

(19) (KR)  
(12) (A)

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A47L 23/22

(11)

(43)

2003-0048098  
2003 06 18

(21) 10-2003-7005991  
(22) 2003 04 30  
          2003 04 30  
(86) PCT/US2001/42910 (87) WO 2002/38029  
(86) 2001 11 05 (87) 2002 05 16

(30) 60/246,602 2000 11 08 (US)  
09/985,456 2001 11 02 (US)

(71) 24017 2840 A

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98335 .44 1807

01776, , 29

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2000	11	8		60/246,602	35	USC	119(e)	
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6,233,776				09/553,234	1999	5	4	09/304,05
1	2001	4	24	6,219,876		1999	10	15
				09/418,752				

가 가 가

Amos 3,785,102  
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Amos et al. 3,717,897 . . . . . '897  
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'Hap

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21 가



가 100 가 100 가  
가 210 가 300 /  
가 210 200 300  
가  
100 polymer) 220 220 (light  
100 5,945,502 5,869,350  
5,723,204 5,604,027 4,126,854 4,143,103  
가 (Gyricon) 가 (pixel)  
etting) 가 (refresh) 가  
use) MA 02138, Cambridge, Spinelli Pl. 45 E 2  
가 (grid) 2가  
200 300 200 210  
200 , 300 200 100  
100 100

가



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 5-12 23-27  
 300 322  
 320 300 5 300  
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 6 7 324 300 300  
 , 300 ,  
 가 330  
 5 322 320 300  
 6 7 330 , 2 324  
 300 , ,  
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 00 500 8 300  
 344 344 344 (aperture) 342 300  
 344 344 340 342 300  
 300 340 300 344  
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 가 ;  
 가 ,  
 (gr  
 oove)  
 9 10 300 200  
 가 301, 302 303 , ,  
 301-303 , ,  
 0A 300 30 30  
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 300A  
 가 , , , ,  
 (boss) (bump)  
 가 , , ,  
 (indentation)

11 12

11 301 302간 300C 300

가 가 가 가 가 가

12 . , 300 301 302 . 200 301 302가  
200C . , 200C

11 12 300

(talcum) 가

가

700, 200 / 100, 300, 700, 200  
300, 가, 700, 710, 710, 100, 720, 710, 100,  
LED 300, 가



17-22	300	100	300	300
,	1700	1710	1710	17
가	1710	1720A-D	1720A-D	1720A-D
	1720A-D	,	가	1700
			1710	1720A-D
18-20	1800	1800	1800	18
가	1810	1820	1810	1810
0A	1810A	.	,	181
			1810A	
19	1830		1810B-D	
			(perforated joint)	
			1820	
20	1830			1830
	1840		,	
				(folder)가
	Kleenex	가		가
	1800	.	.	
21	2110	2120		2100
/			,	2110
		2110	,	가
2120		,	2110	2110
		,	,	가
2130	가	2110	2-3	2110
				가
2130		,	,	가
2110		2130		가
,			,	
2130	2140, 2145	가	2140, 2145	2110
2120	2130	2140, 2145	,	(groove)가
2110	가	2130	2130	2140, 2145가
130	가	가	2110	2110가
	가	,	2	
2130				2
2100	2140, 2145			
가	2150	2130	가	(catch basin) 2150
			2130	2110
		가		2150
			가	



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(glass transition)

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(miceller)

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(laminating)

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10 ( , 10 50 ), 가 5 ,  
14 10 14 10  
10 가 13  
11 50 500 12 100 1000 ,  
13 250 1500 14 250 1000  
10mm) 10 , 11 , 11  
11 11  
(grain)  
11 (block) (grafted)  
(filler)  
4 15 가 24  
2  
16 4 가  
2  
25 18 2 17 (checkerboard)  
19 0 20 17 17  
0 21 18  
26 23 22 24  
25 25  
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27  
( , 가 (gaur) , (locust bean) )



(57)

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3 , (groove)

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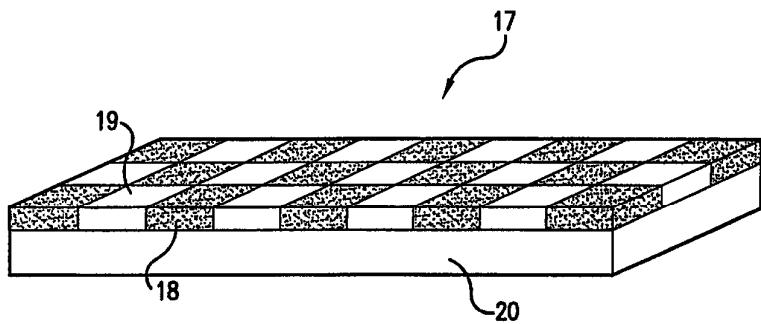
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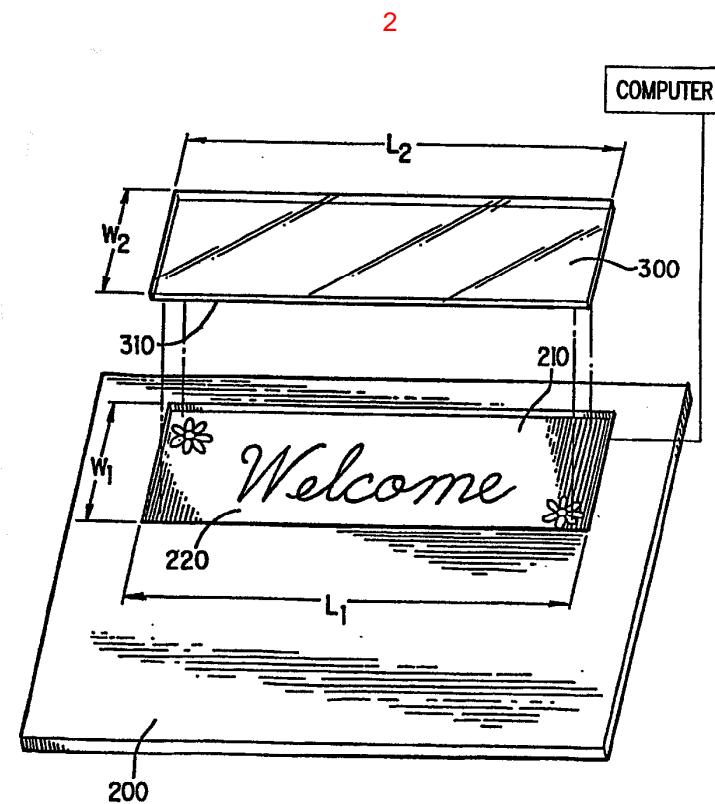
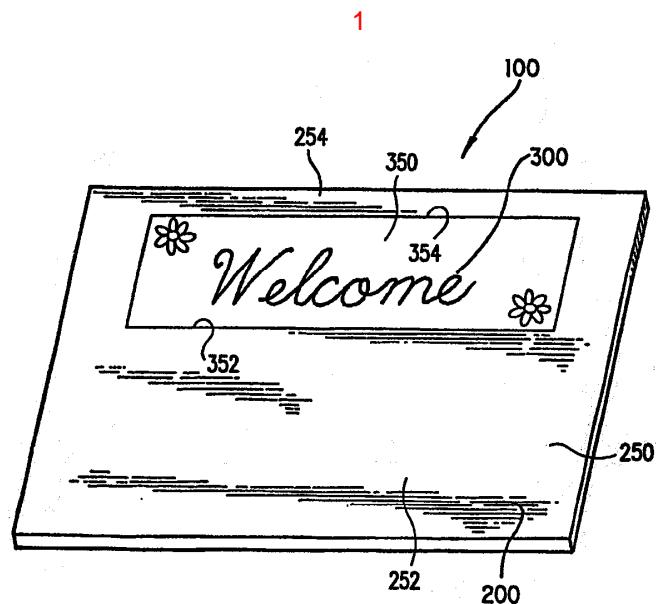
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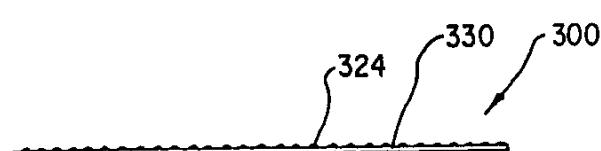
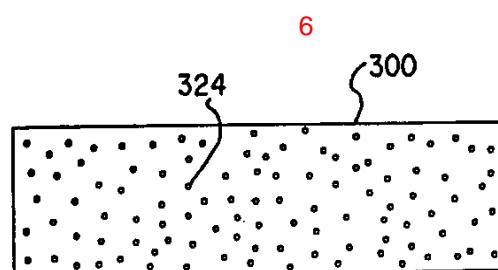
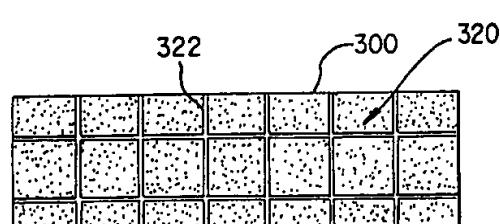
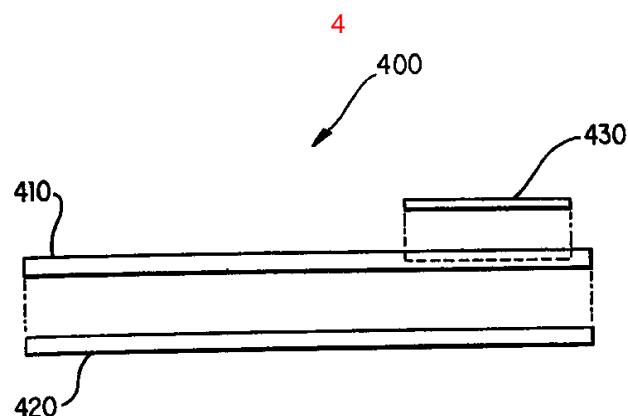
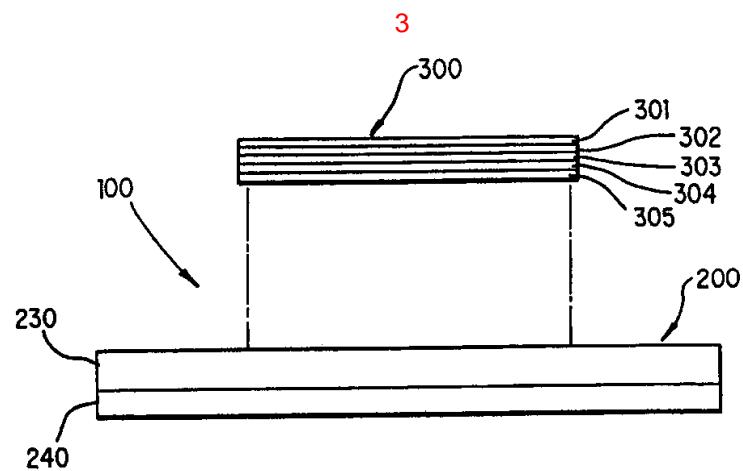
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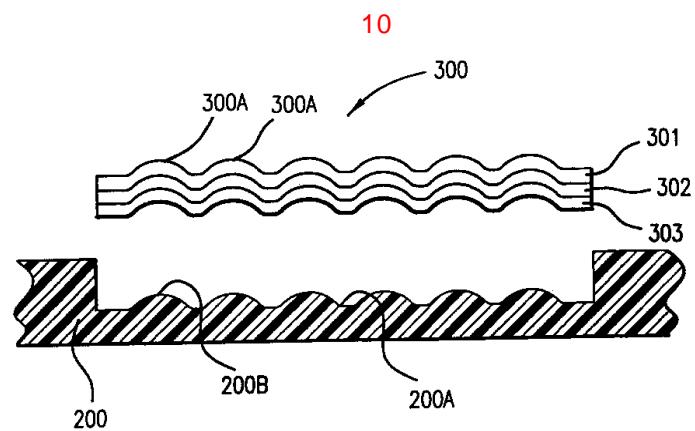
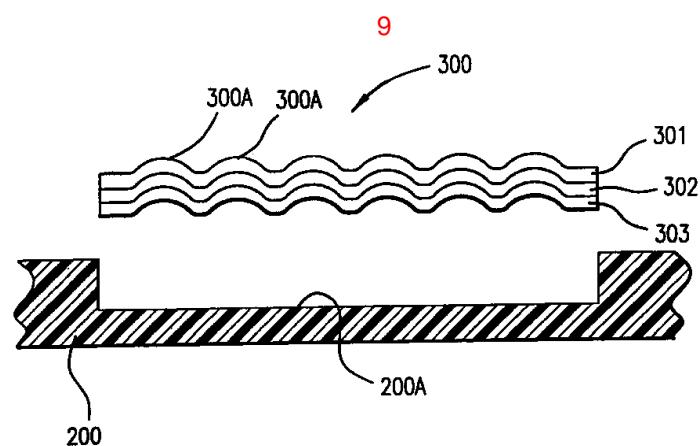
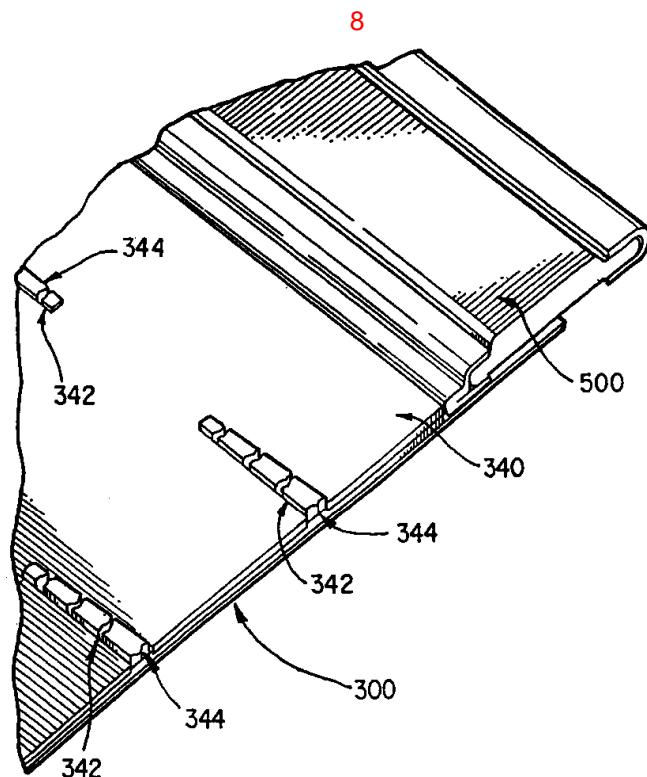
28.

(100)가 . , (100) 가 (300) .  
(230), (420), (240), (300),  
가 (301, 302, 303), (100),  
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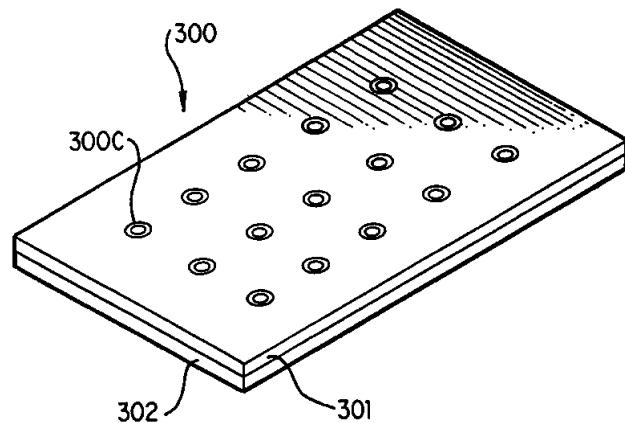




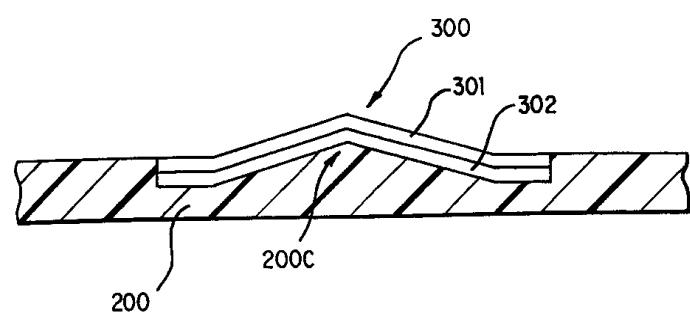




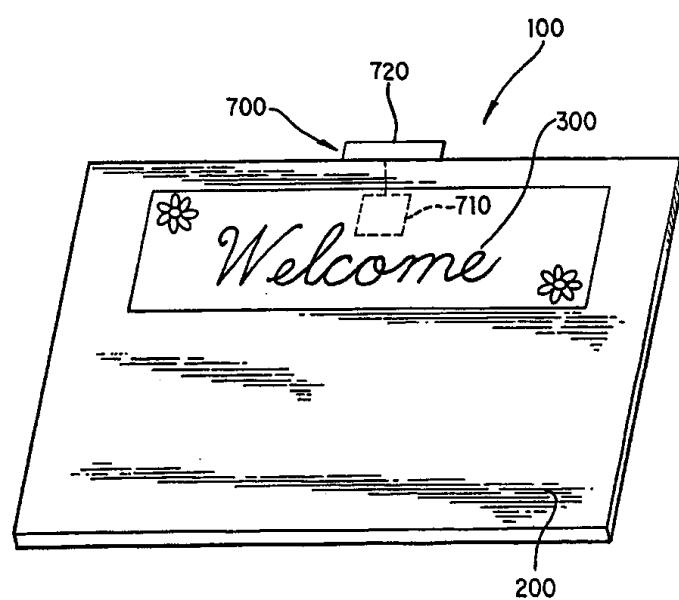
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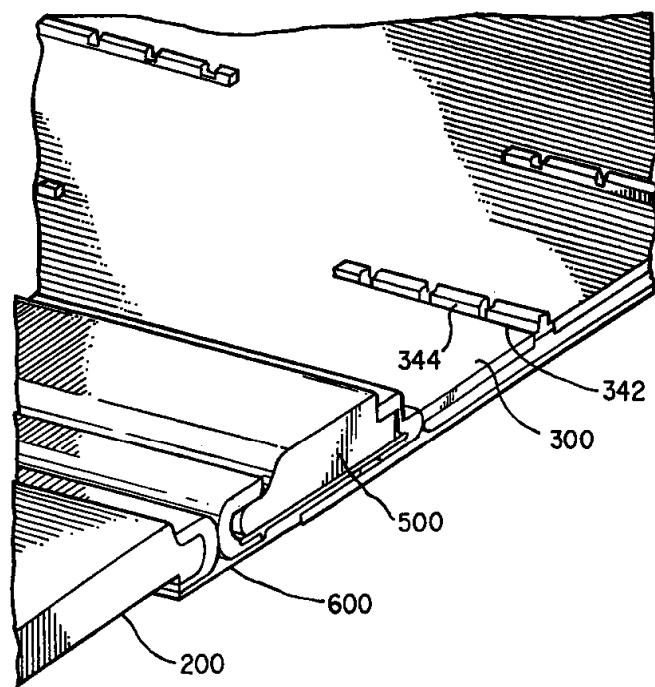
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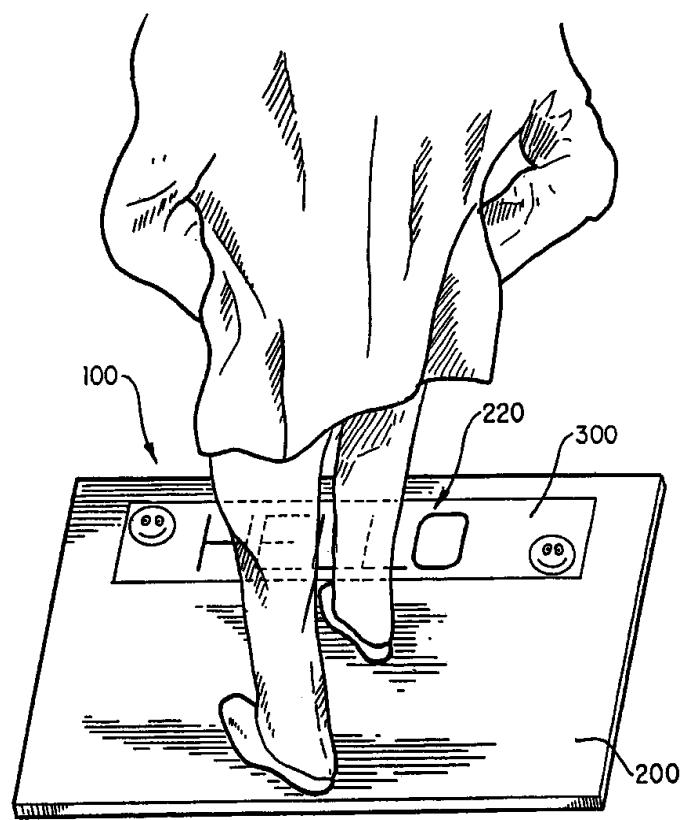
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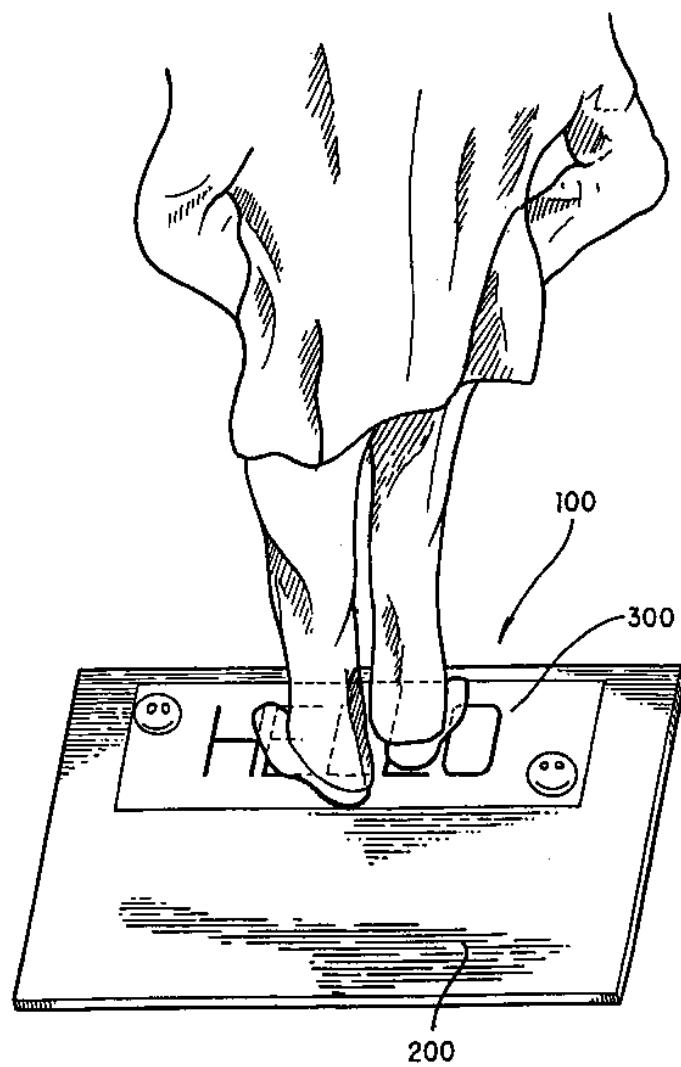
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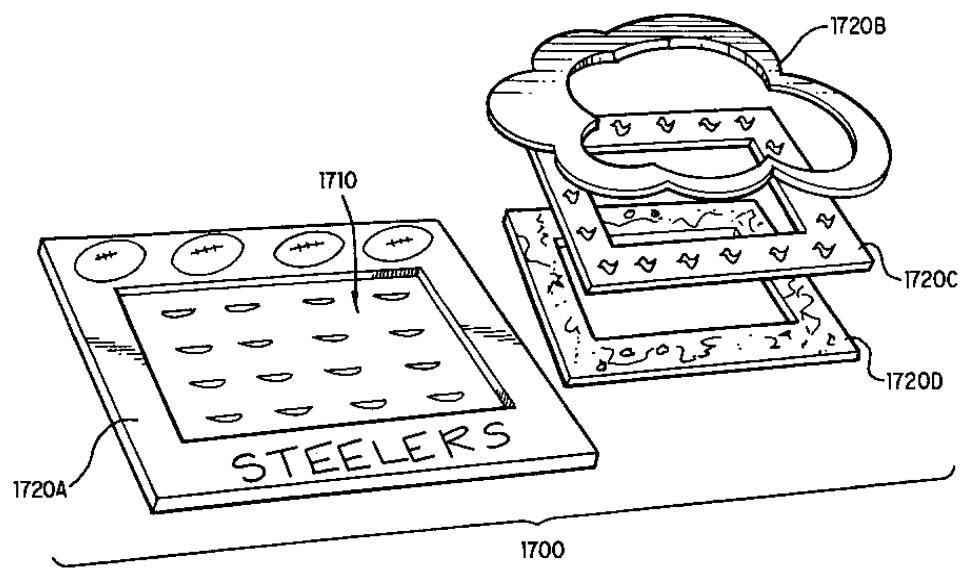
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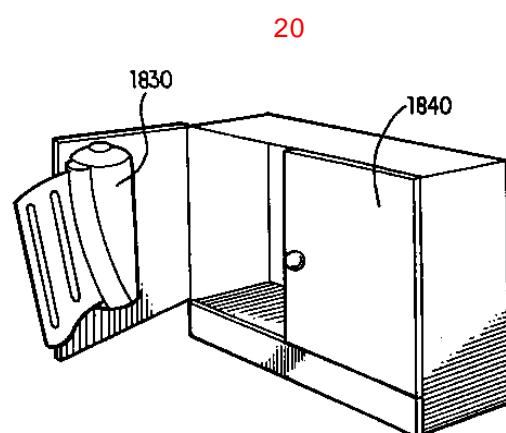
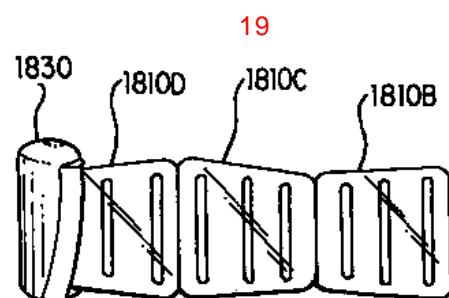
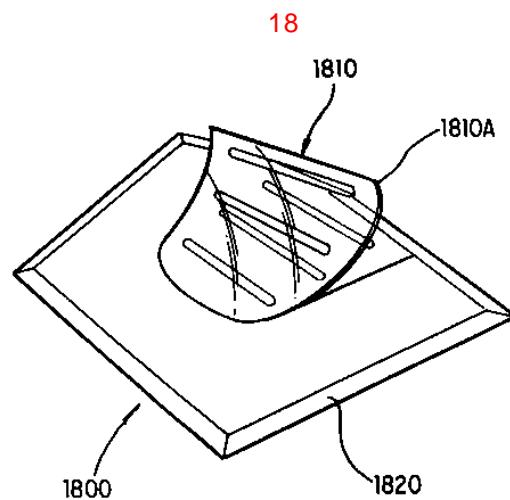


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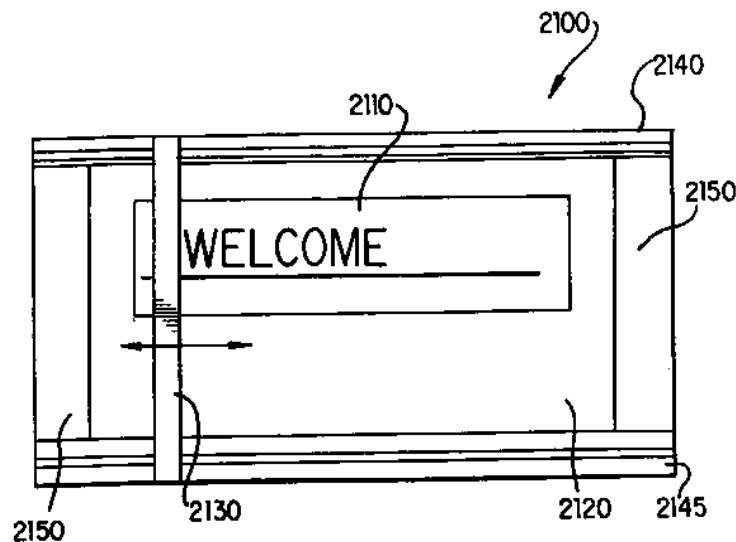


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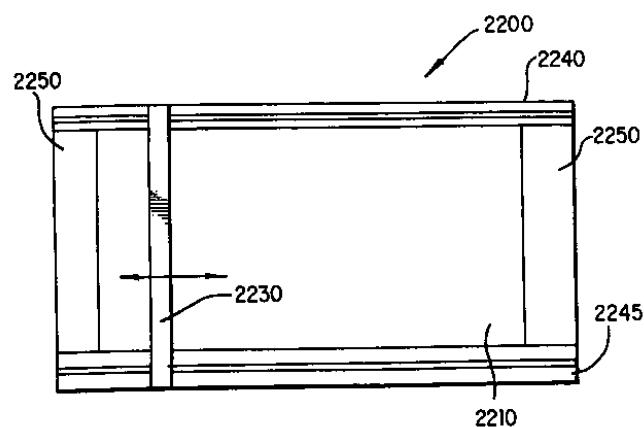




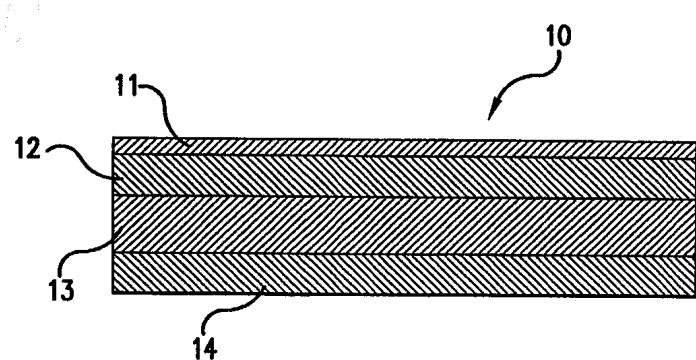
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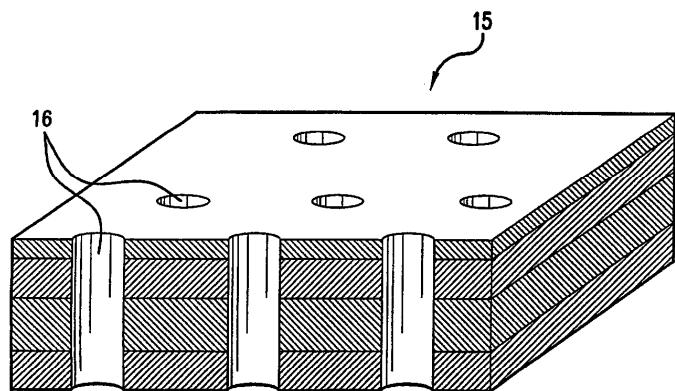
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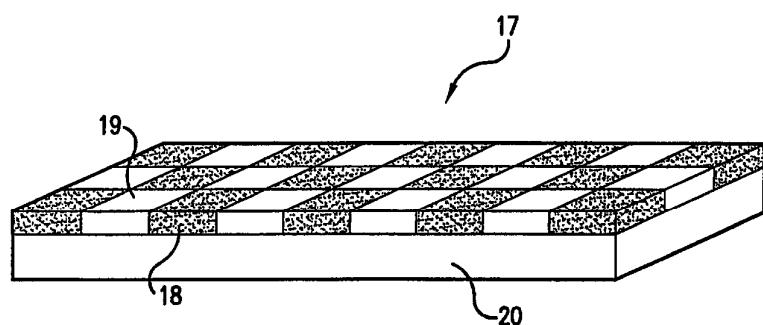
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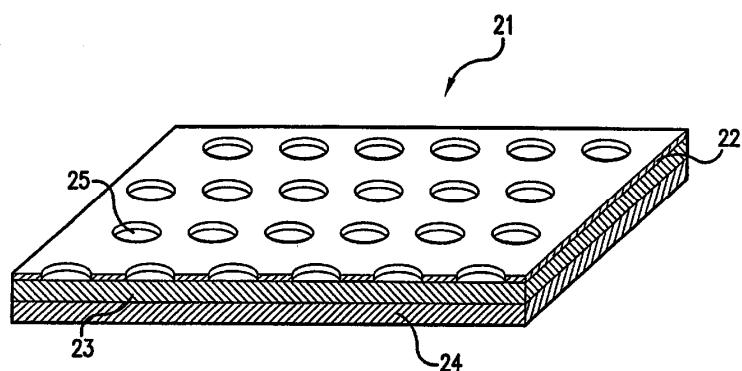
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