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Sengupta et al.

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(54) **AUTOMATED CAMERA HANDOFF SYSTEM FOR FIGURE TRACKING IN A MULTIPLE CAMERA SYSTEM**

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(51) **Int. Cl.^{7}** **H04N 7/18**

(52) **U.S. Cl.** **348/154**; 348/143; 348/153; 348/159; 348/169

(58) **Field of Search** 348/143, 152, 348/153, 154, 159, 169; 382/103

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(57) **ABSTRACT**

The invention provides for the automation of a multiple camera system based upon the location of a target object in a displayed camera image. The preferred system provides a nearly continuous display of a figure as the figure moves about throughout multiple cameras' potential fields of view. When the figure approaches the bounds of a selected camera's field of view, the system determines which other camera's potential field of view contains the figure, and adjusts that other camera's actual field of view to contain the figure. When the figure is at the bounds of the selected camera's field of view, the system automatically selects the other camera. The system also contains predictive location determination algorithms. By assessing the movement of the figure, the system selects and adjusts the next camera based upon the predicted subsequent location of the figure.

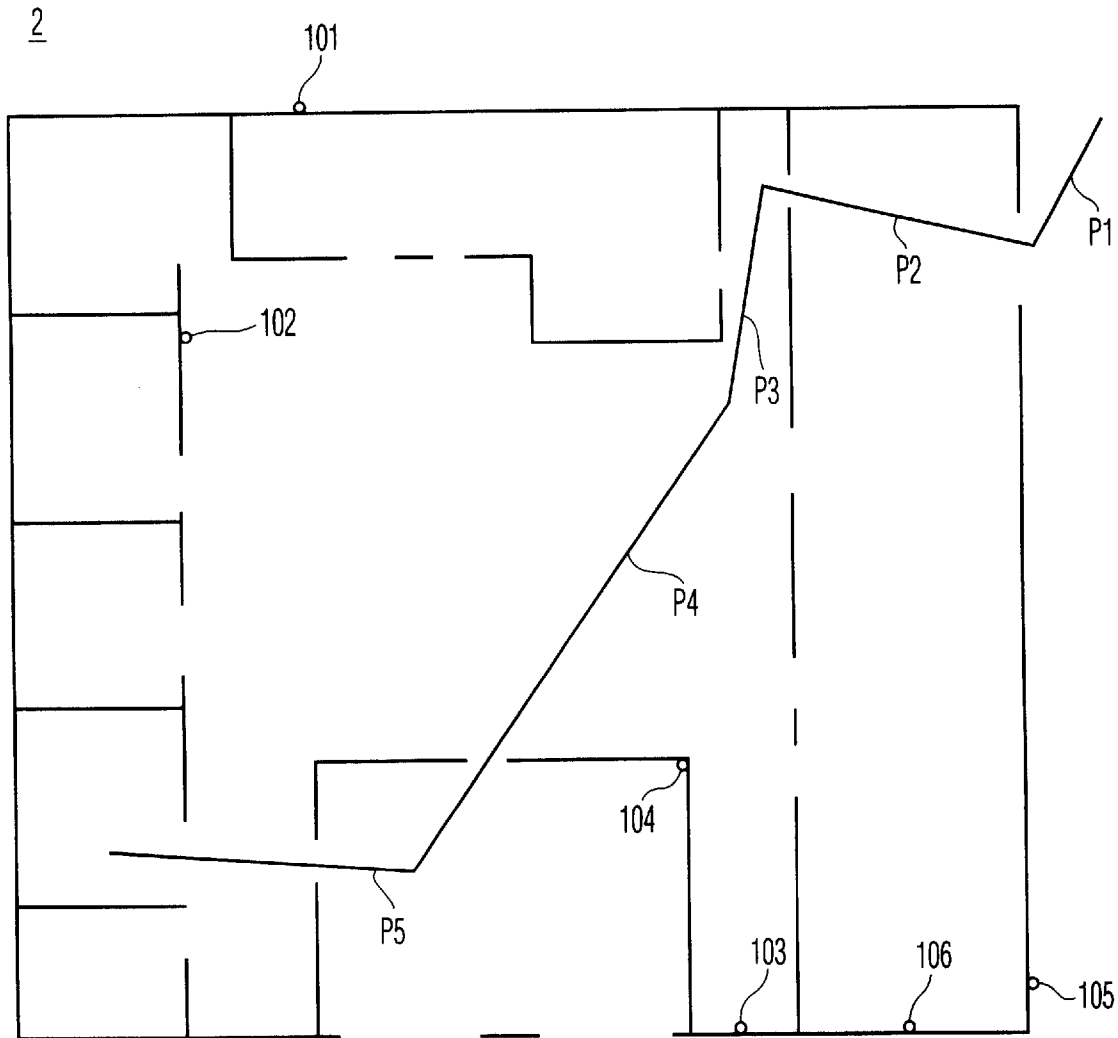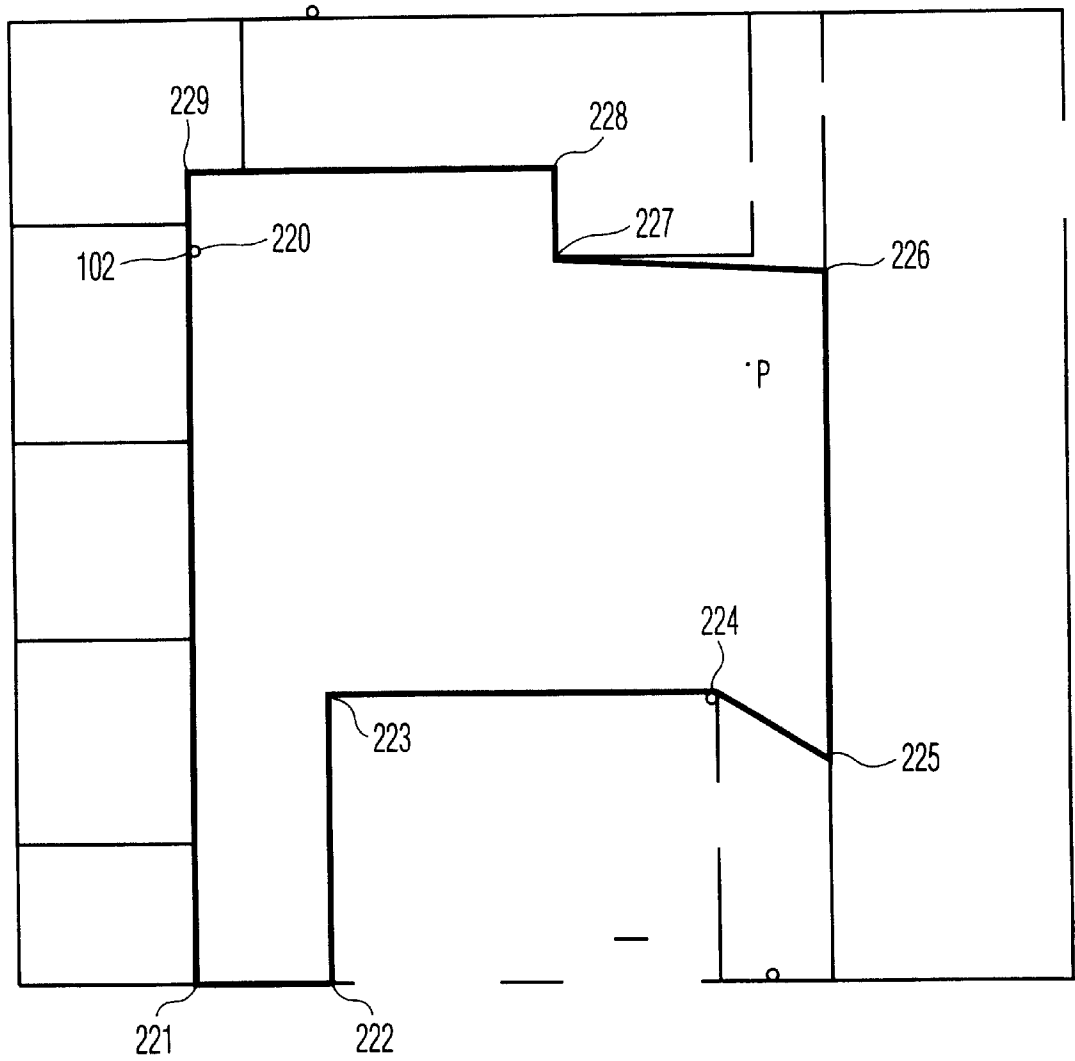**18 Claims, 9 Drawing Sheets**
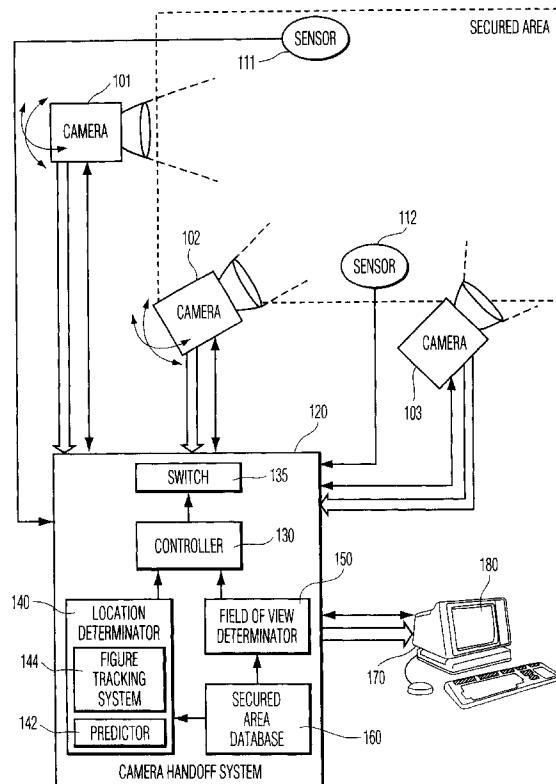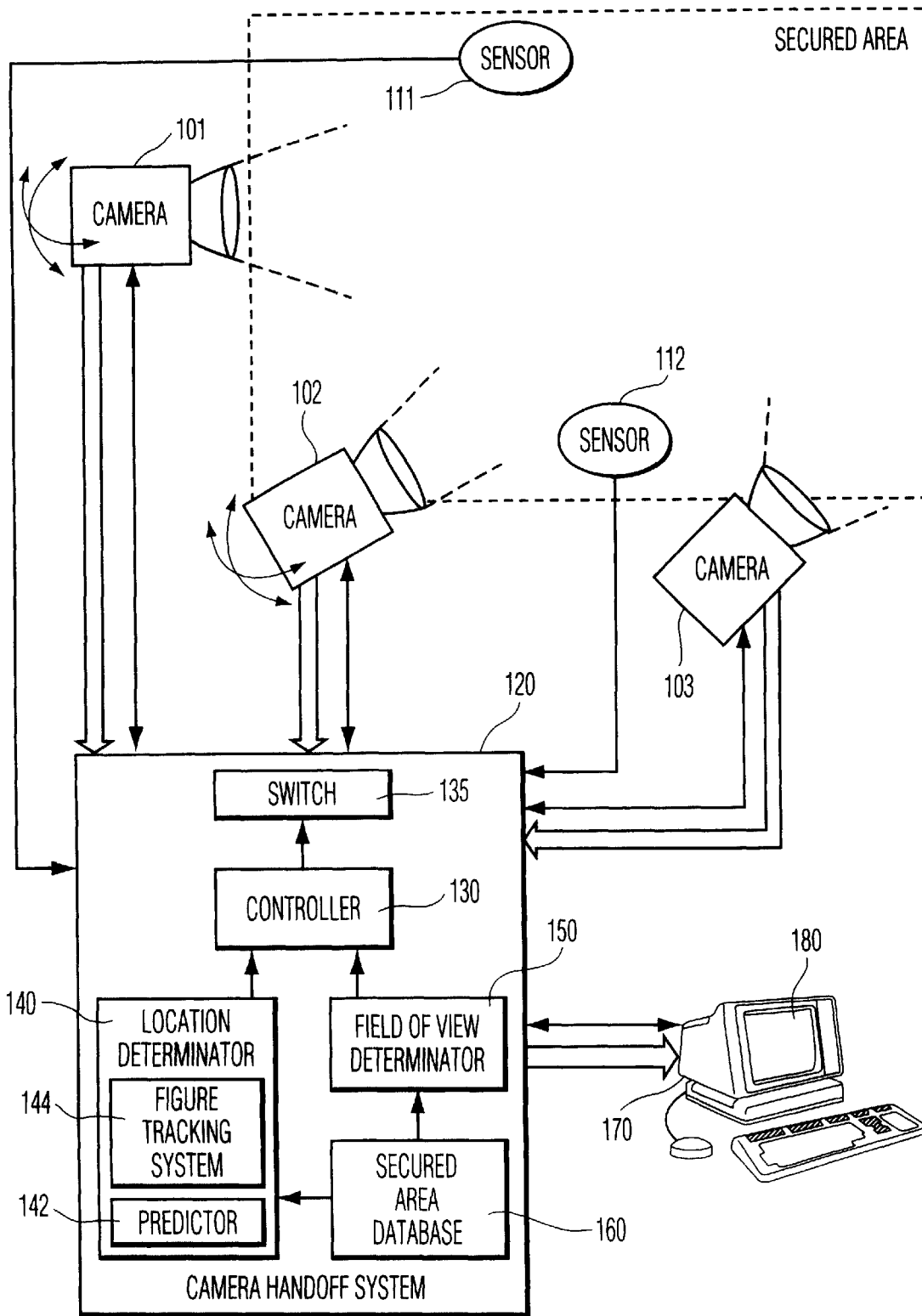
FIG. 1

FIG. 2

FIG. 3a

FIG. 3b

DOCKET ALARM
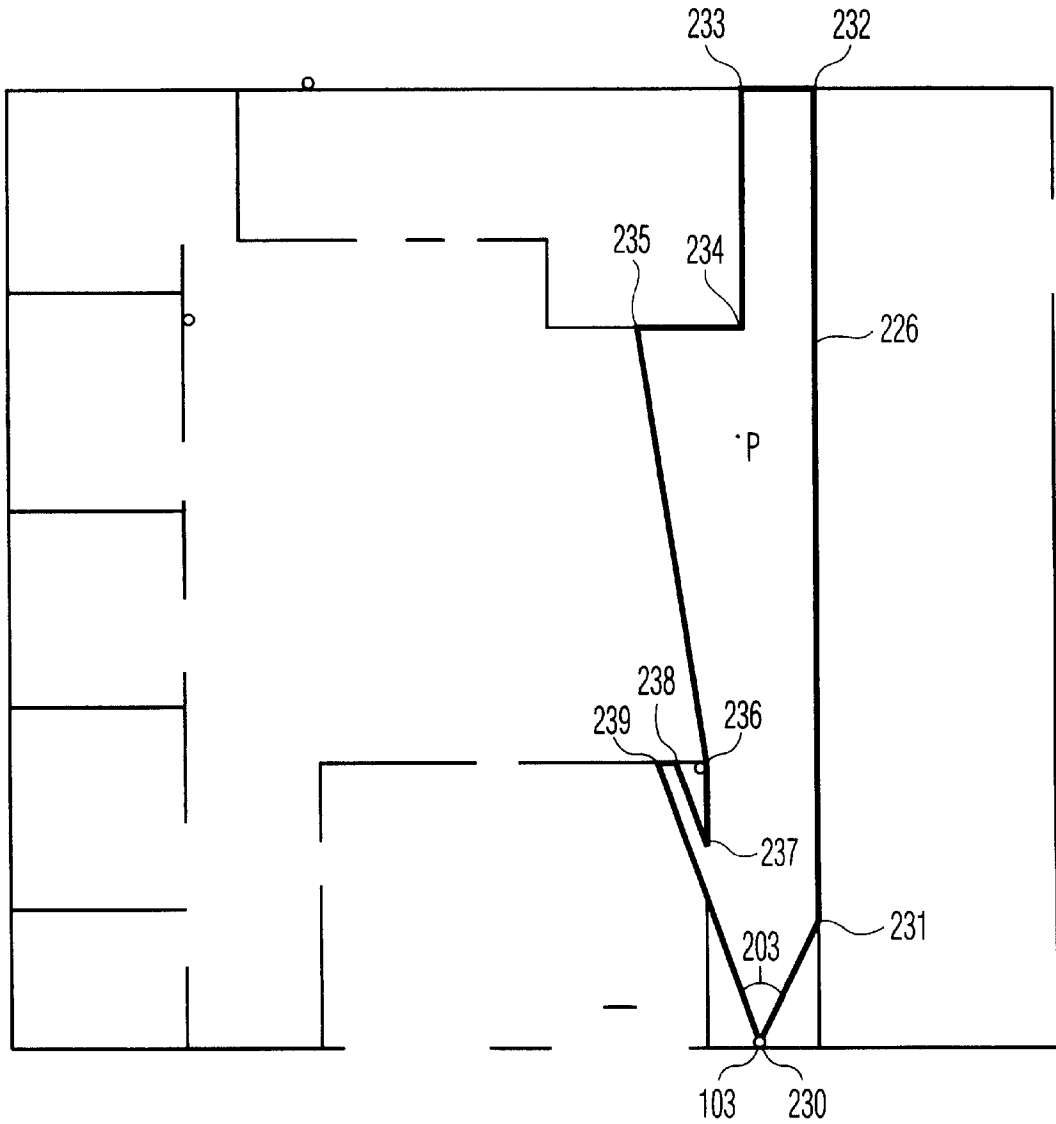
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