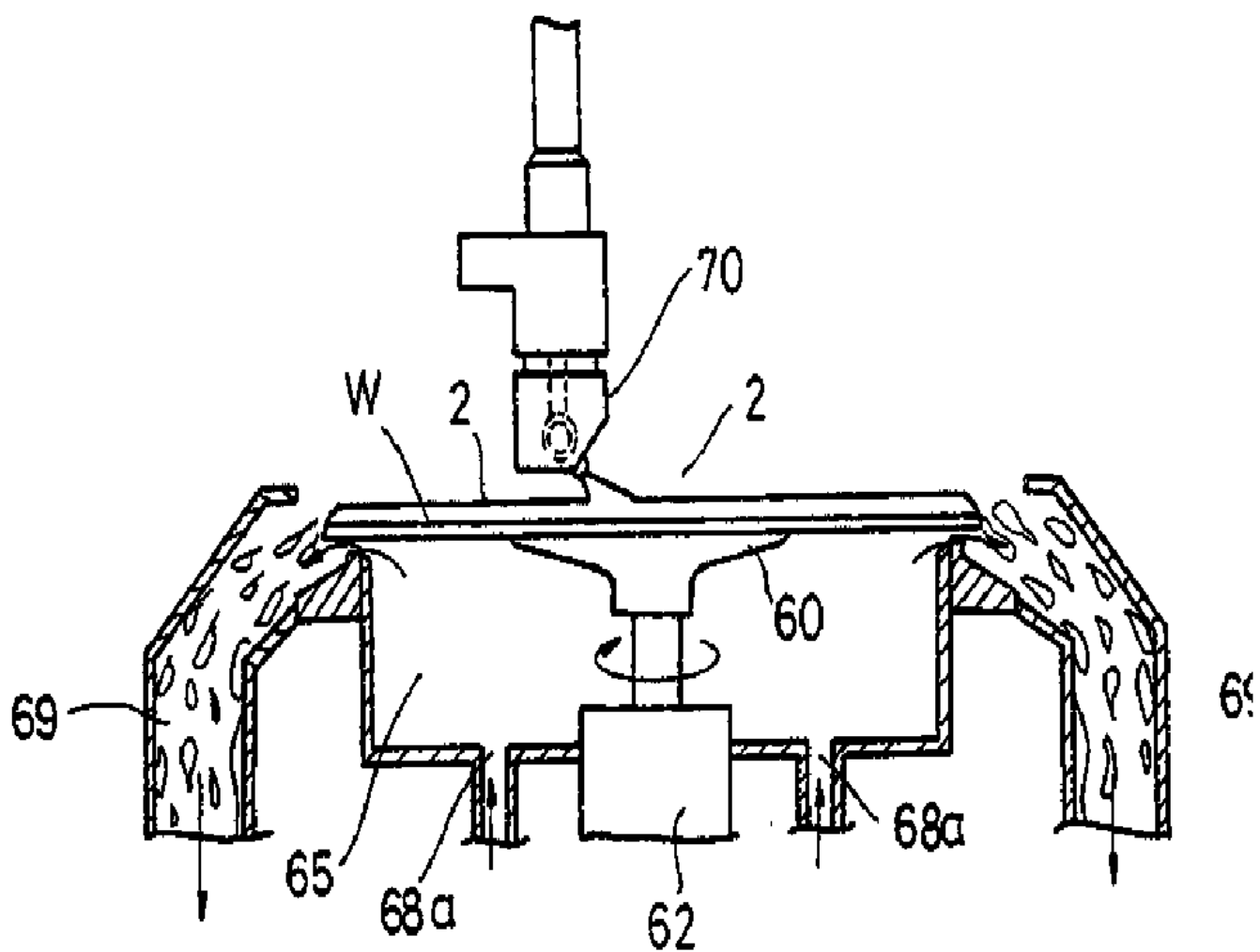
12a



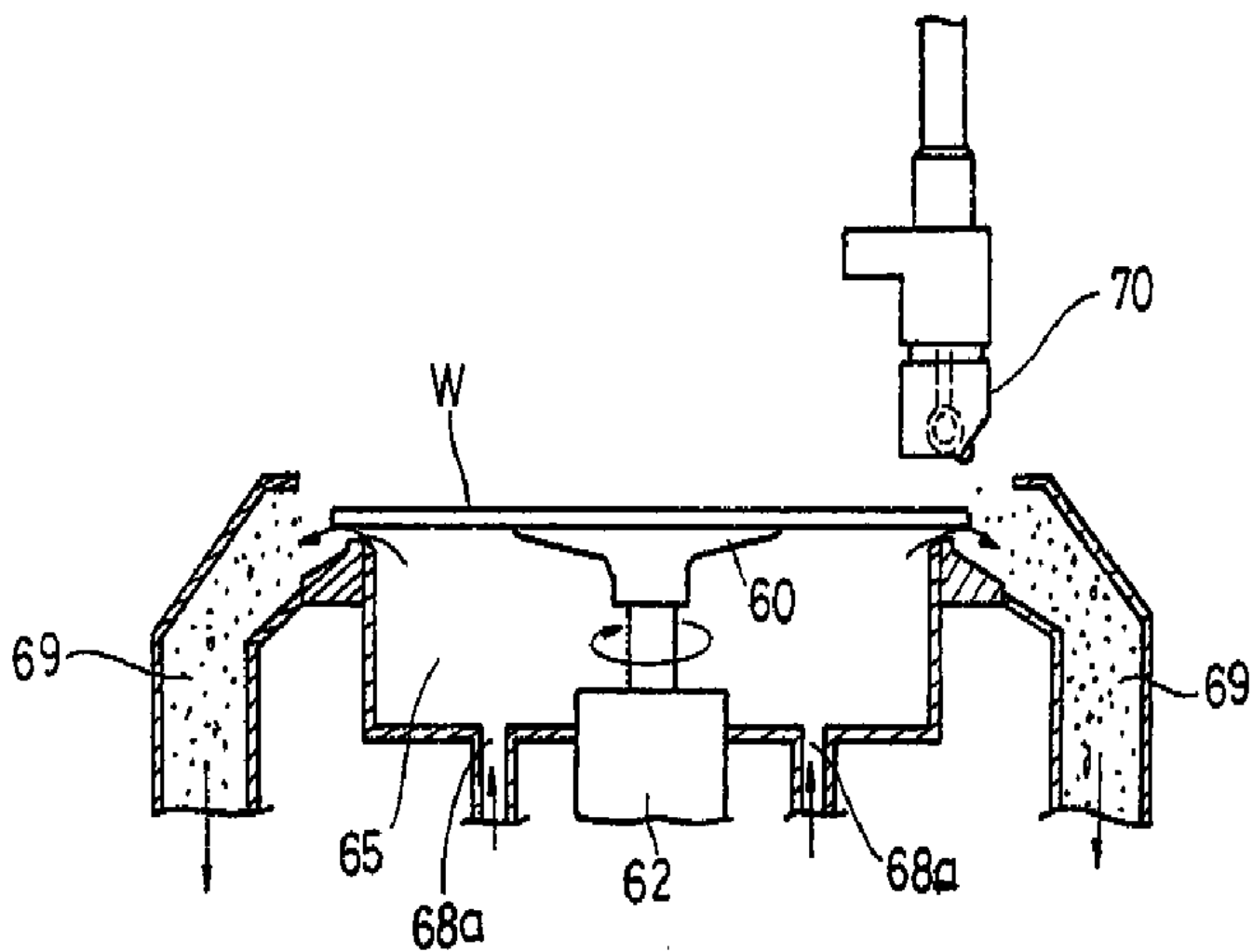
12b



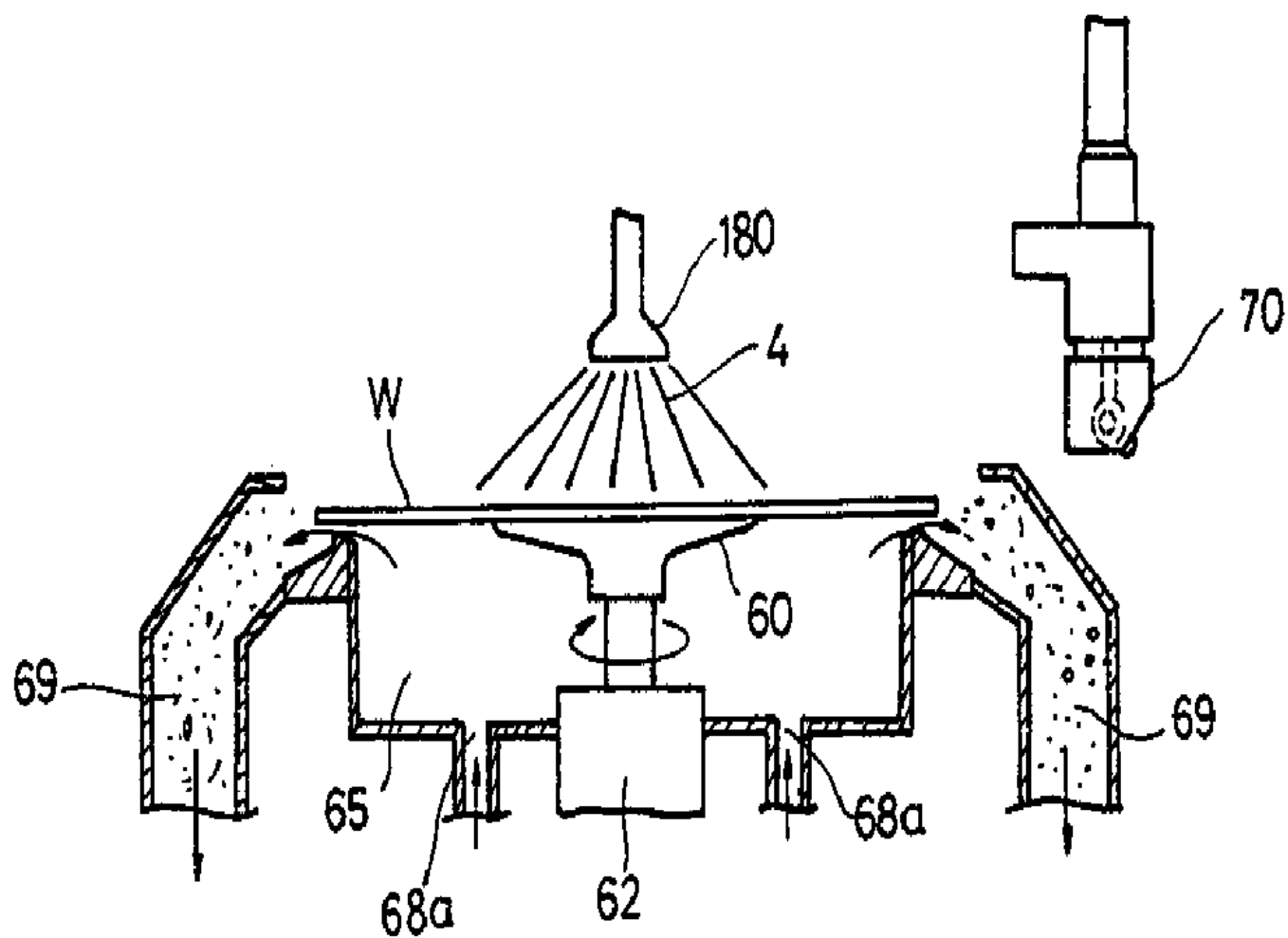
12d



12e



12f



13

