

- [54] **ELECTRONIC SKETCH PAD**
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 Fla.
- [73] **Assignee:** Harris Corporation, Melbourne, Fla.
- [21] **Appl. No.:** 224,067
- [22] **Filed:** Jan. 12, 1981
- [51] **Int. Cl.⁴** G09G 3/00
- [52] **U.S. Cl.** 340/712; 340/707;
 340/365 C
- [58] **Field of Search** 340/707, 712, 784, 706,
 340/365 C, 708, 365 S; 178/18-20

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Attorney, Agent, or Firm—Antonelli, Terry & Wands

[57] **ABSTRACT**

A graphics input/output device contains a graphics input pad having an array of transparent capacitive pixels the capacitance characteristics of which are changed in response to the passing of a conductive-tipped stylus over the surface of the pad. This change in capacitance is sensed by sense buffers disposed along the columns of the matrix, as the rows are scanned at a prescribed scanning rate.

The sensed data is read out of the sense buffer and loaded into a RAM. An array of display pixels formed of an LCD matrix is addressed by a scan sequence control unit, and the energization of the display pixels is multiplexed with the read-out scanning of the sensed data, so as to present to the user a real time generated image of the graphics created by the stylus. As a result, it appears to the user that the stylus is actually "writing" on the display pad.

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30 Claims, 13 Drawing Figures

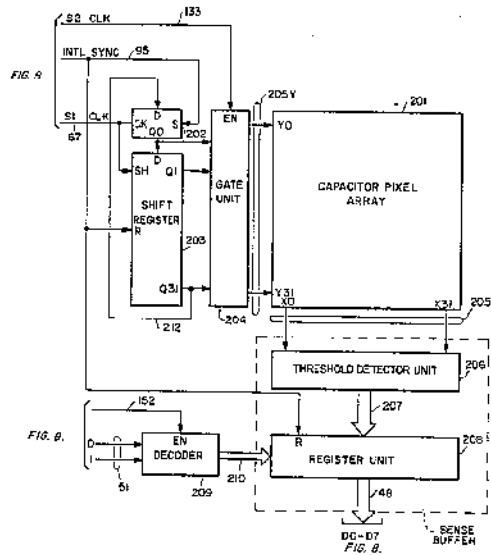


FIG. 1.

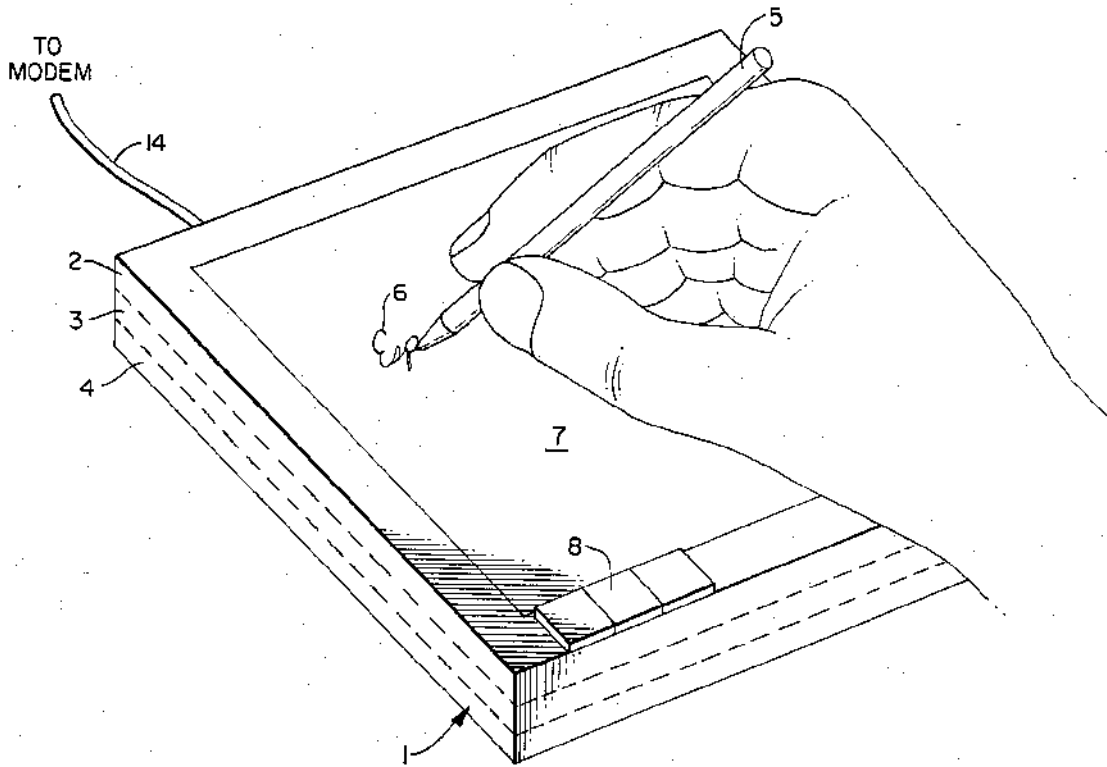
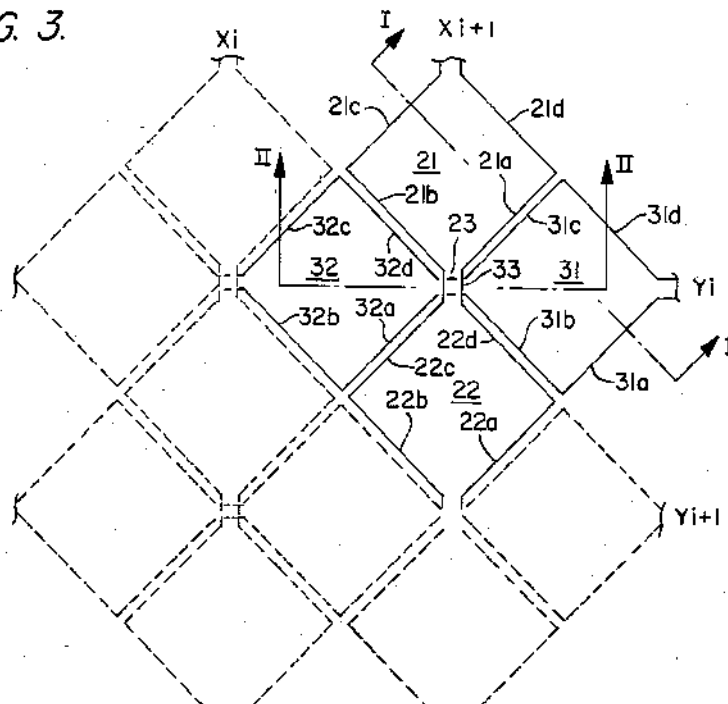


FIG. 3.



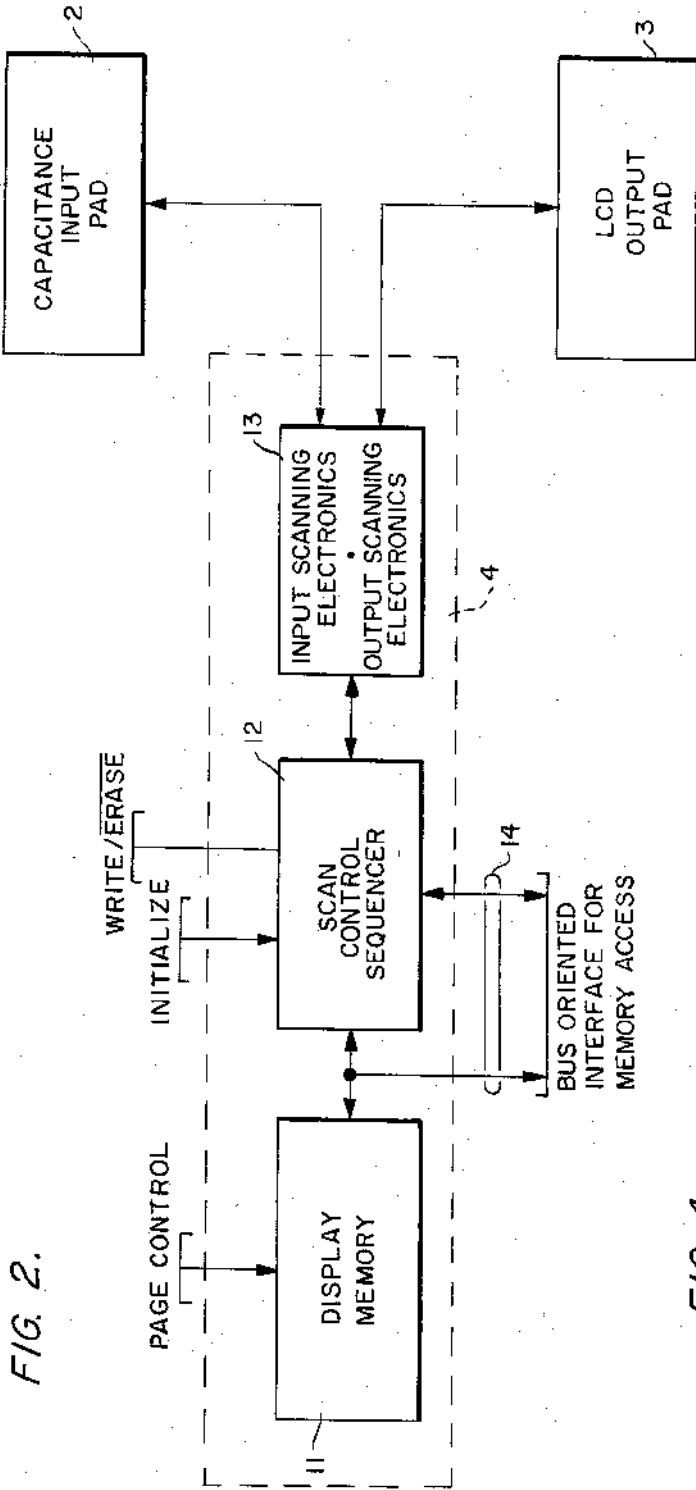


FIG. 2.

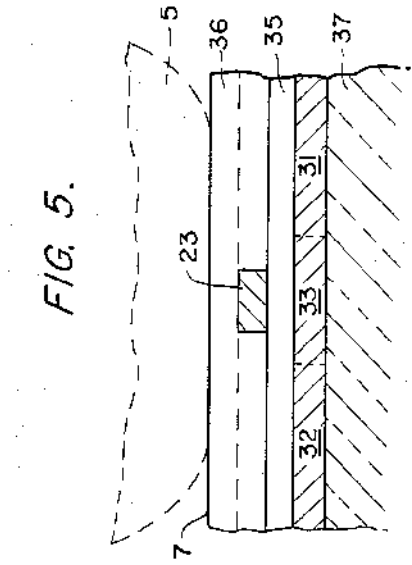


FIG. 4.

FIG. 5.

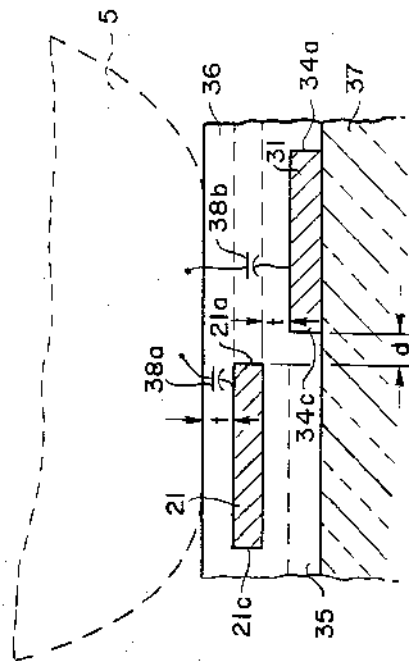


FIG. 6.

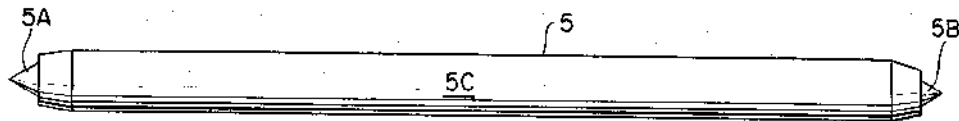


FIG. 7.

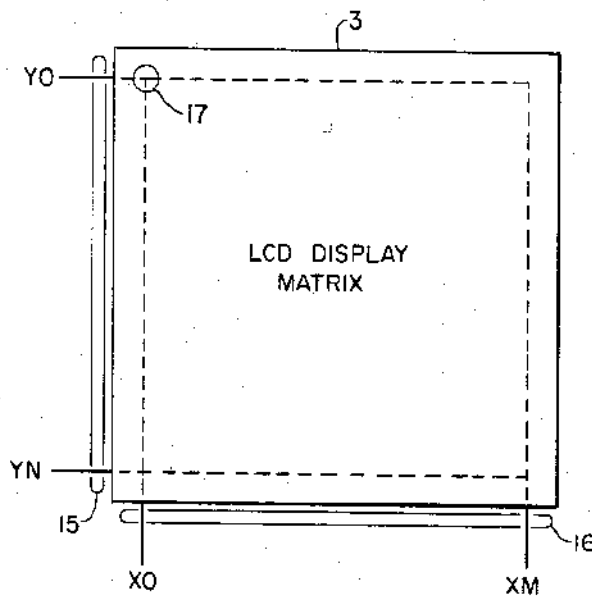


FIG. 9.

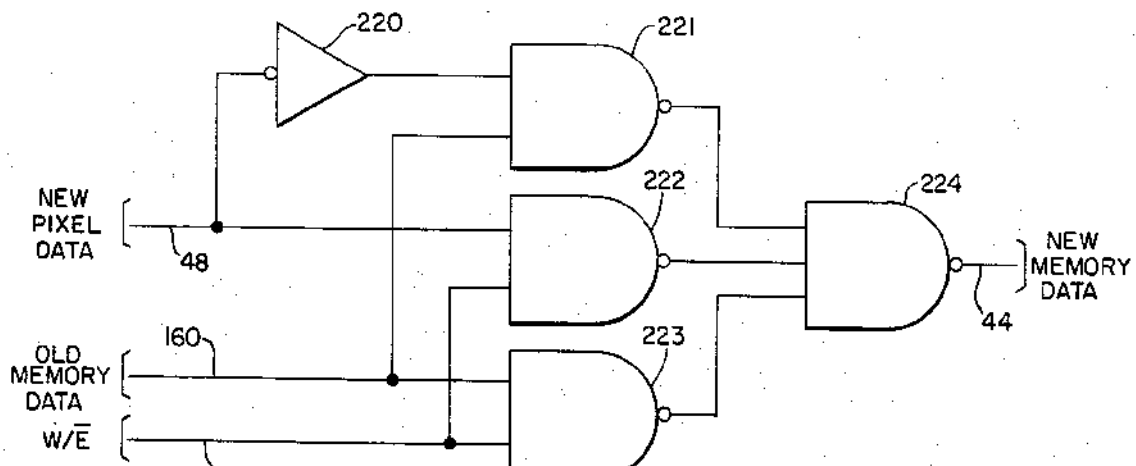


FIG. 8A.

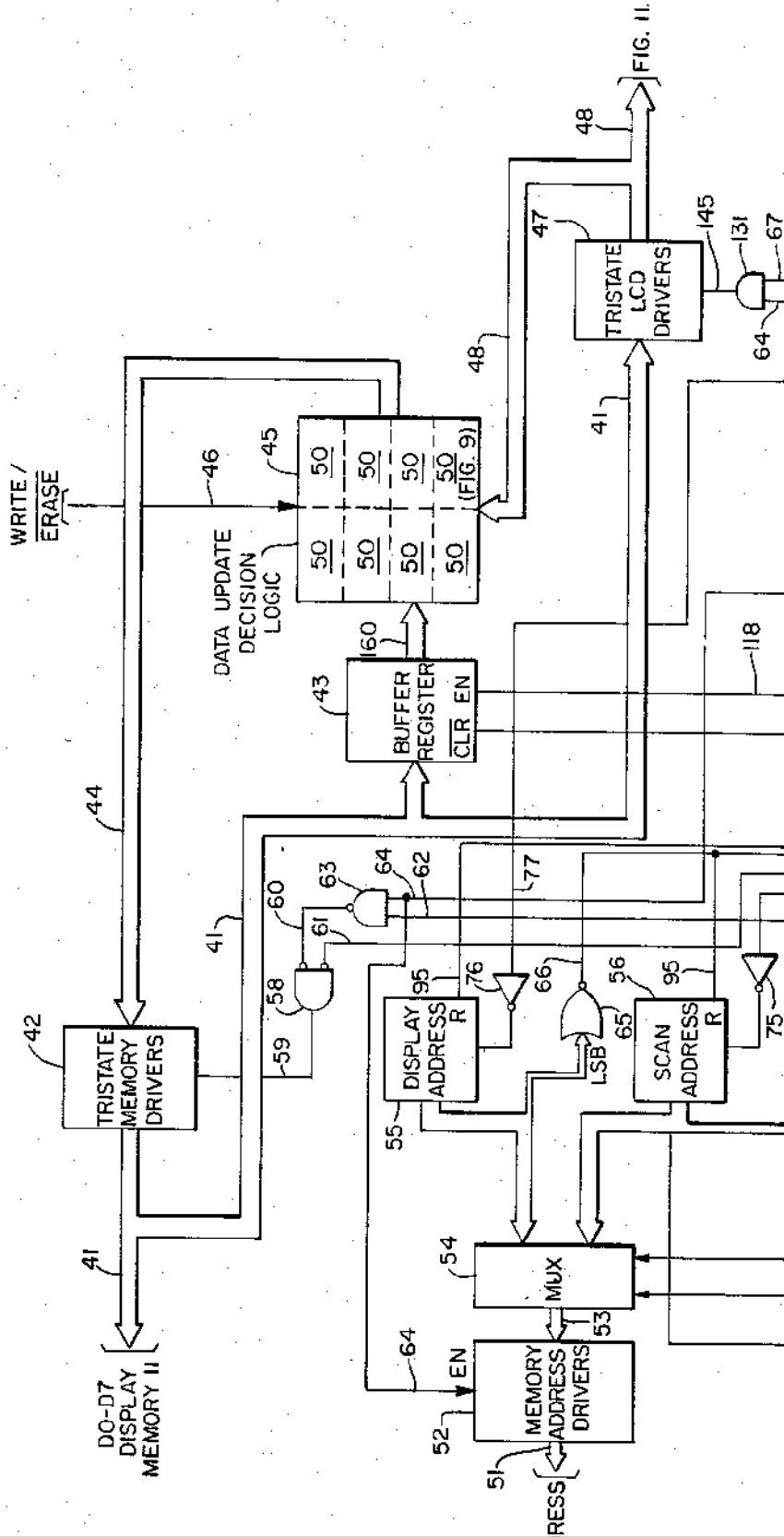


FIG. 8B

FIG. 8B

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