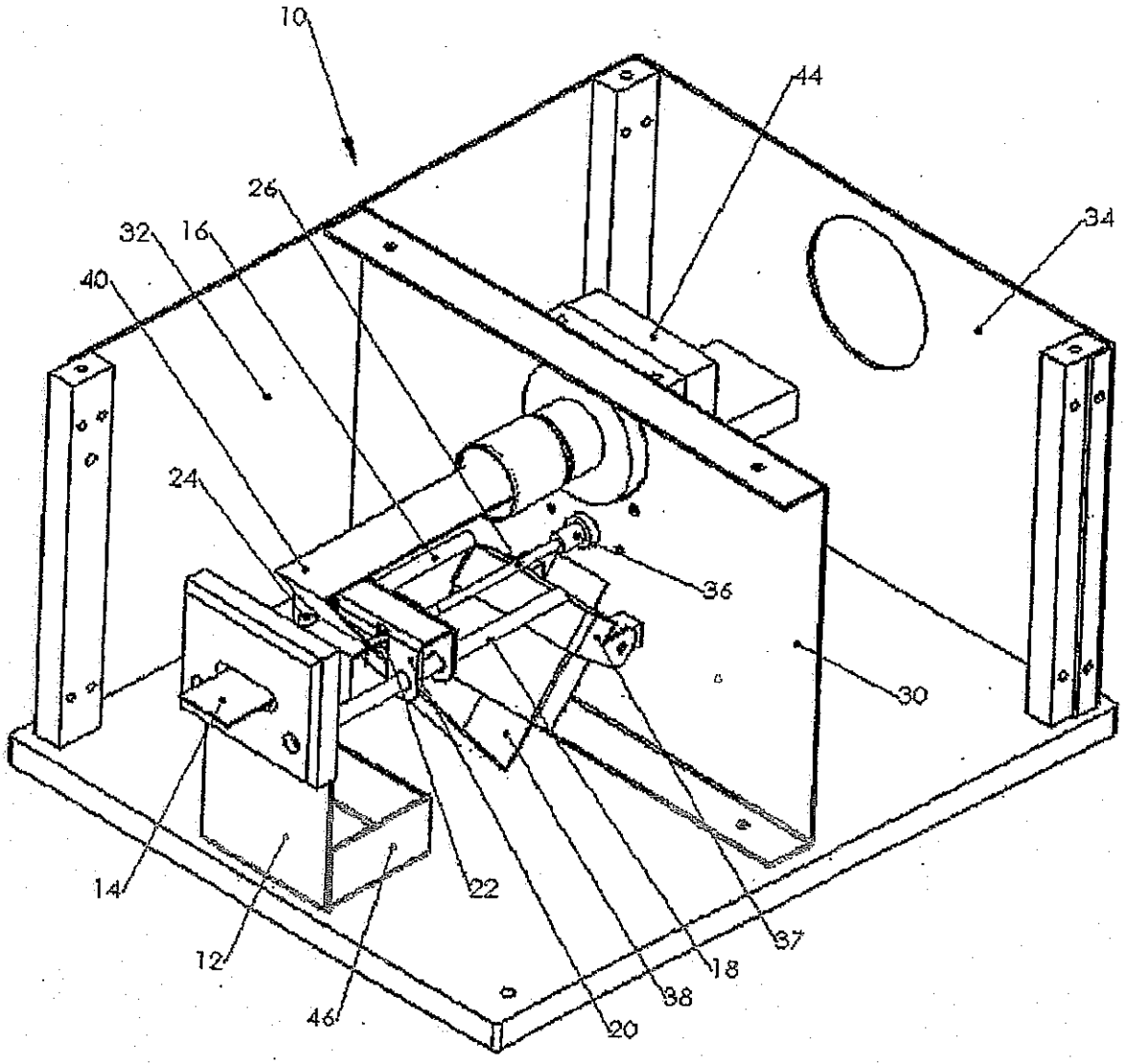


Figure 1

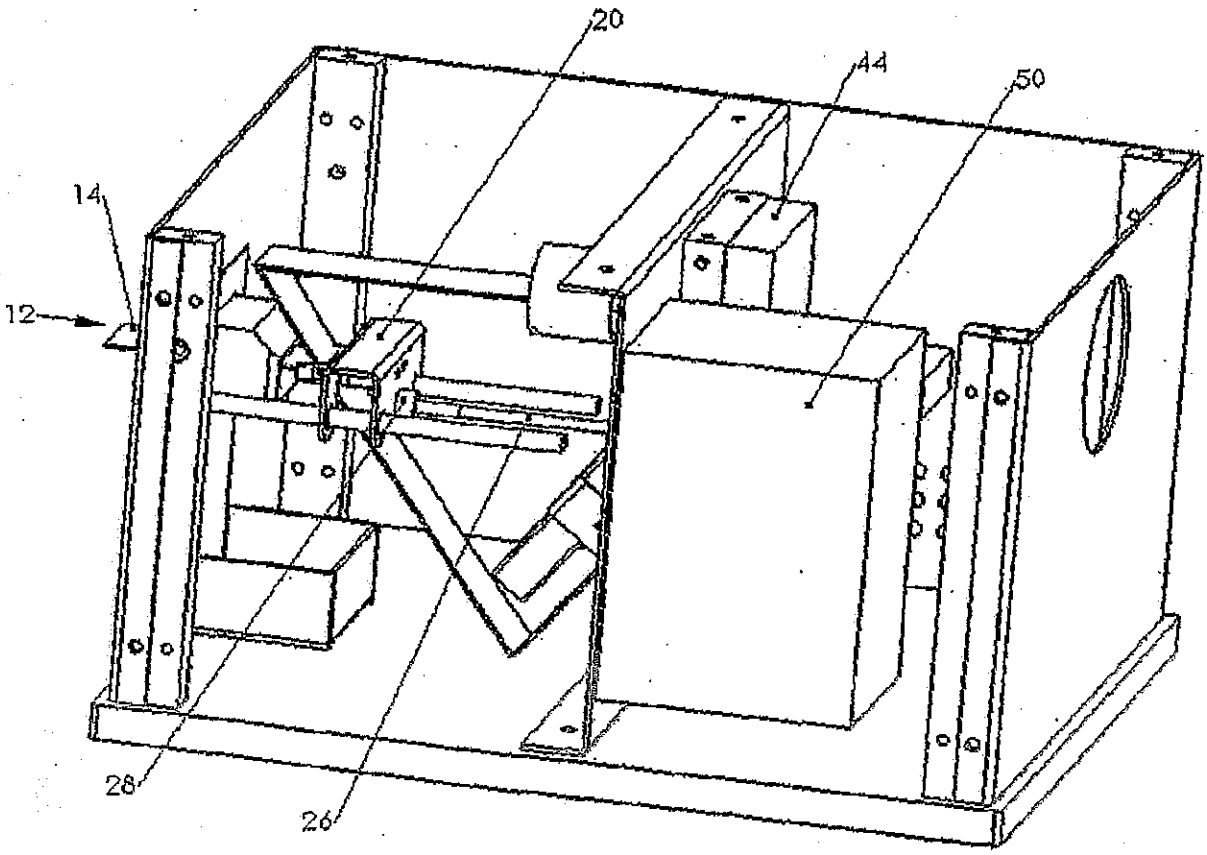


Figure 2

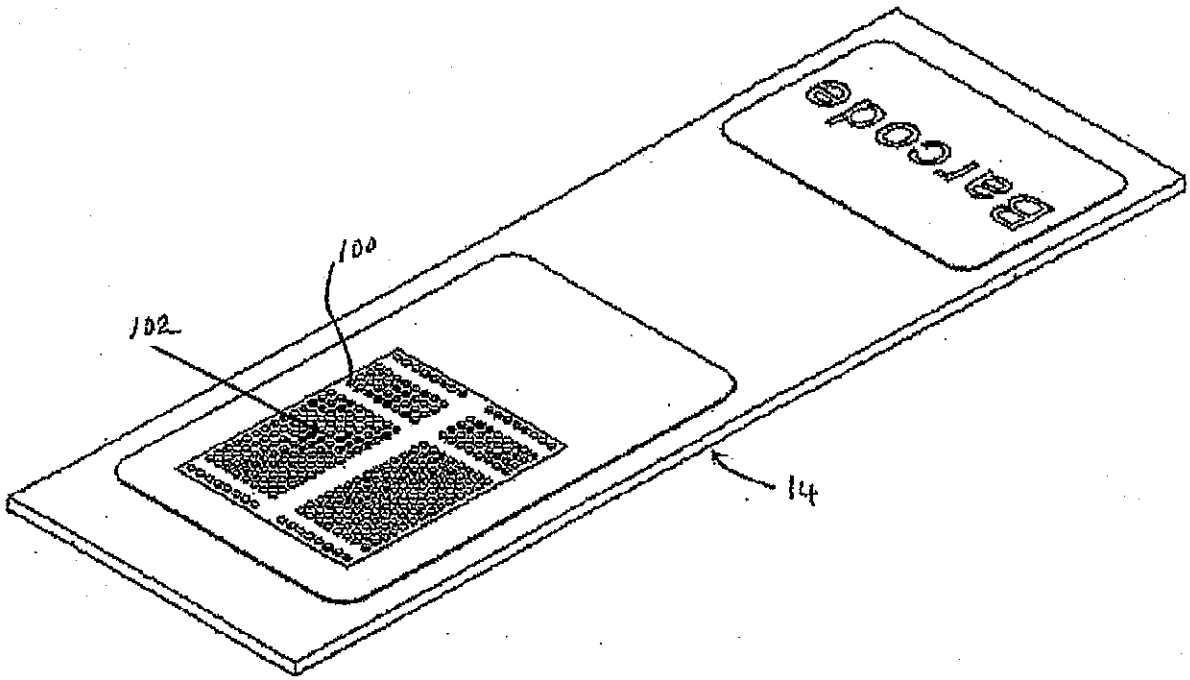


Figure 3

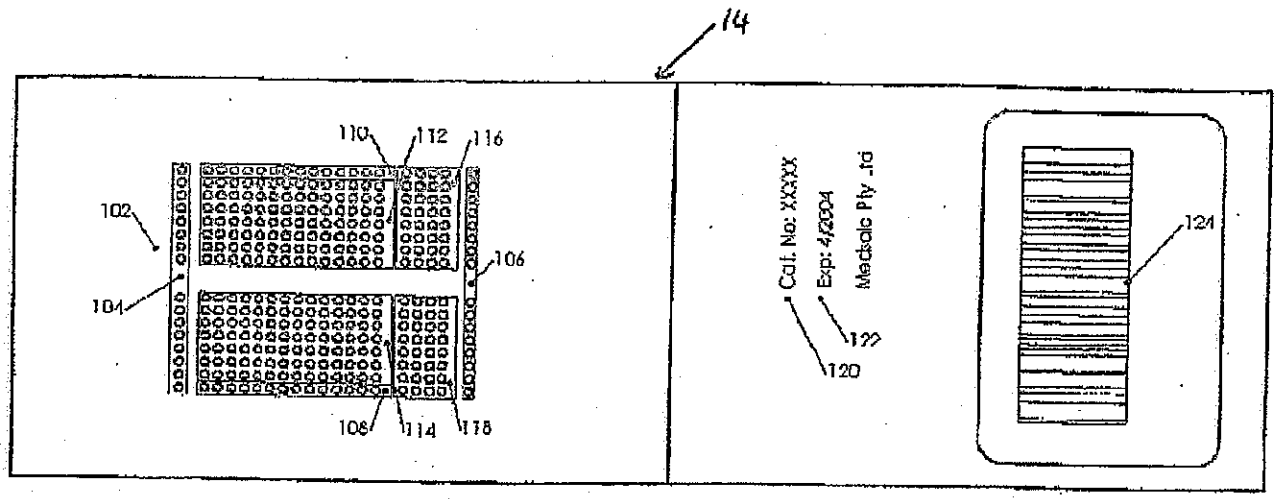


Figure 3A

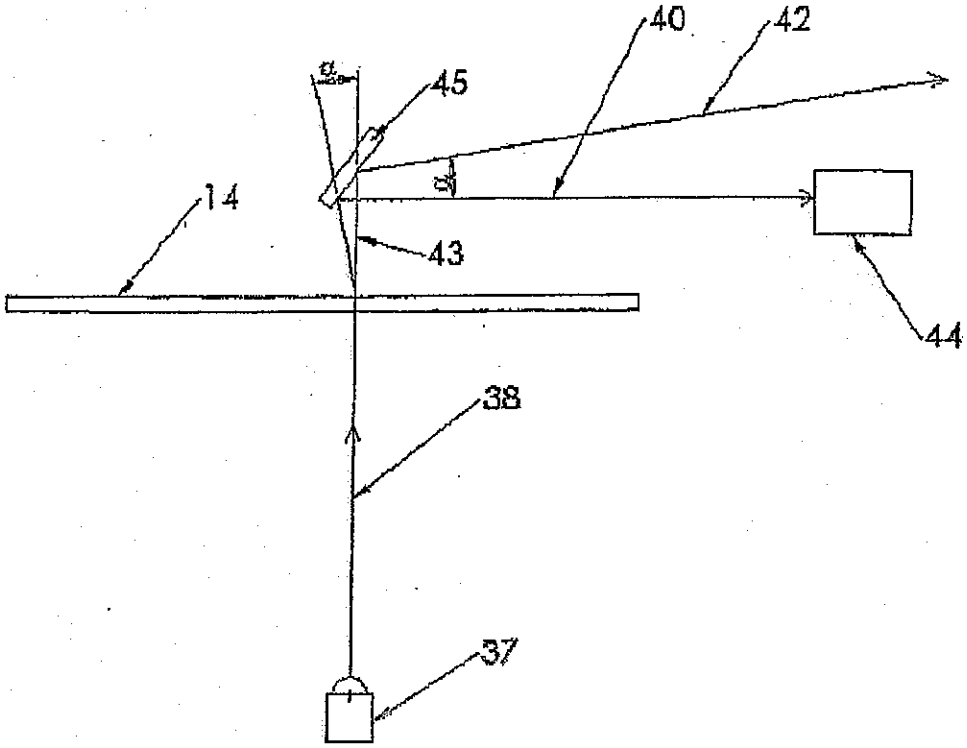


Figure 4

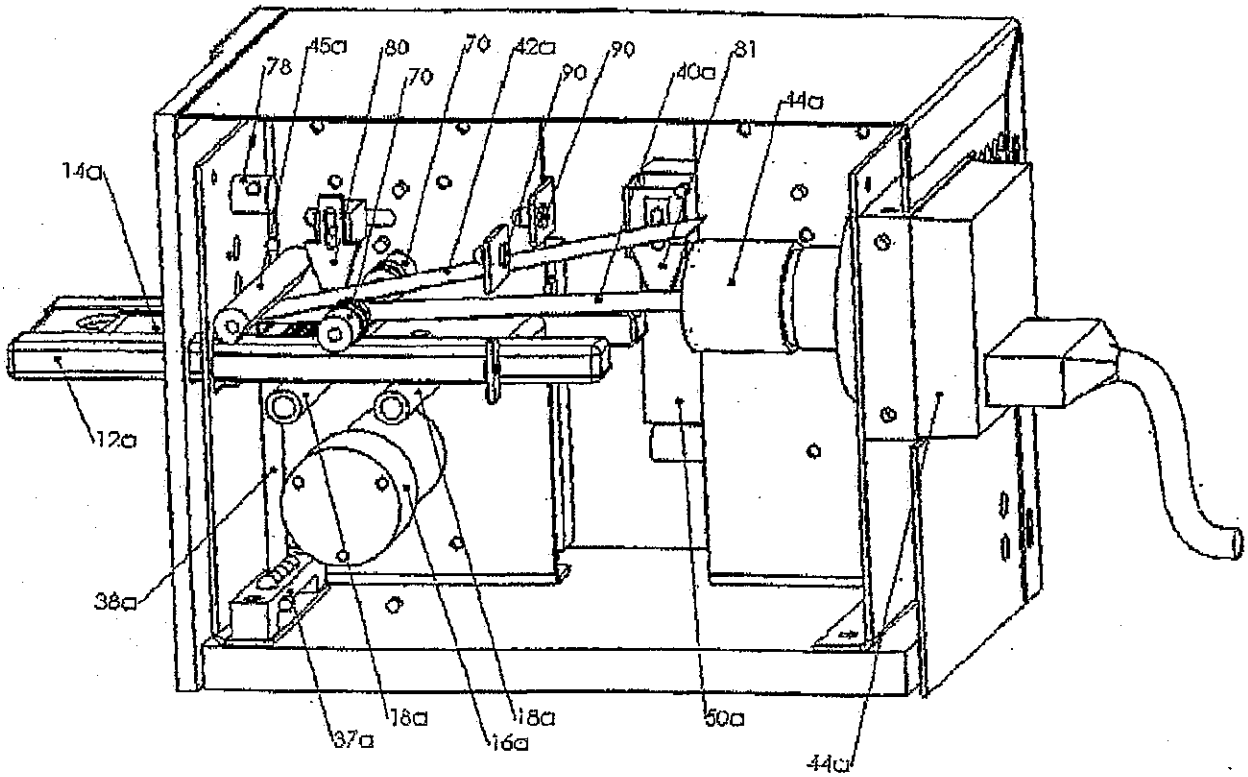


Figure 5

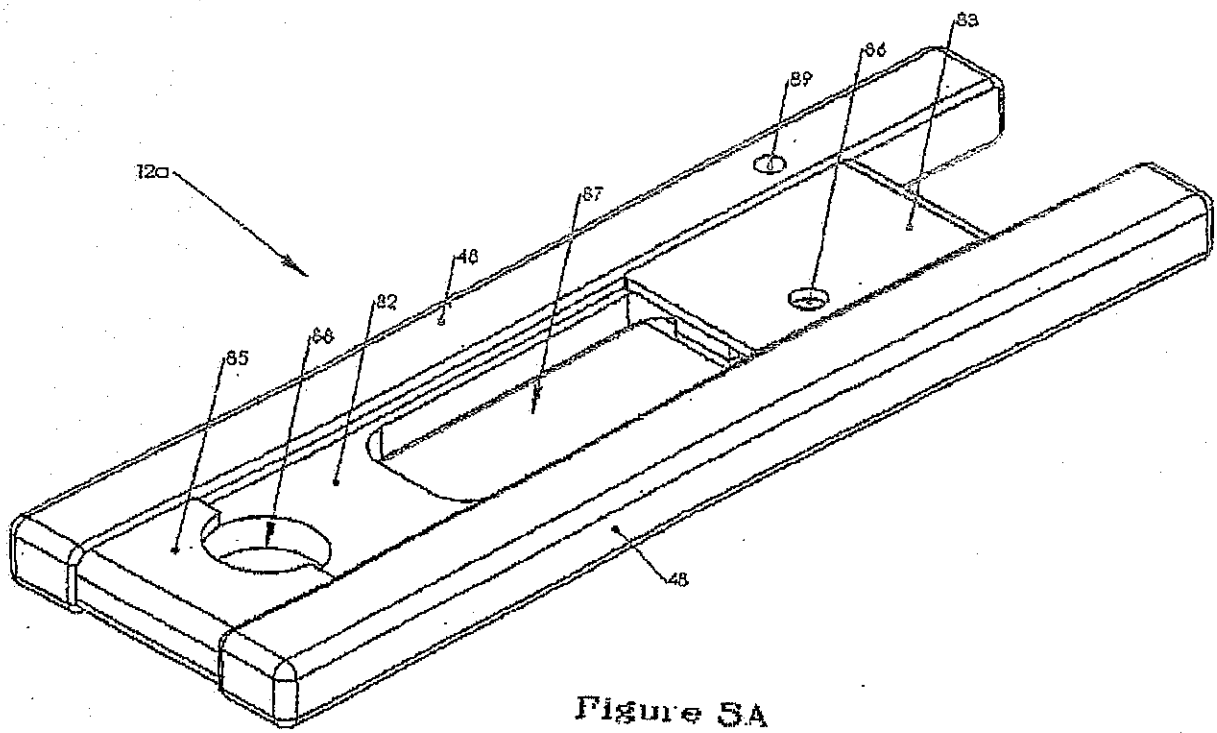


Figure 5A

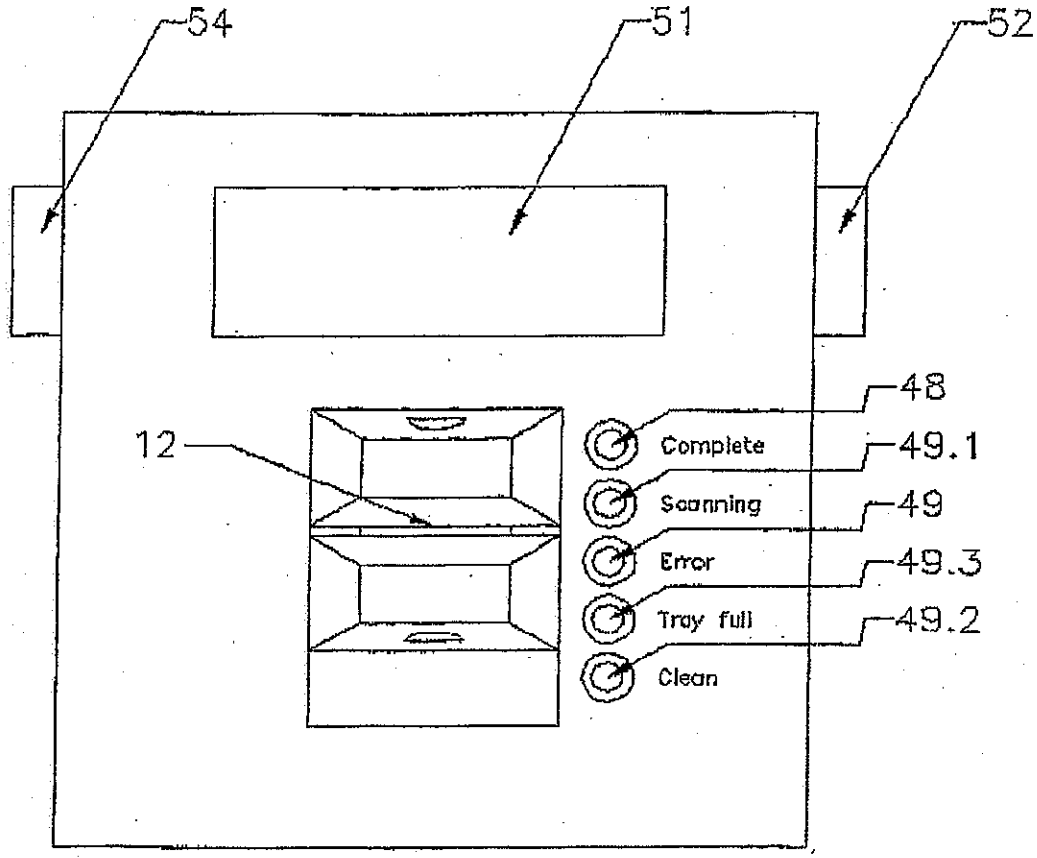

54
51
52
48
12
Complete
49.1
Scanning
49
Error
49.3
Tray full
49.2
Clean

Figure 6

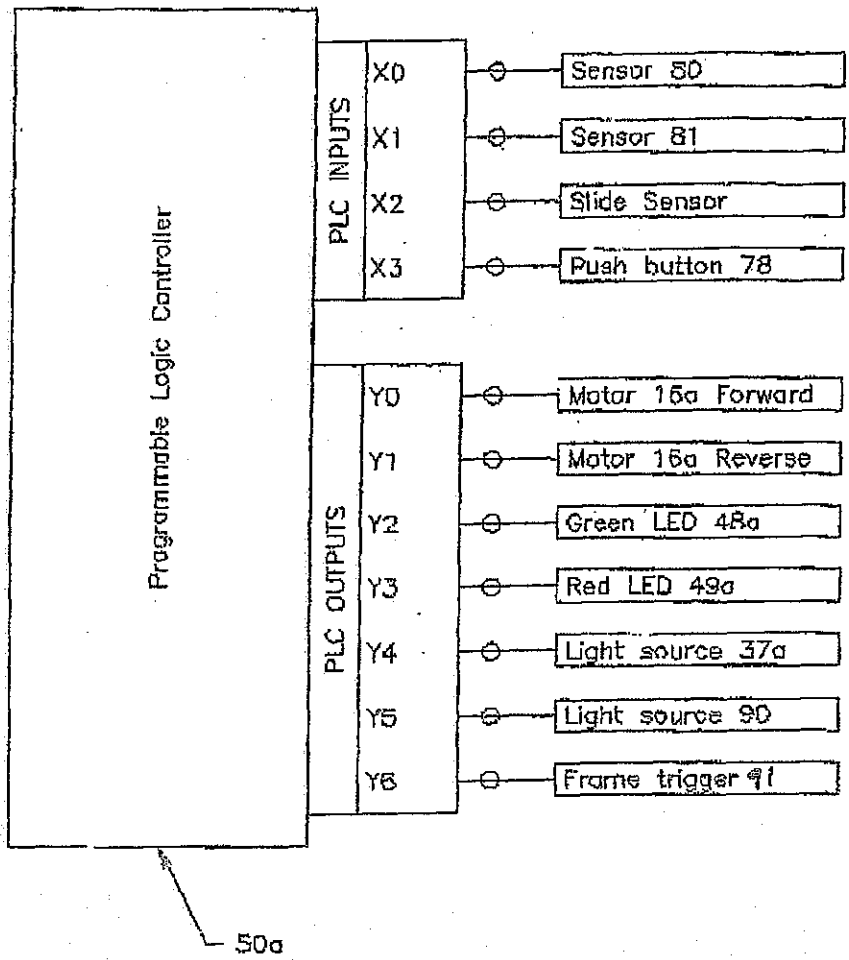

Programmable Logic Controller
PLC INPUTS
X0
X1
X2
X3
Sensor 80
Sensor 81
Slide Sensor
Push button 78
PLC OUTPUTS
Y0
Y1
Y2
Y3
Y4
Y5
Y6
Motor 16a Forward
Motor 16a Reverse
Green LED 48a
Red LED 49a
Light source 37a
Light source 90
Frame trigger 91
50a

Figure 6A

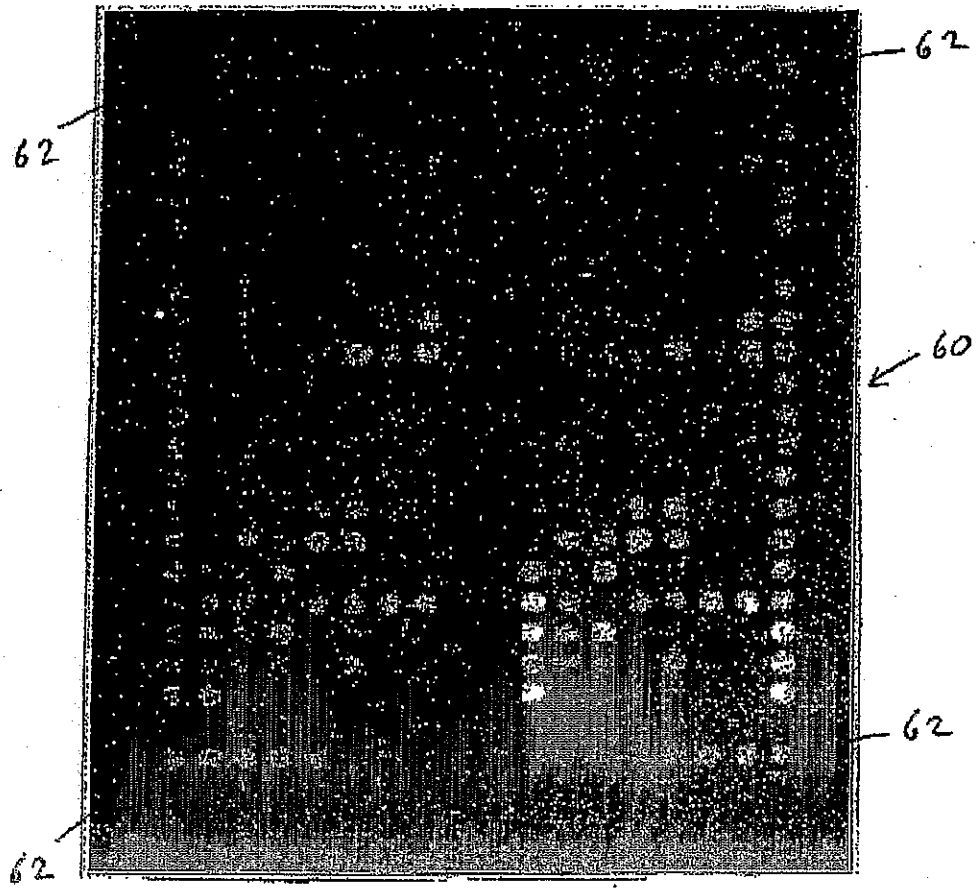


Figure 7

	C1	C2	C3	C4	C5	C6	C7	C8
R1	63	74	47	34	61	34	80	38
R2	91	14	39	76	99	54	84	93
R3	53	53	7	12	1	61	2	71
R4	99	3	13	87	12	8	1	13
R5	17	10	84	79	90	19	77	39
R6	87	7	15	95	63	32	95	20
R7	39	80	47	14	71	4	30	39
R8	30	94	98	27	65	38	40	26

Figure 8

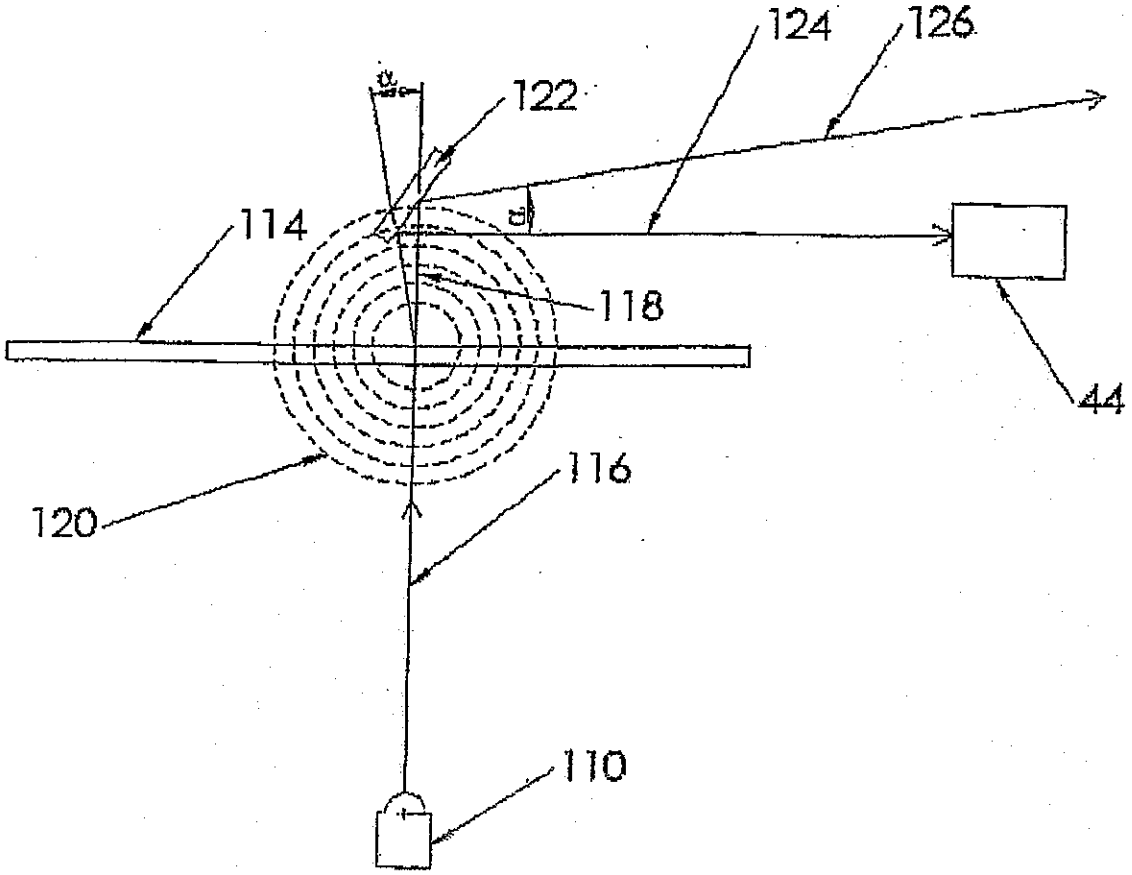


Figure 9

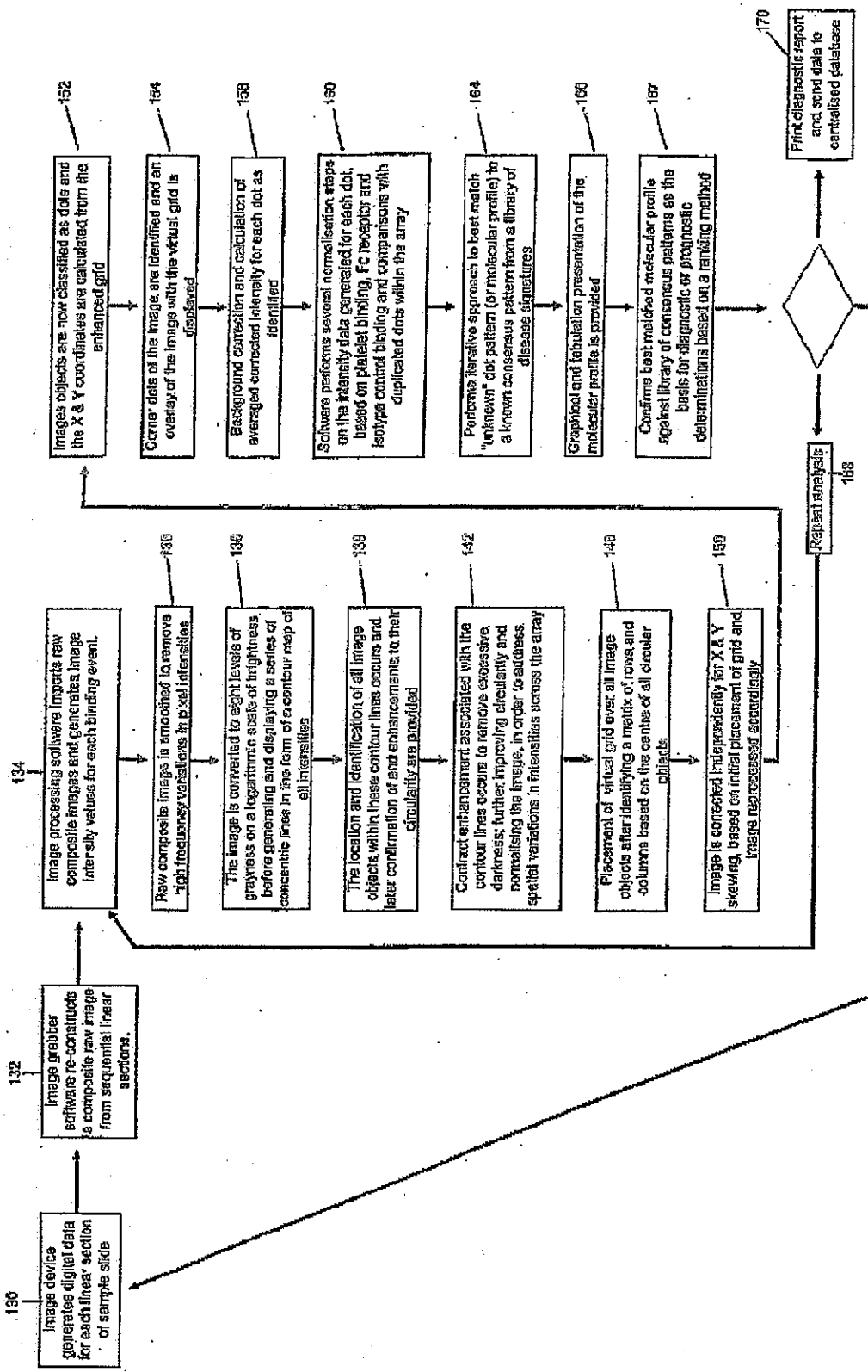

130
Image device generates digital data for each linear section of sample slide
132
Image grabber software re-constructs a composite raw image from sequential linear sections.
134
Image processing software imports raw composite images and generates image intensity values for each binding event.
136
Raw composite image is smoothed to remove high frequency variations in pixel intensities
135
The image is converted to eight levels of grayness on a logarithmic scale of brightness, before generating and displaying a series of concentric lines in the form of a contour map of all intensities
139
The location and identification of all image objects within these contour lines occurs and later confirmation of and enhancements to their circularity are provided
142
Contrast enhancement associated with the contour lines occurs to remove excessive darkness; further improving circularity and normalising the image, in order to address spatial variations in intensities across the array
148
Placement of virtual grid over all image objects after identifying a matrix of rows and columns based on the centre of all circular objects
139
Image is corrected independently for X & Y skewing, based on initial placement of grid and image reprocessed accordingly
152
Images objects are now classified as dots and the X & Y coordinates are calculated from the enhanced grid
154
Corner dots of the image are identified and an overlay of the image with the virtual grid is displayed
158
Background correction and calculation of averaged corrected intensity for each dot as identified
160
Software performs several normalisation steps on the intensity data generated for each dot, based on platelet binding, Fc receptor and isotype control binding and comparisons with duplicated dots within the array
164
Performs iterative approach to best match "unknown" dot pattern (or molecular profile) to a known consensus pattern from a library of disease signatures
166
Graphical and tabulation presentation of the molecular profile is provided
167
Confirms best matched molecular profile against library of consensus patterns as the basis for diagnostic or prognostic determinations based on a ranking method
168
Repeat analysis
160
Rescan the image
170
Print diagnostic report and send data to centralised database

Figure 10

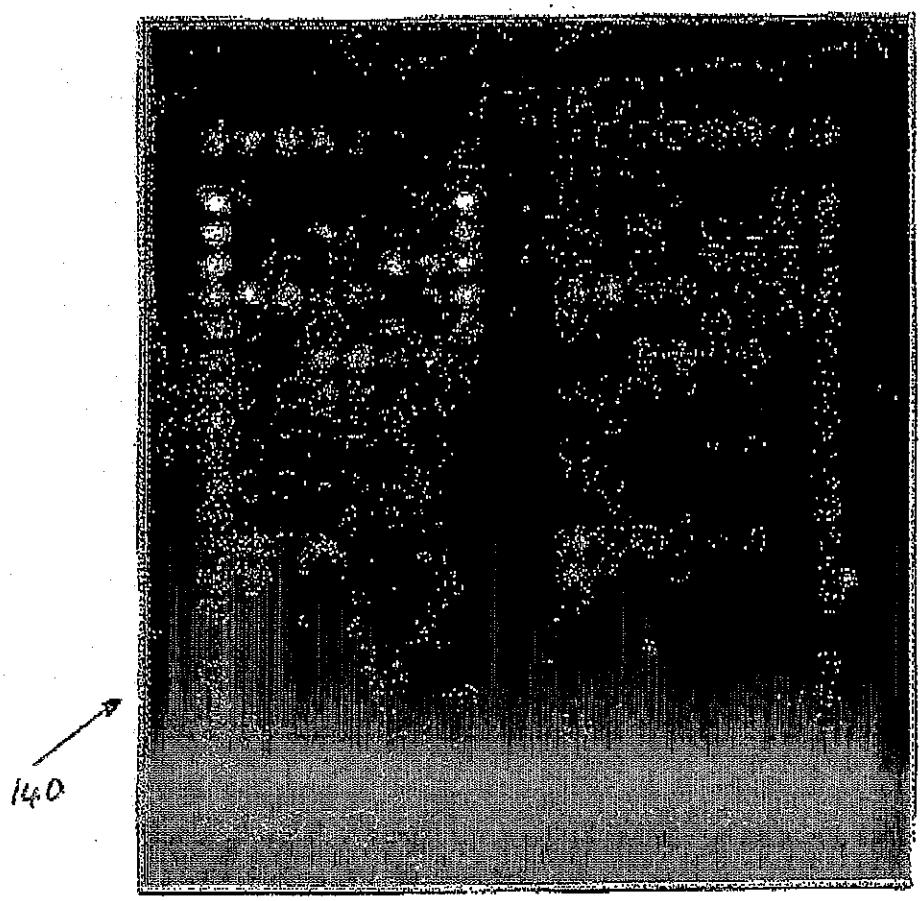


Figure 10A

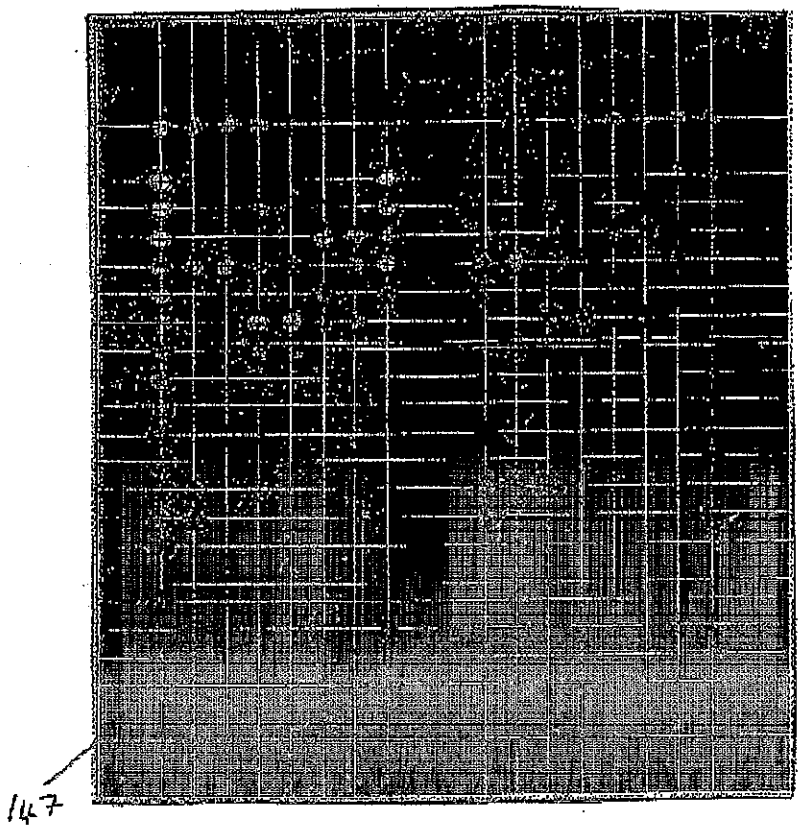


Figure 10B

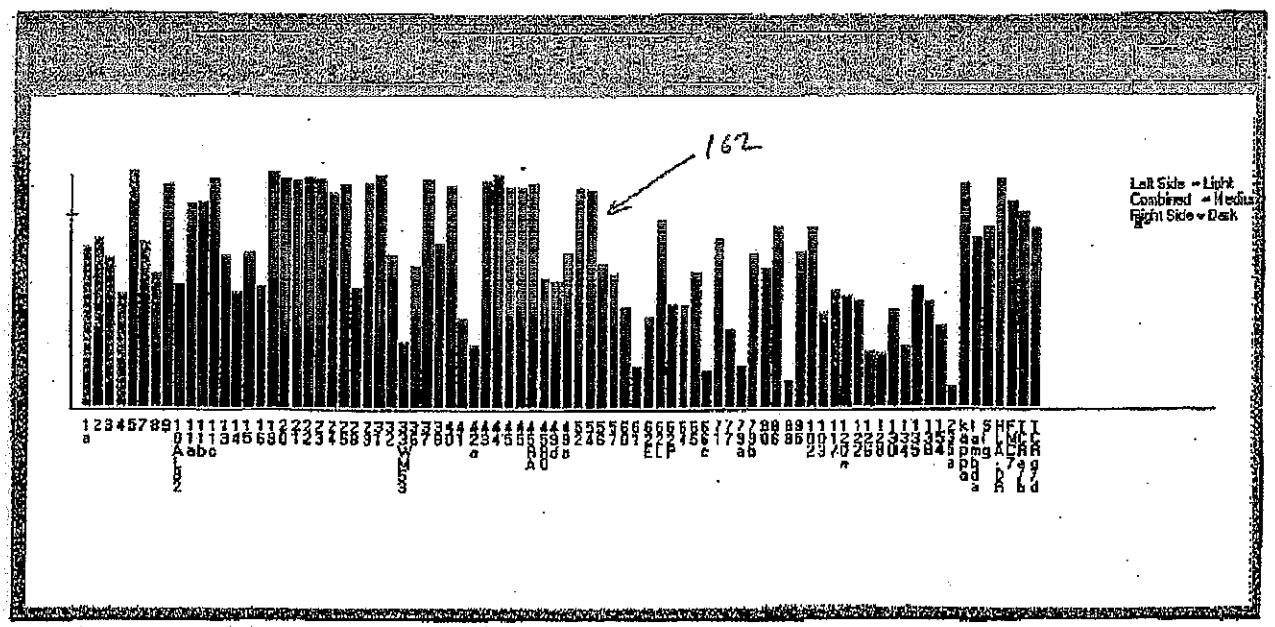


Figure 10C