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1996-0033569  
1996 10 22

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95/63787 1995 03 23 (JP)  
95/63788 1995 03 23 (JP)

(73) 가 가 2 1 1

(72) - 2 1 1 가 가

- 2 1 1 가 가

(74)

:

(54)

가 가 ,  
가 가 .  
가 가 가 가 .

1 1 , , ,  
 2 , , ,  
 3 , , ,  
 4 , , ,  
 5 2 , , ,  
 6 (body frame) , , ,  
 7 (blasting mechanism)가 , , ,  
 8 가 , , ,  
 9 8 IX-IX , , ,  
 10A (joint) , , ,  
 10B 10A , , ,  
 11 가 , , ,  
 12 가 , , ,  
 13 , , ,  
 14 13 XIV-XIV .

\*  
 1. ----- 2, 50, 60. -----  
 10A 10H. ----- 11. ----- (mounting bracket)  
 12. ----- ( ) 13,14. -----  
 15. ----- 16,22. ----- 19. ----- 가  
 21. ----- 30. ----- 31. -----  
 32. ----- 33. -----  
 40. ----- (shell plate) 41. ----- 42. -----  
 51. ----- 52. -----  
 61. ----- 65. ----- 66. -----  
 70. ----- 71. ----- 72. -----  
 73. ----- 73a. ----- 73b. -----  
 73c. ----- 74. ----- 75. -----  
 76. ----- 가 77. ----- 78. -----  
 79. ----- 가 80. -----  
 81,96. ----- 82. ----- (eccentric cam) 83. -----  
 84. ----- (bushing) 85. ----- (pivot pin)  
 89. ----- (damper) 90. ----- 91. -----  
 92. ----- 93. ----- 94. -----  
 95. ----- 97. ----- 98. -----  
 X. ----- Y. -----  
 Z. -----  
 Lt. ----- (Top position) Lb. ----- (Bottom position)

가  
 ( ) .  
 가 (Suction cup) 가  
 (leg) 가  
 (sucking holding) 가 (releasing)  
 ( )가 가 .  
 2 3 가 .



가

가

가

가

(break)

가

가

가

가

1 6

가

X

Y

, Z

1

1

(1)

2

(1)

(2),

(10A, 10B, 10C, 10D, 10E, 10F, 10G, 10H)

(lower end)

(30)

(2)

가

(2)

(2)

가

10A

10B

(mirror-image parts)

(10A, 10B)

가

(10A)

(10A)

(11)

3

(12,12)

(13,14)

(11)

X

(15)

(18)

(X, Z)

X

(

)

15)

Z

(18)

(, Z)

X

(

19

Z

(18)

가

가

(19)

(21)

(11)

Z

(18)

가

(30)

가

(22)

(30)

(30)

(31)

3

(32)

(33)

)

(33)

(30)

가

3

(hold)

(32)

(33)

(31)

(31)가

(30)

(31)

(30)

('non-sucking' condition or state)

2

(10B)

X

(15)가 Y

(24)

(Y

)

(10A)

(10B)

(10D,10E,10H)

X

(15) 가

(10C,10F,10G)

Y

(24) 가

(10A,10D,10E,10H)

(10B,10C,10F,10G)

Y (24)

(30)

X

(15)

1

2

X

(30)

가

1

8

32A, 30B, 30C, 30D, 30E, 30F, 30G 30H

(1)

X, -X, Y -Y

Y

(cylinder advancing movement)'

(cylinder retracting movement)'

가

가

(

)

30C

30F가

Z

(

)

Y

30C 30F (pitch) Y 30C 30F  
 , 30A,30D,30E 30H , Z  
 Y 3B 30G Y 30C 30F  
 , (2) Y . 30A, 30D, 30E 30H  
 , 30B 30G 가  
 , 30B 30C Y . Z 1  
 (1)  
 -Y, X -X 가  
 4 4  
 (40) (41) (42) 가 (42)  
 (2) (47) (12) (11) (30)  
 (40) (2) 가 (30) (1) 가  
 5 2 4 ) (51)  
 (52) (50) (52) (51)  
 가 (51) 10A-10H 1-3 1 1 ,  
 2 (51) 가 (51) (20) 가  
 (21) ( 3 ) (11) X  
 6 (60) 5 (61)가 (62, 63) ( ) (60)  
 7 (70)가 (70) 가 (70)  
 (73) . (74,74) 가 (70)  
 (71,71) . (74,74) (80) .  
 (76,76) (75) { (81) (75)} 가  
 가 (79,79) (77, 77) (78,78)  
 (1) (12,12) (12) (2)  
 (12) 2 가 (79,79) 가 (76,76) (slide fit) 가 (79,7  
 9) (70) 가 (77) (12) (2) ,  
 8 (78) (77) (12) (2) (79,79)  
 가 (79,79) 가 가 (79,79) (79,79) ( )  
 70) (1) Lt Lb (2) Lt  
 , Lb Lt, Lb (70) Lt

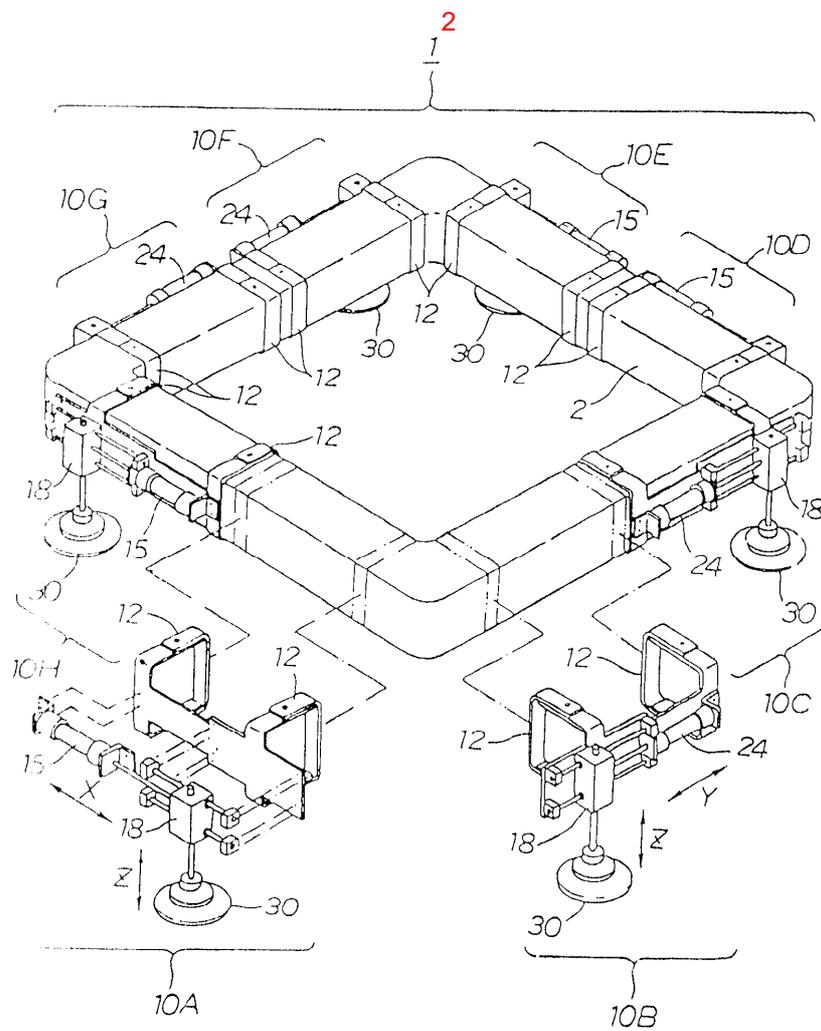
nger) 가 Lt, Lb (Lever actuator) 가 (limit switch), (pin) (plu  
 h) 가 , (magnetic proximity switch), (optical proximity switc  
 8 IX-IX 9 (70) (73) 가 (73)  
 (70) (73a) 가 (73)  
 (73a) (73) (73) (73)가  
 (73b) (73) (72) (70) (73) (73c, 73c) 가 (7, 8 )  
 (70) (70) (73) (72)  
 (73) (가 , )가 (72)  
 (74,74) 가 (81) ( 8 ) (73) (82) (83,83) (84,84)  
 (80) (85,85) (shots)  
 (87, 87) (73) (84,84) (7  
 4,74) (2) (73)가 (77,77)  
 (73) (73a) (2) Z (2) Z  
 (73) (2) (77,77)  
 10A 8 10 (70) ( )  
 (2) (77) 가 (79) (77) (77) (2) (12)  
 (77) 가 (79) Z (79) ( ( )  
 Y X 가 (79)  
 (78)가 (78) (77) (12)  
 Y (77) 가 (79) (2) 2 (12,1  
 10B L- (89) (bellows) (2) Z 가 X  
 (79) Z  
 Y 11 (1) 1 (70) ( )가  
 (40) (40) (40)  
 (sand) (70) (shot) (stream) (40)  
 (70) (40) (71) (72)  
 (65) (40) (winch) (70) (65) (66)가 (66)  
 (1) (X ) (1) (70)가  
 (70) ( ) (70) (1)  
 가 ( ) (65) 가 가  
 (X ) ) (65) (65) 가  
 11 (X ) 67 (68)  
 (70) 가  
 11 (65) (1) (70) (1) 가  
 , (1) (40) (1)가

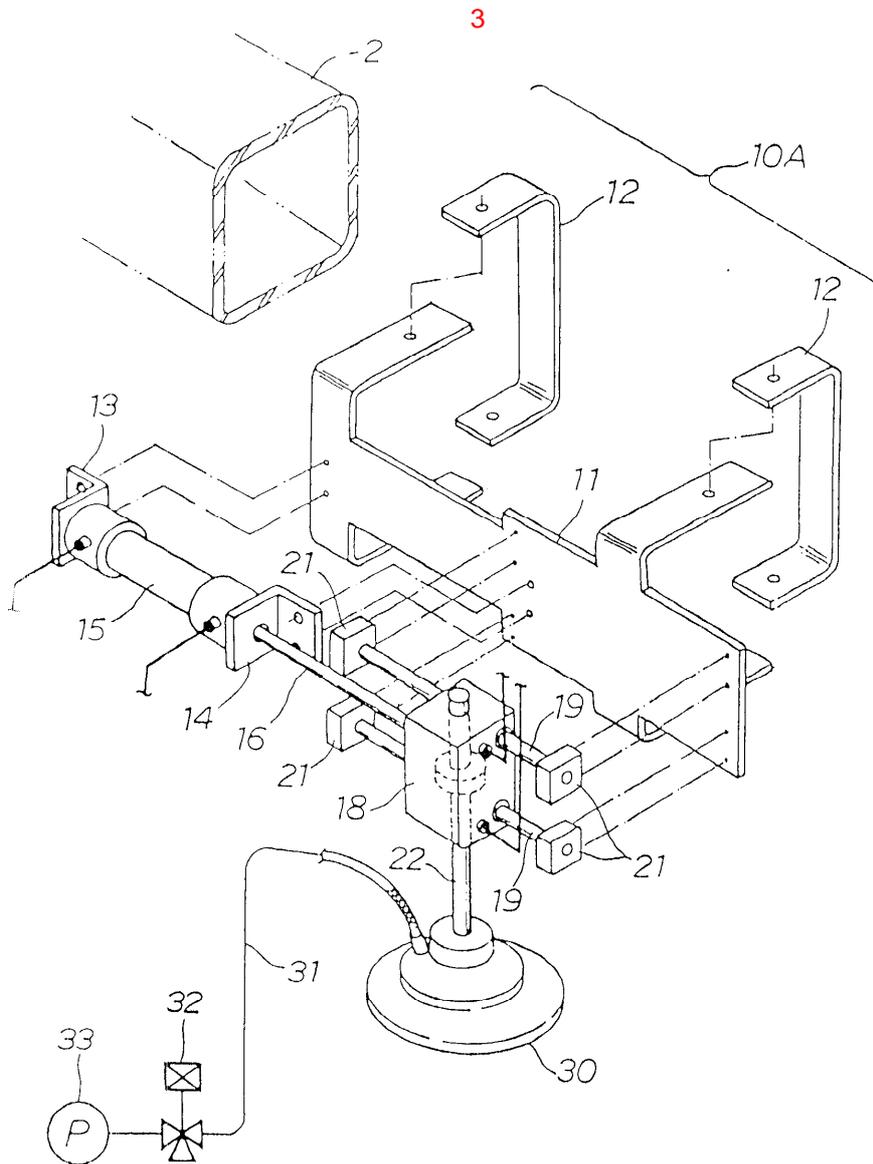
(68) (40) (70)  
 (73) ( 8 9 )  
 (72) ( ) (68)  
 (73) (40) (65) (65)  
 (70) { (66) } (1)  
 (1) 가 (70)  
 (Lt)가 (73) (Lt) (Lb)  
 (Lb)가 (73) (66)  
 가 가 (1)  
 ( ) (1)  
 12 11 7 9 (1)  
 (65) 3  
 13 , 'ST' 가 (1) ( )  
 12 ST02 { (40) } (1)  
 ST02 (70)가  
 ST03 (1) ST04 (Lt)가 (ON)  
 ST05 Lt Lb가 (Lb)가 (ON)  
 (70)가 (1) (OFF) (2) 8  
 'No' (65) (1) (70)  
 ( Lt) 'ON' 가 ( )가  
 ST04 (1) ST06 ( )  
 가 가 'Yes'  
 ST07 가 (Lb) 가 'ON'  
 ST05 (Lb) 'ON' 가 가  
 ST08  
 'Yes' ST09가 (Lt)가 'ON'  
 가 (1) ST03 (70)  
 (1) (70) (70)  
 (1) (70)  
 13 (90)  
 (90) (91) (94,94) (91) (Jou  
 rnal) (93) (91) (91) ( ) (95)  
 3 ) (92,92,92) (93) (93) (95) (train) (95)  
 (mesh) (93) (output gear) (97) 가 (91) (96)  
 (water passage) (92)가  
 (92)  
 8 (73) (91) 가 (76,76) (91)  
 (73) 가 (91) (73) 가  
 (79,79) (90)가 (1)가  
 14 13 XIV-XIV (91)

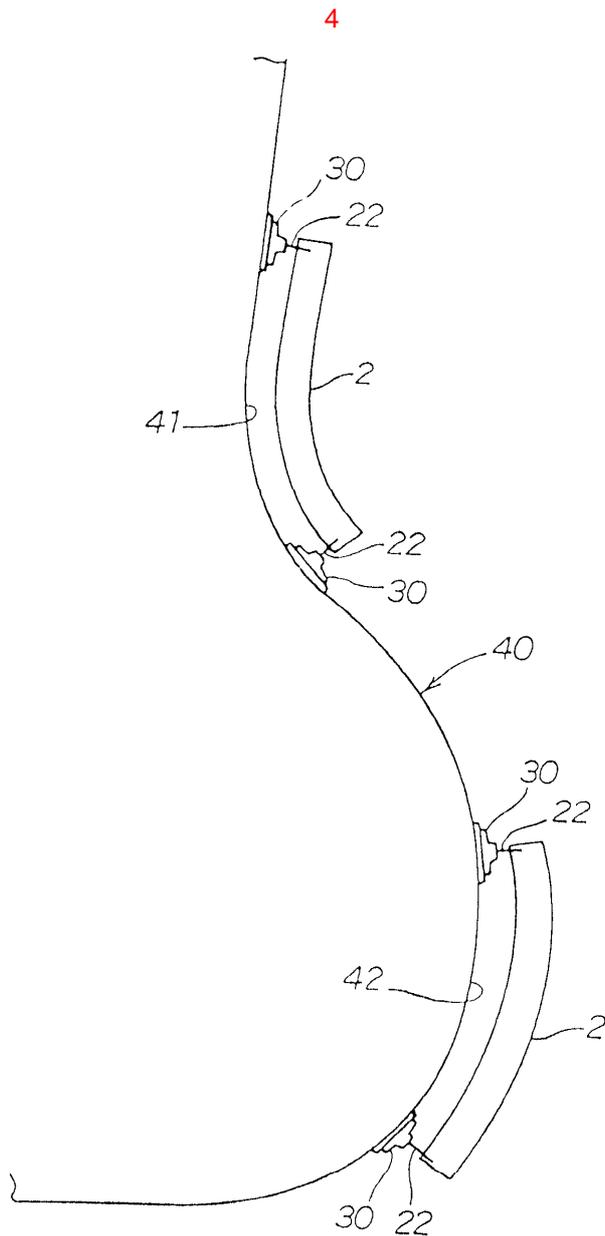


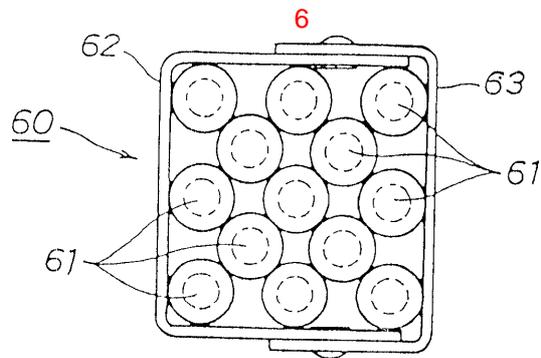
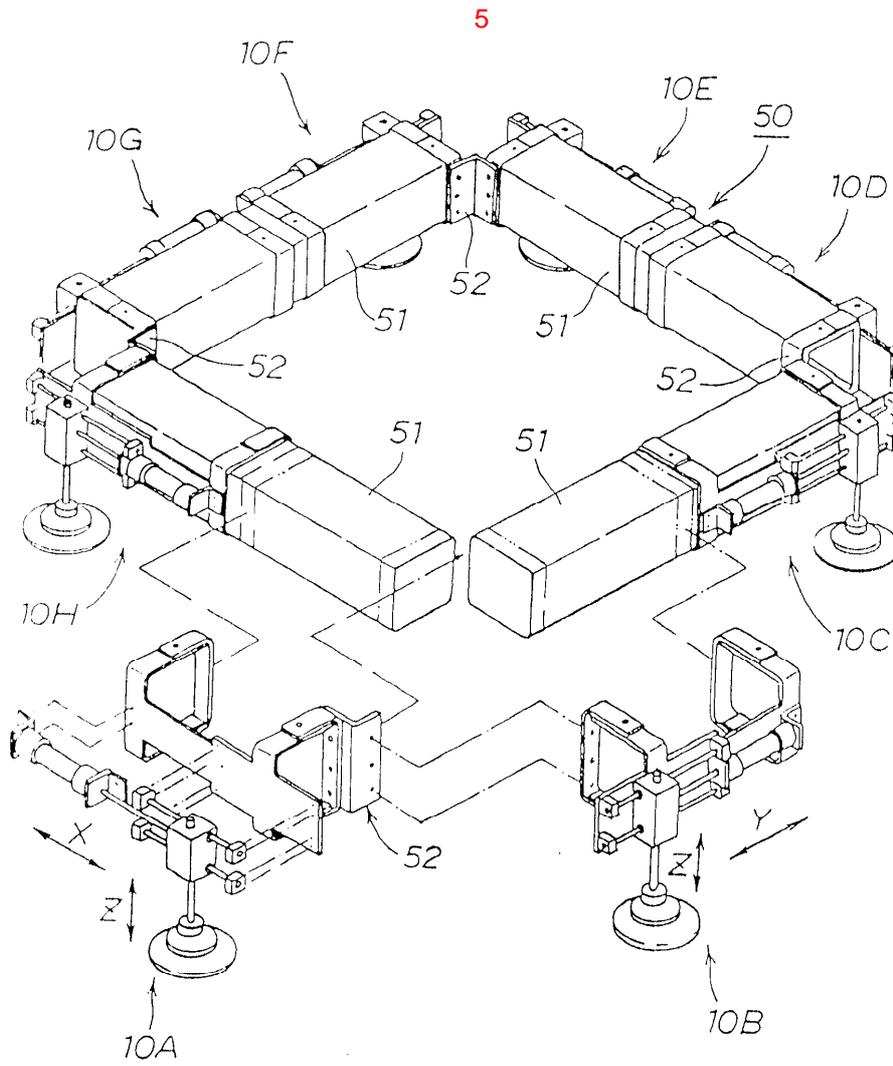
- 1 , 가
- 3. 1 , 가
- 4. 1 ,
- 5. 가 , 가
- a) 가 가 , 2 1 ,
- b) 2 가 ,
- 6. 5 , 가
- 7. 5 , 1 가 2
- 8. 7 , , 2 가
- 가 9. 7 ,
- 10. 7 ,
- 11. 5 , , ,
- 12. 11 , 가 가
- 13. 12 , 가
- 14. 12 , 가
- 15. 11 , 가
- 16. 11 ,
- 17. 가 , 가
- a) , , 가
- b) ,

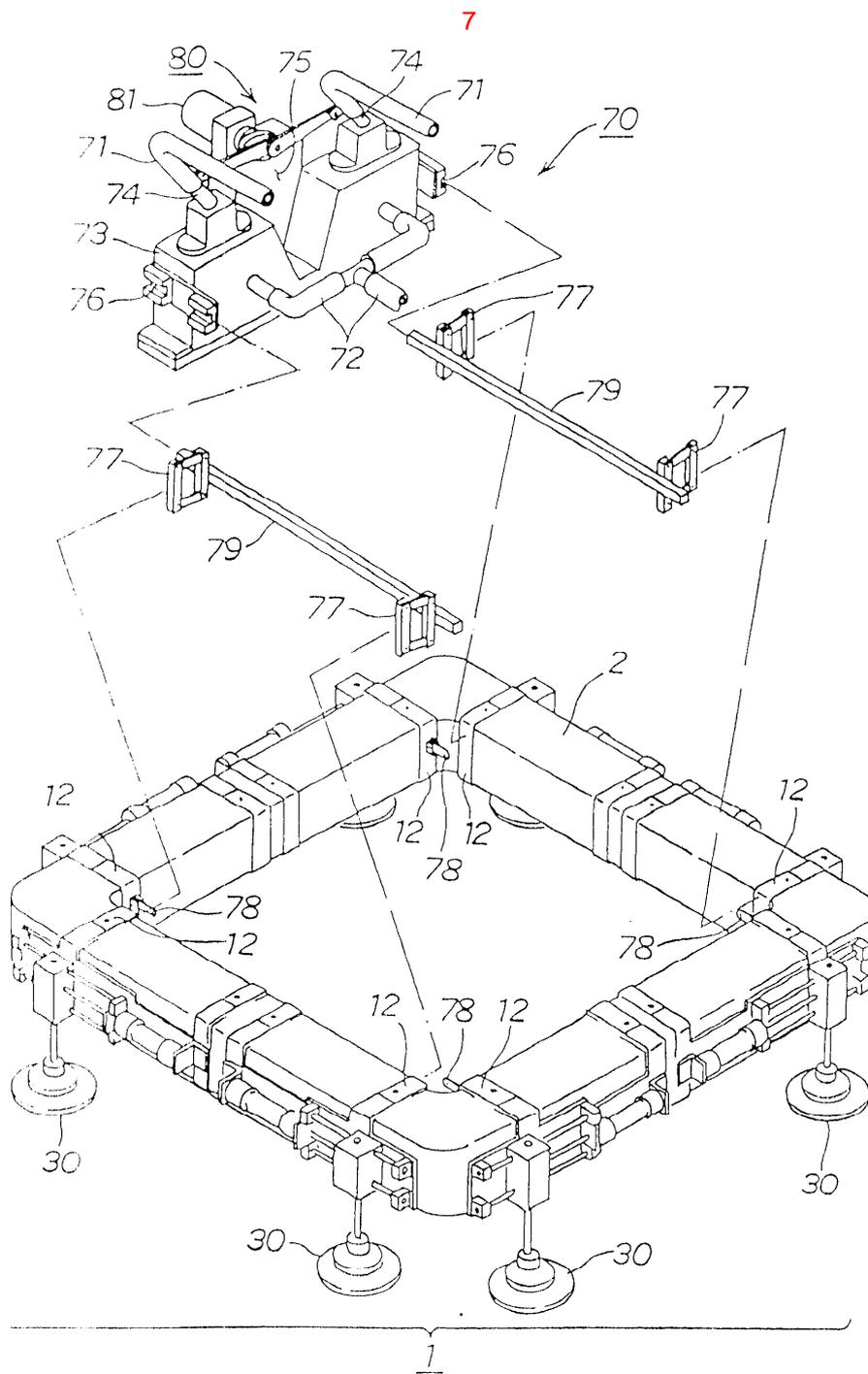




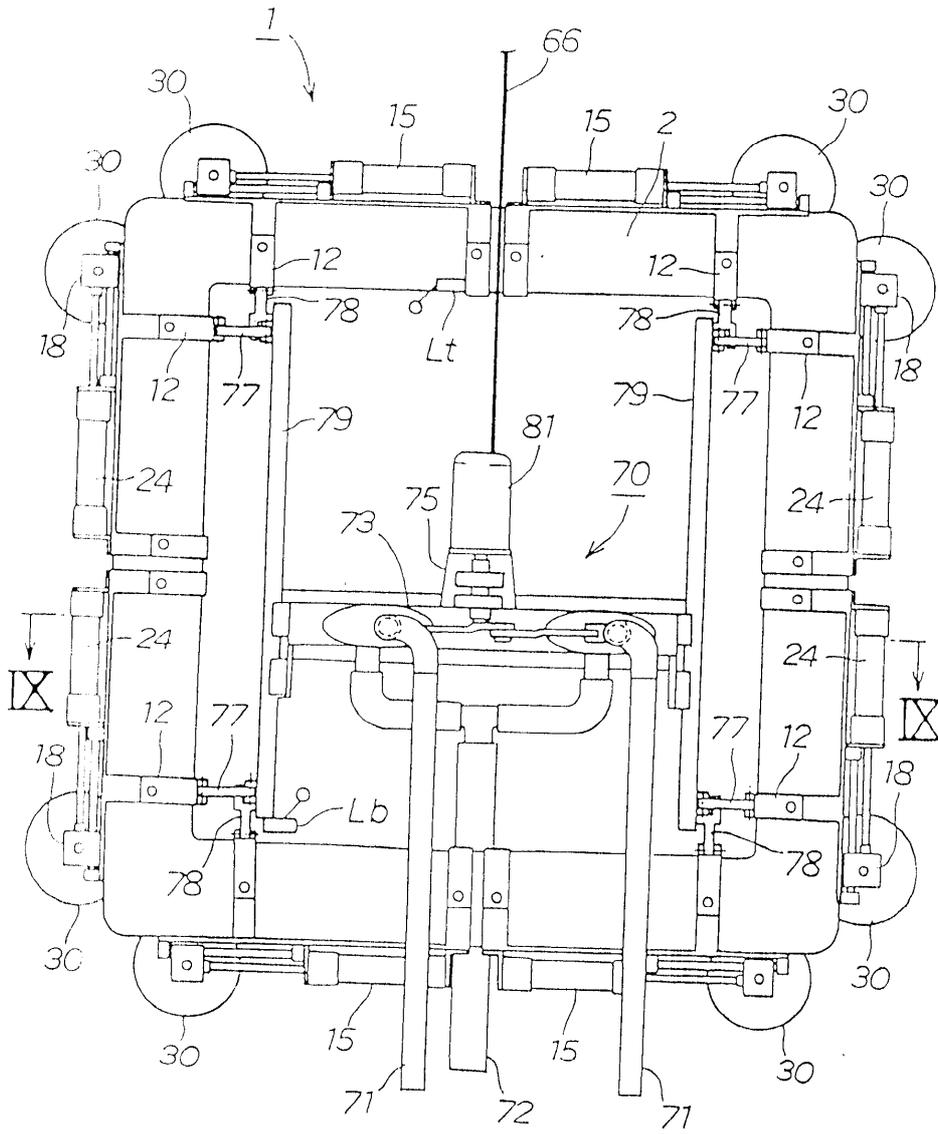


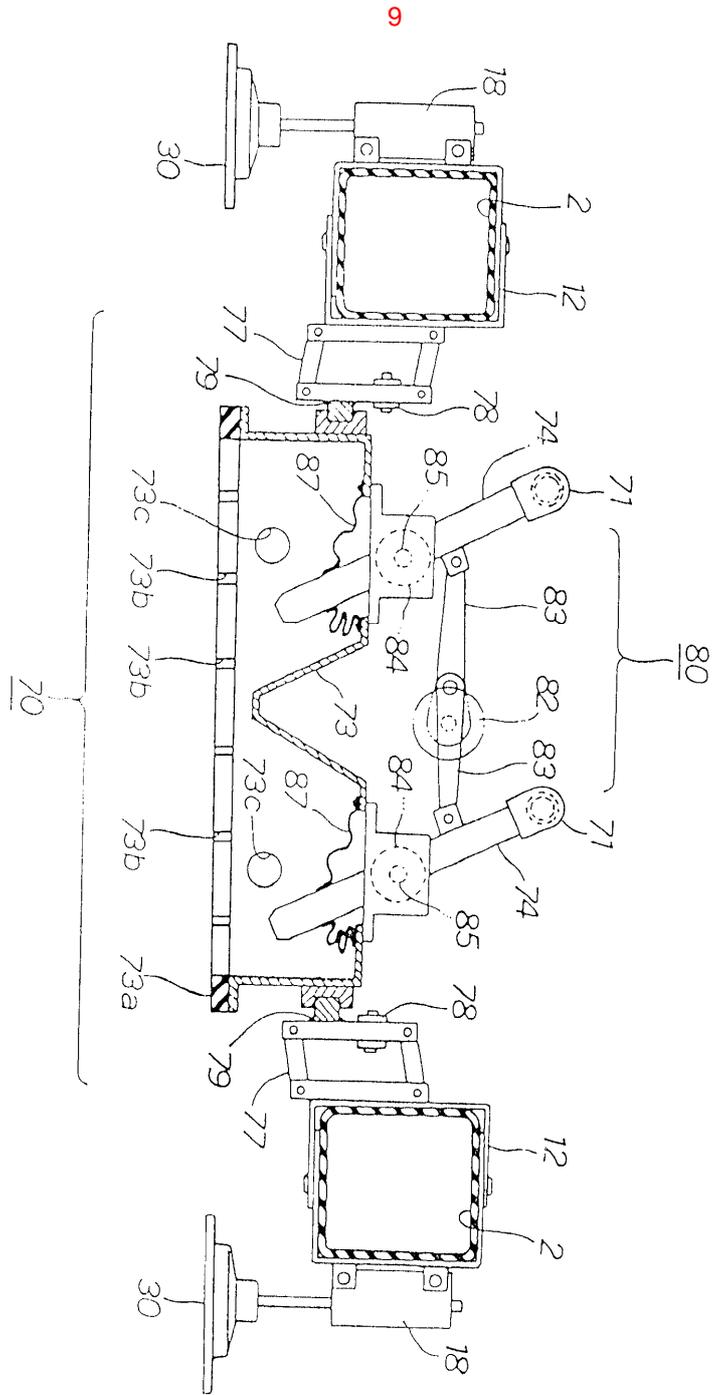


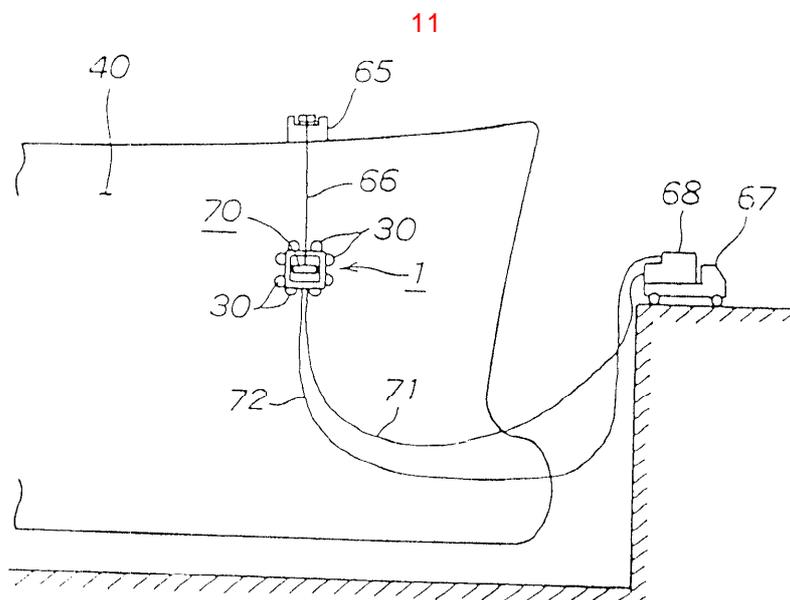
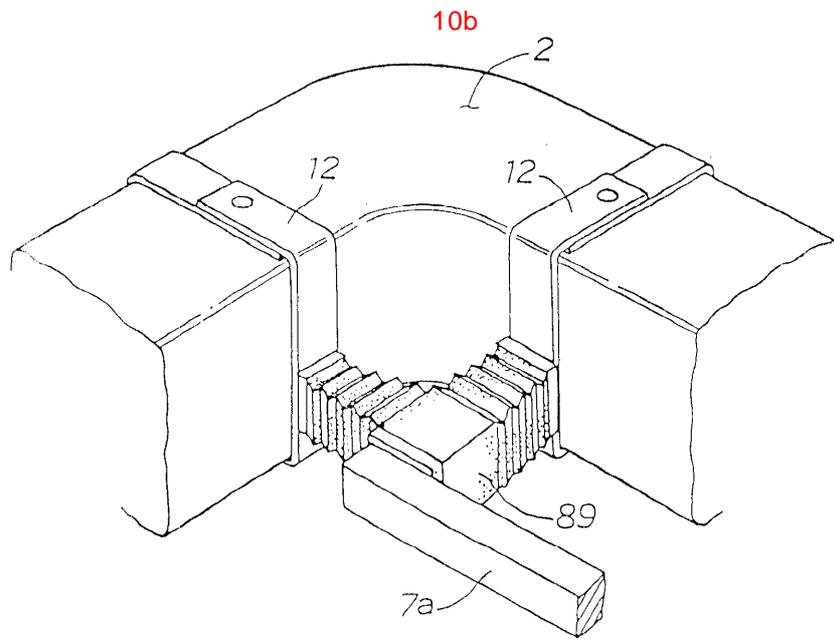
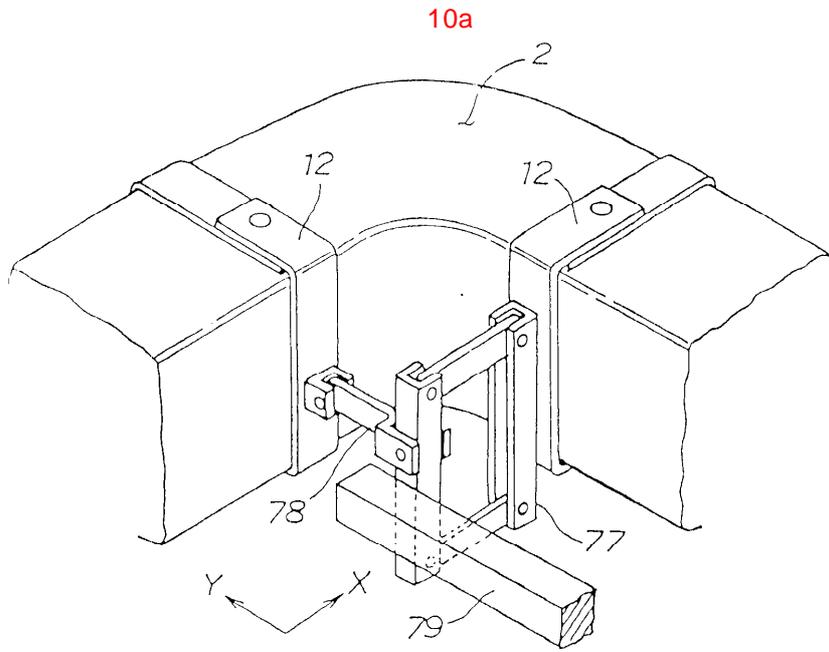




8







12

