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(12) (B1)

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(24) 2001 06 28

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(21) 10 - 1993 - 0023141 (65) 1994 - 0011694  
(22) 1993 11 02 (43) 1994 06 21

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(30) 92 - 294168 1992 11 02 (JP)  
92 - 294927 1992 11 04 (JP)  
92 - 295585 1992 11 05 (JP)

(73) 가 가  
가  
103 2 2 1

(72) 가 650 - 22  
가 2 2 - 26

(74)

(54)

, 1 2 가  
,

1 2 (1,2) (1d,2d) 1 (1d,2d)  
1 2 (1,2) (1d,2d), (1d,2d)  
가 (R<sub>T</sub>)

[ ]

[ ]

1 1 1

2 1

3 1

4

5 4

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8 7 , 2

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10 9 , 2

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13 1 2

14 13

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20 19 2

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22 21 2

23 2

24 23

25 23

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33 가

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35 C

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1, 11, 21 : 1      2, 12, 22 : 2

1d, 2d, 11e, 12e, 21d, 22d : 11d, 12d :

21g, 22g : 가 Rr :

[ ]

(interlace)

가 (加撲) ( )

가 3,115,691  
61 - 194243 59 - 66532 .

, , 3,115,691 2  $(B_1, B_2)$   $(B_1)$  ,  
36 ,  $(P_1, P_2)$  ,  $(B_1)$   $(B_2)$   $(P_1, P_2)$  37

$$, \quad (B_1, B_2) \quad , \quad (P_1, P_2) \\ (B_2) \quad , \quad , \quad ,$$

, 2,985,995 3 , 38 2  
가 .

가

가

, 2 2 , ,

, (staple) (tow) 가

2,985,995

3 38

( )

가

가

가

가  
(燃性)

52 - 44689

가

가

1

가

가

가

2

가

가

, 1 2

가

가

, 1 2

가

가

가

, 1 2

1 2 , 1 2 , 1 2 ,  
가 , 1 , 1 2 ,  
1 2 , ,  
가 , 1 , 1 2 ,  
1 2 , ,  
가 .

, 1 2 ,

, 1 2 ,

1 2

, 1 가 가

50% , 100%

1 2

1 2

1

[ ]

1 1 1 12

1 3 , 1 (1) 2 (2)가 (3)

(4),(4)

1 (1)	2 (2)				2 , (1a, 2a)
,	0 (5,6)				(1b, 2b)가 (4,7) (4,8)
.	(1a,2a)	(1c,2c)	,		(1b, 2b) (1d,2d)

(1d,2d)	4	,	(1b, 2b)	(1e,2e)	,	(1e,2e)
(1d,2d)	(A <sub>L1</sub> , A <sub>L2</sub> )				(R <sub>T</sub> )	(1d,2d)
(A <sub>L1</sub> , A <sub>L2</sub> )	(E)( 2 )		,		(R <sub>T</sub> )	

(1d,2d) 4

,	(1d)	,	4	4	(R <sub>T</sub> )
(p)		(1b, 2b)	(1e,2e)	(1e,2e)	
(A <sub>L1</sub> )		(1b, 2b)	(1e,2e)		(L <sub>A</sub> )
					(L <sub>A</sub> )
					L <sub>1</sub> L <sub>2</sub>

가 (L<sub>1</sub>,L<sub>2</sub>)가 L<sub>1</sub> > L<sub>2</sub> 가 (1d) , (1d)  
 (R<sub>T</sub>)

L <sub>1</sub> > L <sub>2</sub>	(2d)	,	,	1
2	2			

,	(1d,2d)	2	,	(1b, 2b)	,	(R <sub>T</sub> )( 4 )
가		(A <sub>L1</sub> ,A <sub>L2</sub> )		( )가 90		

2	,	(弦)	(R <sub>T</sub> )	
가	(2d)	2	,	2
,	가	(1d)		(1d)
		(2d)		(R <sub>T</sub> )



(1b,2b) (1e,2e) (R<sub>T</sub>)  
 , (1d,2d) 가 , , (1b,2b)  
 (1e,2e) (1d,2d) 가 , , (1b,2b)  
 , , , ,  
 , 1 2 (1,2) (1b,2b) (1d,2d) 6 ,  
 , , , , ,  
 7 , , , , (1d,2d) 8 ,  
 (1d,2d) 가 가 ,  
 , (1d,2d) 2 , , 6 7 , , 6  
 , , , , ,  
 7 , 9 , 16 19 , 21 , 28 32 , 34  
 (1d,2d) (1d,2d) 가 (1d,2d) (R<sub>T</sub>)  
 가 , , , ,  
 , 9 10 , (1d,2d) , (1d) , , ,  
 (2d) , , , ,  
 1 2 (1,2) (1e,2e) (1b,2b) 11 ,  
 , , , (R<sub>T</sub>) (1g,2g)  
 (1b,2b) , , ,  
 (1g,2g) (1d,2d) (R<sub>T</sub>) (1b,2b) (1d,2d)  
 , , , , ,  
 , , , , ,  
 , 12 , (1b,2b) , , (9a,9a) (9b)  
 (9) , , , (9a,9a)  
 (9b) , , ,  
 [ 1 ]  
 (1b,2b) (1d,2d) 1 3  
 , (1d,2d) 1.6mm, (1d,2d) (A<sub>L1</sub>, A<sub>L2</sub>) (E) 5mm,  
 (1b,2b) (G) 2mm, (1d,2d) (1b,2b) ( ) 60  
 420 , 72 1000m/ , , (1d,2d)  
 4kg/cm<sup>2</sup>G 가 , , 20gf  
 50gf , , ,  
 , , , , , 1m 28

[ 2]

(1b,2b) (1d,2d) 1 3  
 (1d,2d) 1.0mm, (1d,2d) (A<sub>L1</sub>, A<sub>L2</sub>) (E) 7.4mm,  
 (1b,2b) (G) 2mm, (1d,2d) (1b,2b) ( ) 30  
 , 75 36 5gf 1000m/  
 (1d,2d) 6kg/cm<sup>2</sup>G 가

, 36 75 36

, 1m 16.3 36  
 1m 12.0

, 1 2 13  
 22

(10) 13 15 , 1 (11) 2 (12) (13)  
 (14,14)

1 (11) 2 (12) 14 (11b,12b) 14 (11f,12f) (11,17)  
 a,11a) , 0 (15,16) (11a,11a) (11c,12c) (11b,12b)  
 18) (11f,12f) , (11d) (11e) (12d)  
 (12e)

(11d,12d) 14 , (11b,12b)

(11e,12e) 14 , (A<sub>L11</sub>, A<sub>L12</sub>) (11b,12b) (11f,12f)  
 (R<sub>T</sub>)

, (11d,12d) (11e,12e) 14 , (11b,12b) (11b,12b)  
 (R<sub>T</sub>) (11f,12f) (A<sub>L11</sub>, A<sub>L12</sub>) ( ) 가 90 가

(10) , , (11b,12b) (11c,12c) 가  
 , 가 (11d,12d) (11e,12e) (11b,12b) (11,12b)  
 b,12b) 가

, 2 , (11d,12d) (11e,12e)  
 가 (11b,12b) (R<sub>T</sub>) (11d,12d) (11e,12e)  
 12e) , 가 가 , 가

, 2	가 14	(11e,12e)	가	(R <sub>T</sub> )	(R <sub>T</sub> )
(11e,12e)			.	.	.
(11,12)	(G)( 14 )		(13)	,	,
가	.	.	.	.	.
,		(11d,12d)		(11b,12b) 1	
,	(11e,12e)		(11b,12b) 1	,	1 2
(11,12)	(G)			가	.
(11d,12d)	(11e,12e)		,	,	,
,		.	.	.	.
(11b,12b)	(11d,12d)		(11f,12f)	가	(R <sub>T</sub> )
,	(11f,12f)	.	.	(11d,12d)	가
,	가	.	.	.	.
,	(11d)	(11e)	(12d)	(12e)	(e <sub>1</sub> ,e <sub>2</sub> )( 14
)	(11d,12d)	d <sub>0</sub>	1.5	6	2 , 4
.	.	.	.	.	.
1 2 (11,12)		(11b,12b)		(11d,12d)	(11e,
12e) , 16	,	,	,	,	
,	17	18	,	,	.
,			,	,	.
,	(11d,12d)		(11e,12e)		가 가
,	,	,	(11d,12d)	(11e,12e) 가	가
,	,	,	(12d) 가	가	.
,			.	.	.
(12b)	(11e,12e)		(12e)	20	(11d,12d)
(11e)	,	,		가	.
(11e)		.	.	.	.
,	(11d)	(11e) ,	가	가	20 2
,	.	.	,	,	.
,	8	, 10		22	.
,			,		.
(11d,12d)	(11e)		가	가	가 가
가		.	.	.	.
,	21	22	,	,	.
,			,	,	.
,			,	,	.
,	(11d)	(12d)	가	가	가
,	(12b)	(12d,12e)	가	가	.
,		.	.	.	.
,	(11d,12d)	(11e) ,		,	.
,		(11e)	.	.	.
2	가		.	.	.

[ 3 ]

(11b, 12b) (11d, 12d) (11e, 12e) 13 ~  
 15 (11d, 11e) (12d, 12e) (11d, 12d) (11e, 12e) 1.6mm,  
 2b) (G) 2mm, (11d, 12d) (11e, 12e) 1.5mm, (11b, 1  
 ( ) 60 , 420 , 72 1000m/ ,  
 (11d, 12d) (11e, 12e) 4kg/cm<sup>2</sup>G 가 .  
 , , , , 1m 27~34  
 , , , , 가 (11e, 12  
 e) 가 .

[ 4 ]

13 15 , (11d,12d) (11e,12e) 1.0mm,  
 (G) (11d,11e) (12d,12e) (e<sub>1</sub>,e<sub>2</sub>) 1.5mm, (11b,12b)  
 2mm, (11d,12d) (11e,12e) (11b,12b) ( ) 60  
 , 300 , 96 60gf 1000m/  
 , (11d,12d) (11e,12e) 2.8kg/cm<sup>2</sup>G 가 .  
 , 36 , 300 , 96 가 6kg/cm<sup>2</sup>G

, 1m 27.0 , . , 36  
1m 13.5

2 23 35

$$(20) \quad , \quad 23 \quad 25 \quad , \quad 1 \quad (21) \quad 2 \quad (22) \quad (23) \\ (24,24) \quad .$$

$$\begin{array}{ccccccccc}
1 & (21) & 2 & (22) & , & & & 24 & (22) \\
a,22a) & , & , 0 & (25,26) & & & (21b,22b) \not\models & (24,27) & (24, \\
28) & . & , & (22a,22a) & (21c,22c) & , & (21b,22b) & (21d, \\
22d) & . & & & & & & & 
\end{array}$$

$$(21d,22d) \quad 24 \quad , \quad (21b,22b) \quad (21f,22f) \quad , \\ (L_A) \quad , \quad , \quad (21d,22d) \quad ,$$

$$(21d_2 \quad 21d_6, 22d_1 \quad 22d_5) \quad (22b) \quad ( ) \quad (2 \text{ 가} )$$



, 1 2 33 (21b,22b) (21d,  
 22d) , 가 (21g,22g) 1  
 , 가 (21g,22g) 1 2 (21,22)  
 (21,22) 가 (21,22)  
 , 1 2 (21,22) , (21b,22b) 34 ,  
 (21b,22b) 가 (21h, 22h)  
 , 35 , (21b, 22b) , C (30) ,  
 (30) (30a)

(21d,22d) (21f,22f) 23 25 (20) ,  
 (21d,22d) 1.6mm, , (21d) (22d) 5mm,  
 (21b,22b) (G) 100mm, (21d,22d) (e) 0, 0.8mm,  
 2.5mm , 64,000 , 64,000 4m/ ,  
 (21d,22d) 2kg/cm<sup>2</sup>G 가 .

2. 1 , 1 2 (1,2) , (R T ) 가

1 , (1d,2d) ,

4.

1 , (1d,2d) ,

5.

1 , 1 2 (1,2) ,  
(R<sub>T</sub>)  
1g,2g) (

6.

1 , 1 2 (11,12) , (11e,12e) , (11e,12e) ,  
R<sub>T</sub>) 1 (

7.

6 , 1 2 (11,12) , (R<sub>T</sub>) 1

8.

6 , (11e,12e) (11d,12d)

9.

6 , (11e,12e) (11d,12d) ,

10.

, 1 2 1  
, (21,22) , , , 1  
(21d,22d) , , , (21d,22d)

11.

10 , (21d,22d)

12.

11

(21d,22d)

50% , 100%

13.

10

1 2 (21,22)

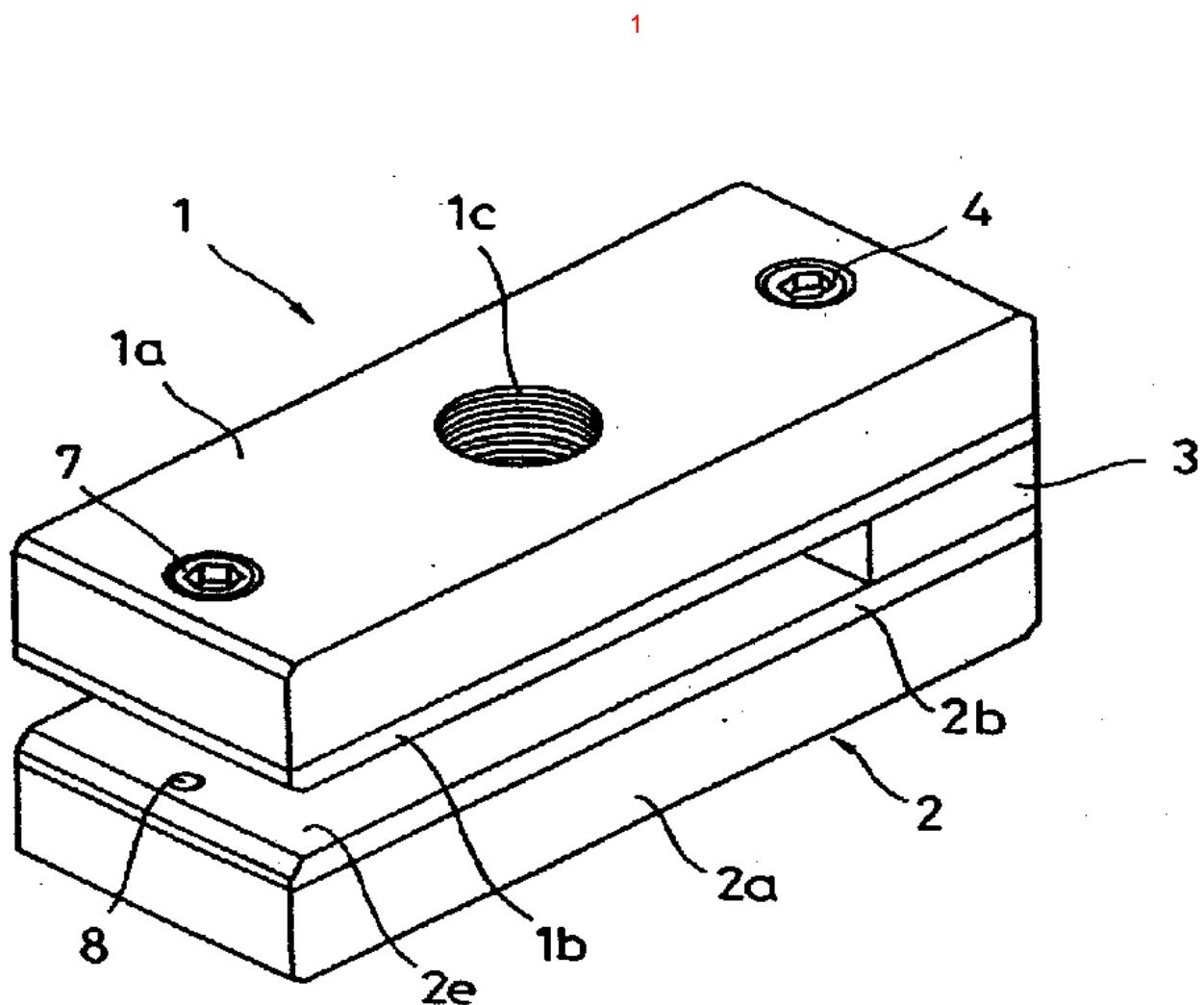
(21d,22d)

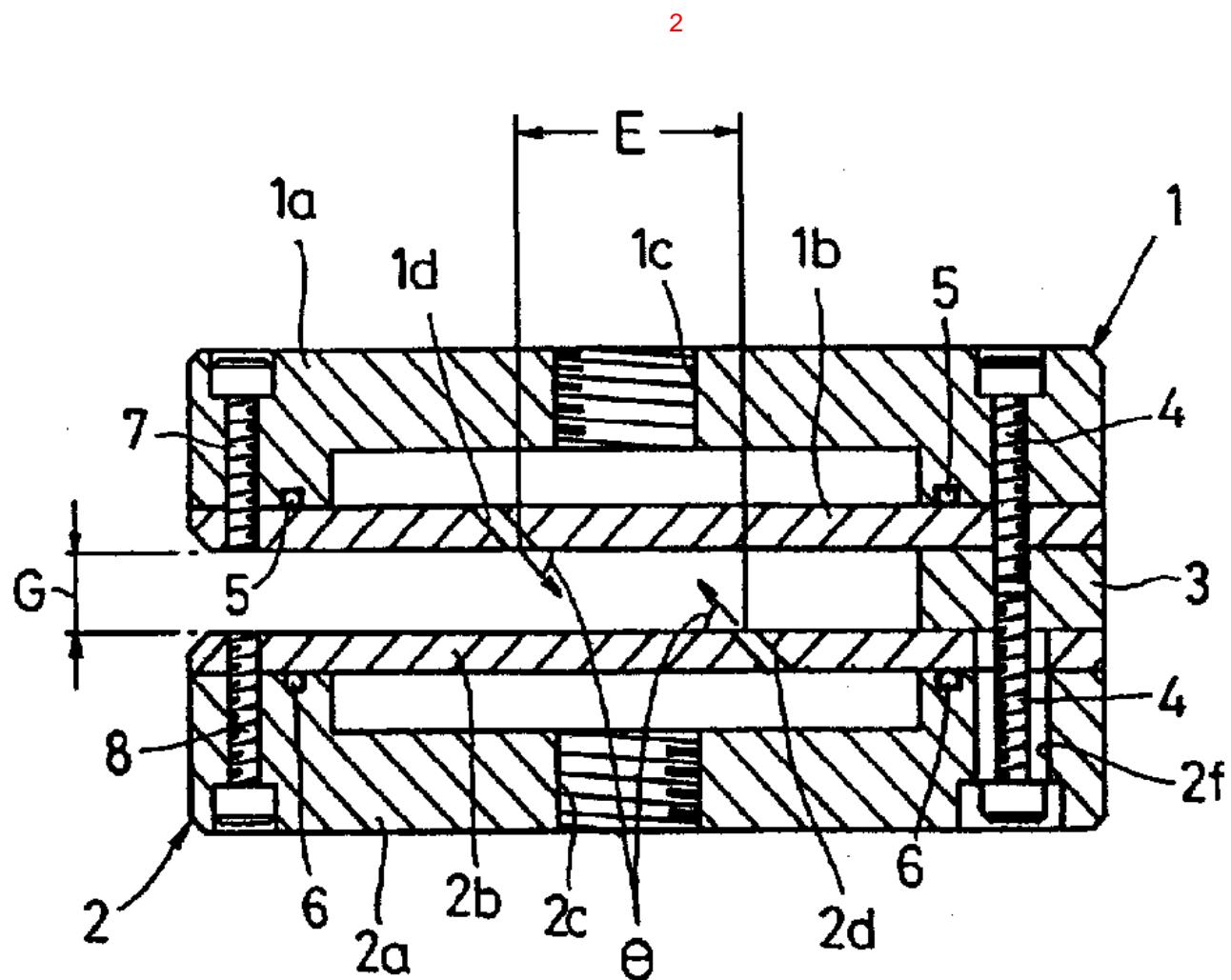
14.

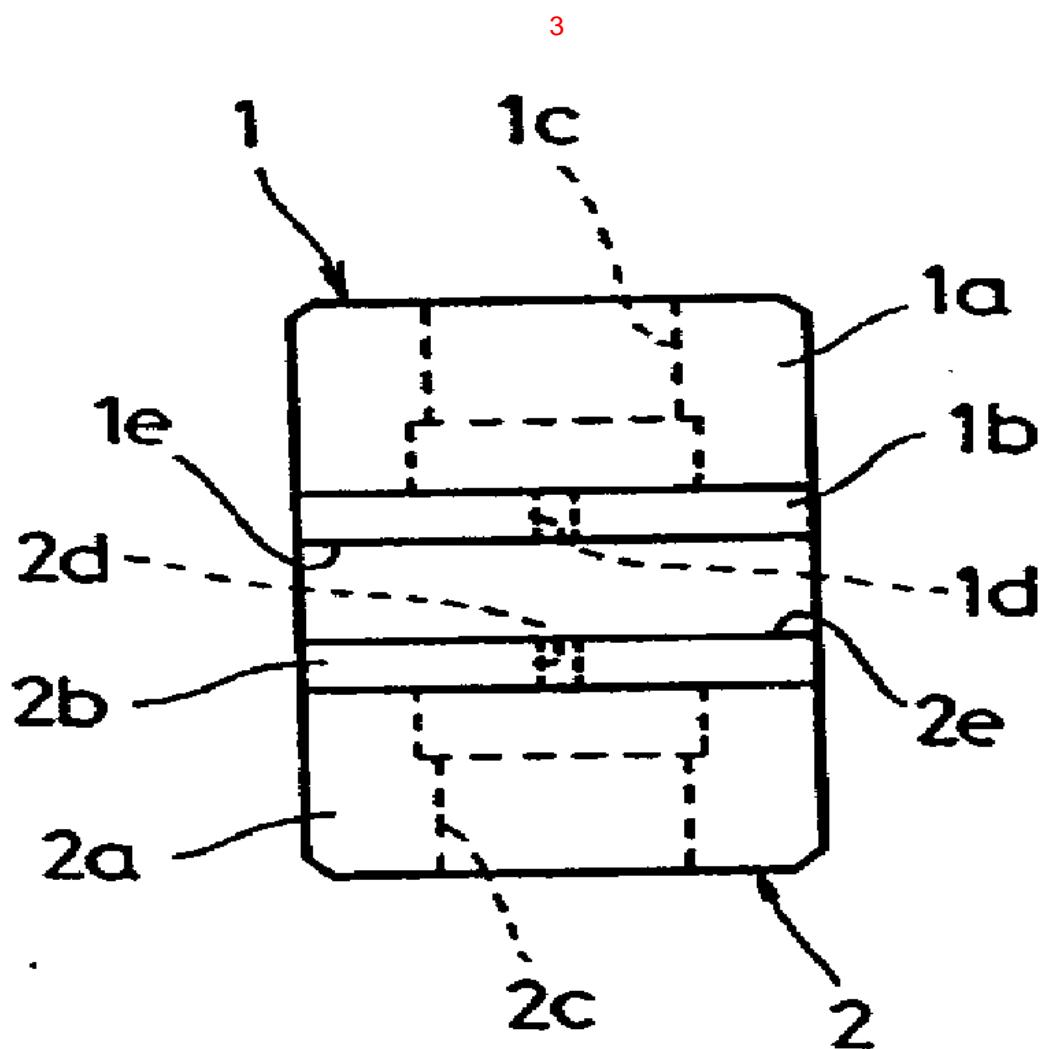
10

1 2 (21,22)  
가 (21g,22g)

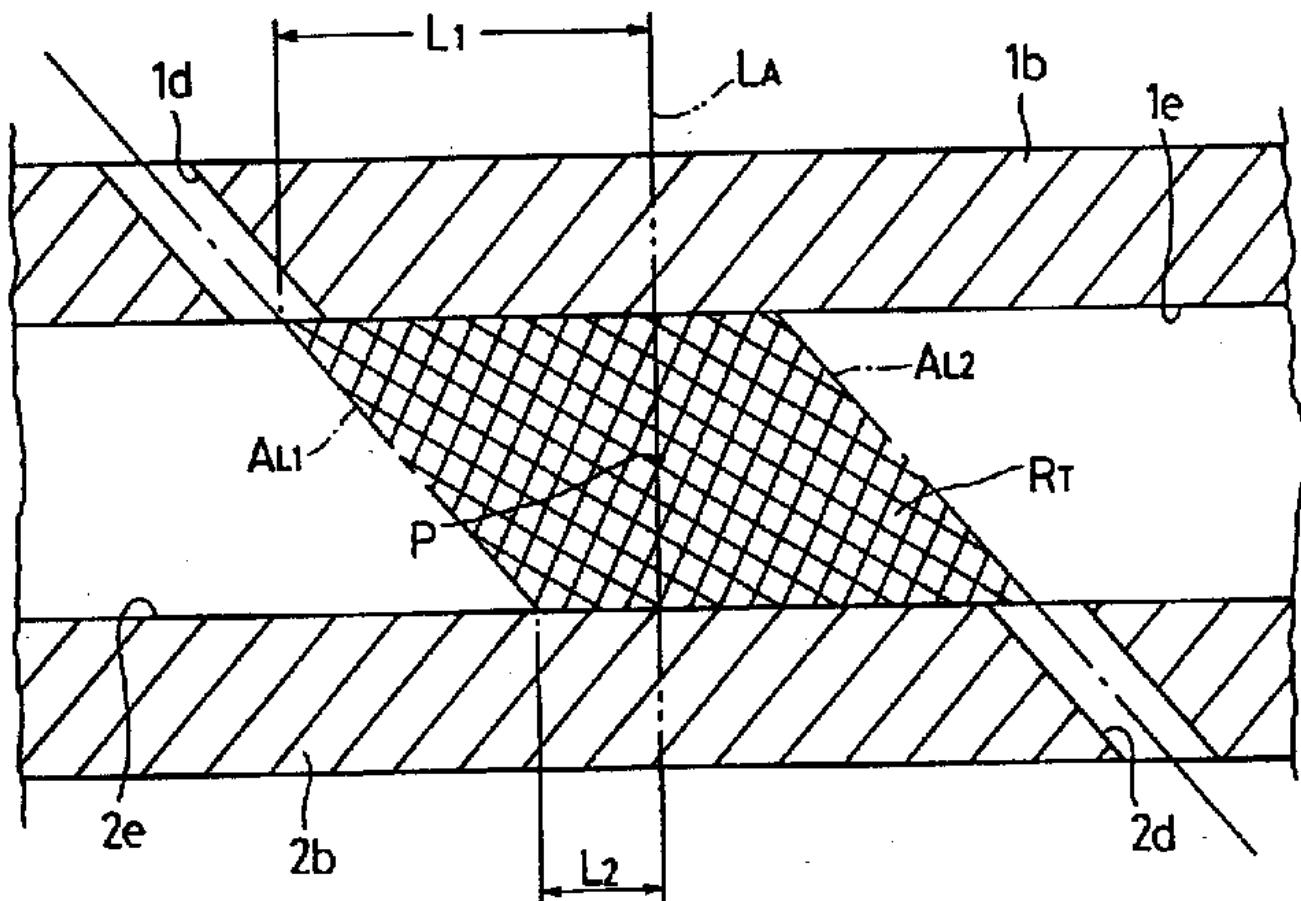
(21d,22d)



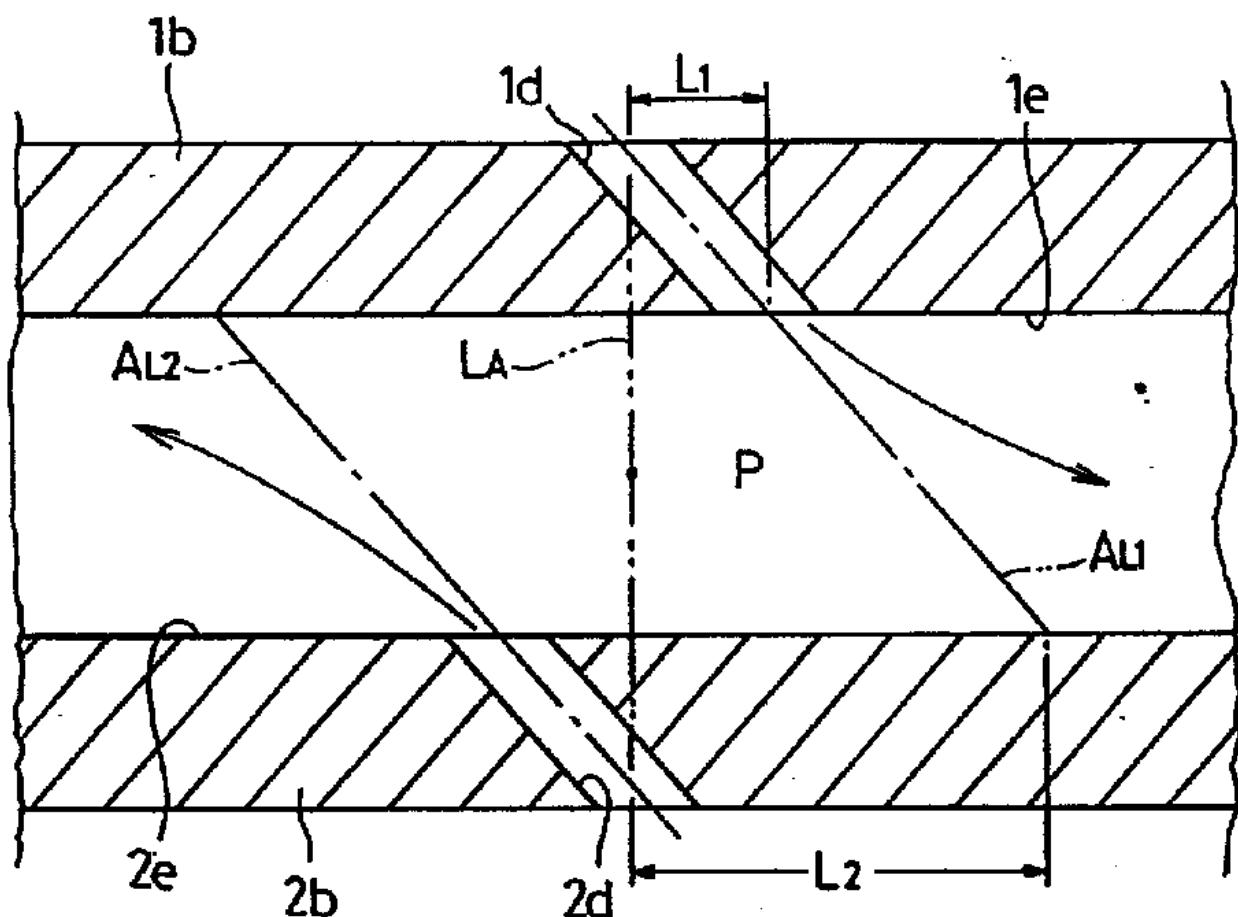




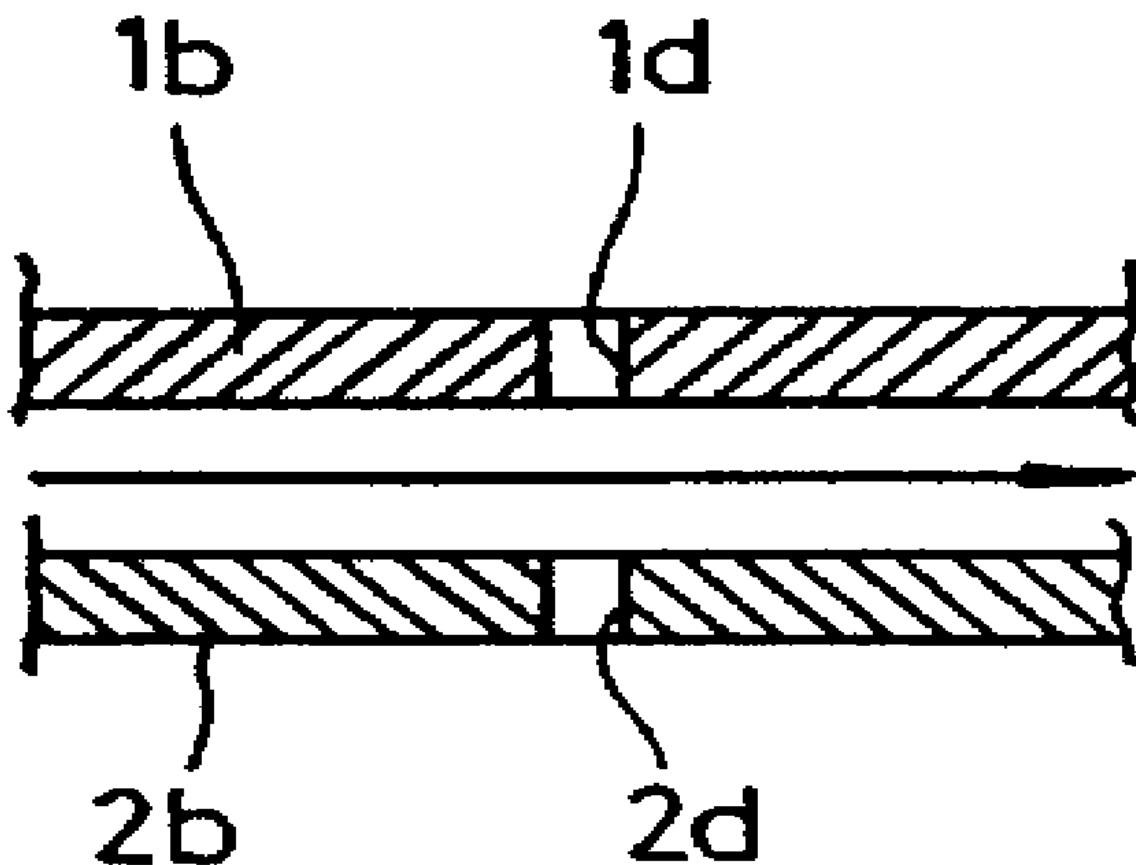
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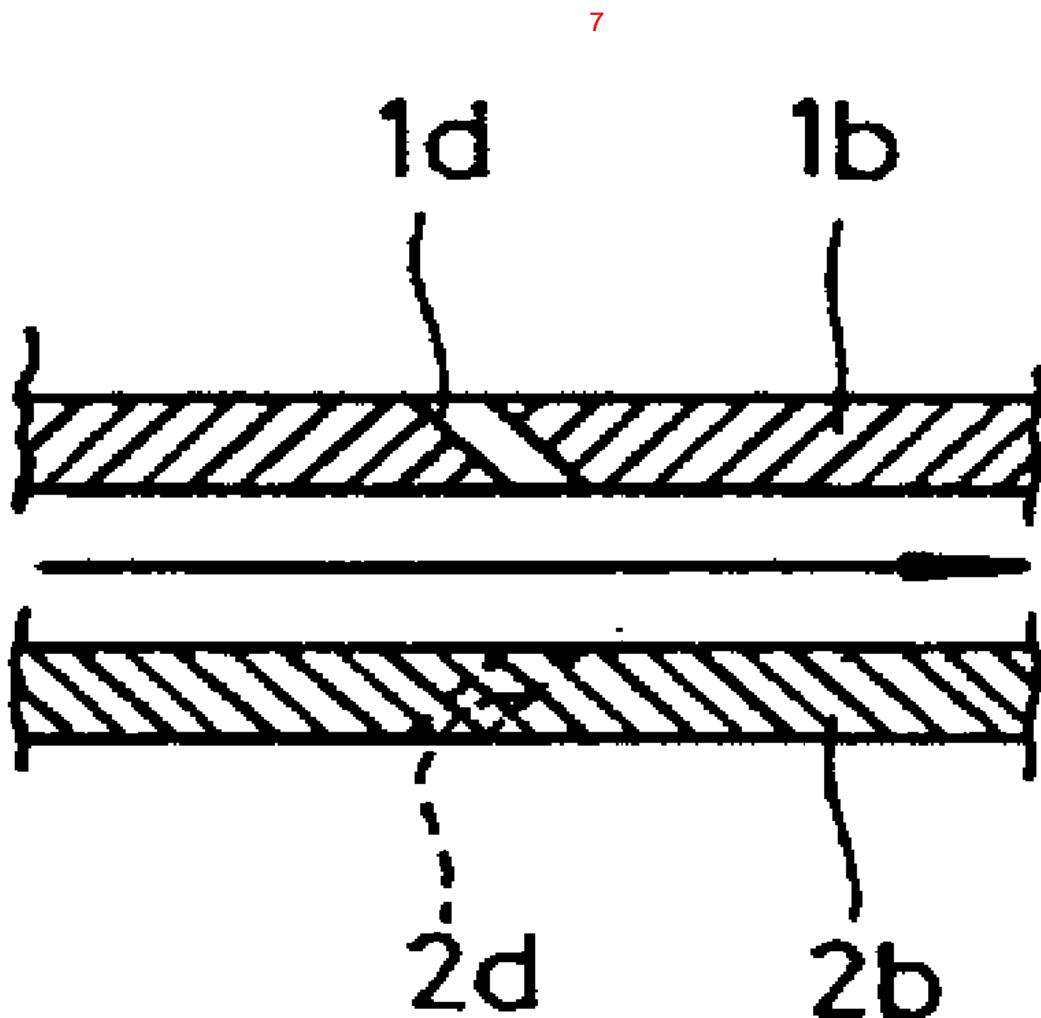


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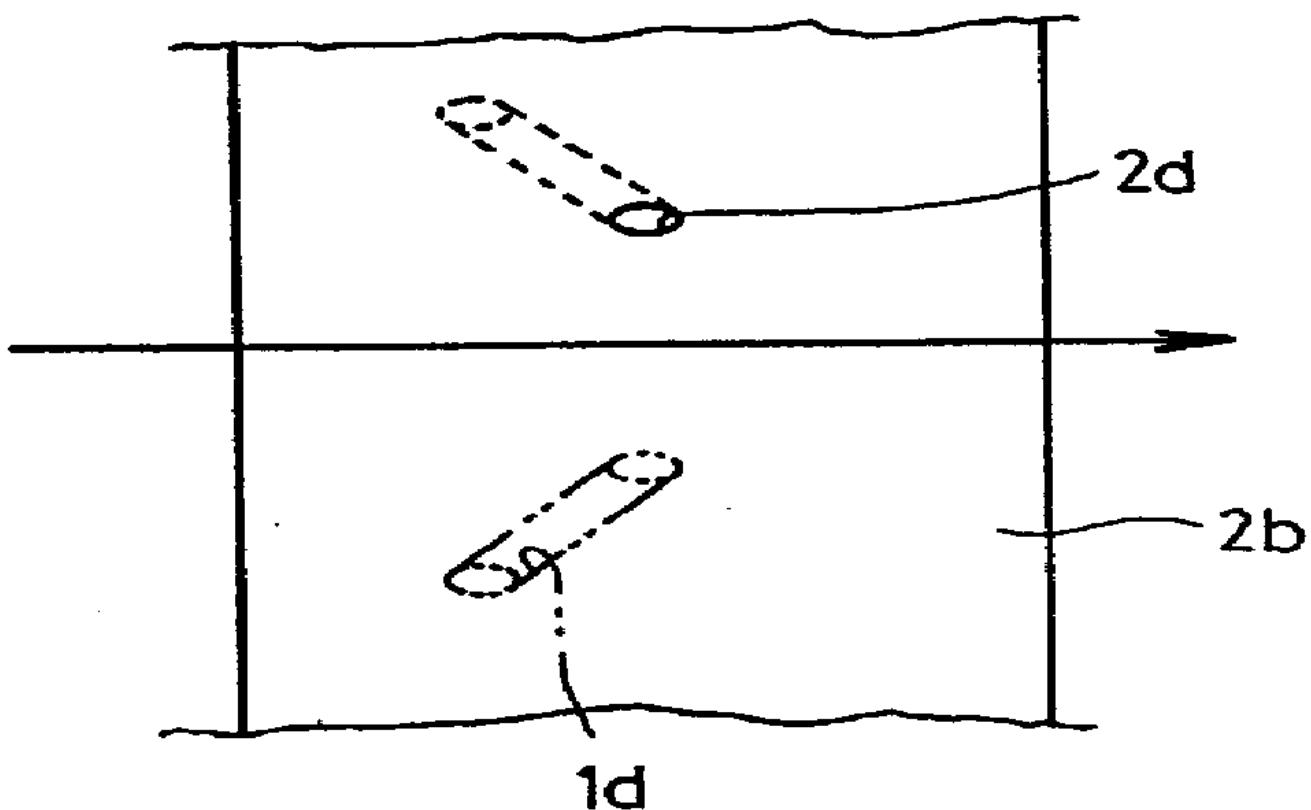


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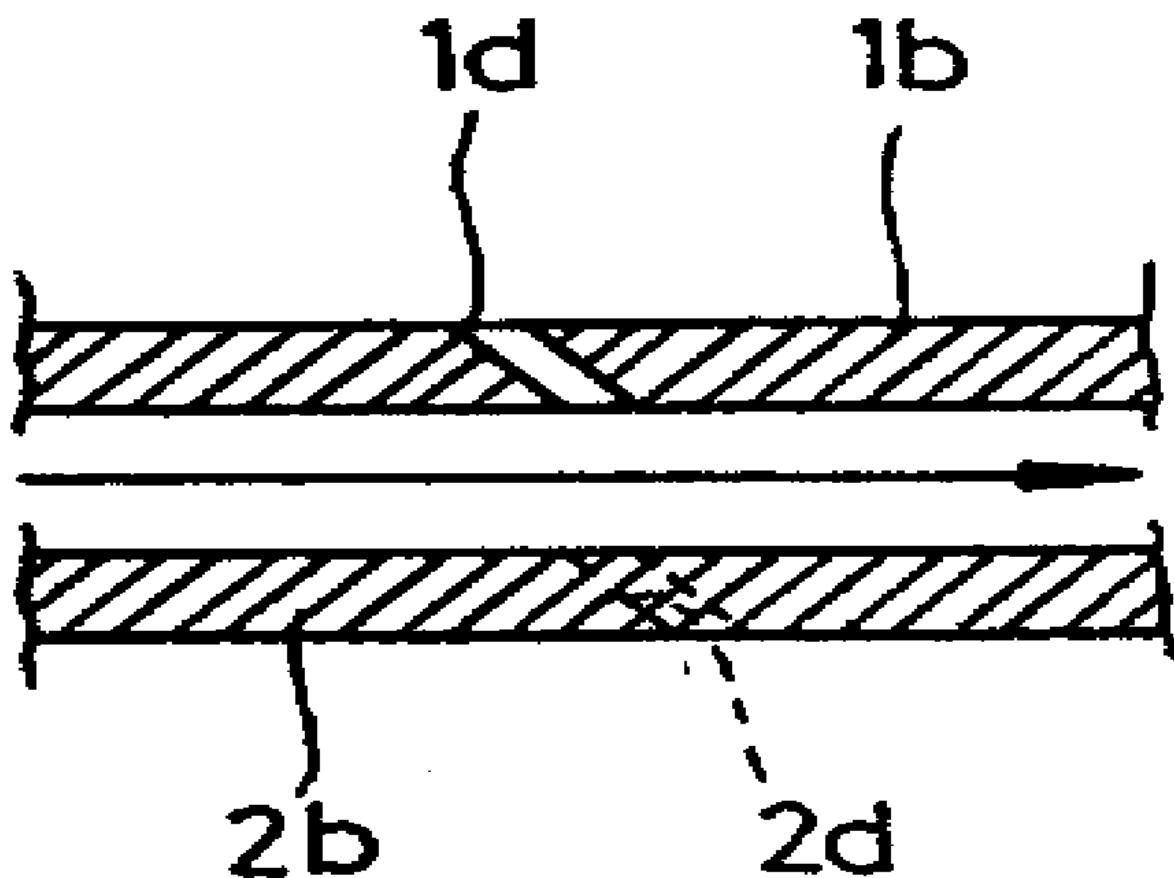


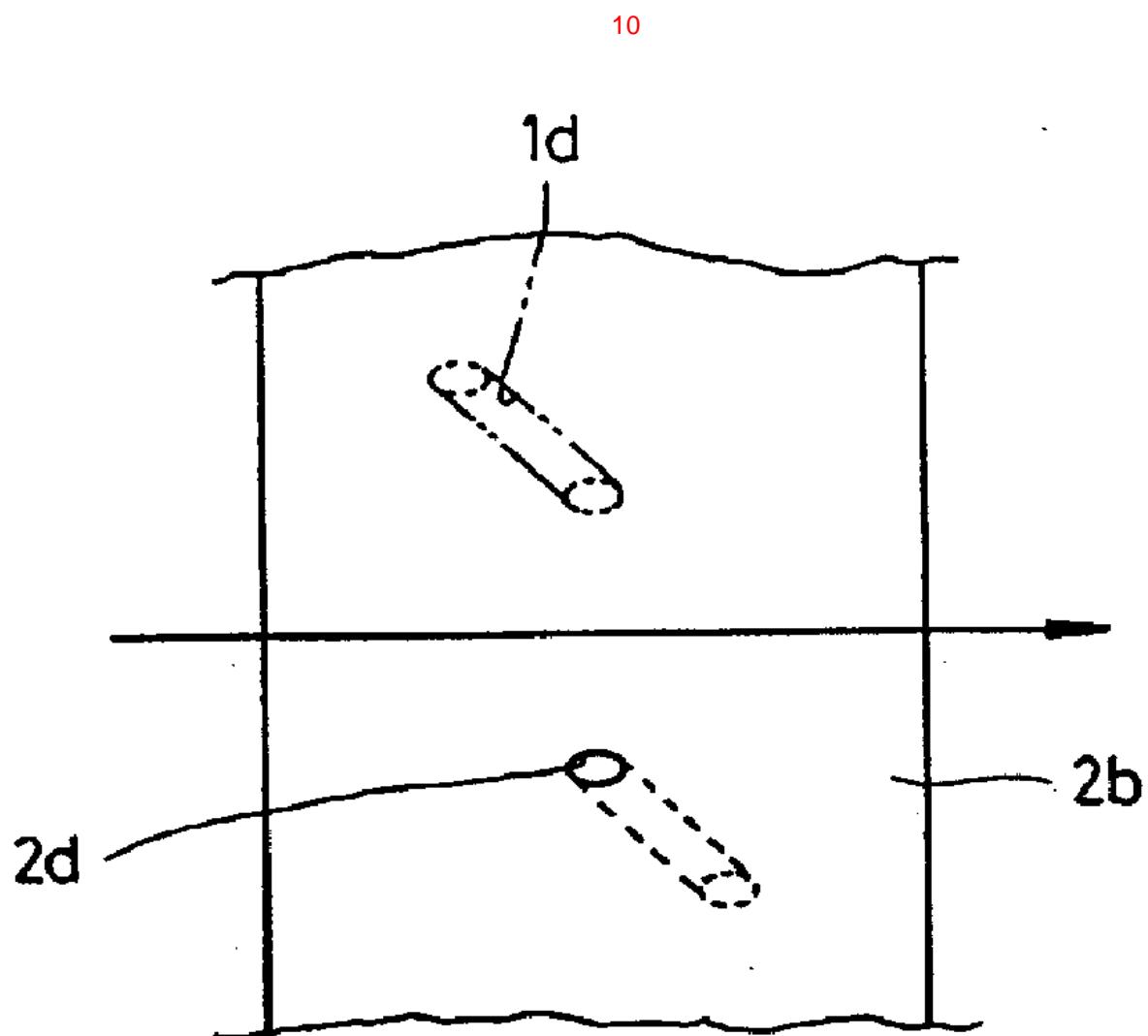


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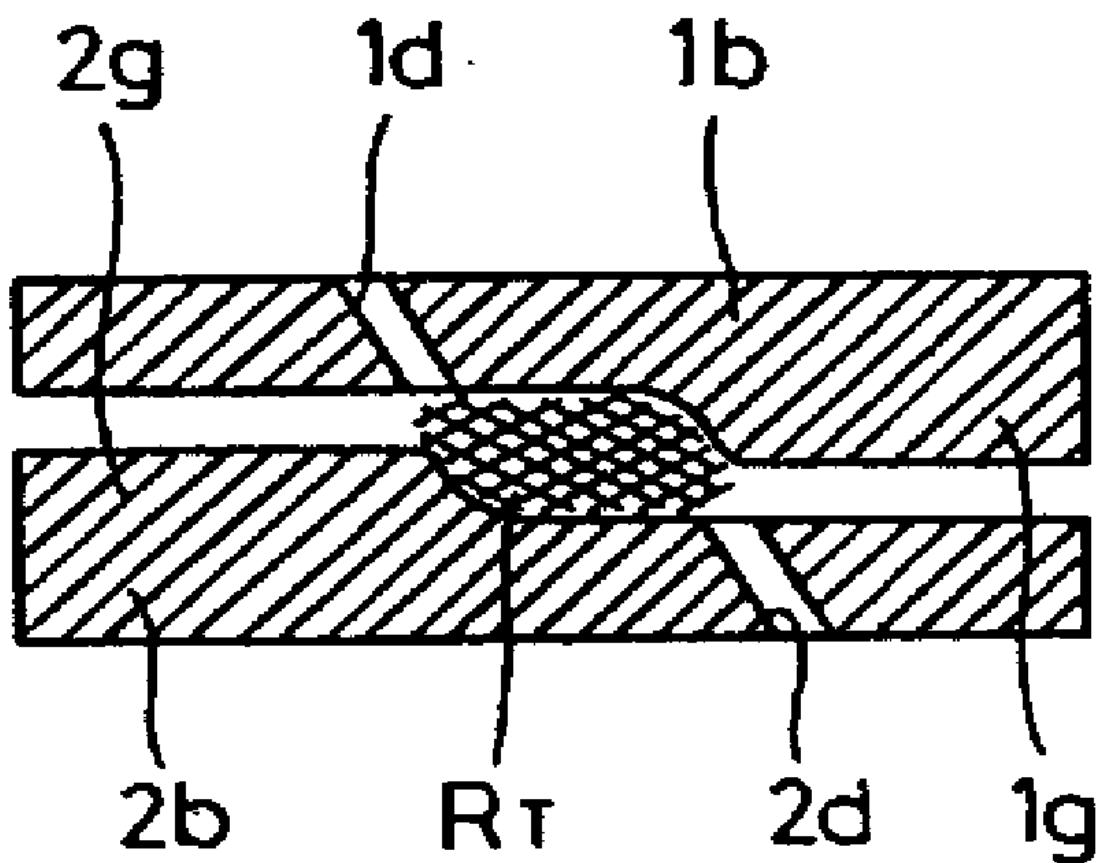


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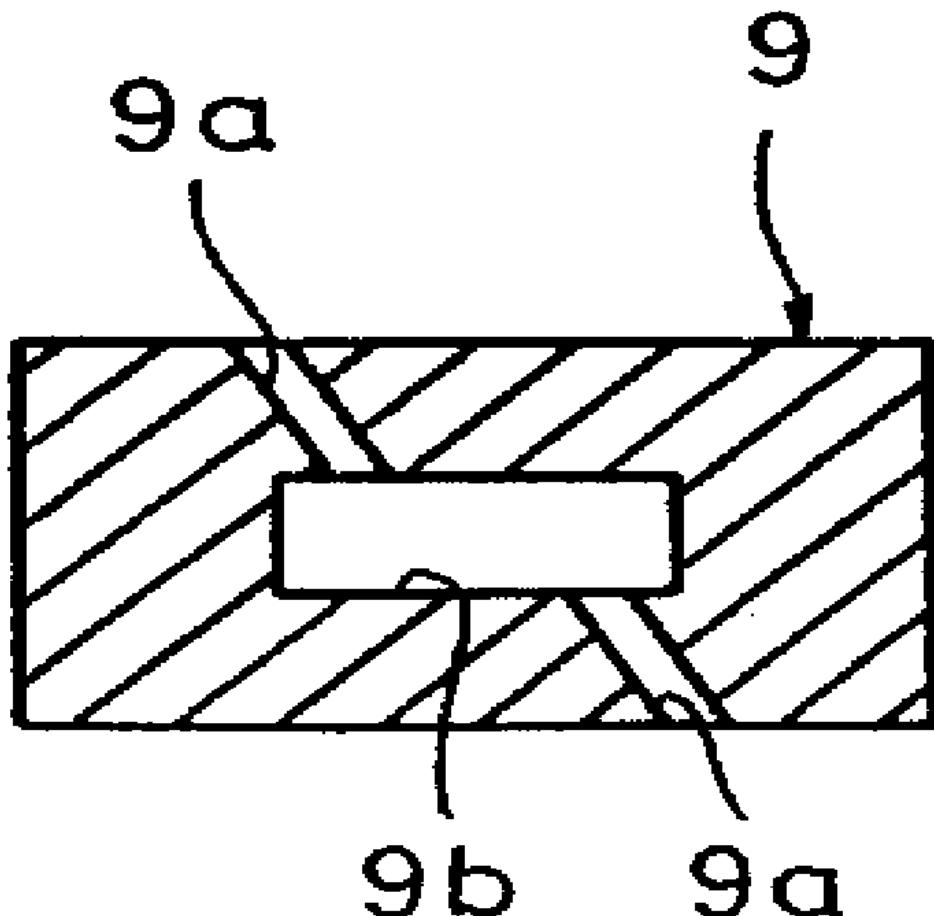


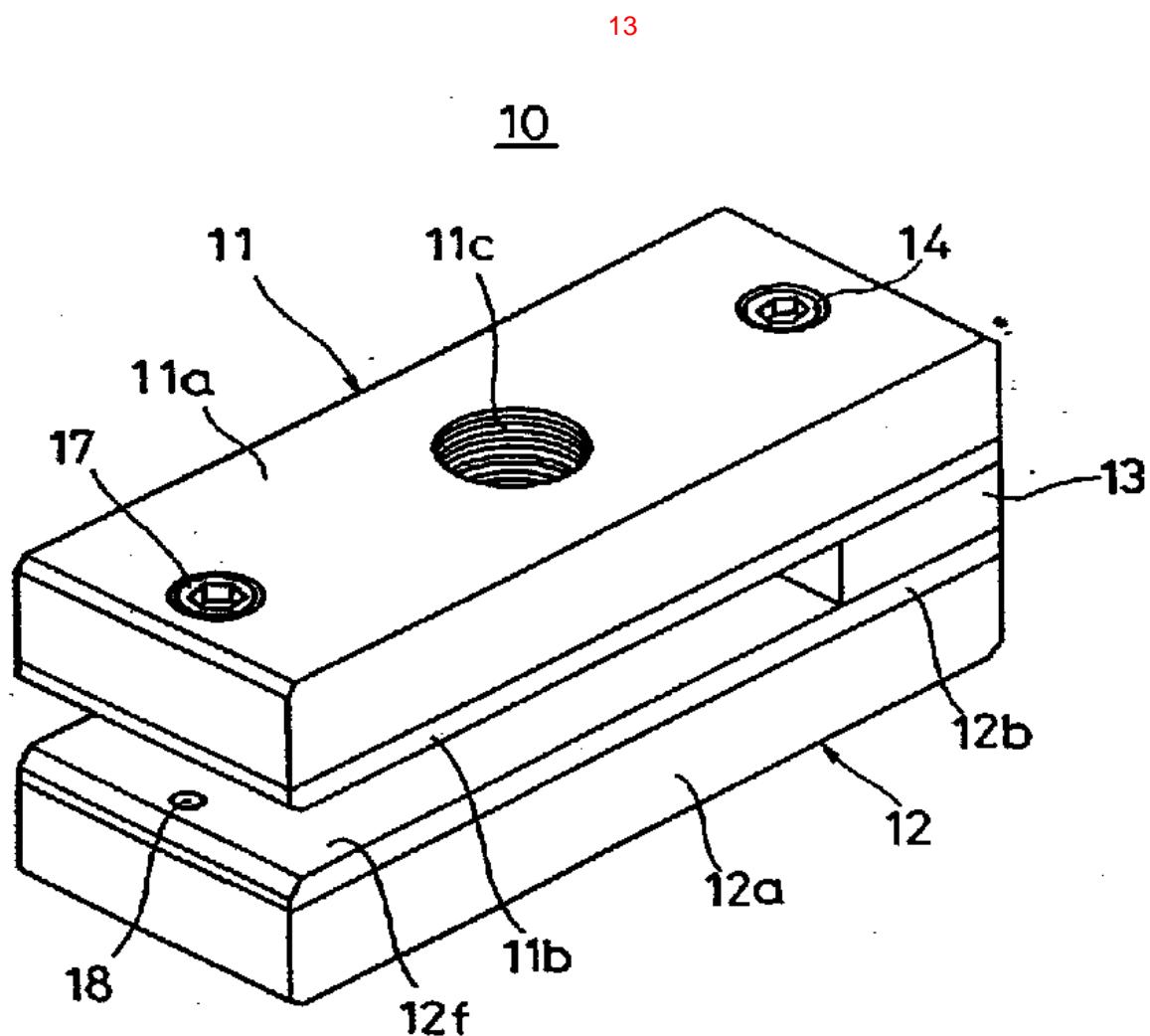


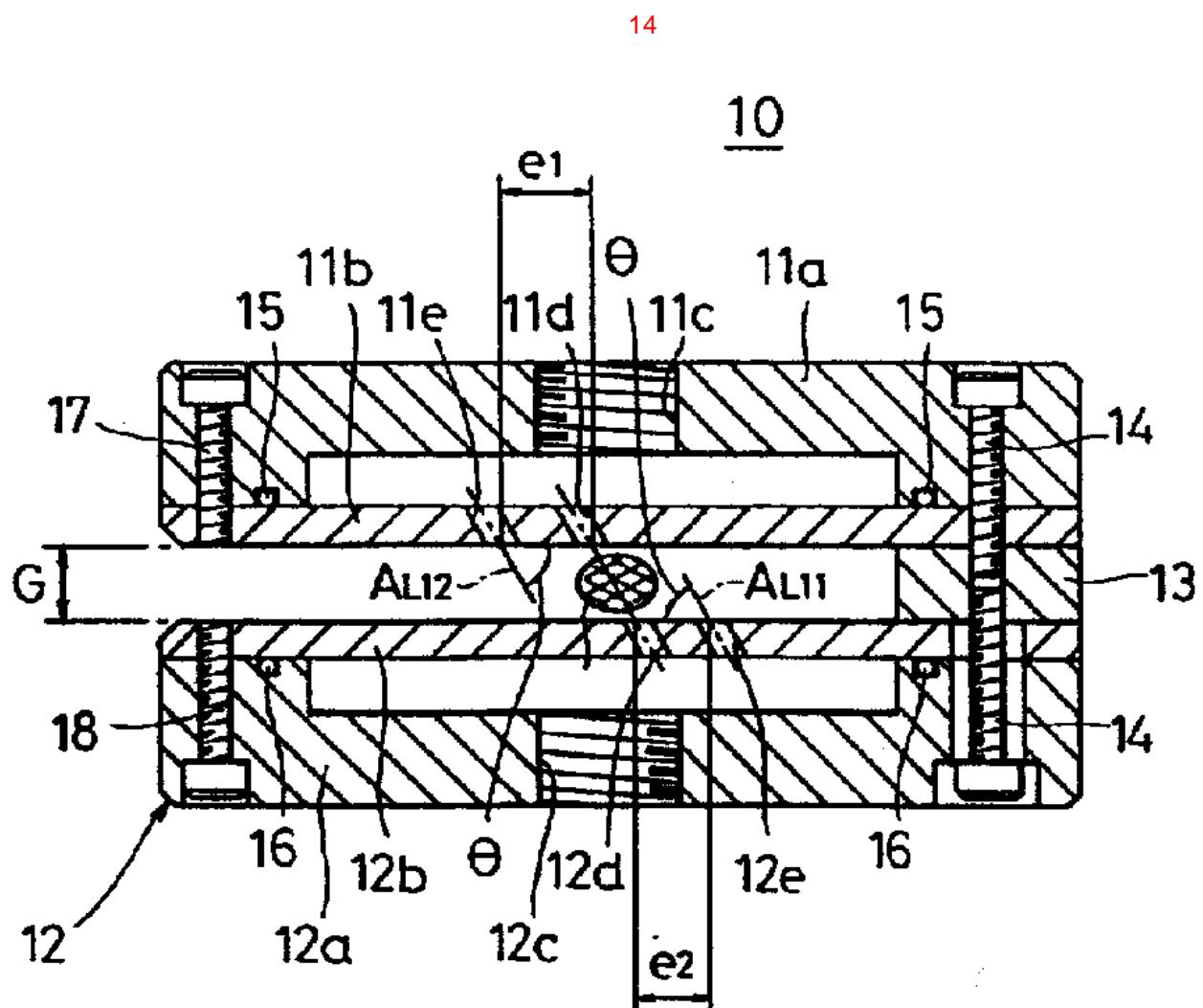
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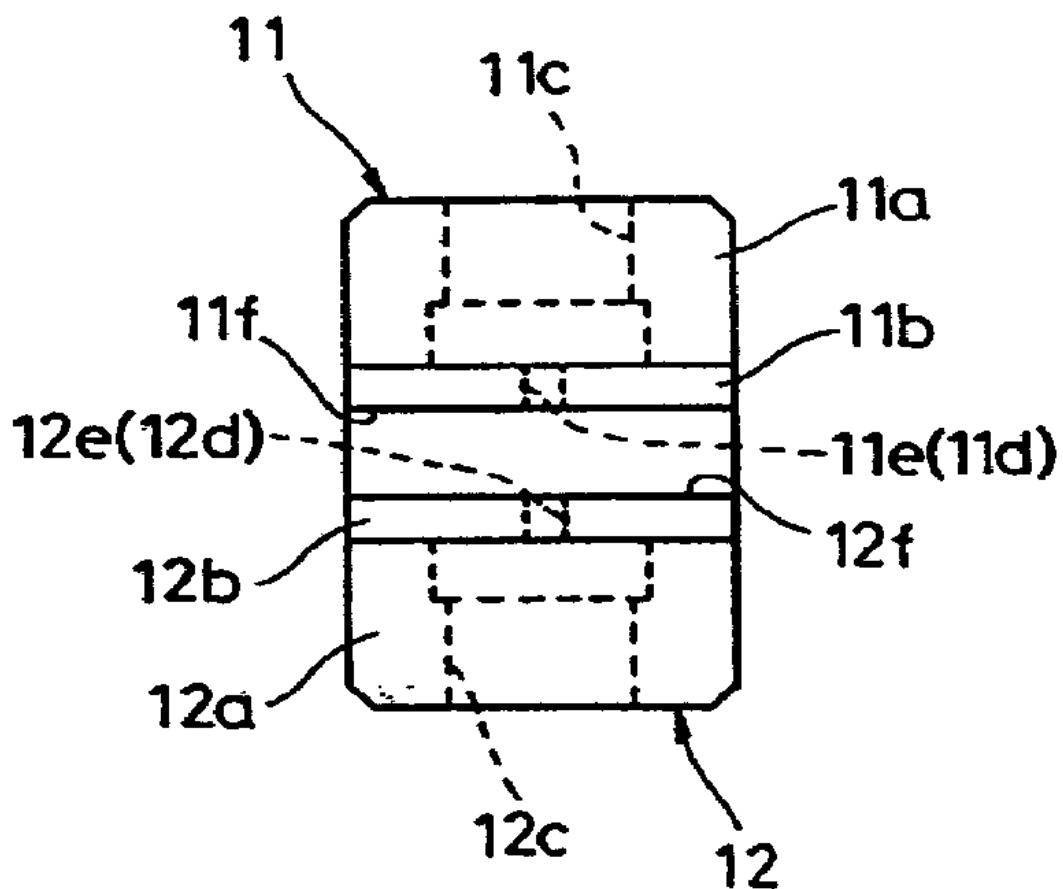
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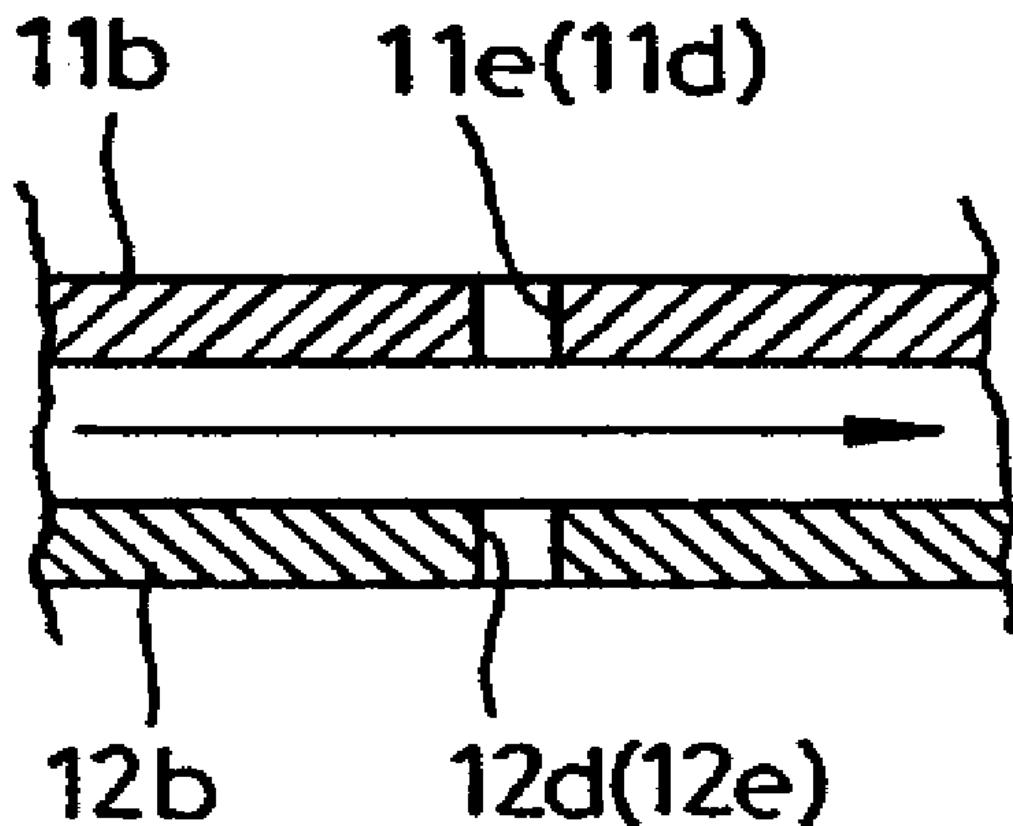




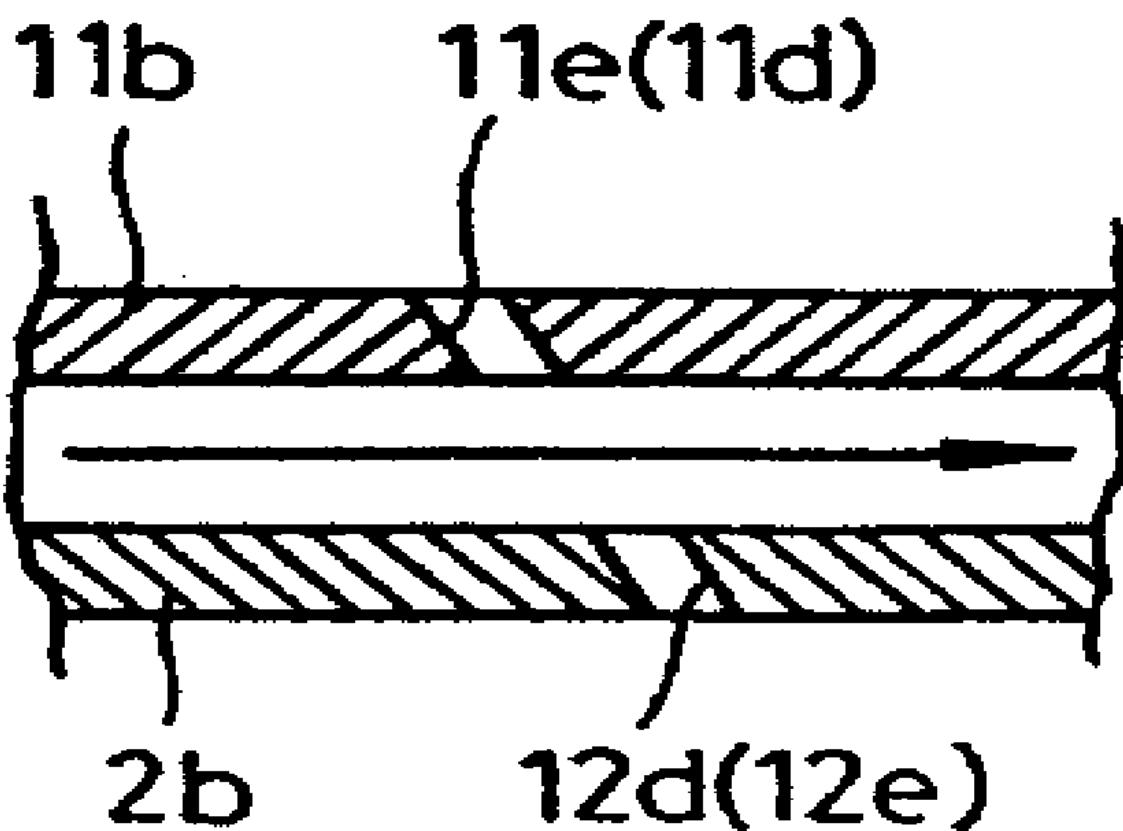
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10

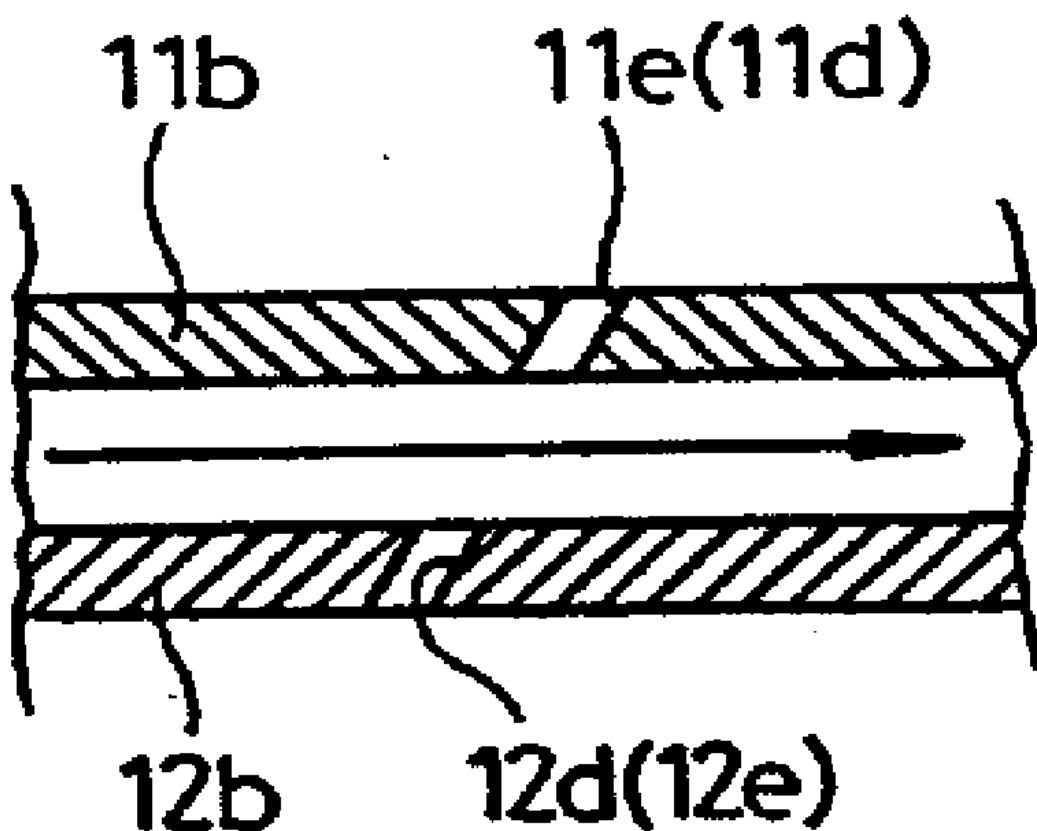
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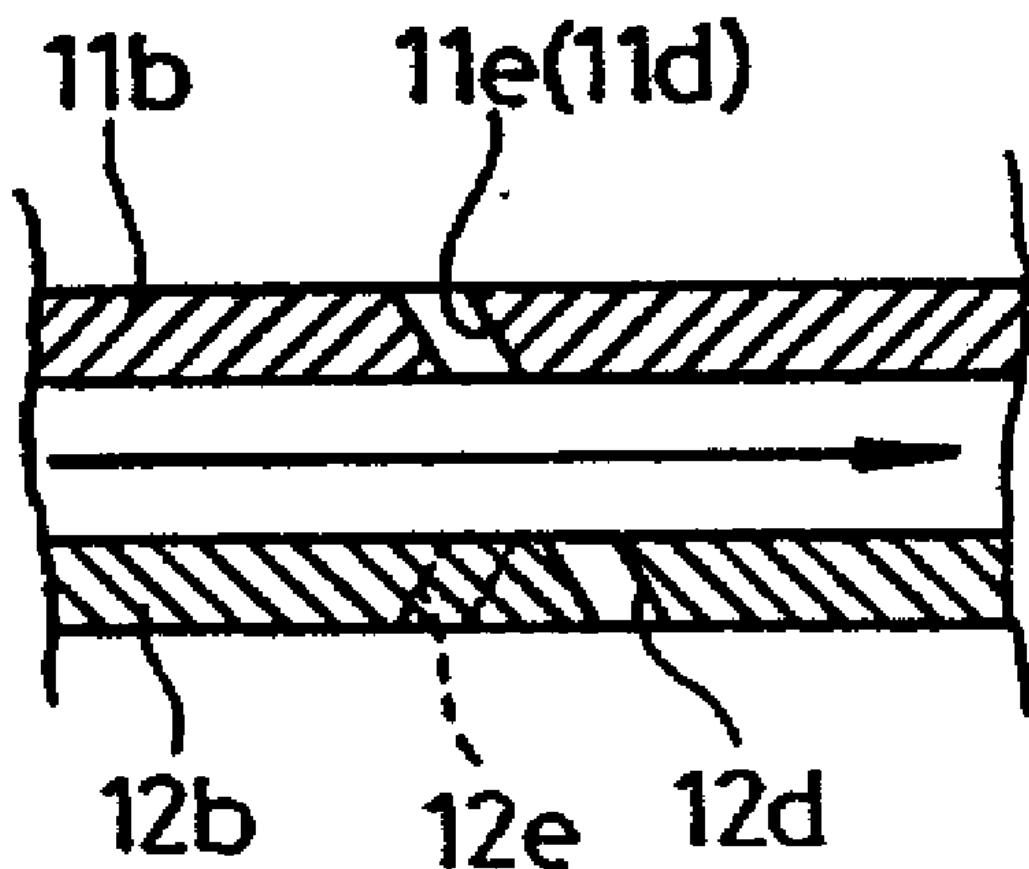
17



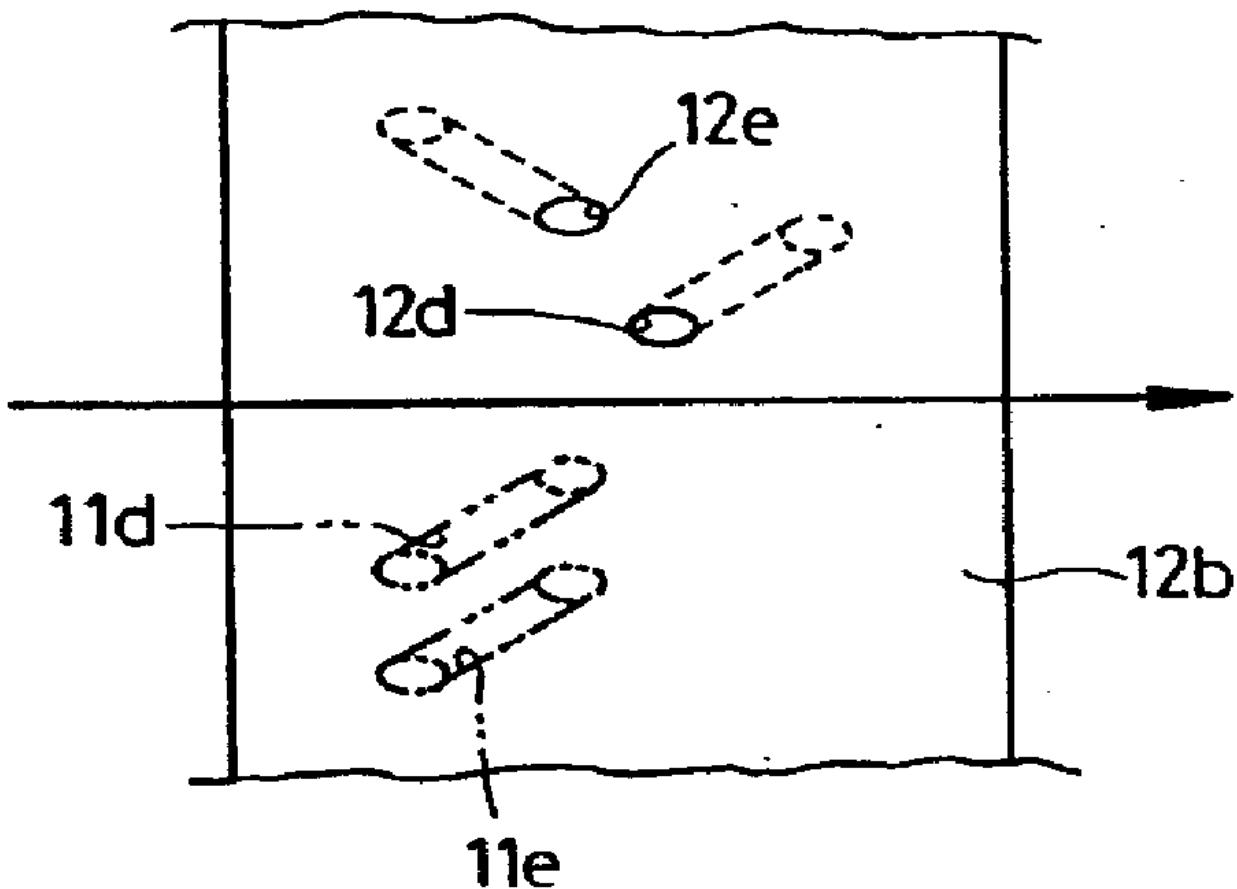
18



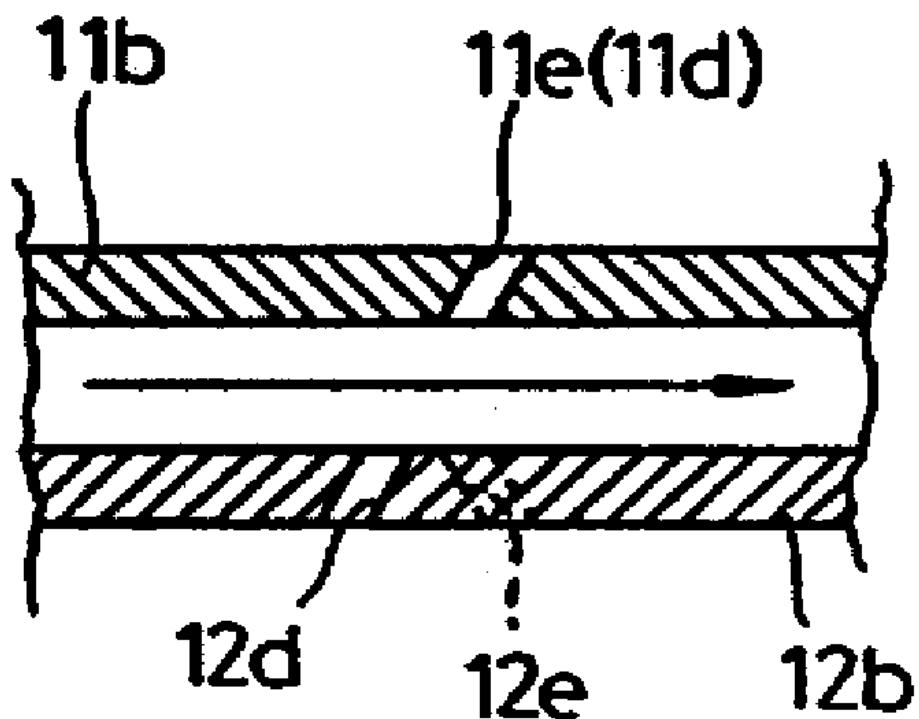
19



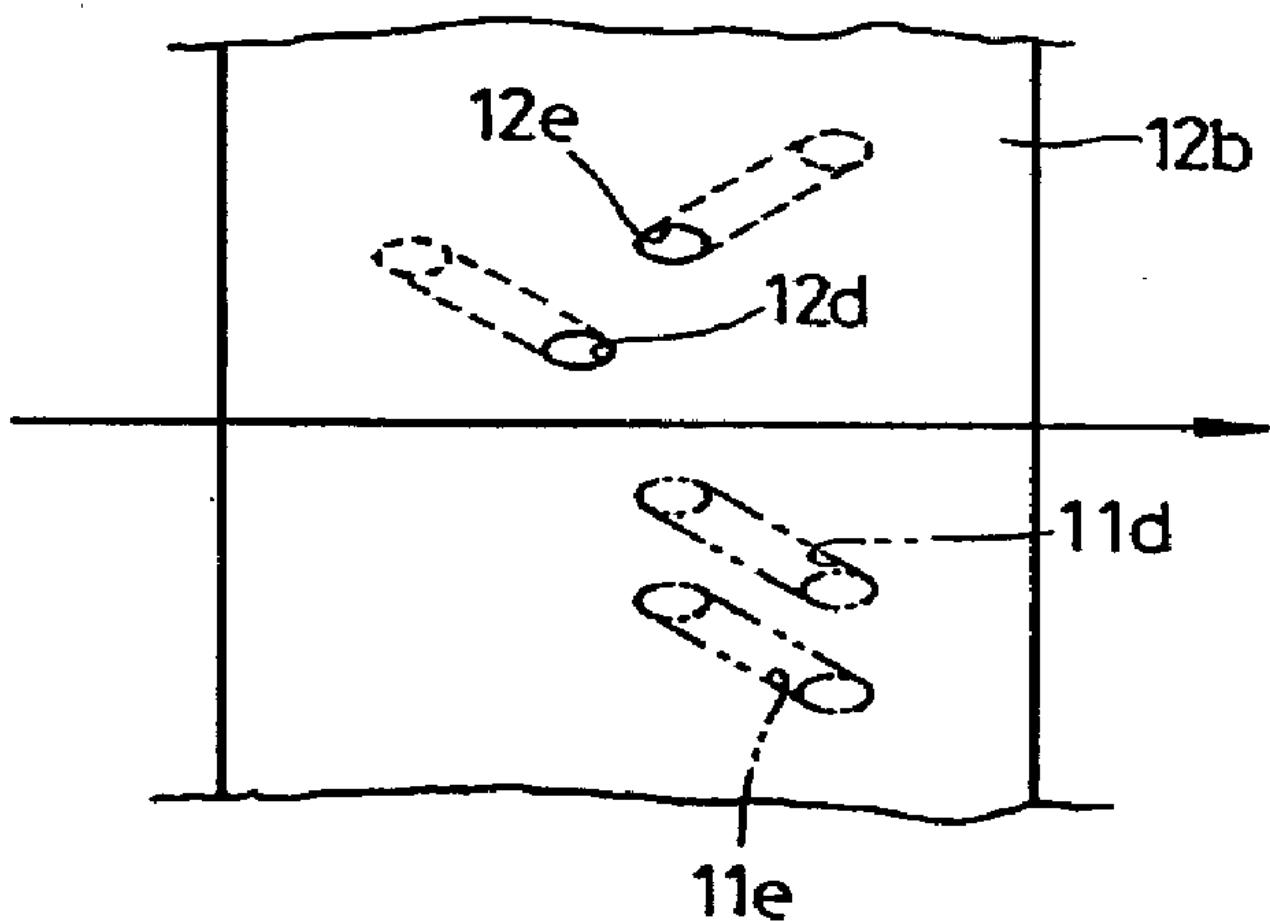
20

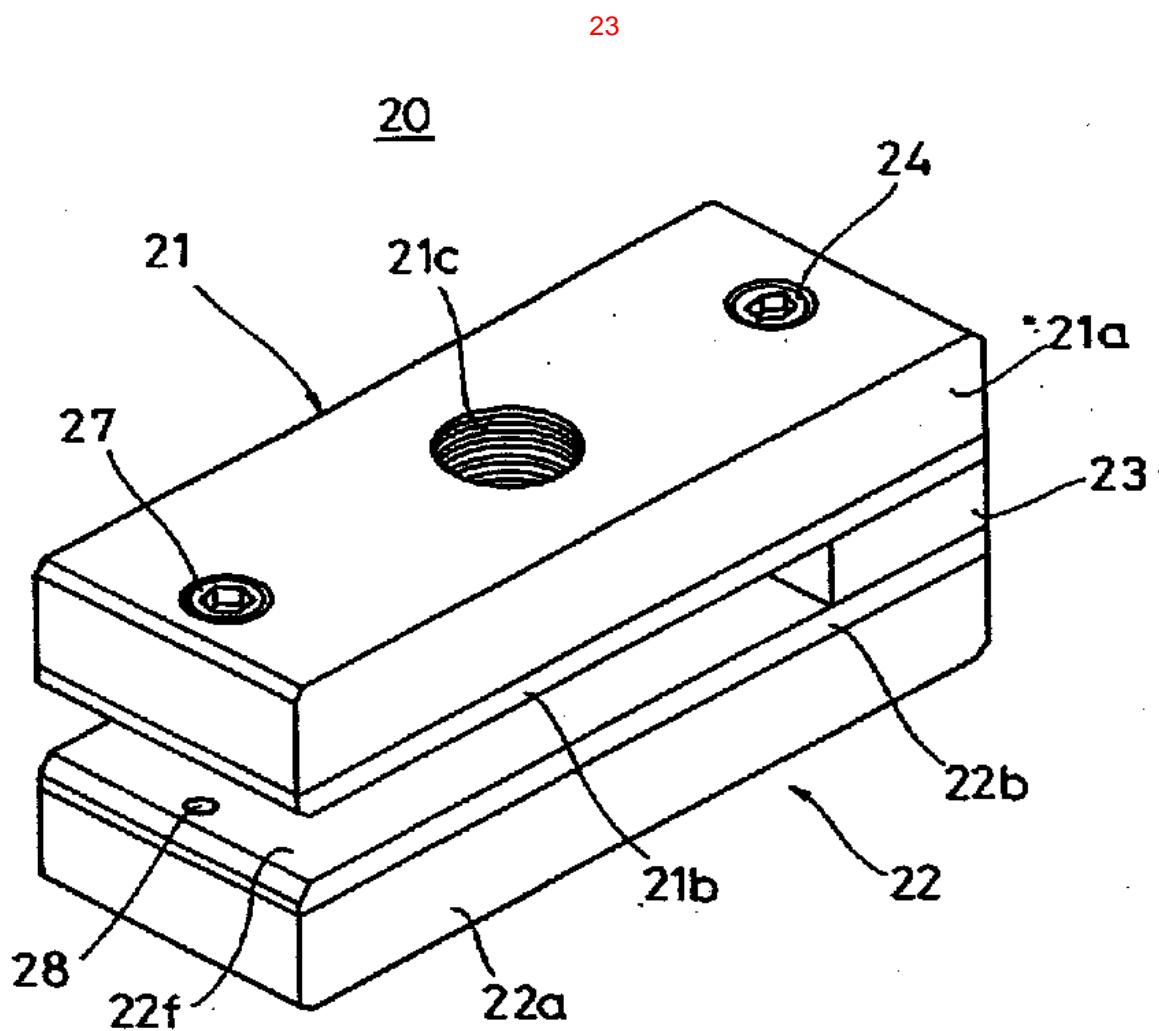


21

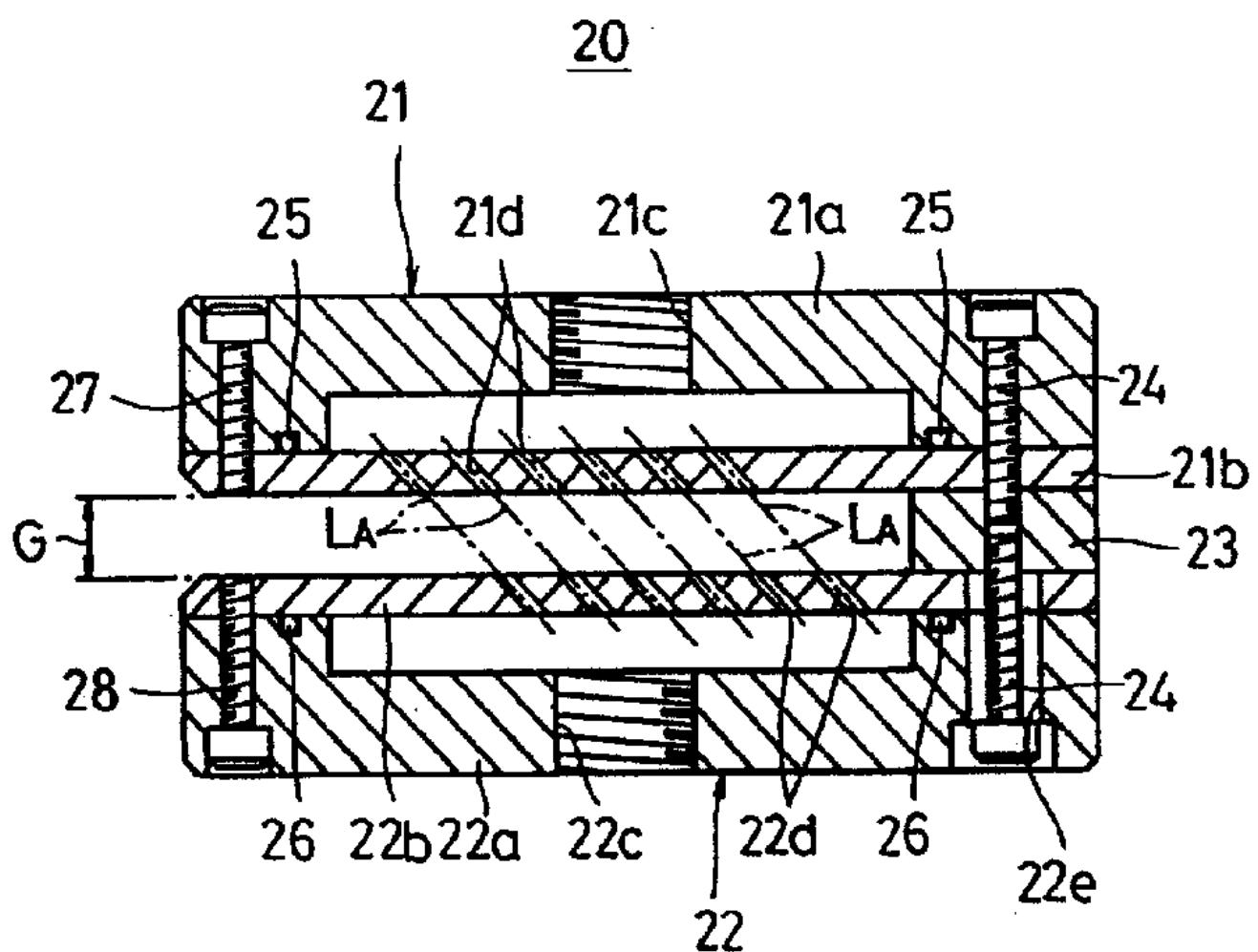


22

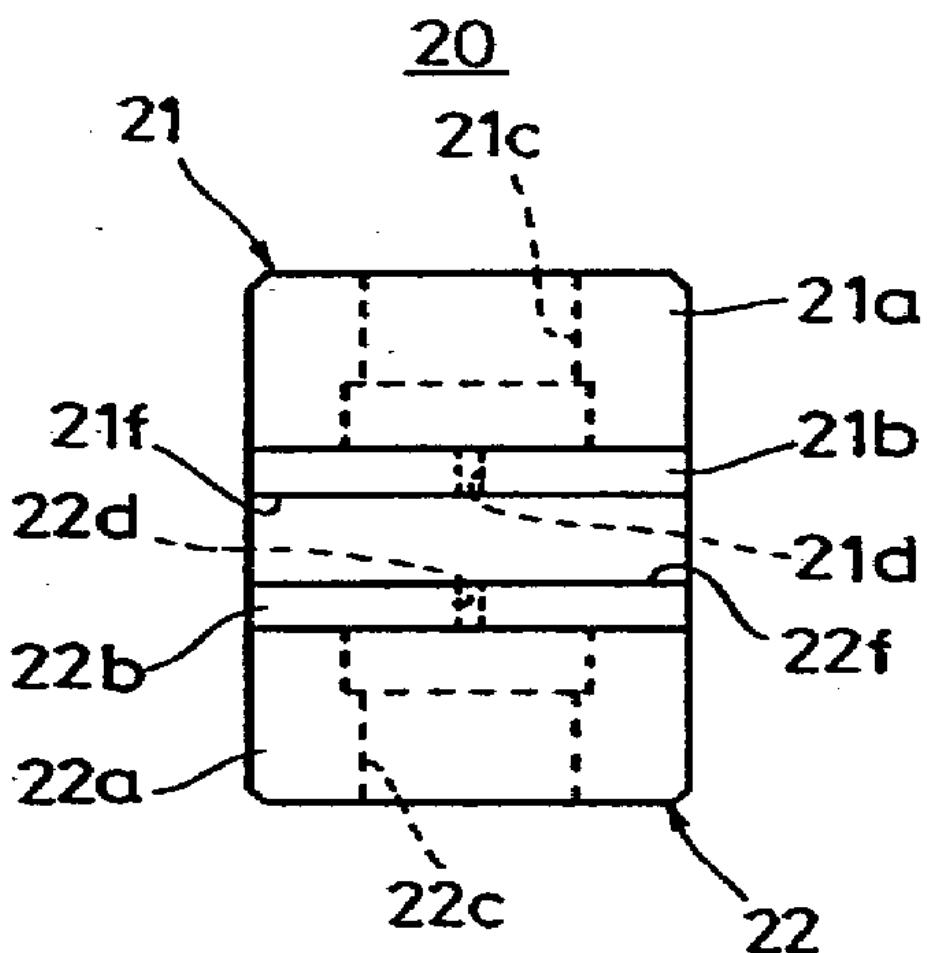




24

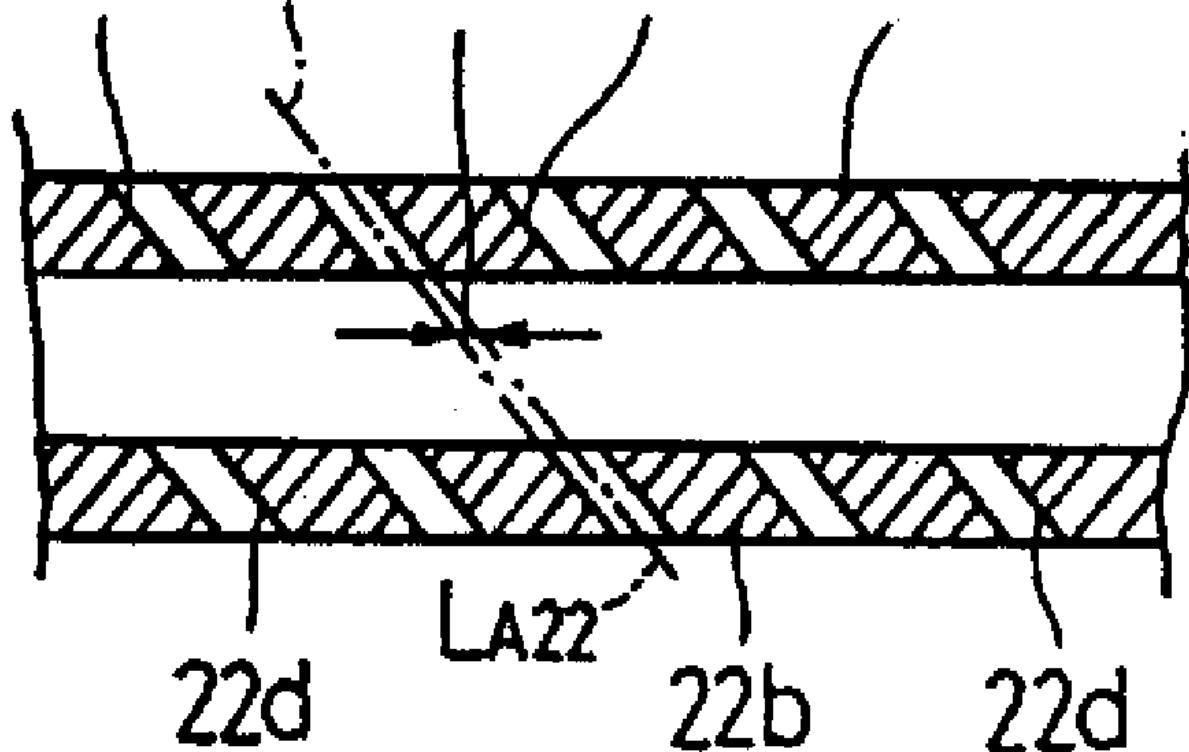


25

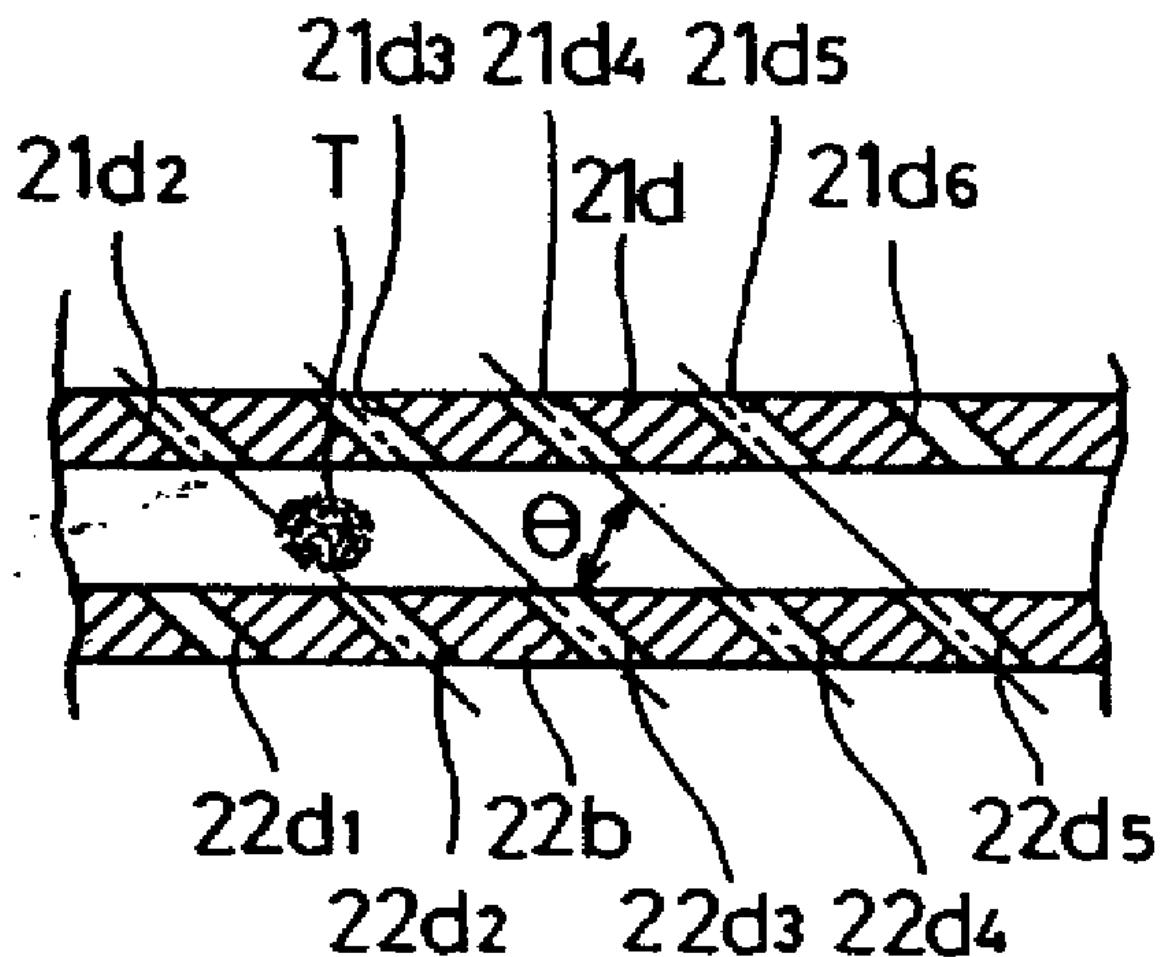


26

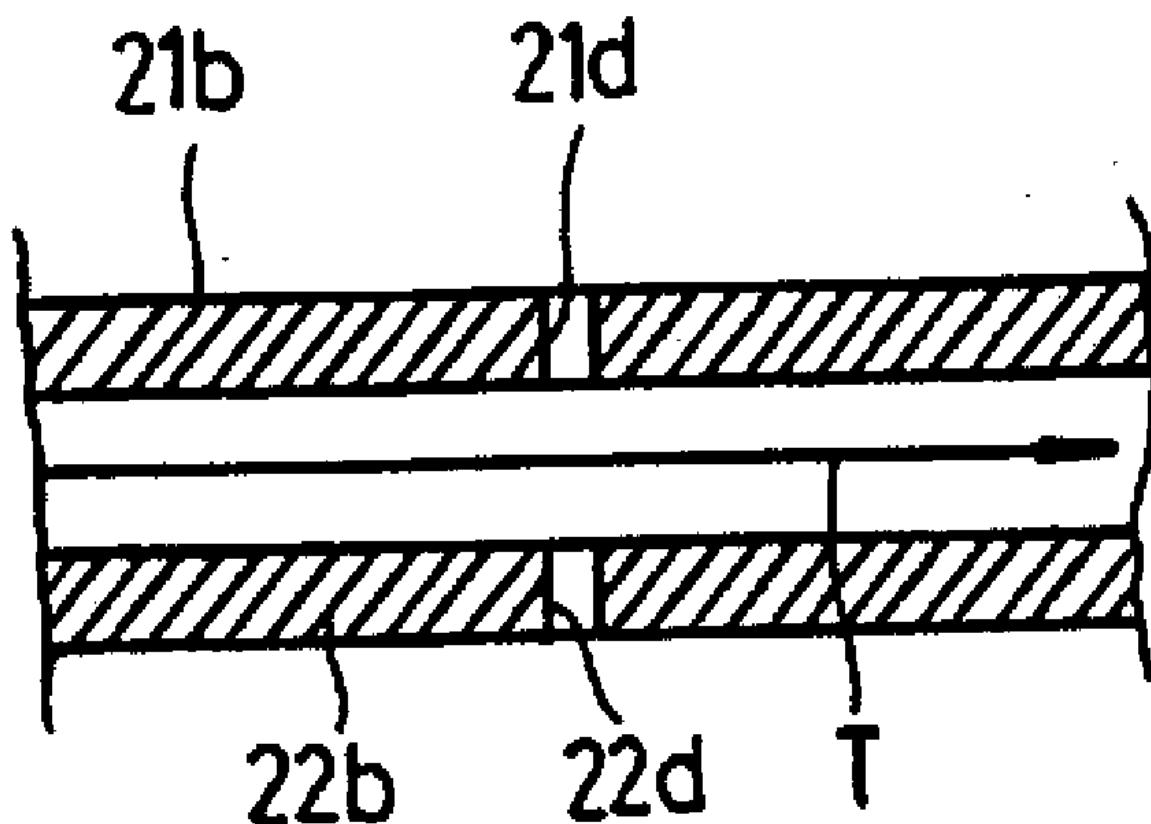
21d LA21 e 21d 21b



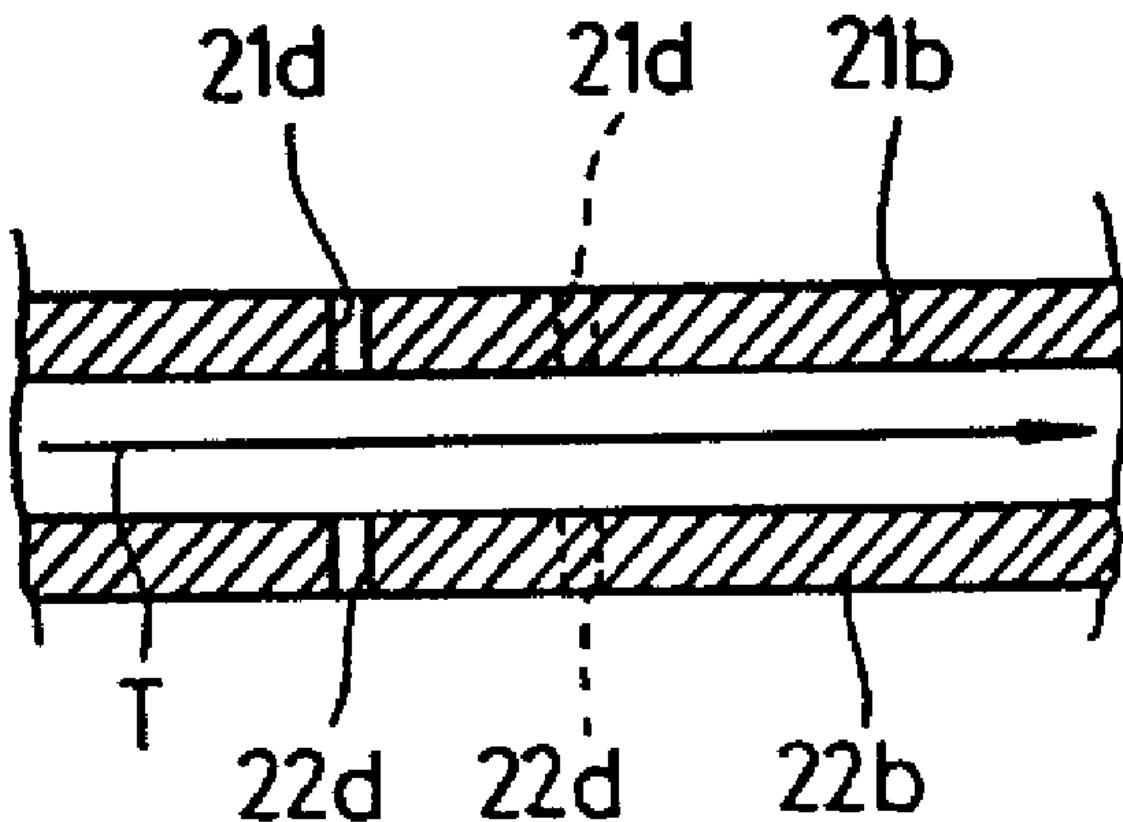
27



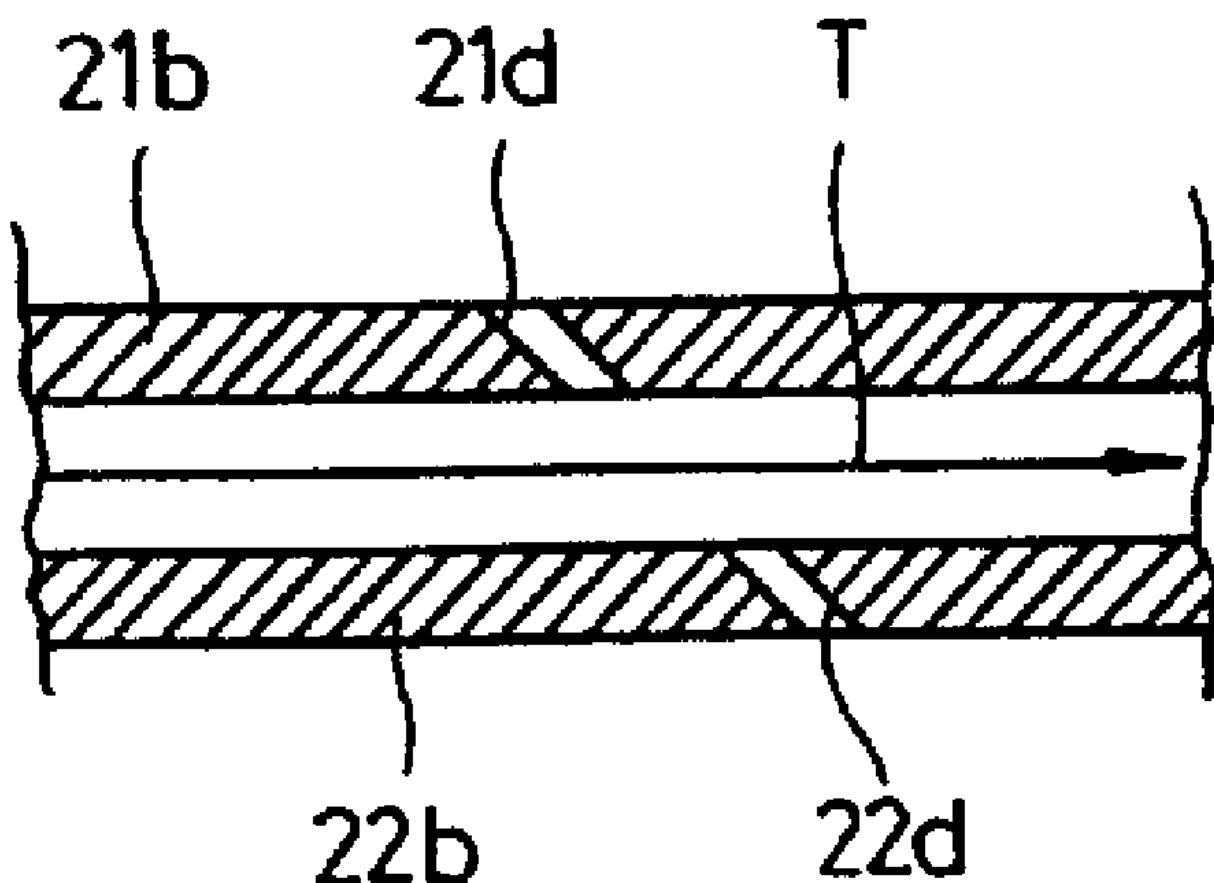
28



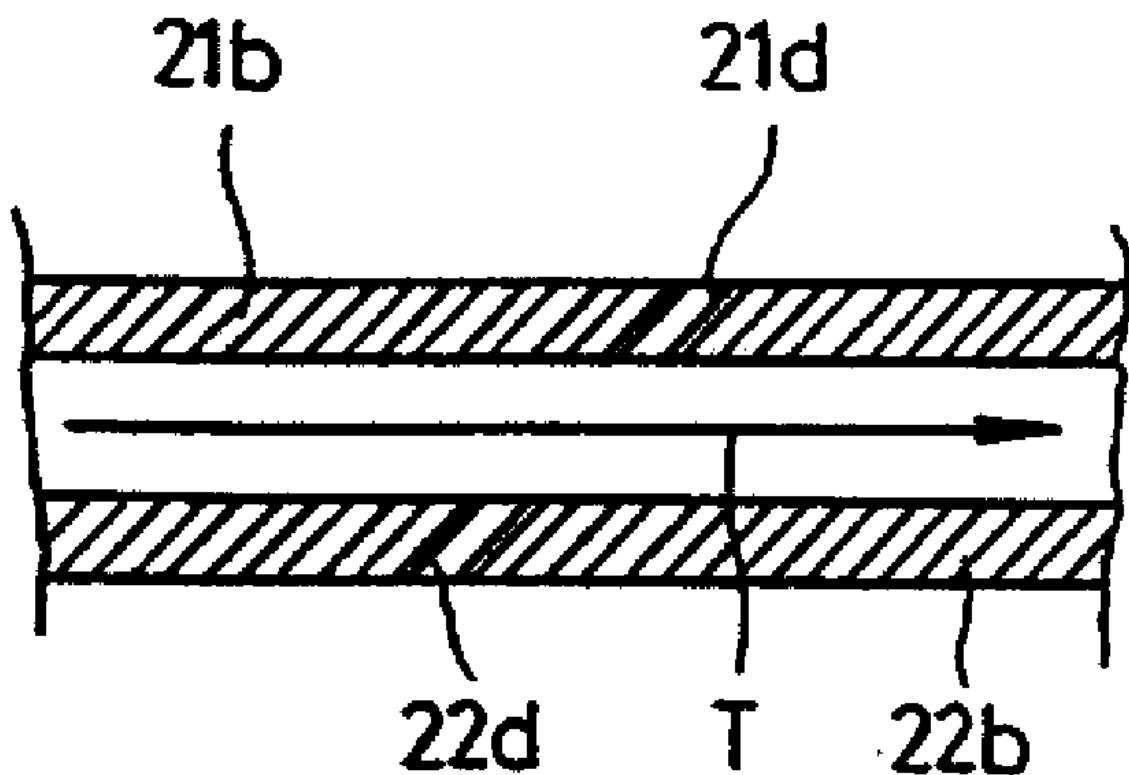
29



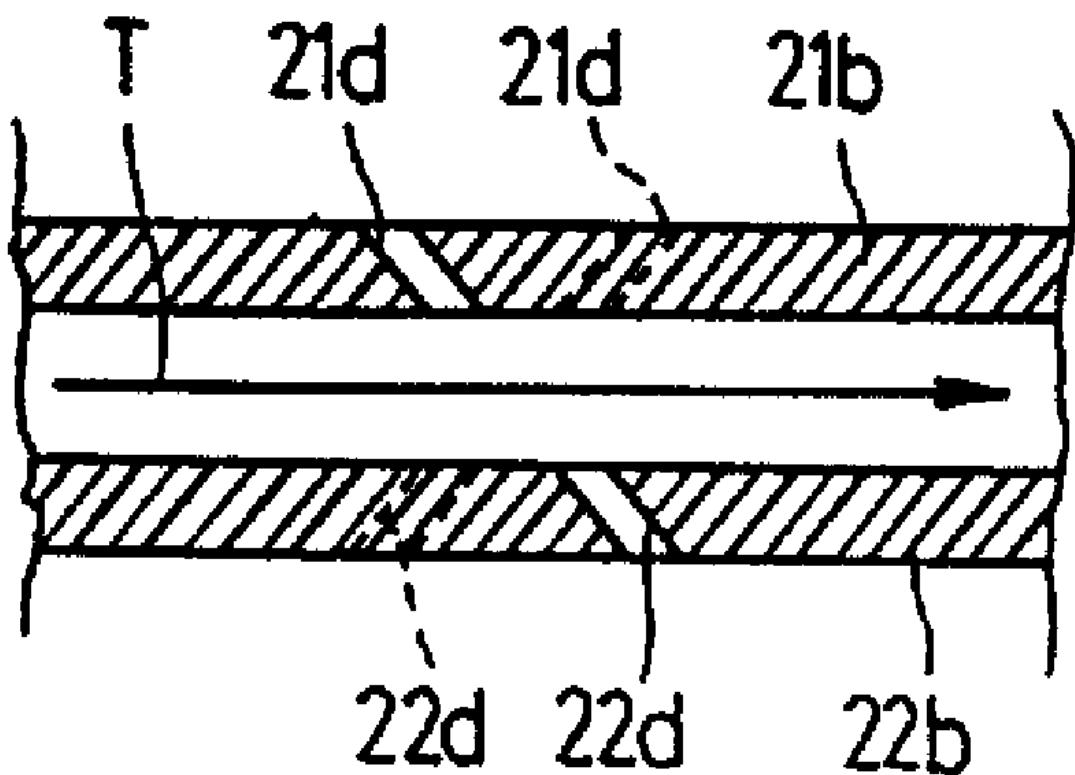
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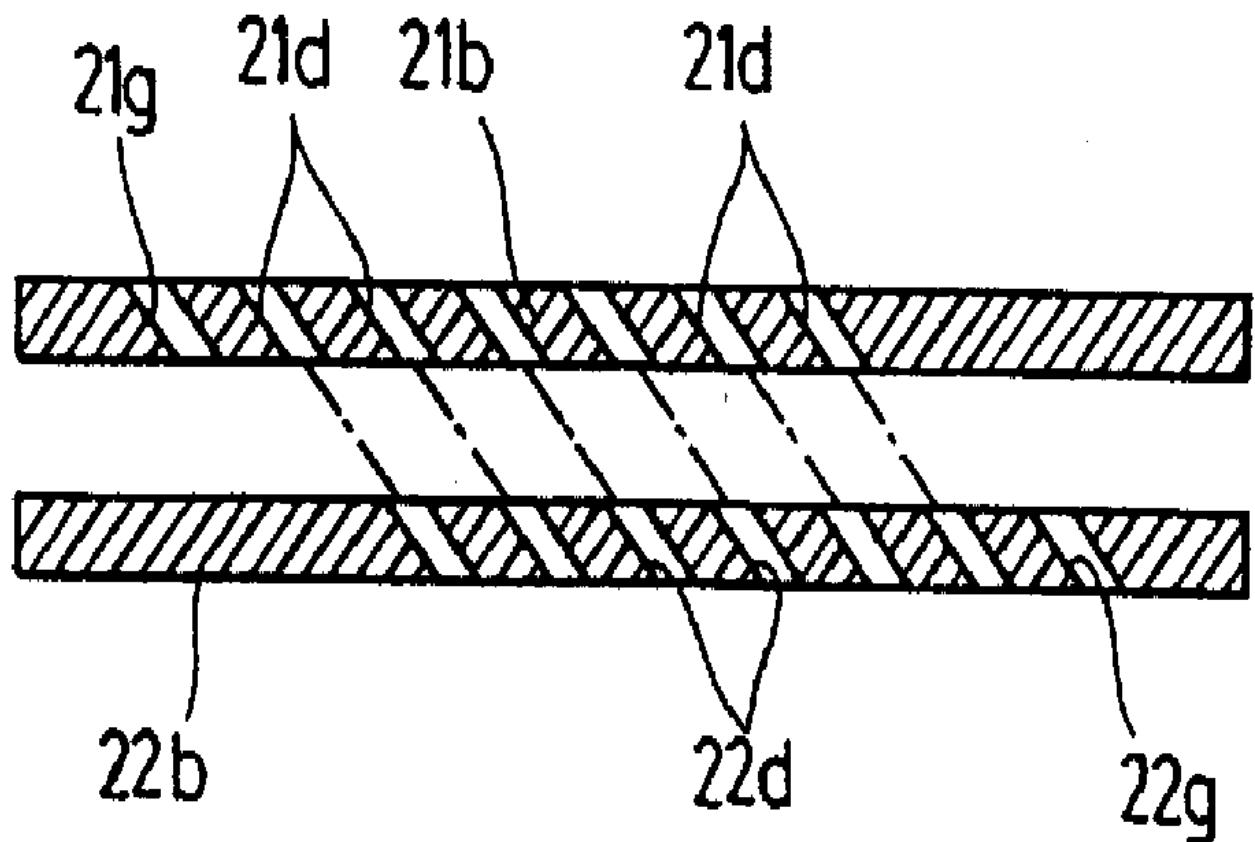
31



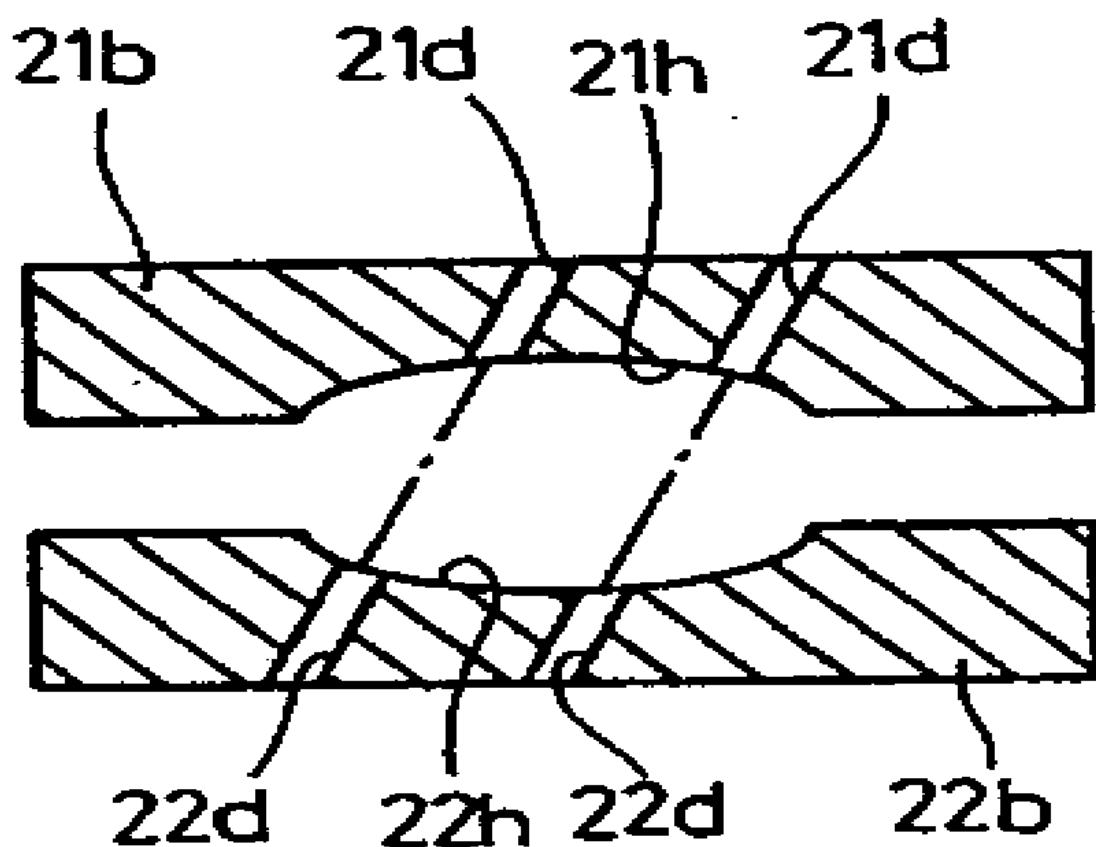
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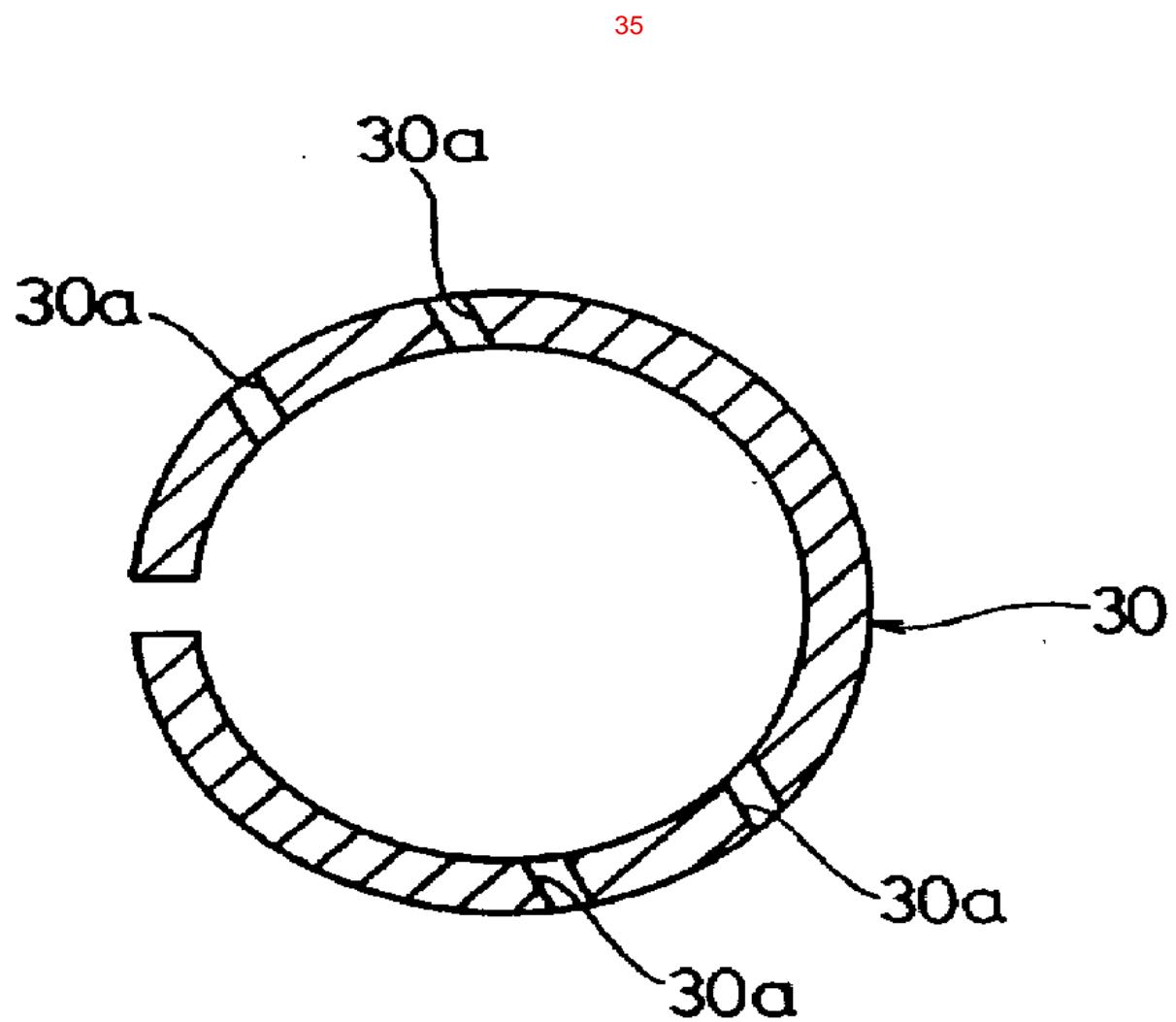


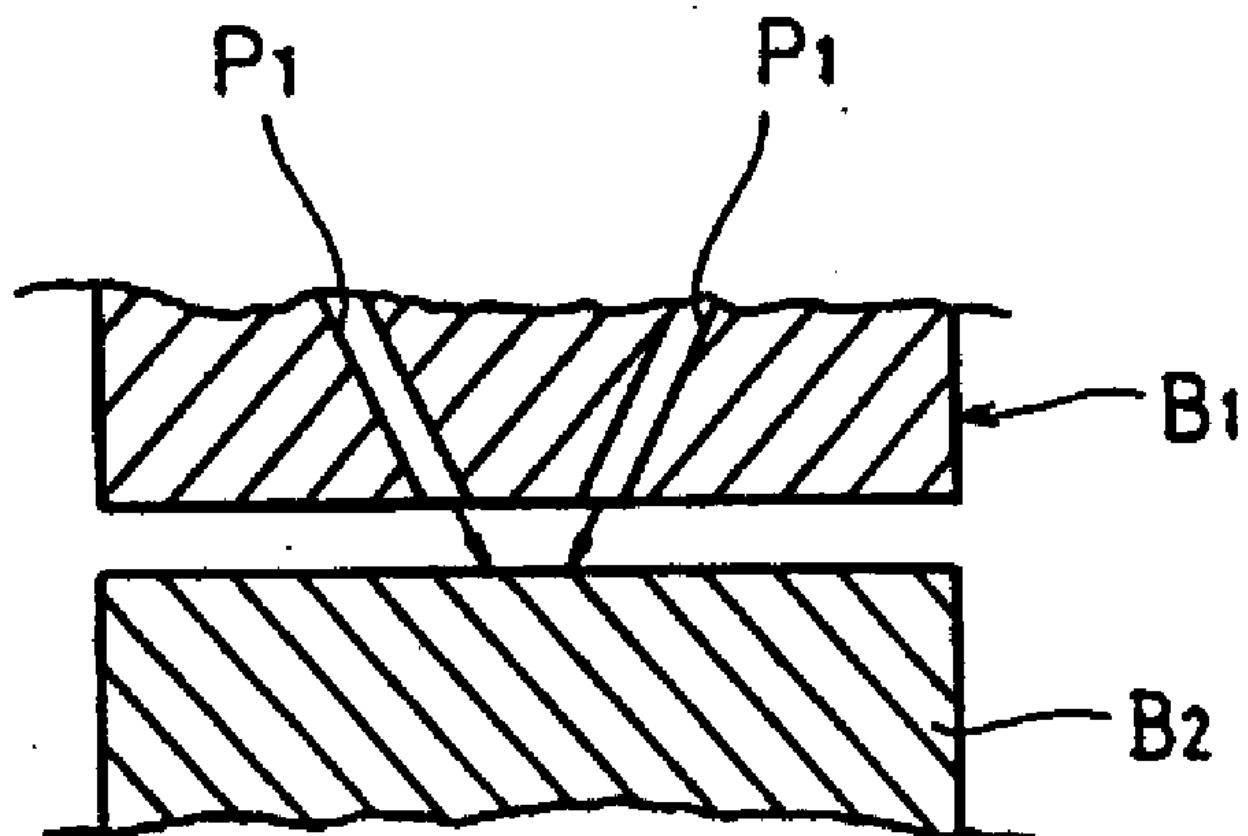
33



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