

100

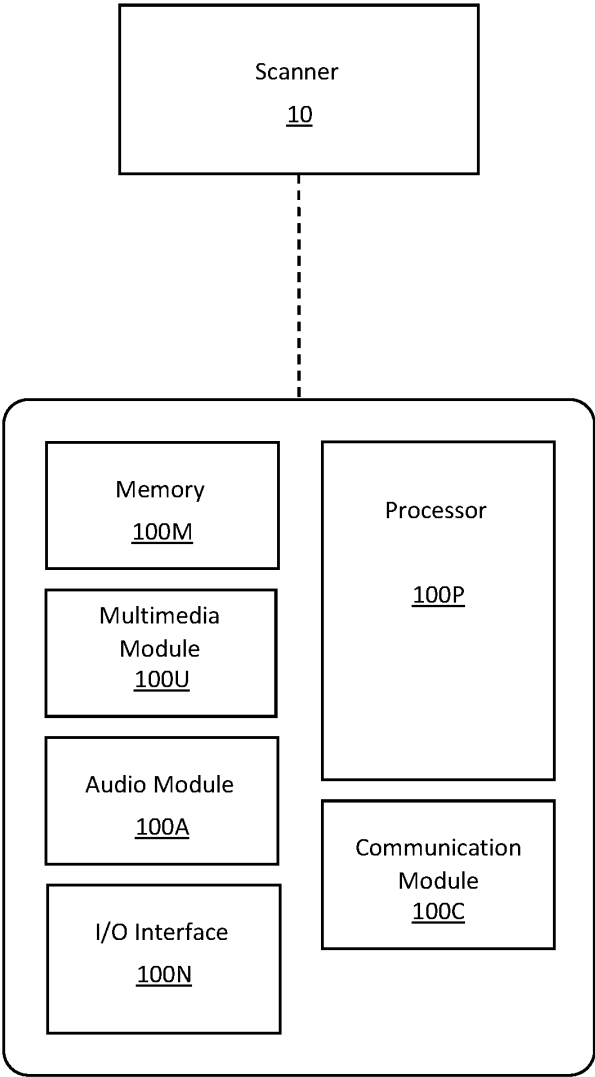


Fig. 1

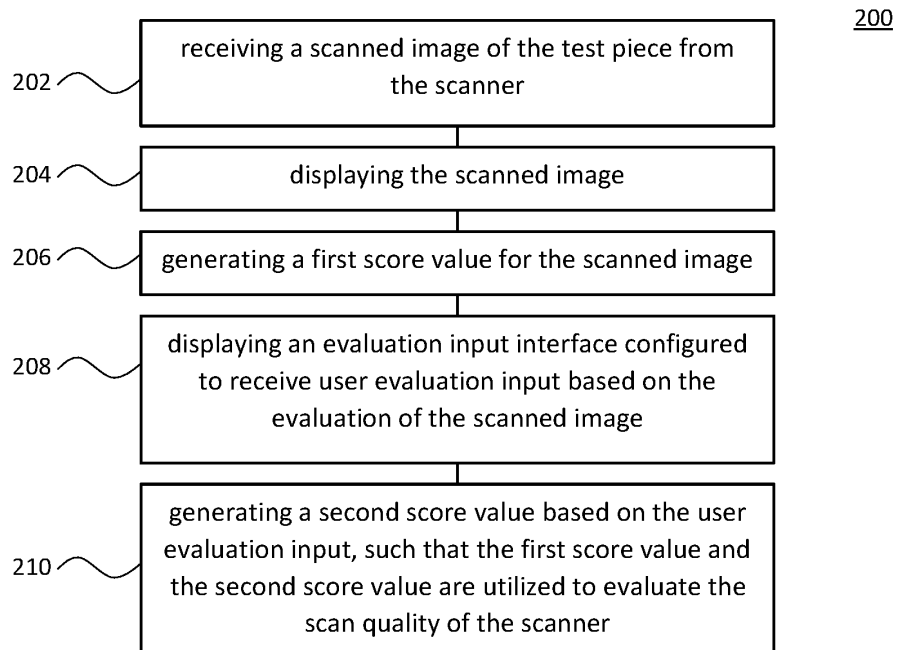


Fig. 2

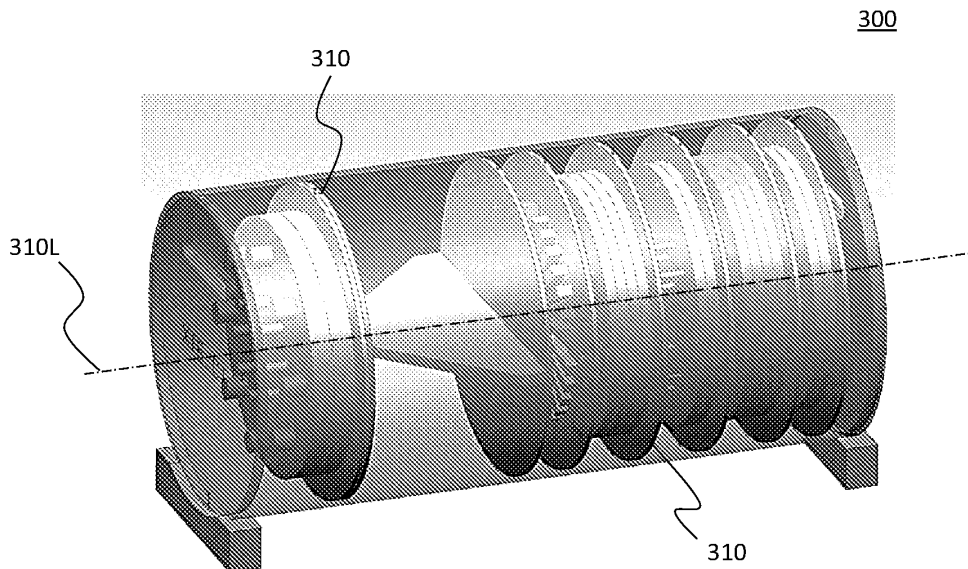


Fig. 3

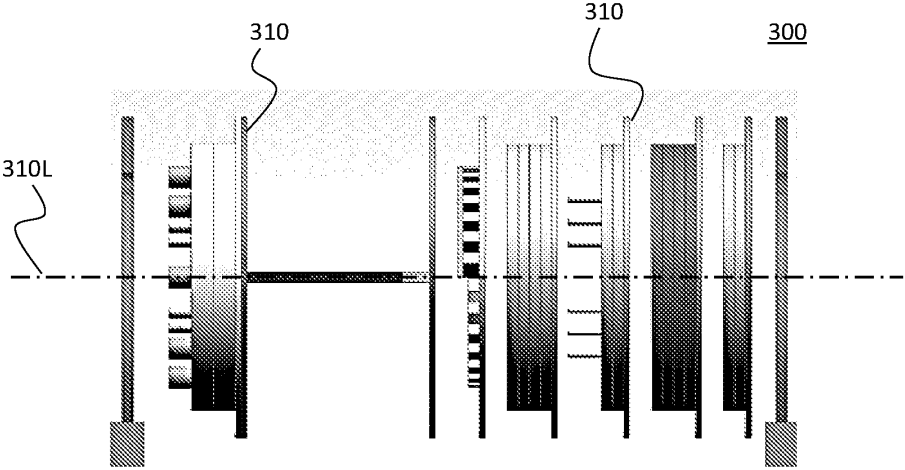


Fig. 3A

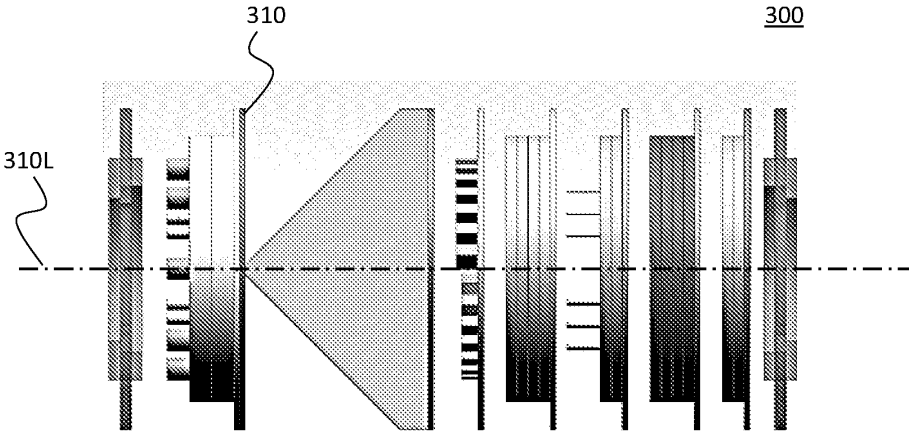


Fig. 3B

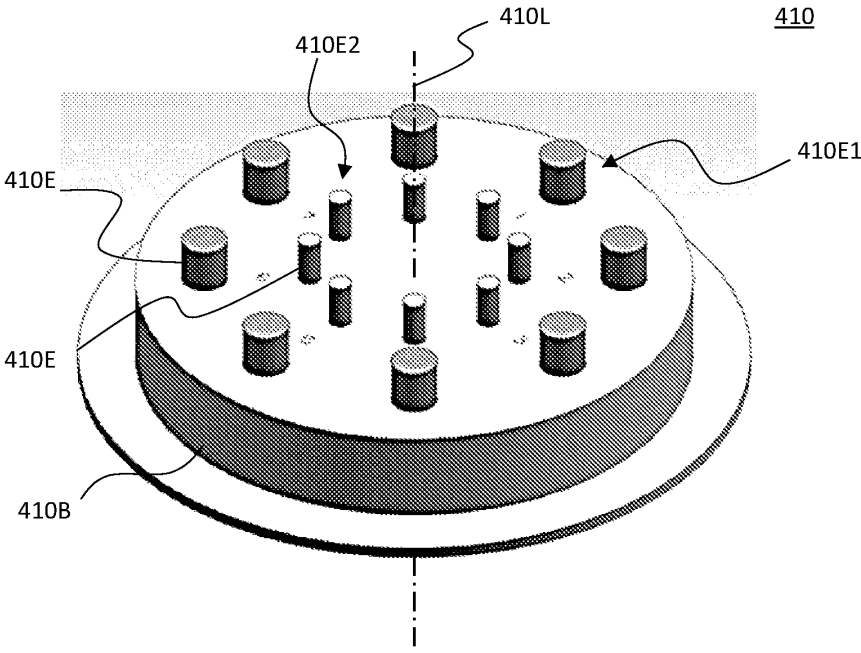


Fig. 4

Scoring Sheet - Test 1											
Subjective, Air				Objective, Density, Air				Objective, Z-eff, Air			
Is step visible in air?	Points Available	Test Score		Contrast-to-Noise Ratio >	Points available	Test Score		Contrast-to-Noise Ratio >	Points available	Test Score	
	if visible	Inner Ring	Outer Ring			Inner Ring	Outer Ring			Inner Ring	Outer Ring
Step 1	2			Step 1	2			Step 1	2		
Step 2	2			Step 2	2			Step 2	2		
Step 3	2			Step 3	2			Step 3	2		
Step 4	2			Step 4	2			Step 4	2		
Step 5	2			Step 5	2			Step 5	2		
Step 6	2			Step 6	2			Step 6	2		
Step 7	2			Step 7	2			Step 7	2		
Step 8	2			Step 8	2			Step 8	2		
Test 1 Score, Sub		0	0	Test 1 Score, Obj D		0	0	Test 1 Score, Obj Z		0	0
Subjective, Perspex				Objective, Density, Perspex				Objective, Z-eff, Perspex			
Is step visible in air?	Points Available	Test Score		Contrast-to-Noise Ratio >	Points Available	Test Score		Contrast-to-Noise Ratio >	Points Available	Test Score	
	if visible	Inner Ring	Outer Ring			Inner Ring	Outer Ring			Inner Ring	Outer Ring
Step 1	2			Step 1	2			Step 1	2		
Step 2	3			Step 2	3			Step 2	3		
Step 3	3			Step 3	3			Step 3	3		
Step 4	3			Step 4	3			Step 4	3		
Step 5	2			Step 5	2			Step 5	2		
Step 6	1			Step 6	1			Step 6	1		
Step 7	1			Step 7	1			Step 7	1		
Step 8	1			Step 8	1			Step 8	1		
Test 1 Score, Sub		0	0	Test 1 Score, Obj D		0	0	Test 1 Score, Obj Z		0	0
Test 1 Total, Sub		0		Test 1 Total, Obj D		0		Test 1 Total, Obj Z		0	

Fig. 4A

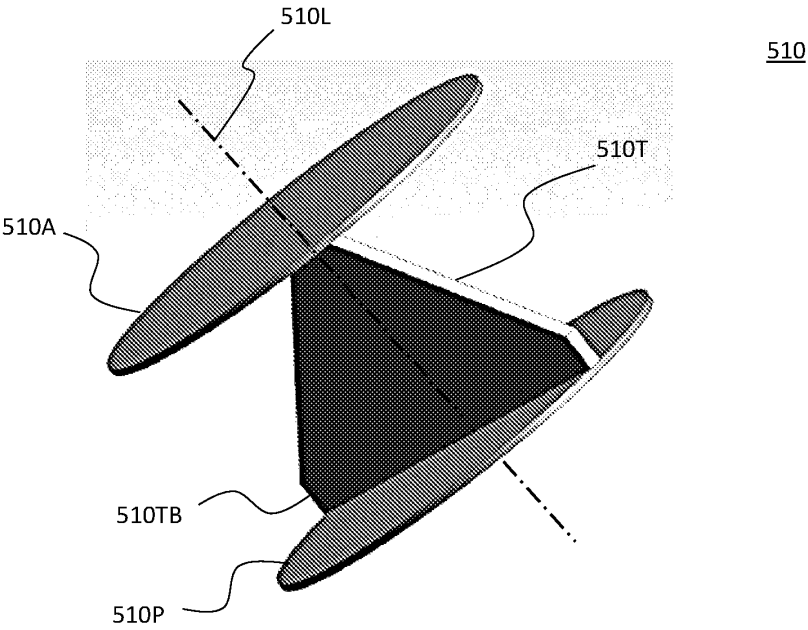


Fig. 5

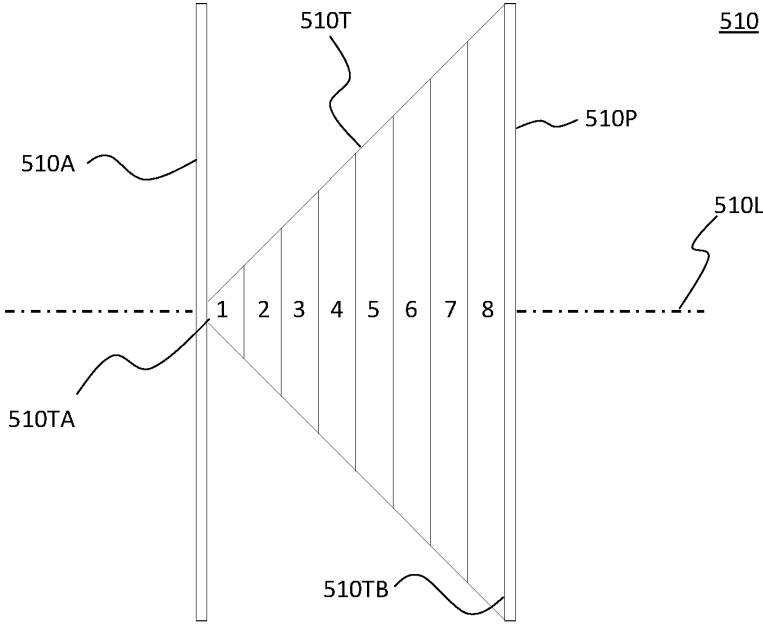


Fig. 5A

Scoring Sheet - Test 2					
Subjective Test			Objective Test		
Test Region	Points available	Points awarded	Test Region	Points available	Points awarded
1 and 2	2		1	1	
3 and 4	2		2	1	
5 and 6	4		3	1	
7 and 8	8		4	1	
			5	2	
			6	2	
			7	4	
			8	4	
Test 2 Score, Sub			Test 2 Score, Obj		

Fig. 5B

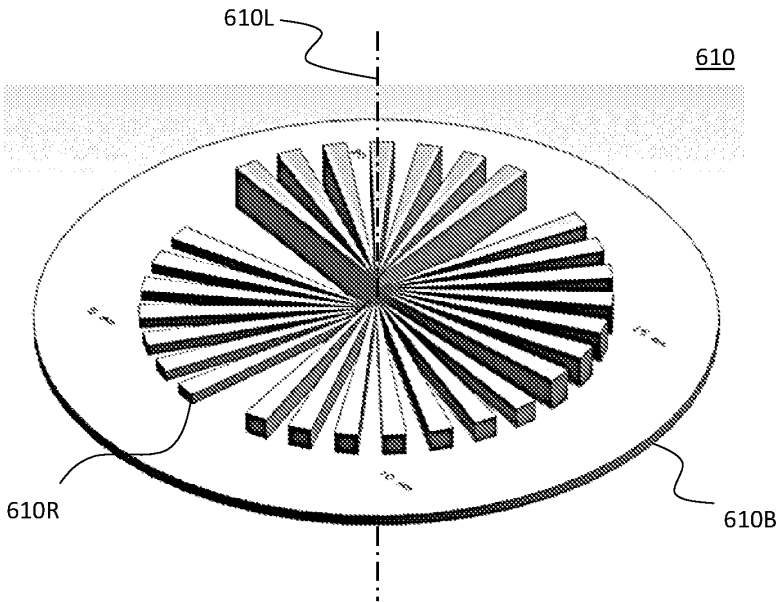
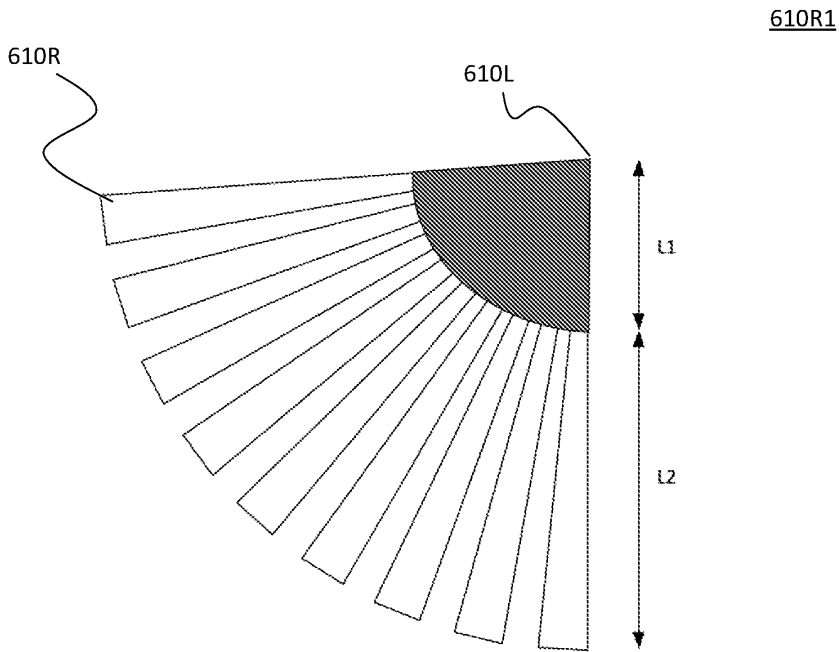
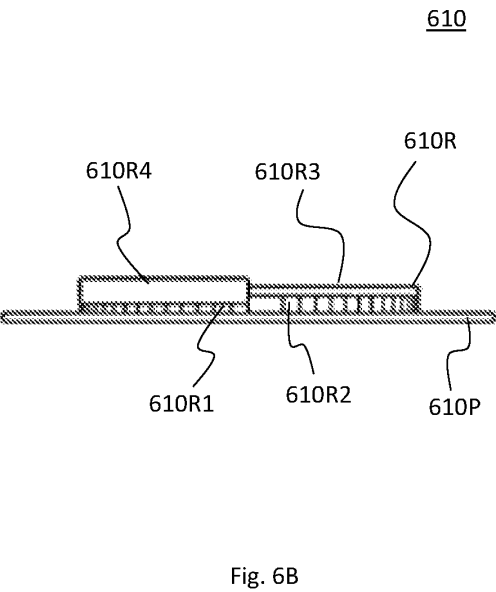
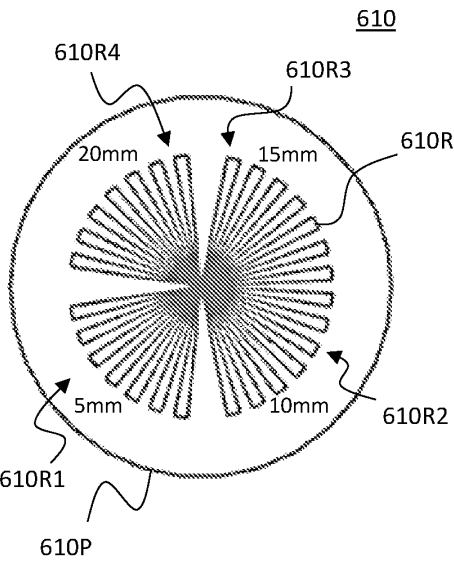


Fig. 6



9/30

612M

Test Region	Measured Resolution (mm)	Points Awarded	Test Region	Measured Resolution (mm)	Points Awarded	Test Region	Measured Resolution (mm)	Points Awarded	Test Region	Measured Resolution (mm)	Points Awarded
5mm	1	40	10mm	1	30	15mm	1	20	20mm	1	10
	2	36		2	27		2	18		2	9
	3	32		3	24		3	16		3	8
	4	28		4	21		4	14		4	7
	5	24		5	18		5	12		5	6
	6	20		6	15		6	10		6	5
	7	16		7	12		7	8		7	4
	8	12		8	9		8	6		8	3
	9	8		9	6		9	4		9	2
	10	4		10	3		10	2		10	1

Fig. 6D

612

Scoring Sheet - Test 3					
Subjective Test			Objective Test		
Test Region	Measured Resolution (mm)	Points awarded	Test Region	Measured Resolution (mm)	Points awarded
5mm	6	20	5mm	6	20
10mm	5	18	10mm	5	18
15mm	4	14	15mm	4	14
20mm	4	7	20mm	3.5	8
Test 3 Score, Sub		9.4	Test 3 Score, Obj		9.6

Fig. 6E

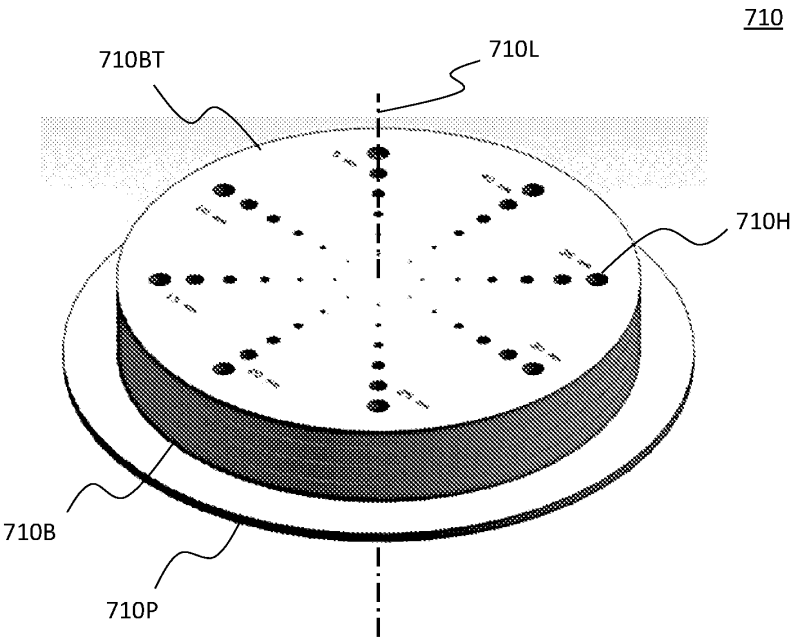


Fig. 7

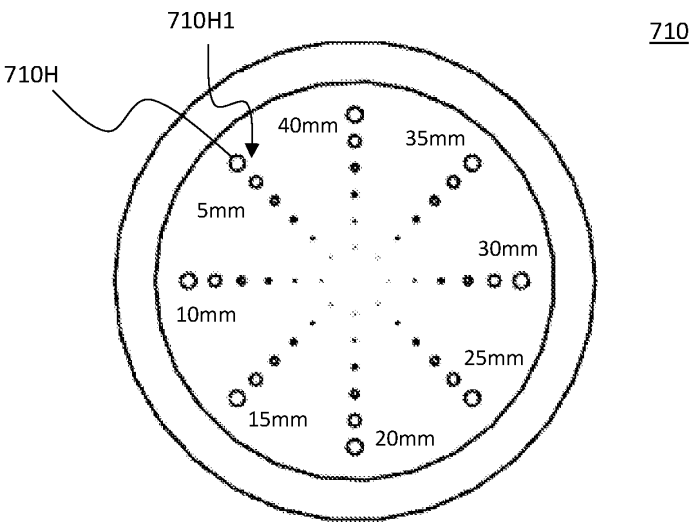


Fig. 7A

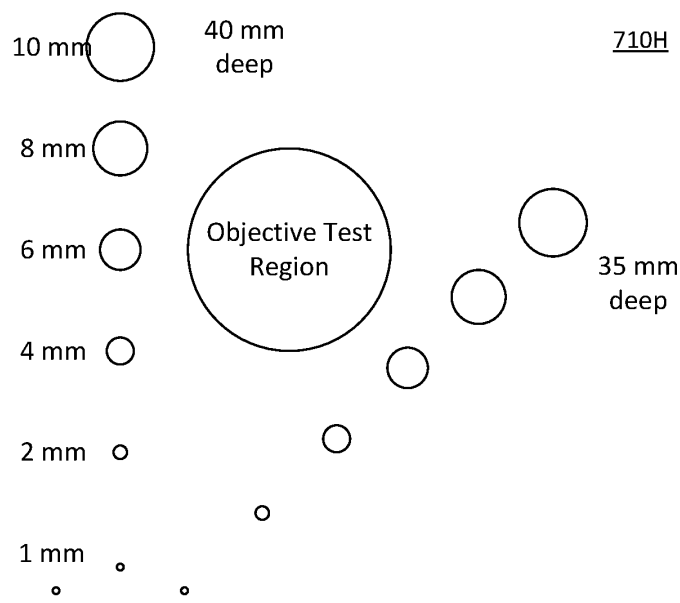


Fig. 7B

712

Scoring Sheet - Test 4							
Subjective Test				Objective Test			
Test Region	Number of Holes Visible	Points Available Per Hole	Points awarded	Test Region	Number of Holes Visible	Points Available Per Hole	Points awarded
10mm		1	0	10mm		1	0
8mm		1	0	8mm		1	0
6mm		2	0	6mm		2	0
4mm		2	0	4mm		2	0
2mm		4	0	2mm		4	0
1mm		6	0	1mm		6	0
Test 4 Score, Sub			0.0	Test 4 Score, Obj			0.0

Fig. 7C

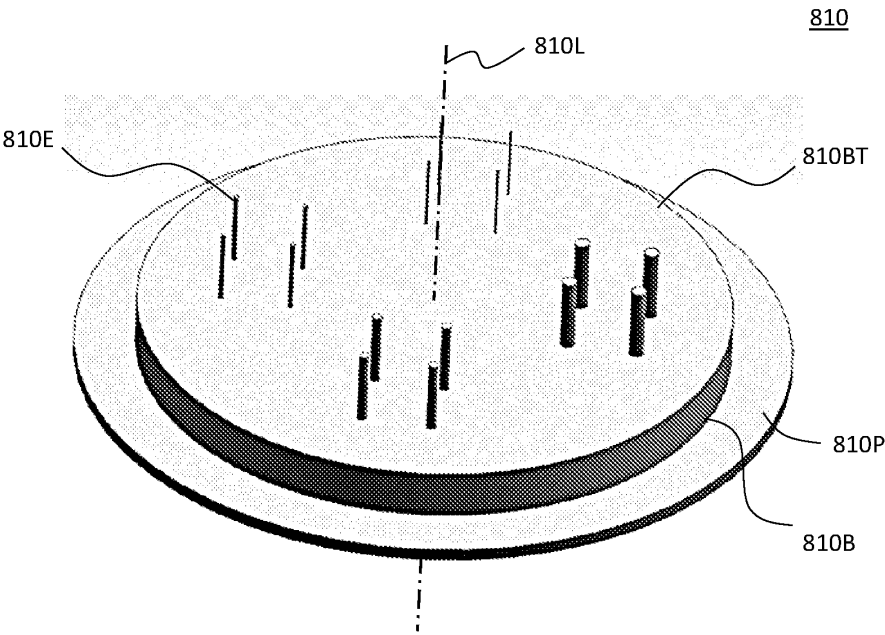


Fig. 8

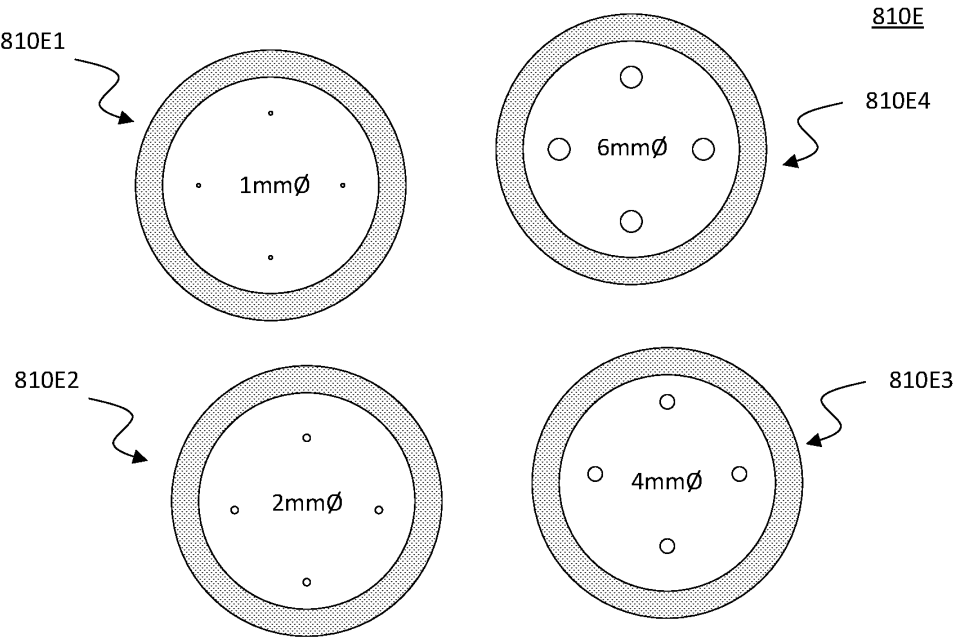


Fig. 8A

Scoring Sheet - Test 5							
Subjective Test				Objective Test			
Test Region	Wire Artefact Visible?	Points Available if No	Points awarded	Test Region	Wire Artefact Visible?	Points Available if No	Points awarded
1mm wires		2	0	1mm wires		2	0
2mm wires		2	0	2mm wires		2	0
4mm wires		4	0	4mm wires		4	0
8mm wires		8	0	8mm wires		8	0
Test 5 Score, Sub			0	Test 5 Score, Obj			0

Fig. 8B

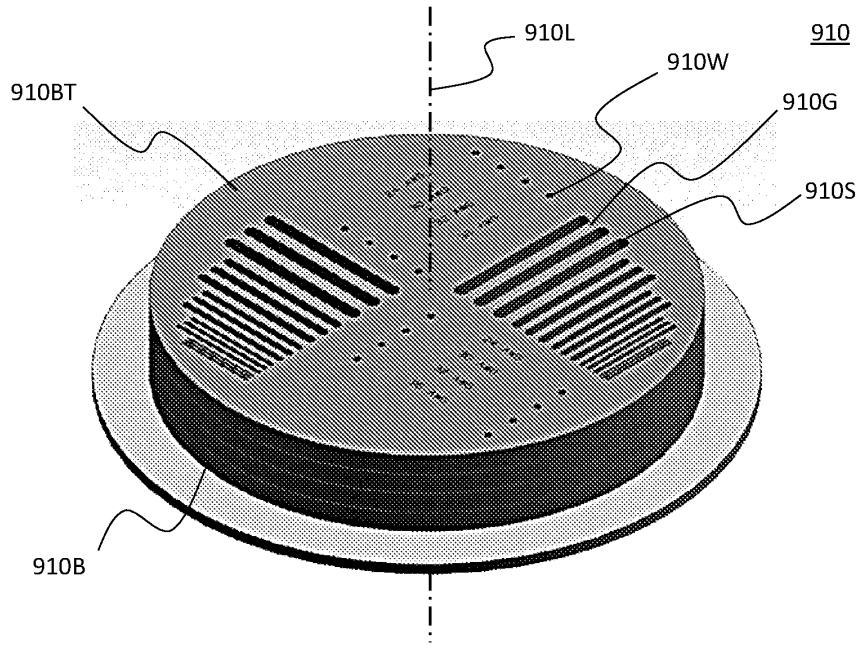


Fig. 9

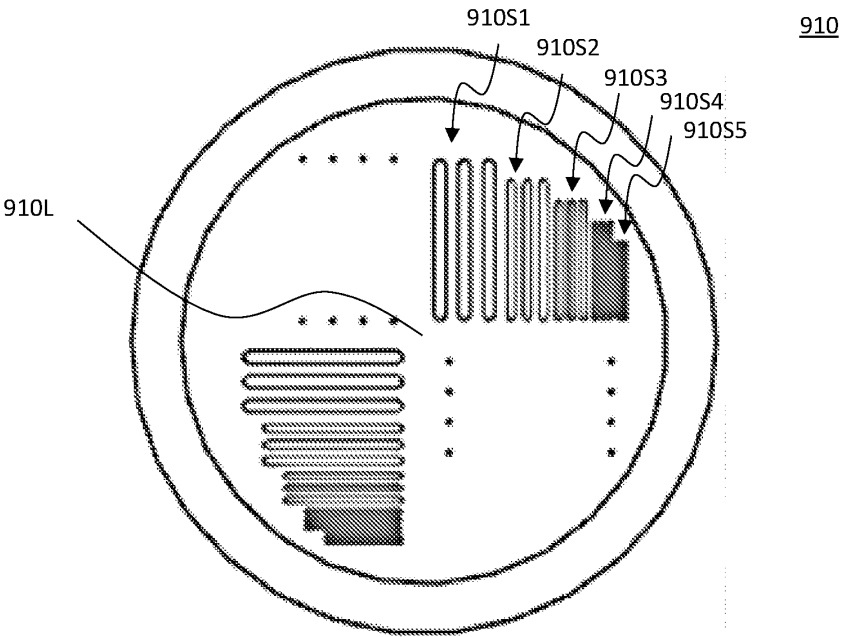


Fig. 9A

Scoring Sheet - Test 6							
Subjective Test				Objective Test			
Test Region	Feature Visible?	Points Available if Yes	Points awarded	Test Region	Feature Visible?	Points Available if Yes	Points awarded
24AWG wire		1	0	24AWG wire		1	0
30AWG wire		1	0	30AWG wire		1	0
32AWG wire		2	0	32AWG wire		2	0
36AWG wire		4	0	36AWG wire		4	0
1mm Grid		2	0	1mm Grid		2	0
2mm Grid		2	0	2mm Grid		2	0
3mm Grid		2	0	3mm Grid		2	0
4mm Grid		1	0	4mm Grid		1	0
6mm Grid		1	0	6mm Grid		1	0
Test 6 Score, Sub			0	Test 6 Score, Obj			0

Fig. 9B

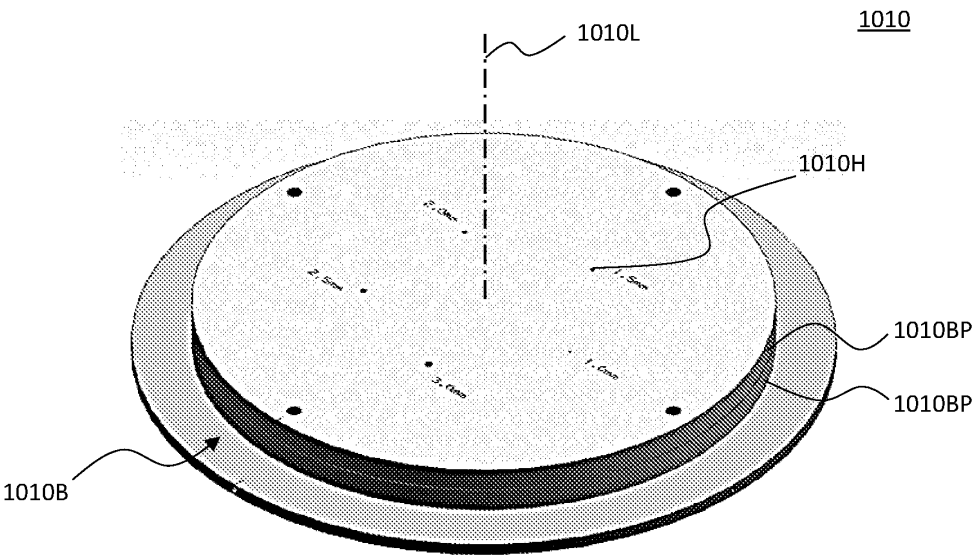


Fig. 10

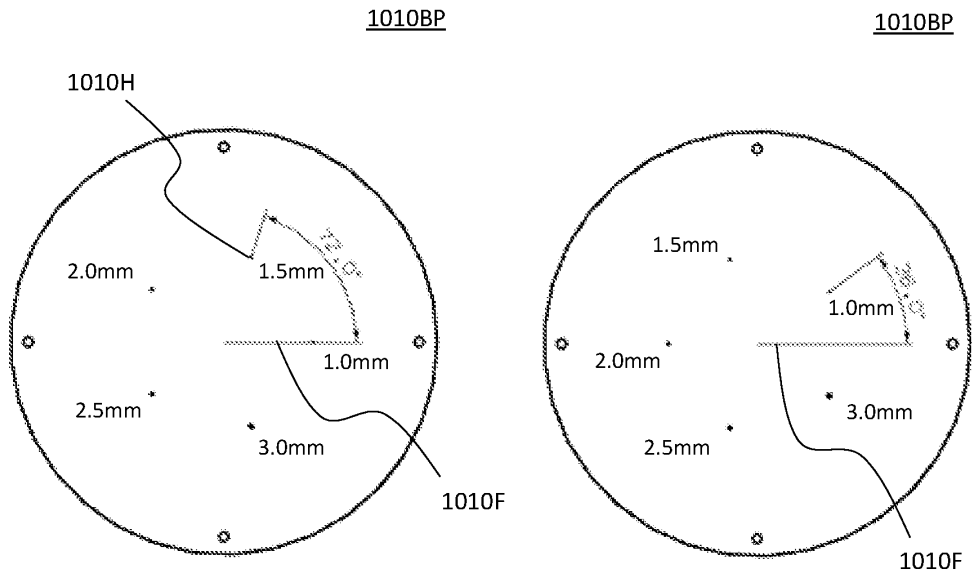


Fig. 10A

Fig. 10B

Scoring Sheet - Test 7							
Subjective Test				Objective Test			
Test Region	Feature Visible?	Points Available if Yes	Points awarded	Test Region	Feature Visible?	Points Available if Yes	Points awarded
1.0mm		2	0	1.0mm		2	0
1.5mm		2	0	1.5mm		2	0
2.0mm		2	0	2.0mm		2	0
2.5mm		1	0	2.5mm		1	0
3.0mm		1	0	3.0mm		1	0
1.0mm filled		2	0	1.0mm filled		2	0
1.5mm filled		2	0	1.5mm filled		2	0
2.0mm filled		2	0	2.0mm filled		2	0
2.5mm filled		1	0	2.5mm filled		1	0
3.0mm filled		1	0	3.0mm filled		1	0
Test 7 Score, Sub			0	Test 7 Score, Obj			0

Fig. 10C

Scoring Sheet - Overall Test Summary			
Subjective Test		Objective Test	
XTE-CT Test	Points awarded	XTE-CT Test	Points awarded
Test 1 - Contrast, Density, Z	8	Test 1 - Contrast, Density, Z	10
Test 2 - Beam hardening	4	Test 2 - Beam hardening	6
Test 3 - Spatial Resolution	9	Test 3 - Spatial Resolution	10
Test 4 - Contrast Detail	10	Test 4 - Contrast Detail	12
Test 5 - Metal Artefact	4	Test 5 - Metal Artefact	8
Test 6 - Grid and Wire Resolution	8	Test 6 - Grid and Wire	12
Test 7 - Small Inclusions	10	Test 7 - Small Inclusions	14
Overall test score, Sub (%)	47	Overall test score, Obj (%)	64

Fig. 10D

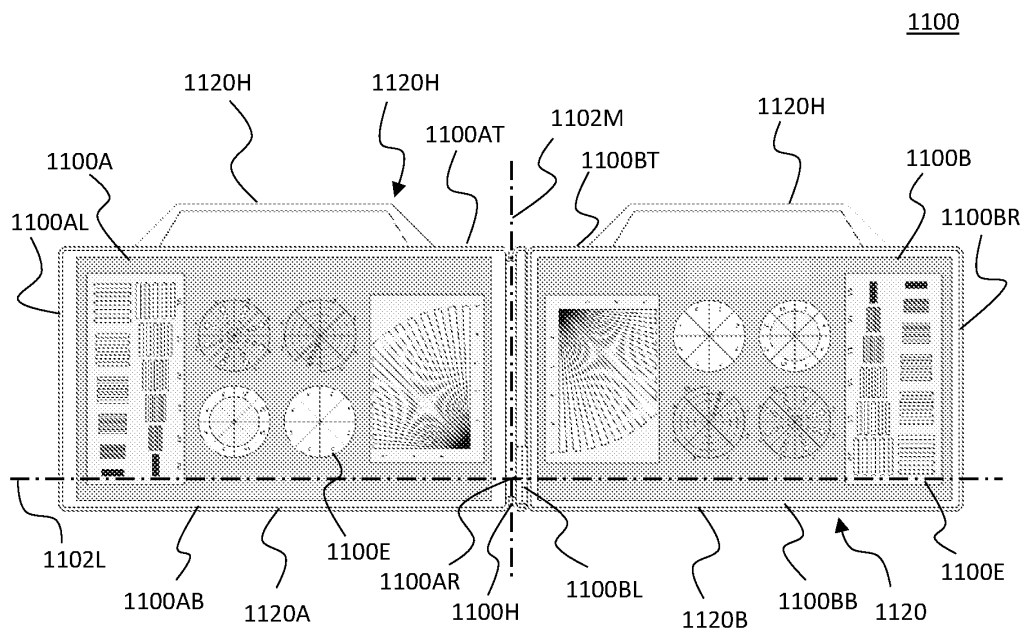


Fig. 11A

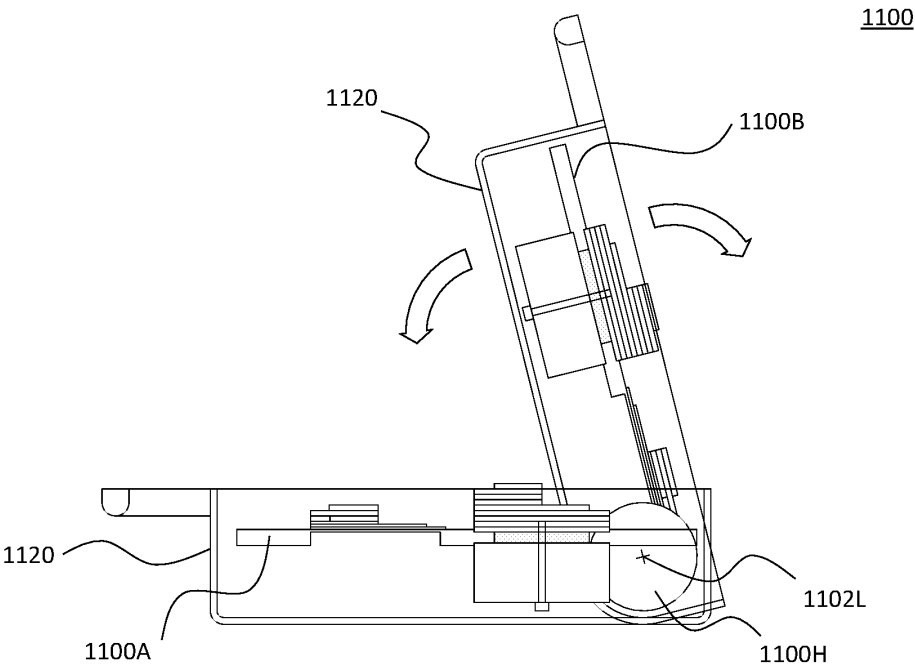


Fig. 11B

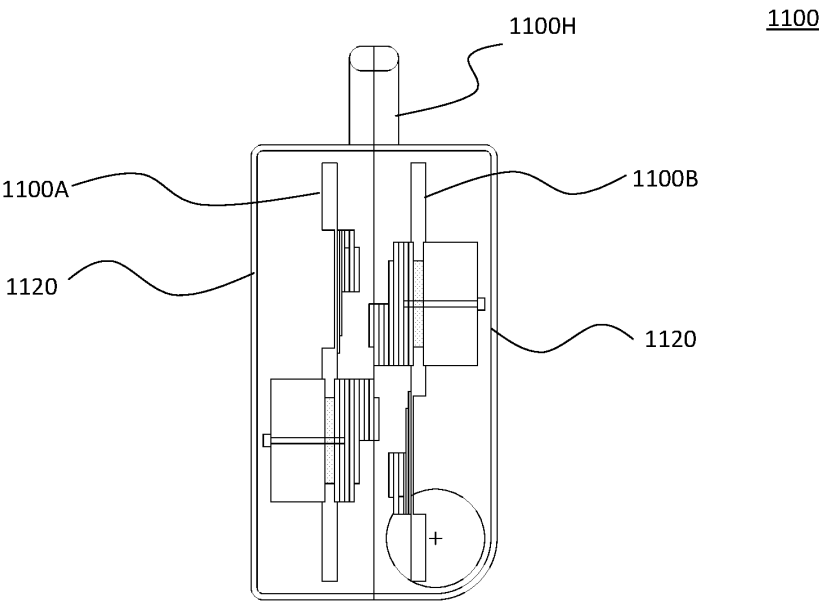


Fig. 11C

1100

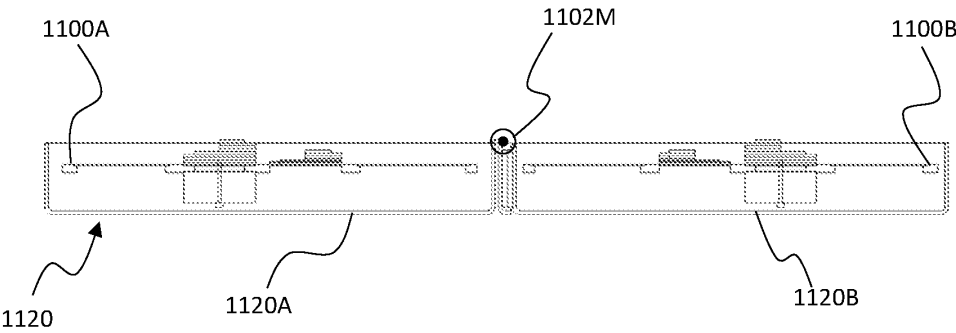


Fig. 11D

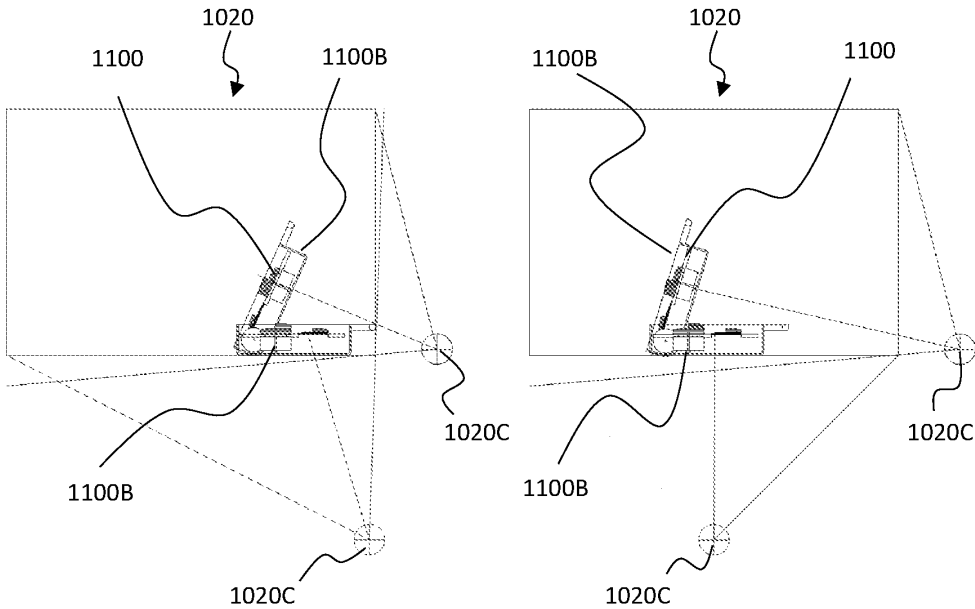


Fig. 11E

1200P

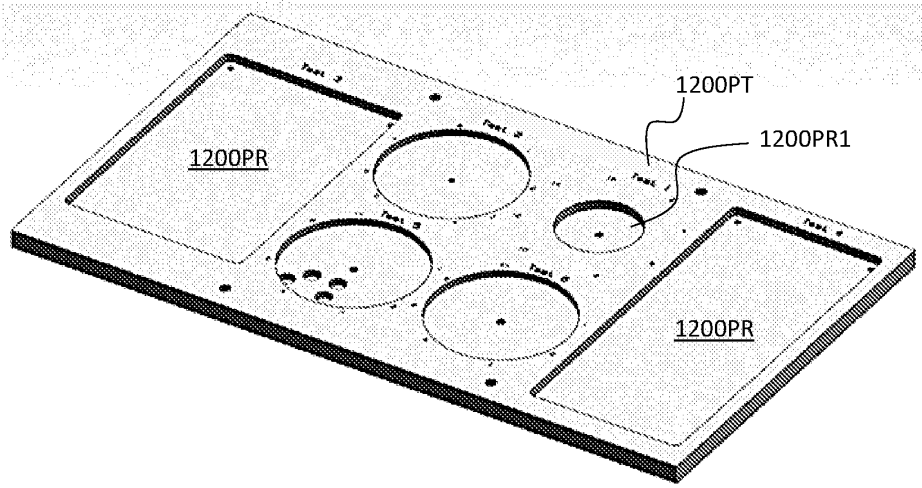


Fig. 12

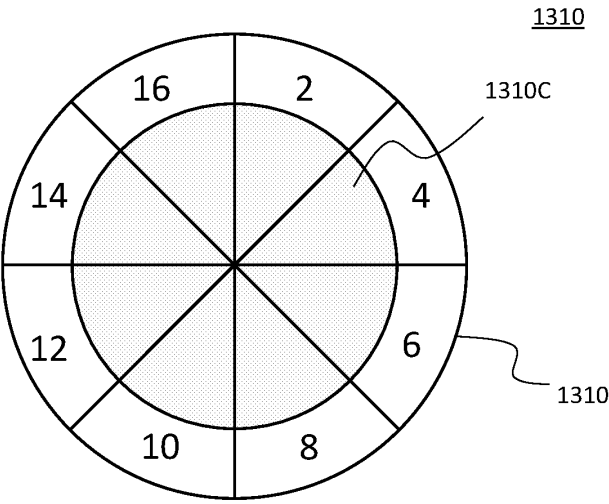


Fig. 13A

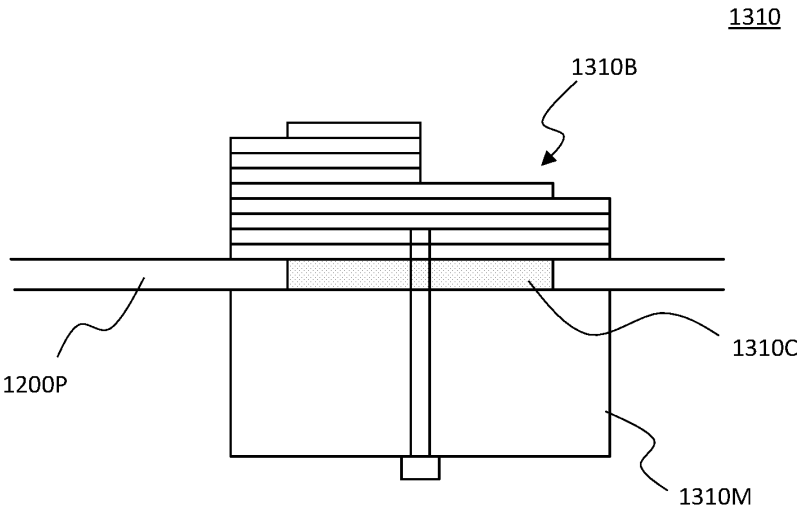


Fig. 13B

1312

Scoring Sheet - Test 1, Penetration							
Subjective Test				Objective Test			
Test Region	Is Step Visible?	Points Available	Points Awarded	Test Region	Is Step Visible?	Points Available	Points Awarded
Step 1		2	0	Step 1		2	0
Step 2		2	0	Step 2		2	0
Step 3		2	0	Step 3		2	0
Step 4		2	0	Step 4		2	0
Step 5		2	0	Step 5		2	0
Step 6		2	0	Step 6		2	0
Step 7		2	0	Step 7		2	0
Step 8		2	0	Step 8		2	0
Test 1 Score, Sub			0	Test 1 Score, Obj			0

Fig. 13C

1410

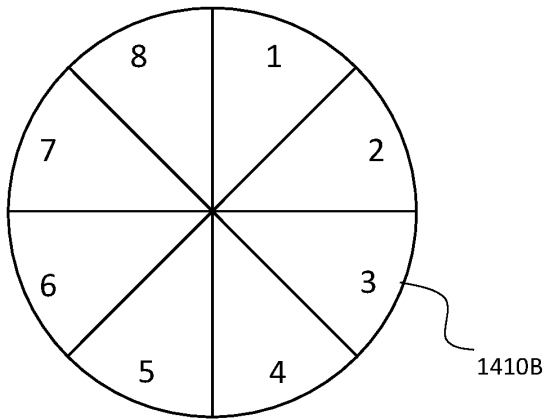


Fig. 14A

1412

Scoring Sheet - Test 2, Material Discrimination							
Subjective Test				Objective Test			
Test Region	Unique Colour?	Points Available	Points Awarded	Test Region	Correct Z-eff?	Points Available	Points Awarded
1		2	0	1		2	0
2		2	0	2		2	0
3		2	0	3		2	0
4		2	0	4		2	0
5		2	0	5		2	0
6		2	0	6		2	0
7		2	0	7		2	0
8		2	0	8		2	0
Test 2 Score, Sub			0	Test 2 Score, Obj			0

Fig. 14B

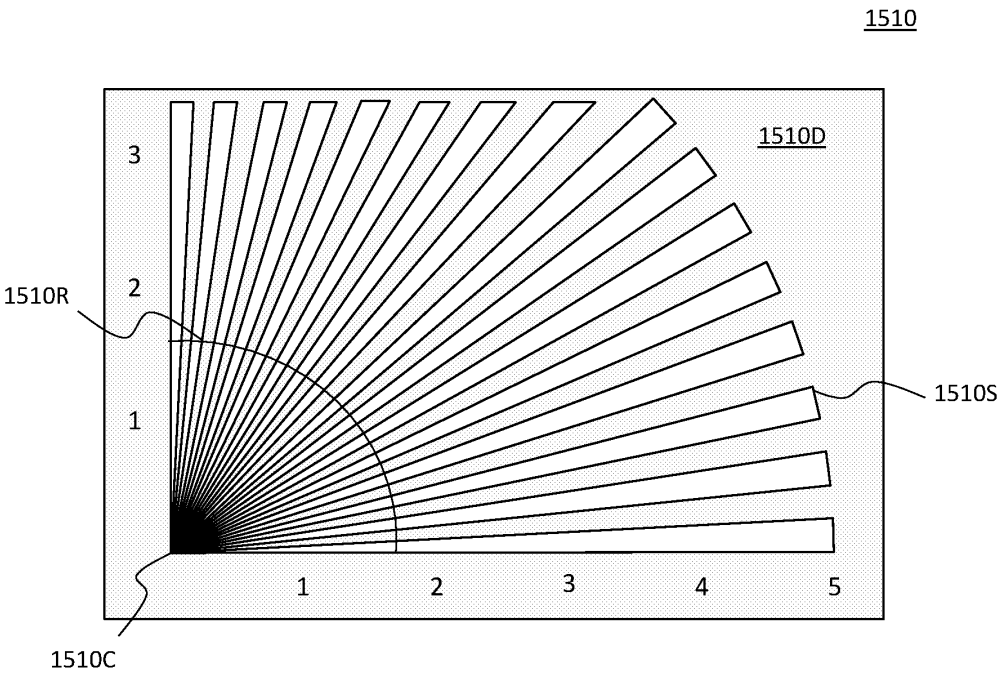


Fig. 15

1512

Scoring Sheet - Test 3, Spatial Resolution							
Subjective Test				Objective Test			
Test Region	Region Visible?	Points Available	Points Awarded	Test Region	Region Visible?	Points Available	Points Awarded
0.5mm		8	0	0.5mm		8	0
1.0mm		6	0	1.0mm		6	0
1.5mm		4	0	1.5mm		4	0
2.0mm		3	0	2.0mm		3	0
2.5mm		2	0	2.5mm		2	0
3.0mm		1	0	3.0mm		1	0
Test 3 Score, Sub			0	Test 3 Score, Obj			0

Fig. 15A

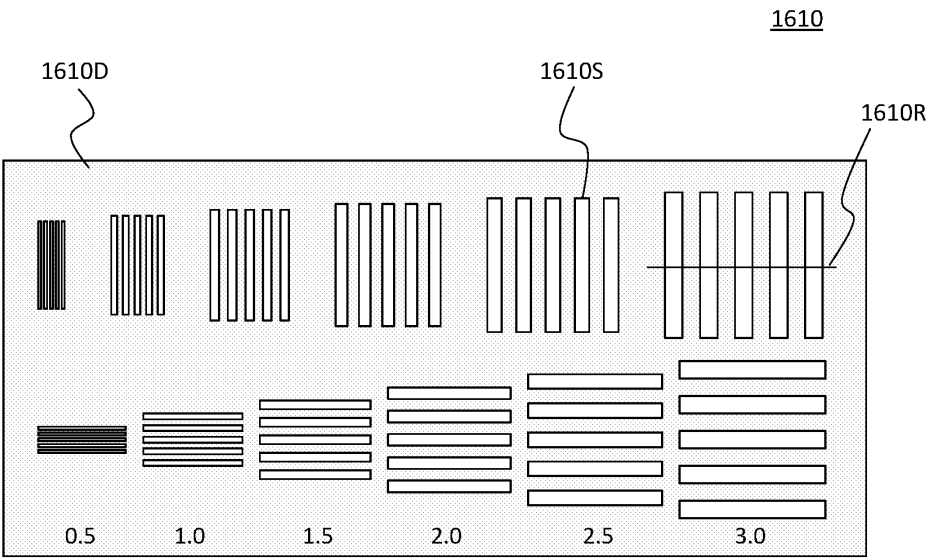


Fig. 16

1612

Scoring Sheet - Test 4, Grid Resolution									
Subjective Test					Objective Test				
Test Region	Grid Visible Vertical?	Grid Visible Horizontal?	Points Available	Points Awarded	Test Region	Grid Visible Vertical?	Grid Visible Horizontal?	Points Available	Points Awarded
3.0mm			1	0	3.0mm			1	0
2.5mm			1	0	2.5mm			1	0
2.0mm			2	0	2.0mm			2	0
1.5mm			2	0	1.5mm			2	0
1.0mm			4	0	1.0mm			4	0
0.5mm			6	0	0.5mm			6	0
Test 4 Score, Sub				0.0	Test 4 Score, Obj				0.0

Fig. 16A

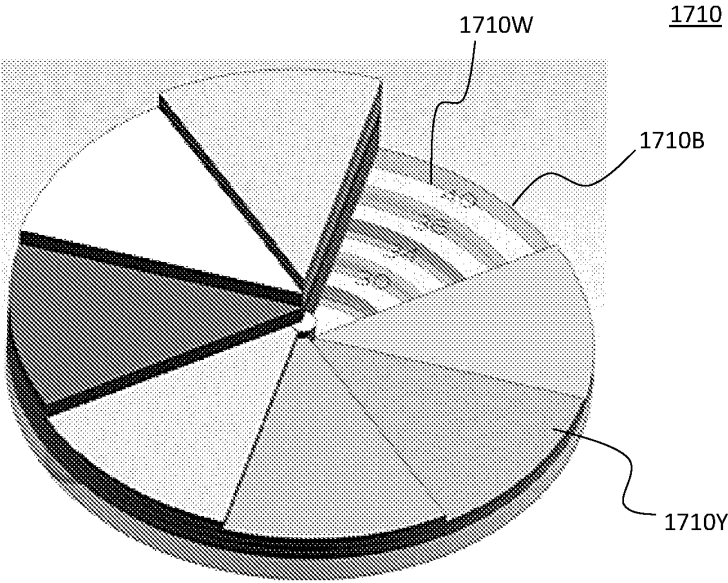


Fig. 17

1710Y



Fig. 17A

1712

..... Scoring Sheet - Test 5, Wire Resolution					
Subjective Test			Objective Test		
Test Region	No. Wires Visible	Points Awarded	Test Region	No. Wires Visible	Points Awarded
1		0	1		0
2		0	2		0
3		0	3		0
4		0	4		0
5		0	5		0
6		0	6		0
7		0	7		0
8		0	8		0
Test 5 Score, Sub		0.0	Test 5 Score, Obj		0.0

Fig. 17B

1712M

Test Region	Step Thickness (mm)	Points Awarded	Test Region	Step Thickness (mm)	Points Awarded	Test Region	Step Thickness (mm)	Points Awarded	Test Region	Step Thickness (mm)	Points Awarded
30 AWG	0	4	34 AWG	0	8	36 AWG	0	12	40 AWG	0	16
	1	4		1	8		1	12		1	16
	2	4		2	8		2	12		2	16
	3	4		3	8		3	12		3	16
	4	5		4	10		4	15		4	20
	5	6		5	12		5	18		5	24
	6	7		6	14		6	21		6	28
	7	8		7	16		7	24		7	32

Fig. 17C

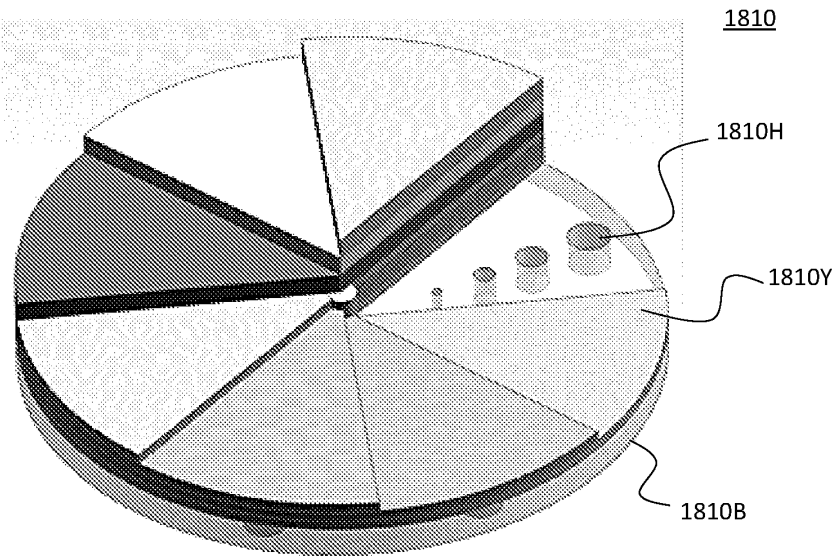


Fig. 18

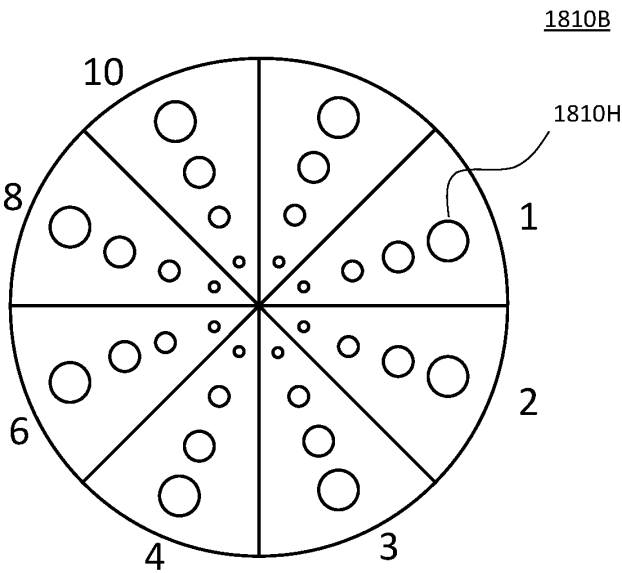


Fig. 18A

1812

Scoring Sheet - Test 6, Contrast Detail					
Subjective Test			Objective Test		
Test Region	Holes Visible	Points awarded	Test Region	Holes Visible	Points awarded
1		0	1		0
2		0	2		0
3		0	3		0
4		0	4		0
5		0	5		0
6		0	6		0
7		0	7		0
8		0	8		0
Test 6 Score, Sub		0	Test 6 Score, Obj		0

Fig. 18B

1812M

Test Region	Step Thickness (mm)	Points Awarded	Test Region	Step Thickness (mm)	Points Awarded	Test Region	Step Thickness (mm)	Points Awarded	Test Region	Step Thickness (mm)	Points Awarded
0.5mm	0	16	1.0mm	0	12	2.0mm	0	8	3.0mm	0	4
	1	16		1	12		1	8		1	4
	2	16		2	12		2	8		2	4
	3	16		3	12		3	8		3	4
	4	20		4	15		4	10		4	5
	5	24		5	18		5	12		5	6
	6	28		6	21		6	14		6	7
	7	32		7	24		7	16		7	8

Fig. 18C

Scoring Sheet - Overall Test Summary			
Subjective Test		Objective Test	
XTE-Check: Subjective Test	Points Awarded	XTE-Check: Objective Test	Points Awarded
Test 1 - Steel Penetration	0	Test 1 - Steel Penetration	0
Test 2 - Materials Discrimination	0	Test 2 - Materials Discrimination	0
Test 3 - Spatial Resolution	0	Test 3 - Spatial Resolution	0
Test 4 - Grid Resolution	0	Test 4 - Grid Resolution	0
Test 5 - Wire Resolution	0	Test 5 - Wire Resolution	0
Test 6 - Contrast Detail	0	Test 6 - Contrast Detail	0
Overall Test Score, Sub (%)	0	Overall Test Score, Obj (%)	0

Fig. 19