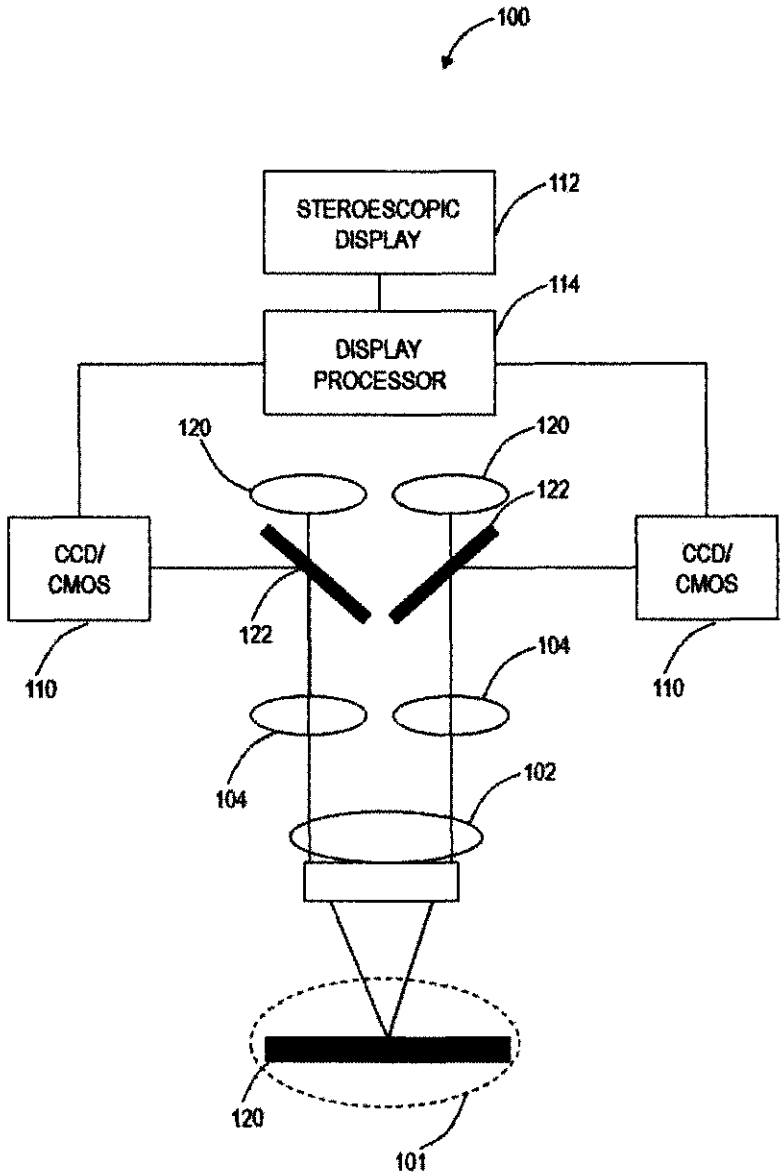


FIG. 1 Prior Art

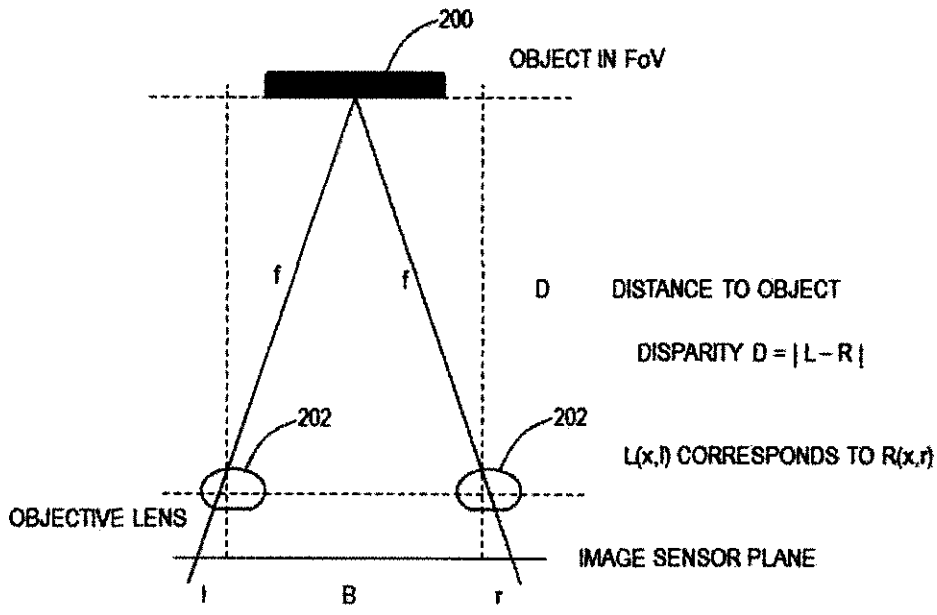

200
OBJECT IN FoV
f
f
D
DISTANCE TO OBJECT
DISPARITY D = | L – R |
202
202
L(x,l) CORRESPONDS TO R(x,r)
OBJECTIVE LENS
IMAGE SENSOR PLANE
l
B
r

FIG. 2

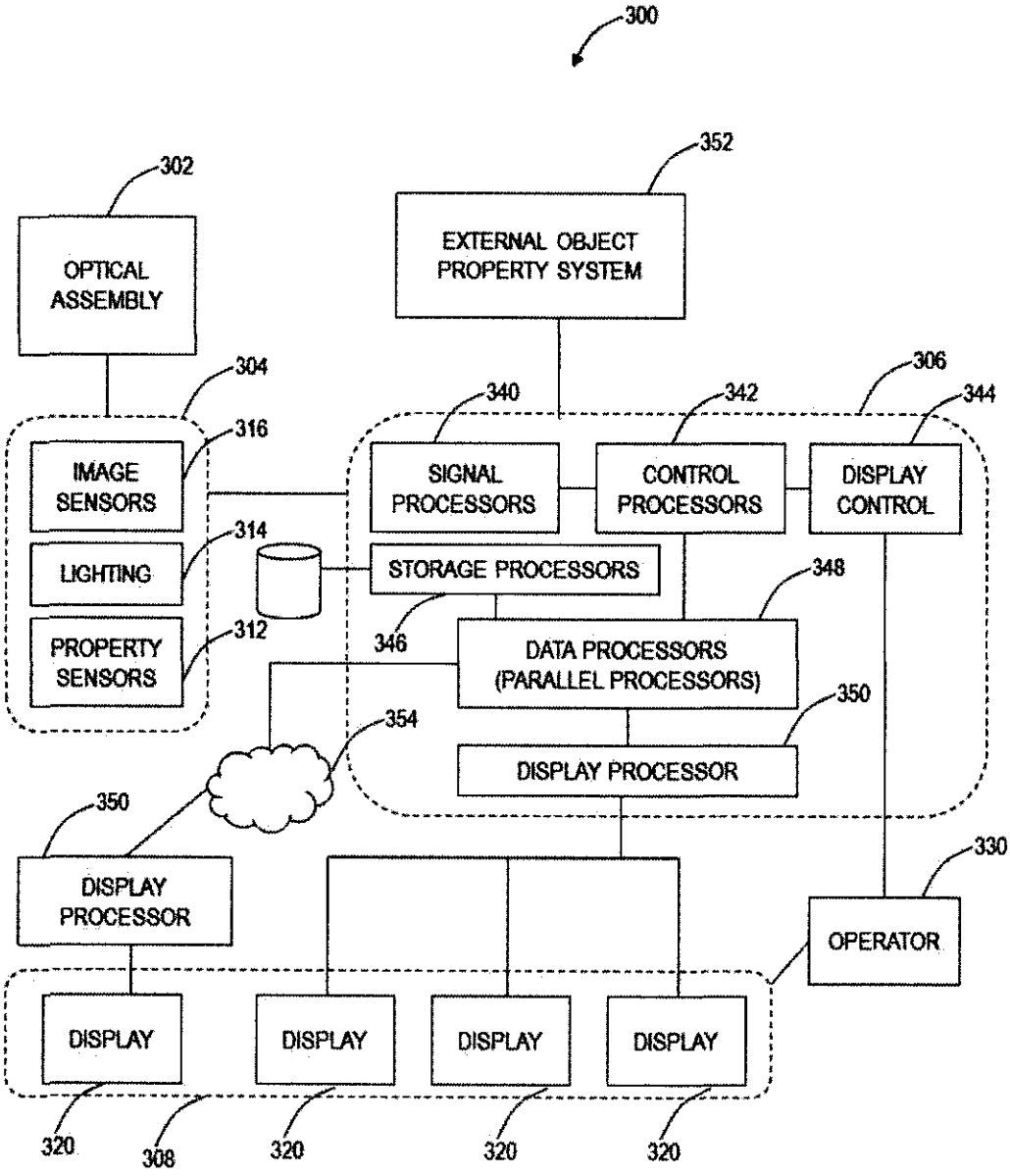

300
352
EXTERNAL OBJECT PROPERTY SYSTEM
302
OPTICAL ASSEMBLY
304
306
340
342
344
316
IMAGE SENSORS
SIGNAL PROCESSORS
CONTROL PROCESSORS
DISPLAY CONTROL
314
LIGHTING
STORAGE PROCESSORS
348
312
PROPERTY SENSORS
346
DATA PROCESSORS (PARALLEL PROCESSORS)
350
354
DISPLAY PROCESSOR
350
330
DISPLAY PROCESSOR
OPERATOR
DISPLAY
DISPLAY
DISPLAY
DISPLAY
320
308
320
320
320

FIG. 3

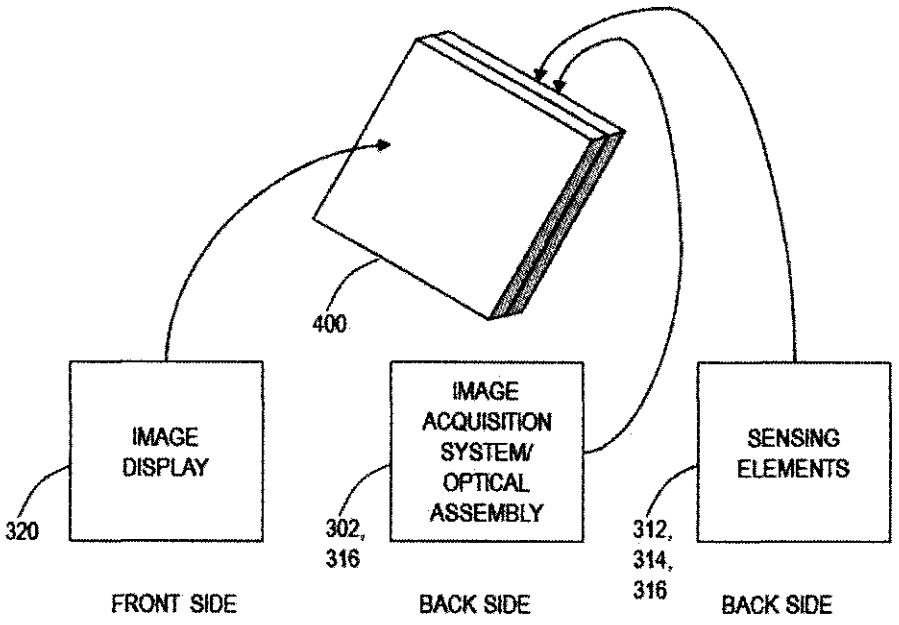

400
IMAGE DISPLAY
320
FRONT SIDE
IMAGE ACQUISITION SYSTEM/ OPTICAL ASSEMBLY
302, 316
BACK SIDE
SENSING ELEMENTS
312, 314, 316
BACK SIDE

FIG. 4A

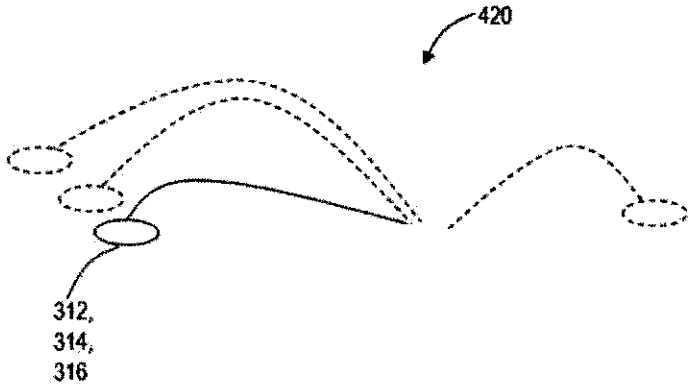

420
312, 314, 316

FIG. 4B

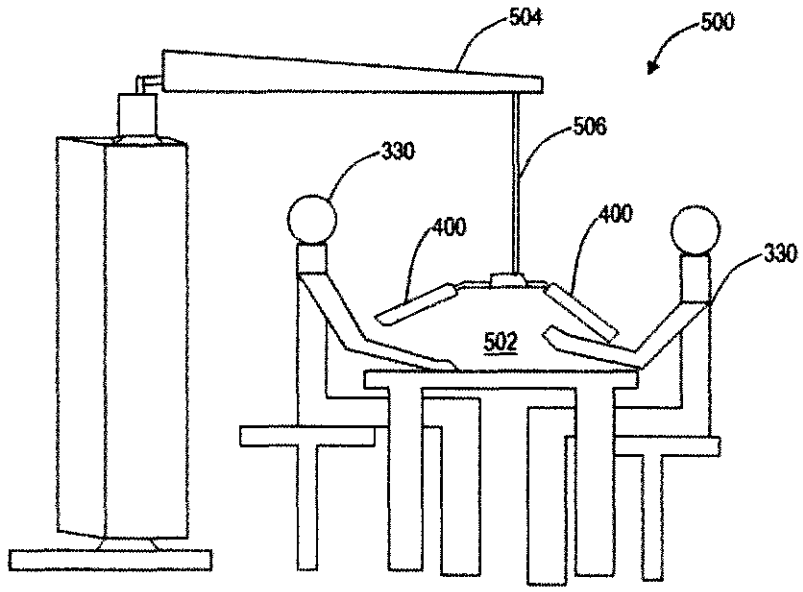


FIG. 5A

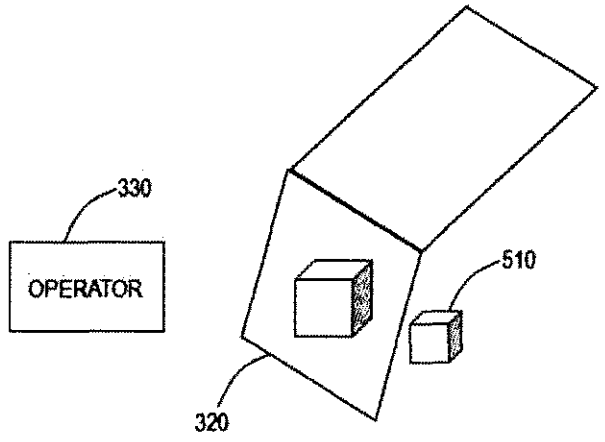


FIG. 5B

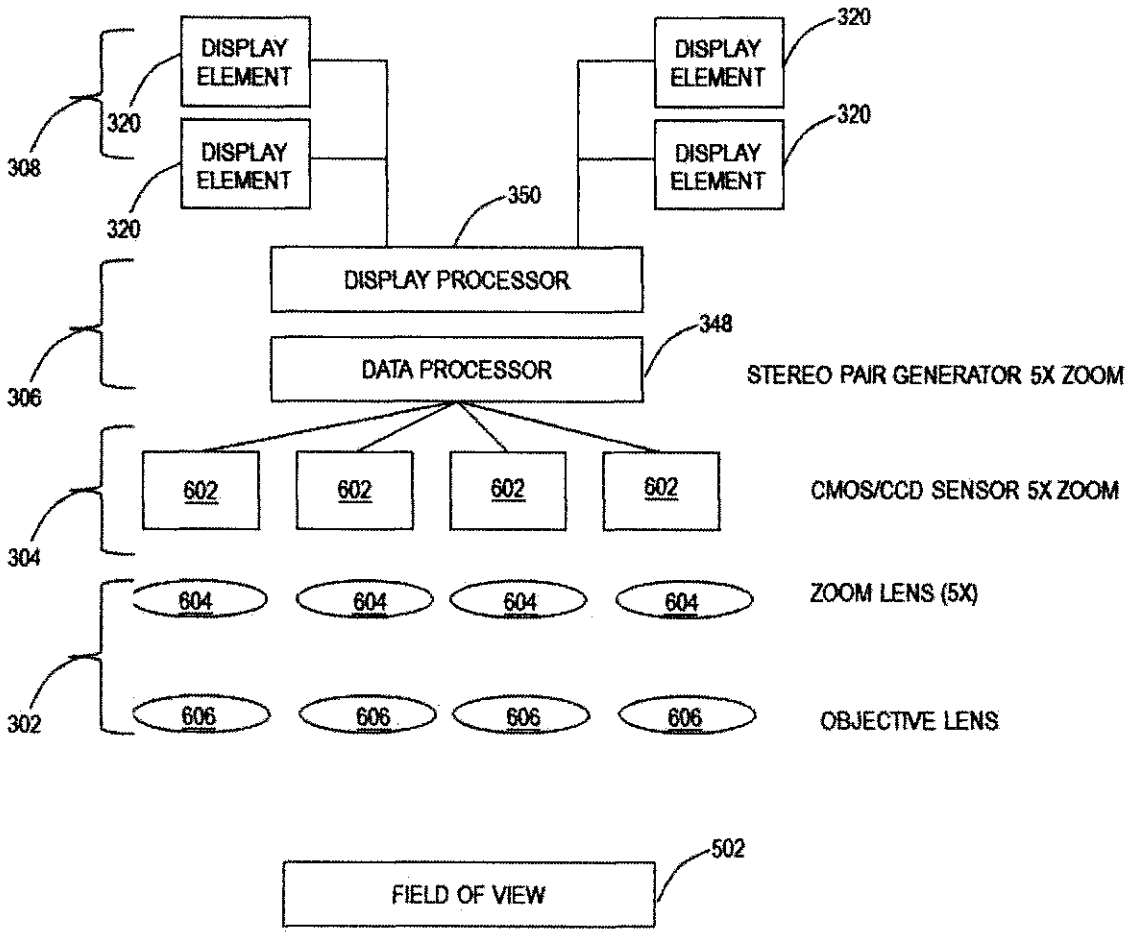

DISPLAY ELEMENT
320
DISPLAY ELEMENT
320
308
320
DISPLAY ELEMENT
320
DISPLAY ELEMENT
320
350
DISPLAY PROCESSOR
306
348
DATA PROCESSOR
STEREO PAIR GENERATOR 5X ZOOM
602
602
602
602
CMOS/CCD SENSOR 5X ZOOM
304
604
604
604
604
ZOOM LENS (5X)
606
606
606
606
OBJECTIVE LENS
302
502
FIELD OF VIEW

FIG. 6

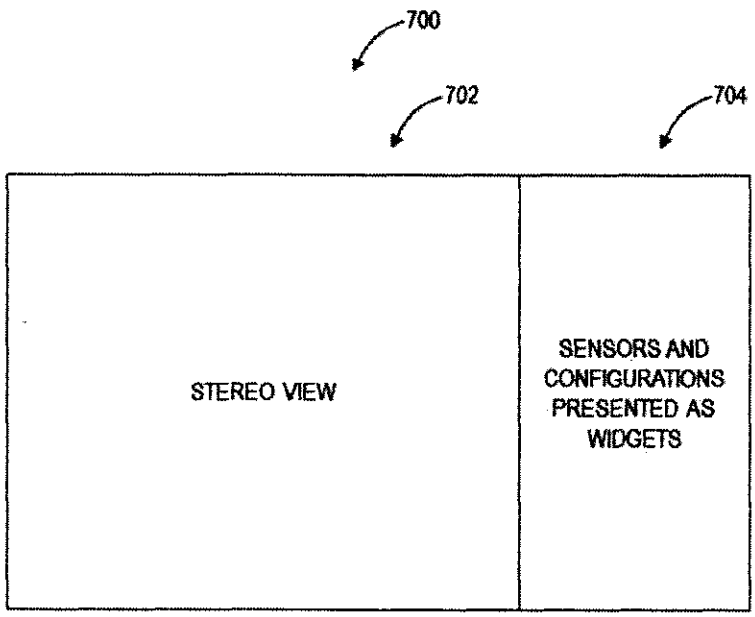

700
702
704
STEREO VIEW
SENSORS AND CONFIGURATIONS PRESENTED AS WIDGETS

FIG. 7