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Hector et al.

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(54) **ACTIVE MATRIX DISPLAY DEVICES**

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G09G 3/32 (2006.01)
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(52) **U.S. Cl.** **345/82**; 345/76
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See application file for complete search history.

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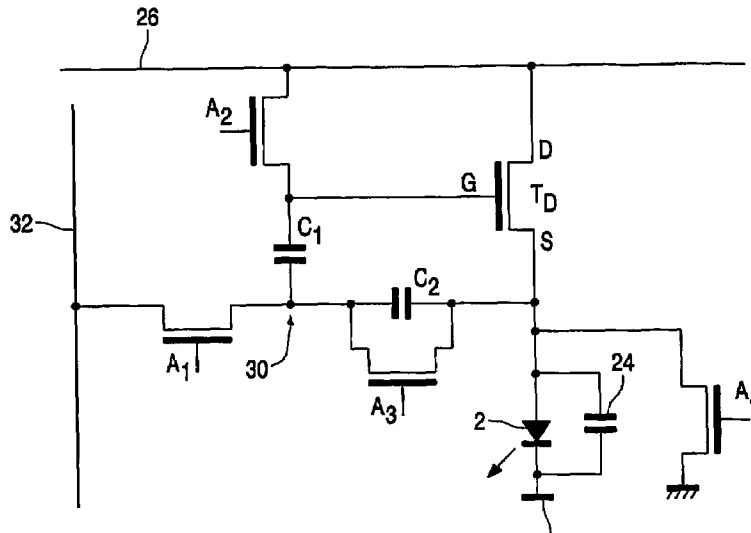
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(57) **ABSTRACT**

An active matrix display device uses an amorphous silicon drive transistor for driving a current through an LED display element. First and second capacitors are connected in series between the gate and source of the drive transistor, with a data input to the pixel provided to the junction between the first and second capacitors. The second capacitor is charged to a pixel data voltage, and a drive transistor threshold voltage is stored on the first capacitor. This pixel arrangement enables a threshold voltage to be stored on the first capacitor, and this can be done each time the pixel is addressed, thereby compensating for age-related changes in the threshold voltage.

34 Claims, 10 Drawing Sheets

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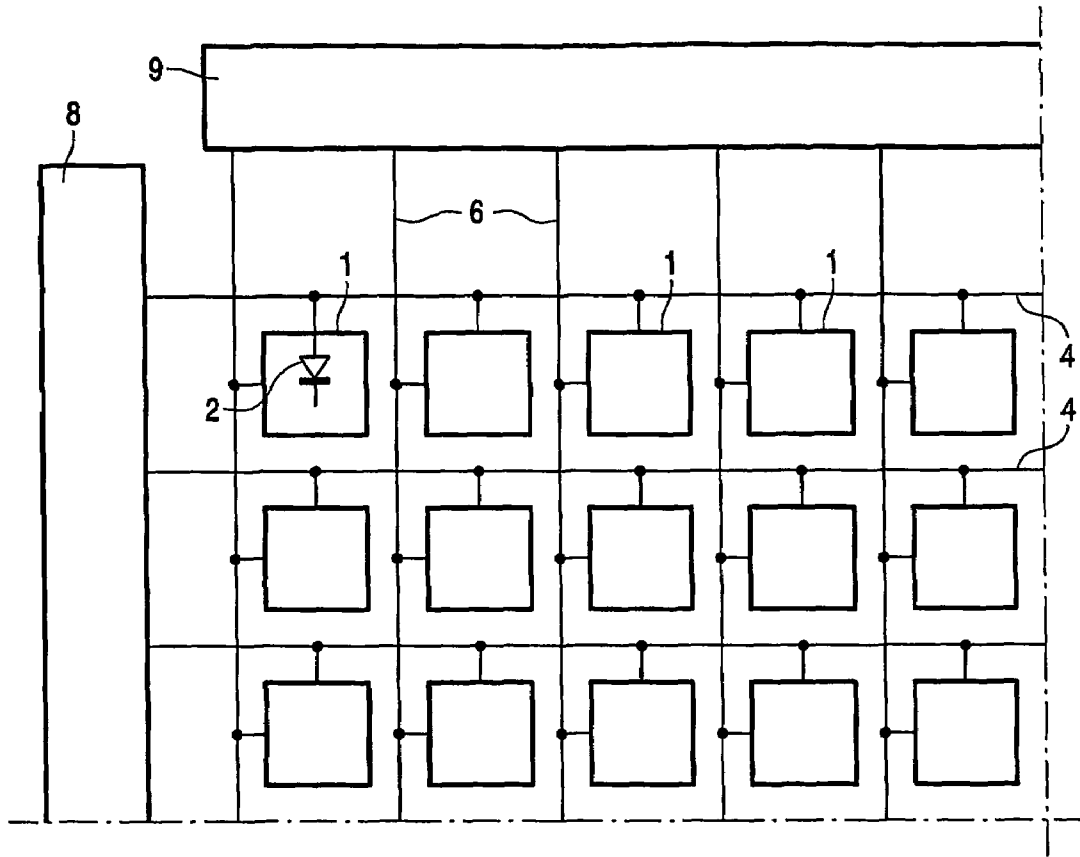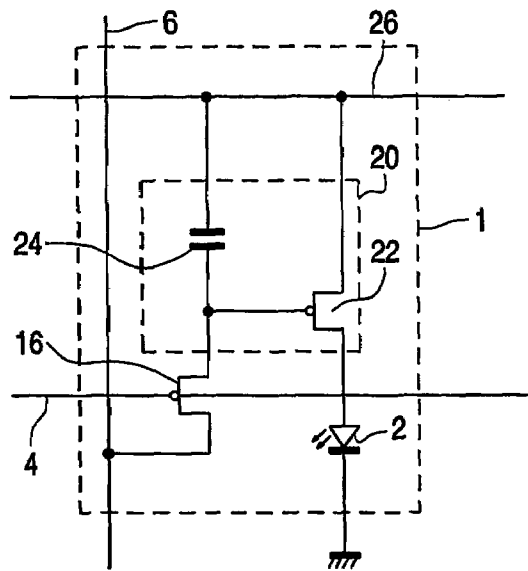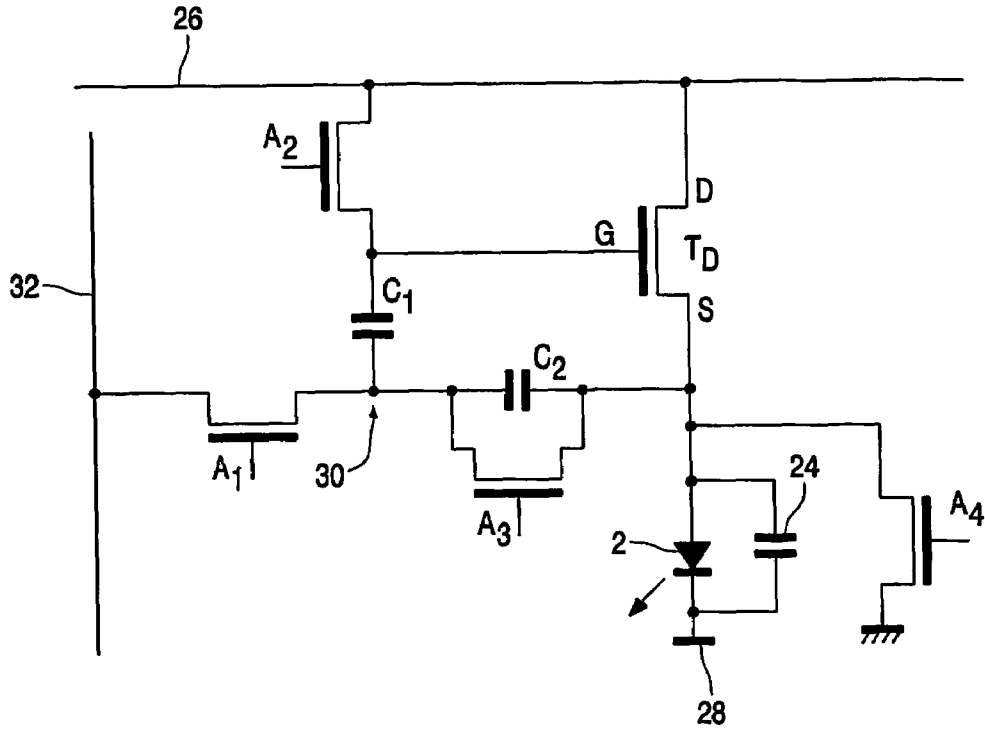
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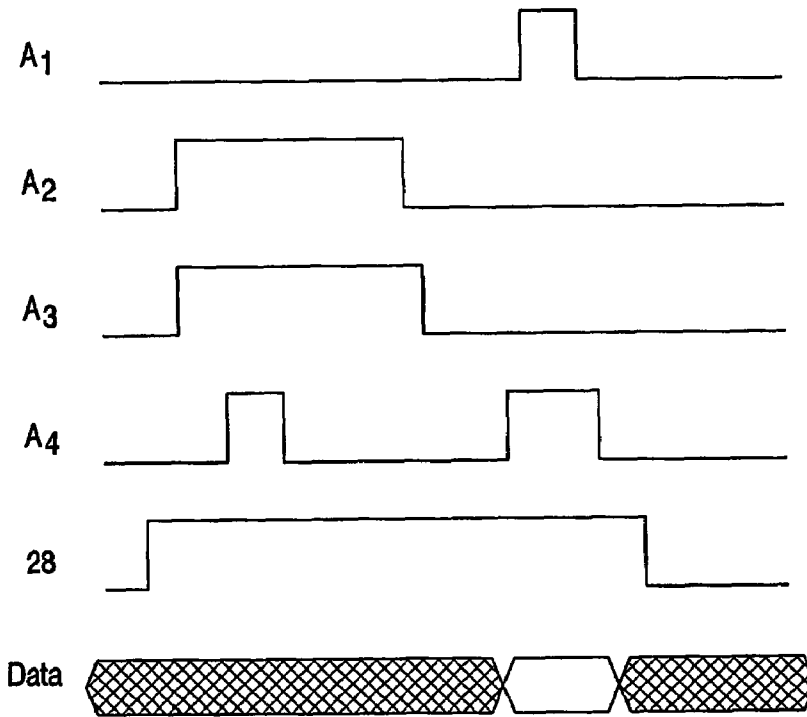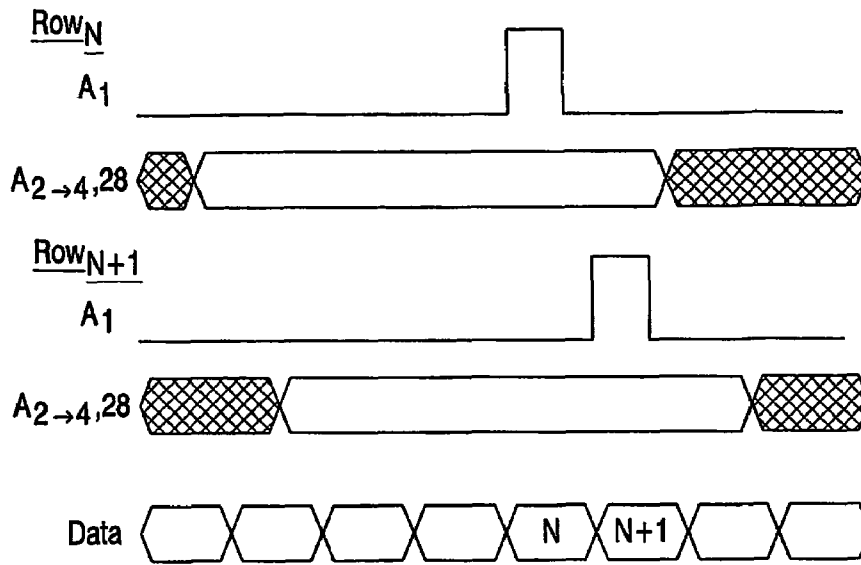
FIG.1 PRIOR ART

FIG.2 PRIOR ART
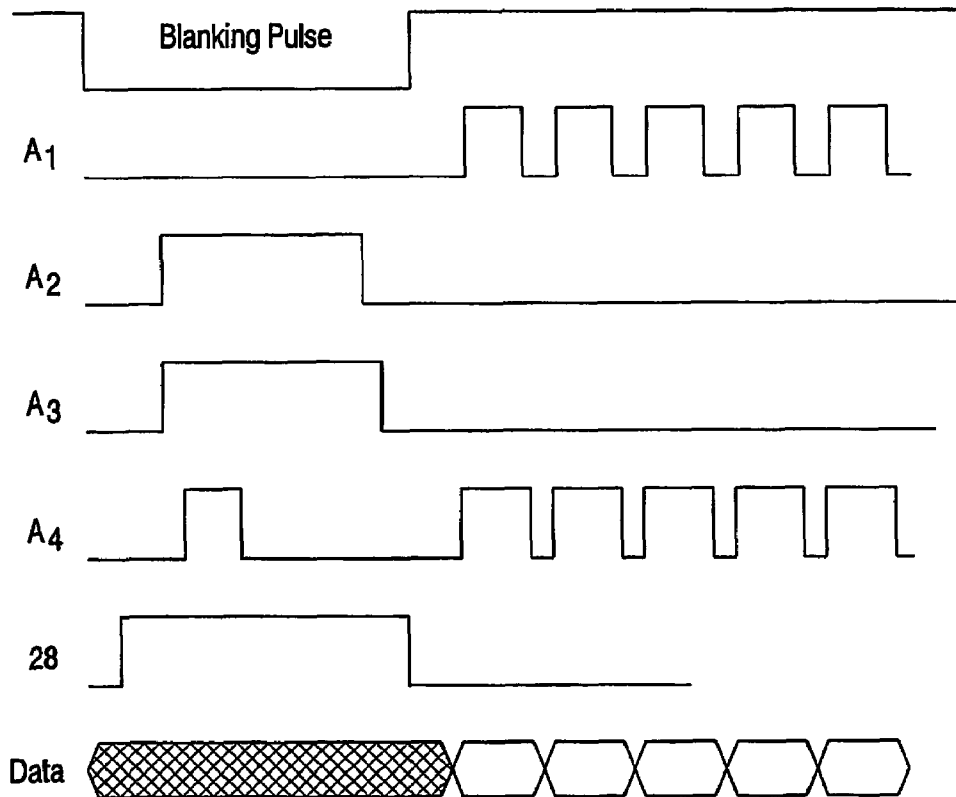
FIG.3

FIG.4

FIG.5

FIG.6

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