

(19)
(12)

(KR)
(B1)

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B30B 1/00

(45)
(11)
(24)

2002 02 19
10 - 0323212
2002 01 22

(21) 10 - 1999 - 0027541
(22) 1999 07 08

(65) 2000 - 0011583
(43) 2000 02 25

(30) 98 - 193428 1998 07 08 (JP)

(73) 가 가

가 가 가 가 239

2388

(72) 가 가 2081 - 1 가 가
가 가 2081 - 1 가 가
가

2388 가 가

(74)
:

(54)

(chamfer)

1

2 1

3 1

4a 4d

5 7 4a 4d

8 1

<

1 : 3 :

5 : 7 :

9 : 11 :

13 : 15 :

17 : 19 :

21 : 25L :

25U : 27 :

29 : 30 :

31 : 가 33 :

35 :

(blank)

(chamfering)

6 - 14151 (, 1)

1 (core plate)

가

3 - 124027

(, 2)
가 .

가 .
가

2

[(stroke end point)]

가

가

1

2

가

(burr)가
가 (hump)

가

가 (edge)

가

1

(CS)

(CS) ,

D1

(, ' ')
(C)

(1) 가

(9) (roll)

(P) ,

(M) ,

(P)

(P) 가 (P1) , 가

(P2)

가 (P1)

(3)가

(9)

(D3)

(7)

(inner)

(D2)

(3,5)

(Bc) ,

(F) ,

(1) , D5

(Sc)

(1)

(pilot hole blanking die section) (1p; 2),

(1q; 2), (1a), (1b), ID(inside diameter;)
 (1r; 2), OD(outside diameter;) (1s; 2), (7)
 (D4) (1t; 2)
 () 가 , (3)
 (5) 가 (7)

2 1 (9) [1p, 1q, 1a, 1a' (),
 1b, 1b' (), 1r, 1s, 1t] [Sp, Sq, Sa, Sa' (), Sb, Sb' (), Sr, Ss,
 St] (Mp, Mq, Ma, Ma', Mb, Mb', Mr, M
 s, Mt) 가 .
 2 4a 4d , (3) (5) (1) (9)가

(cold - roll) (9) (7) (9) 2
 (Sa) (11) (11) (Sb)
 (11) (13) (9) (11) (7)
 (13) (11) , (11) 가
 (13)

3 (1a) (3) (15),
 (17) (19) , (3) (3)
 (5) (3) (15) (21) 가 3 (15)
 가 (11)

3 (1) (1b) (1b) (3)
 (25U), (27) (29) , (3)
 (13) (5) (25U)
 (25L) , () (33) (35) (floating)
 (30) 가 (31) 가 (25L) 가 (5) (33)
 가 가 , (25U)가 가 (33)
 (biasing) (25U)가 (33)
 (11) (13)가 3 (25U)가

(35) (35a) , (33) (spring rat
 e) (35) 35a 35b' (C)
 (35b) 가

가 (30) 가 (31)가

가 가

(1) (7) 2, 4a 4d 5
7 4a 2 Sa 4b 4d 2 Sb
(1) 5 7 4b 4d

(7) 가 (9)
a) (1) Sp (9a) (9)
(9b) Sq (9)

3) Sa (7) (11) Sb (11) (1)
(9) (7) St Sr Ss Ss
(9)

4a (11) Sa (4a).

Sb (25U)가 5 (11)
(4b). 6 (25L) (33) 가

(25U)가 7 (33) (25U)
(4c). 가 가 (25U)가 (13)가

(25U) (4d), (3) 4b
가 (5) 4b

(25U,25L) 가 (5) (25L)가

8 (25U) (25U) , B
(0) A , (25U)
가 2 .

(33) (25L)

(25U)

(25U)

(33)

가

2 2 2

3.

2 ,

1 2 .

4.

1 2 ,

1 2 .

5.

4 ,

, 2 , 1 2 1 2 1

6.

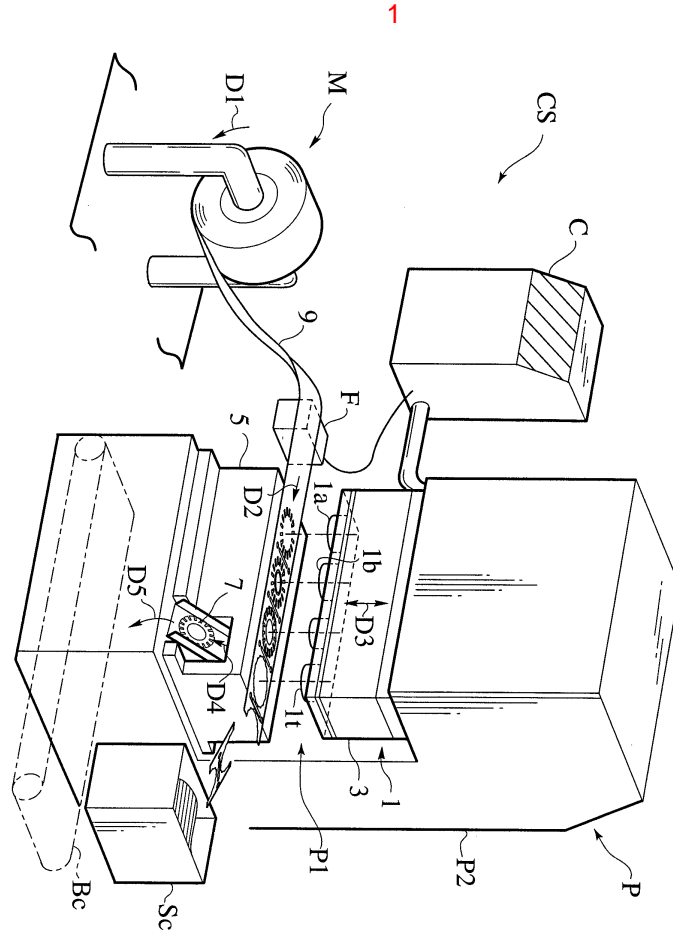
5 ,

1 2 .

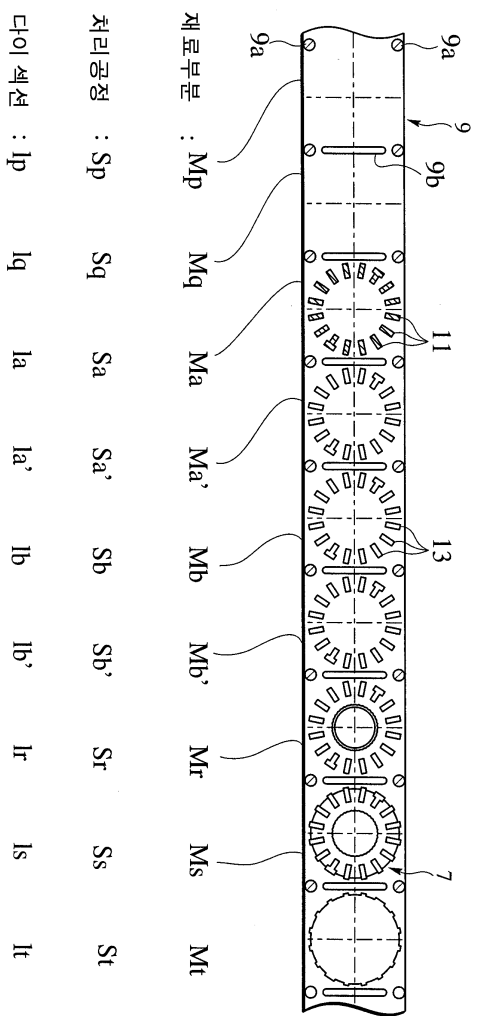
7.

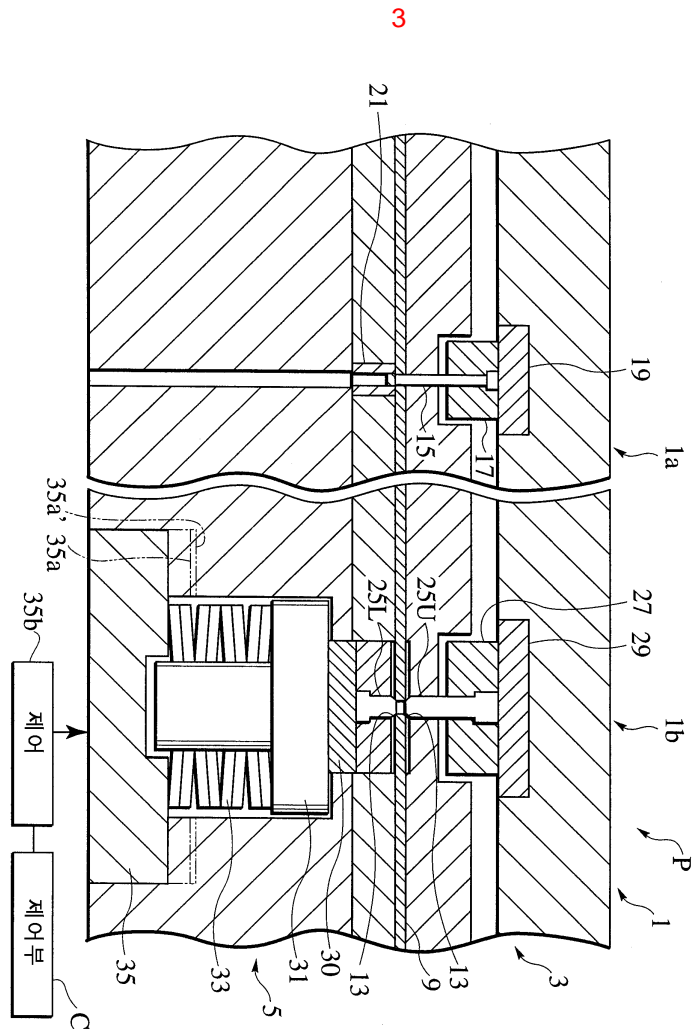
8.

9.

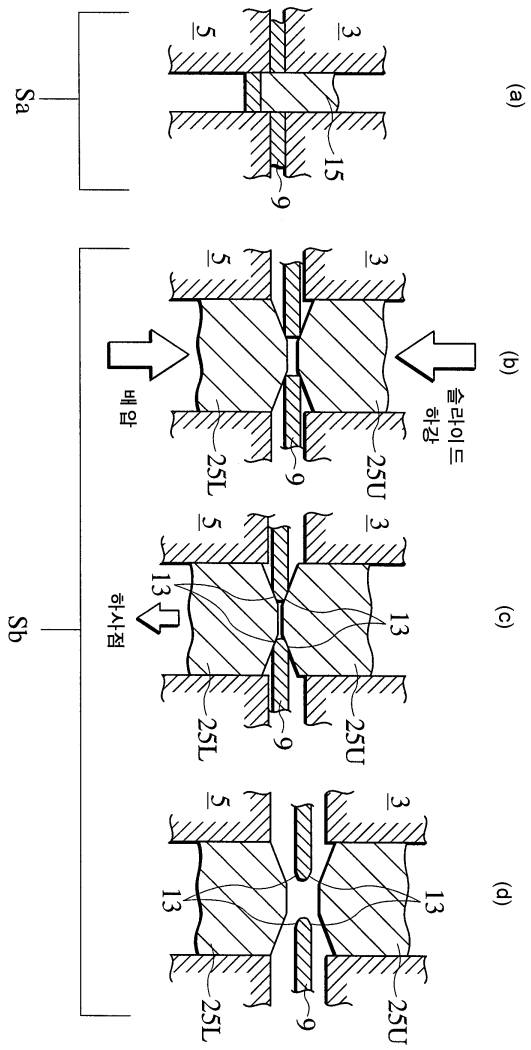


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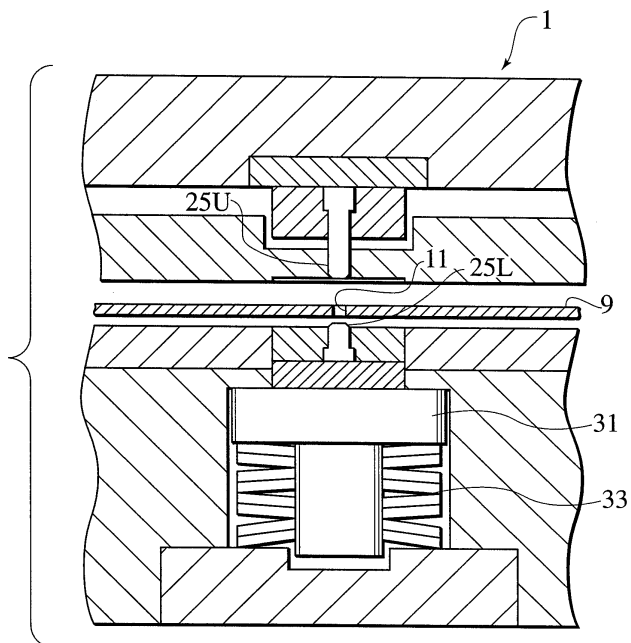




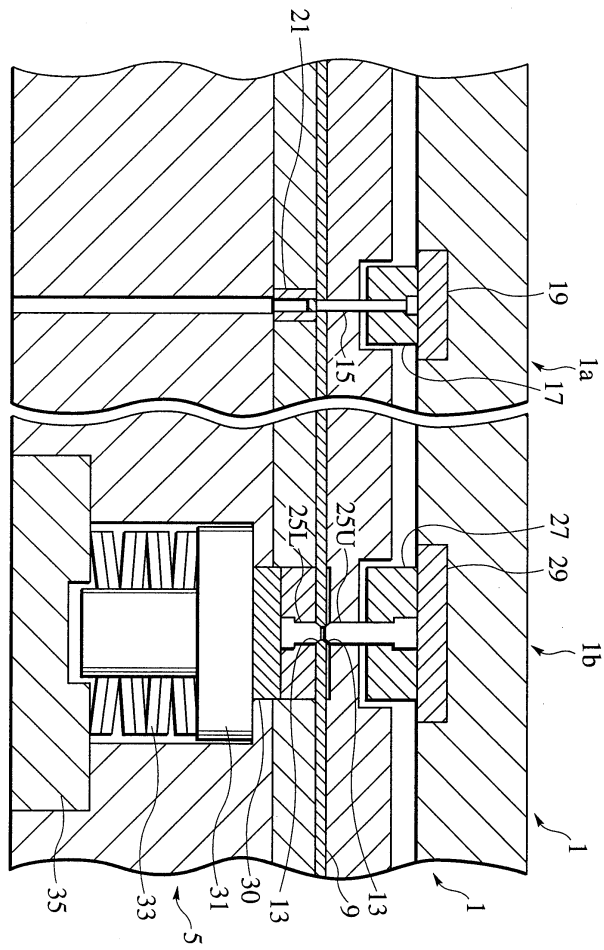
4



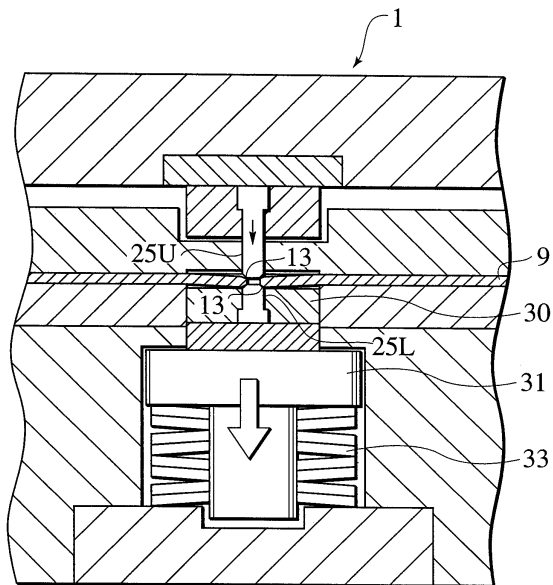
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6



7



8

