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(12) **United States Patent**  
**Jung et al.**

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(54) **METHOD OF STORING DATA IN A NON-VOLATILE MEMORY AND APPARATUS THEREFOR**

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(51) **Int. Cl.<sup>7</sup>** ..... **G06F 12/00**

(52) **U.S. Cl.** ..... **711/103; 711/167; 707/202**

(58) **Field of Search** ..... **707/100, 200, 707/202; 711/103, 167, 169**

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(57) **ABSTRACT**

Provided is a method of storing data in a non-volatile memory, including generating and storing logs including data to be stored and an address of the non-volatile memory in response to a data-writing request, and comparing addresses of the logs and storing data corresponding to the same page by the unit of page in a corresponding area of the non-volatile memory. The method makes it possible to minimize delay in storing data, reduce the number of accesses to the non-volatile memory and uniformly write data in the whole non-volatile memory, thereby minimizing a response time of the non-volatile memory and increasing the lifetime of the non-volatile memory.

**13 Claims, 9 Drawing Sheets**

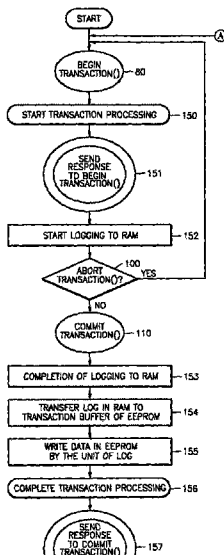


FIG. 1

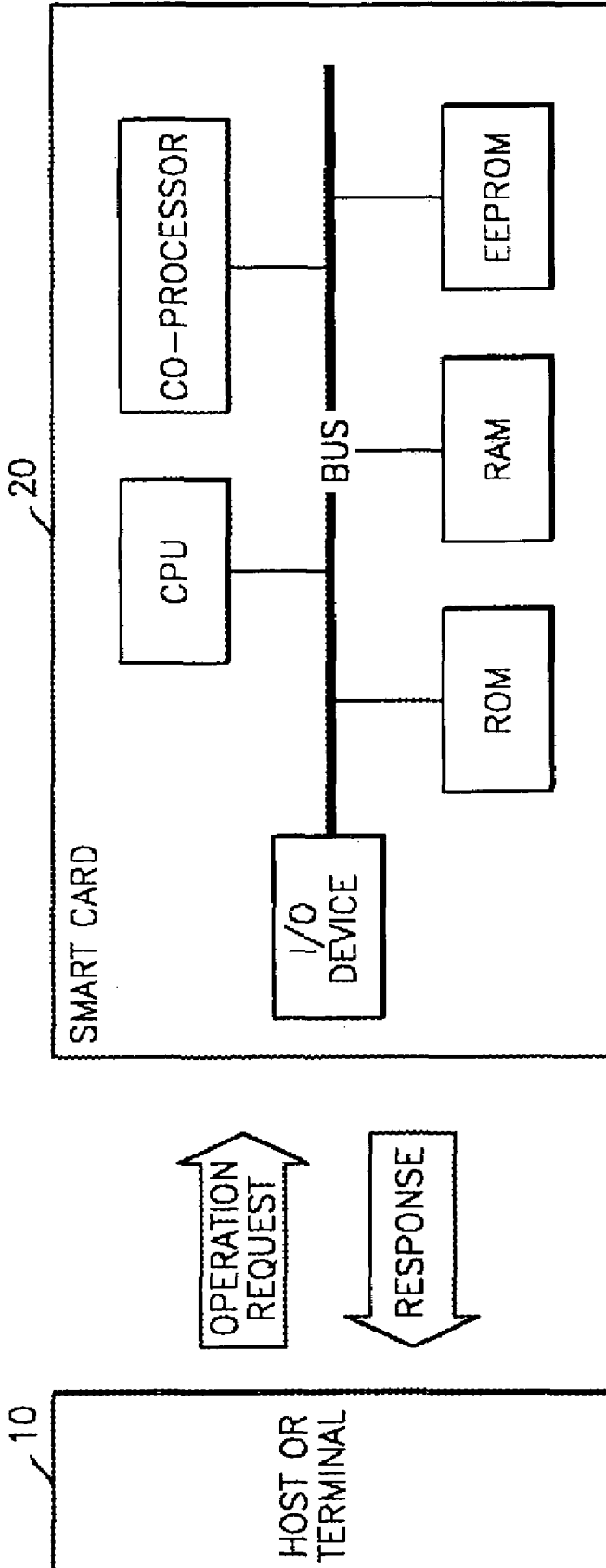


FIG. 2

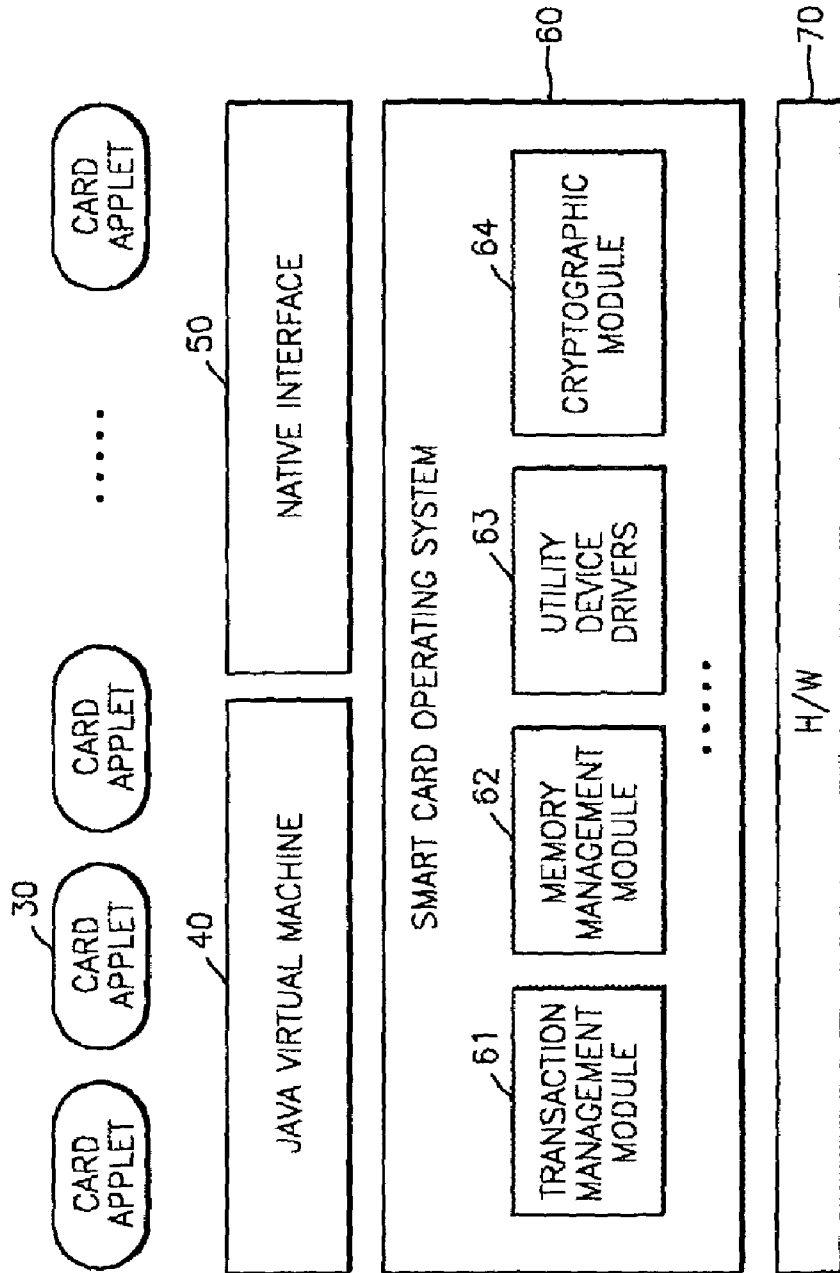


FIG. 3

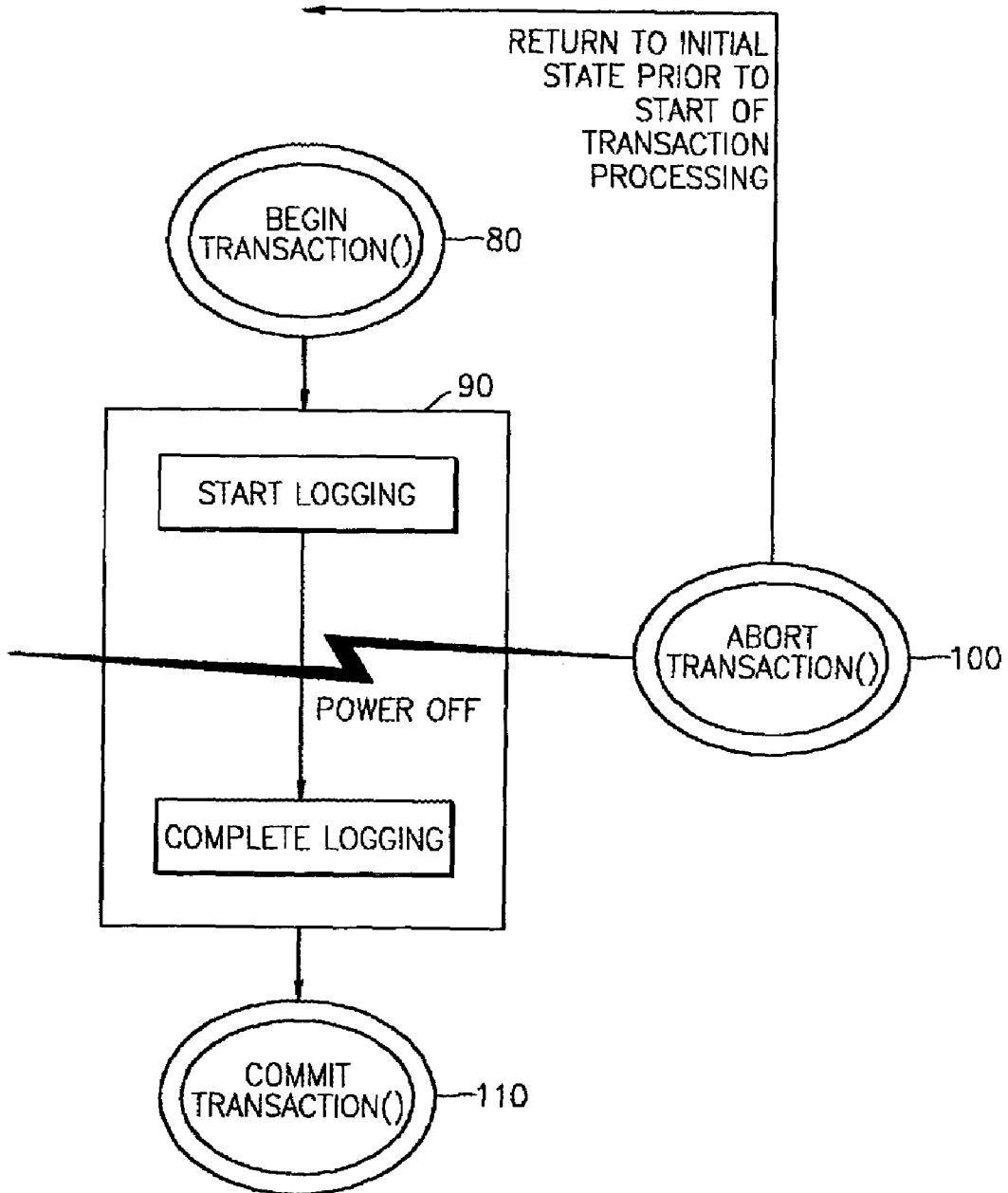
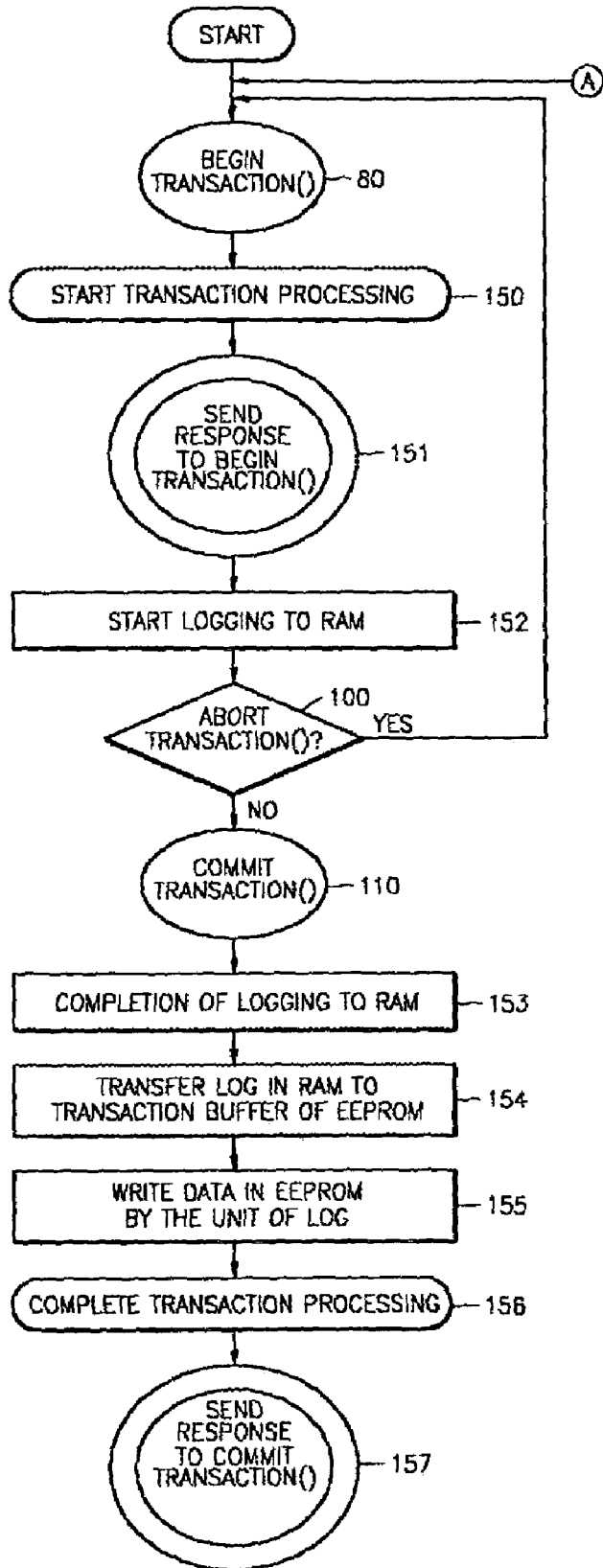


FIG. 4A



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