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[54] SECURE METHOD FOR ENABLING/DISABLING POWER TO A COMPUTER SYSTEM FOLLOWING TWO-PIECE USER VERIFICATION

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[73] Assignee: Compaq Computer Corporation, Houston, Tex.

[\*] Notice: This patent is subject to a terminal disclaimer.

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[51] Int. Cl.<sup>6</sup> ..... H04L 9/00; H04L 9/08

[52] U.S. Cl. .... 380/25; 380/4; 380/21; 380/23; 380/49; 380/50; 340/825.31; 340/825.34; 235/380; 395/186; 395/187.01; 395/188.01

[58] Field of Search ..... 380/23, 25, 4, 380/24, 49, 50, 21, 9; 395/186, 187.01, 188.01; 340/825.31, 825.34; 235/379, 380

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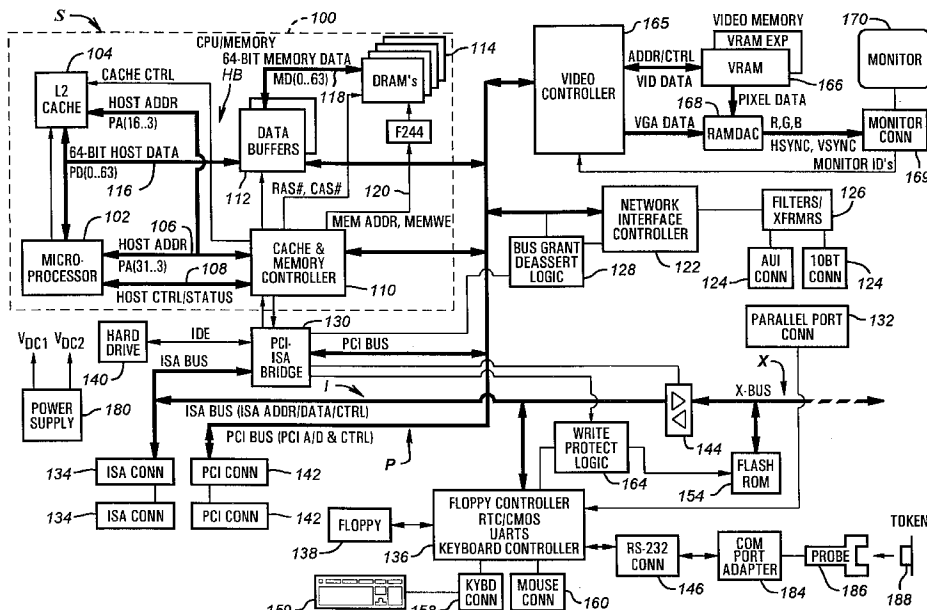
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[57] ABSTRACT

A method for enabling power to all or portions of a computer system based upon the results of a two-piece user verification process that is completed as part of a secure power-up procedure. At some point during the secure power-up procedure, the computer user provides an external token or smart card that is coupled to the computer through specialized hardware. The token or smart card is used to store an encryption algorithm furnished with an encryption key that is unique or of limited production. The computer user is then required to enter a plain text user password. Once entered, the user password is encrypted using the encryption algorithm contained in the external token to create a system password. The system password is compared to a value stored in secure memory. If the two values match, the power-on sequence is completed and power to the computer system and/or secured computer resources is enabled. If the two values do not match, power to the entire computer system and/or secured computer resources is disabled. The two-piece nature of the authorization process requires the presence of both the user password and the external token in order to generate the system password.

18 Claims, 4 Drawing Sheets





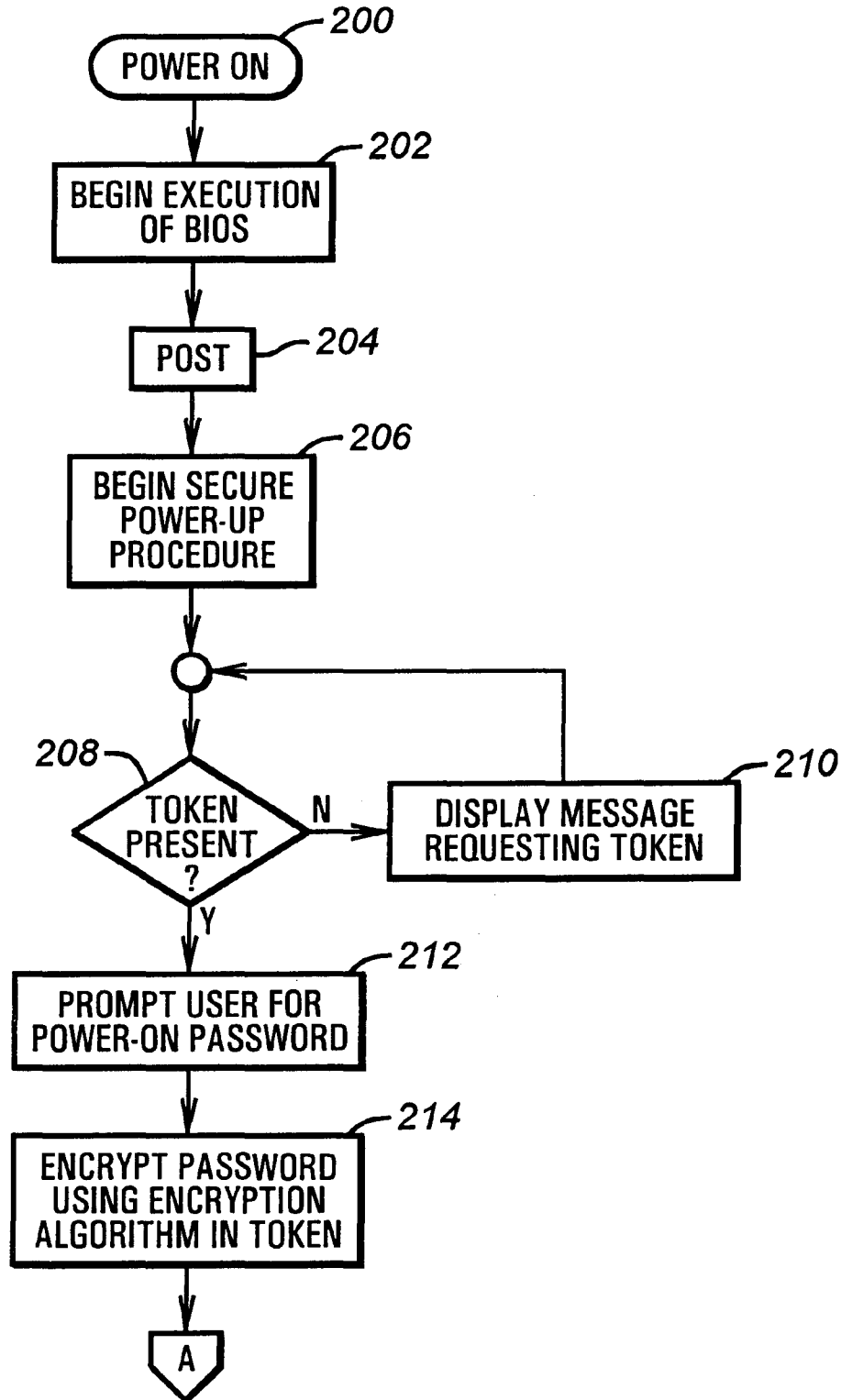


FIG. 2A

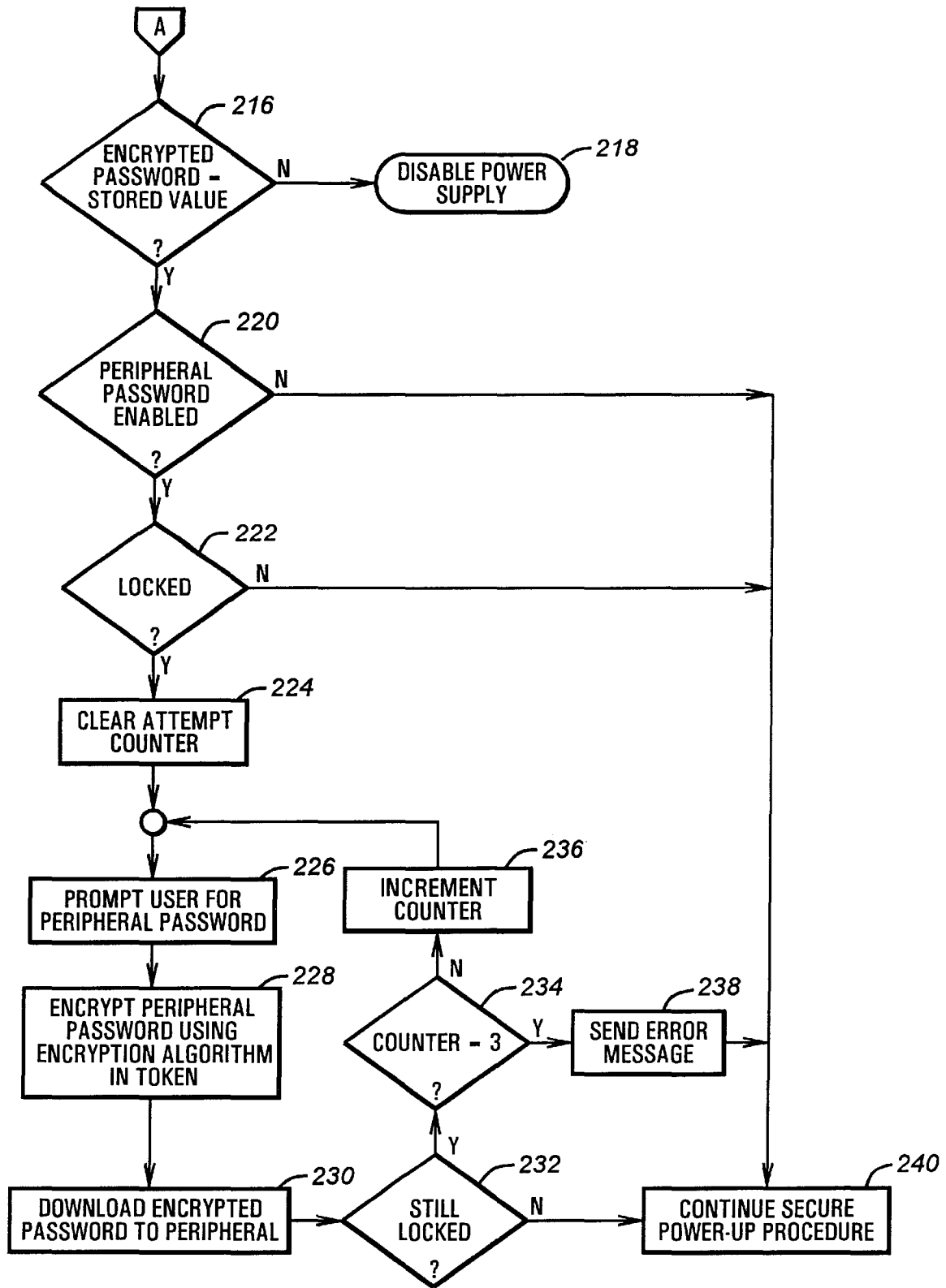
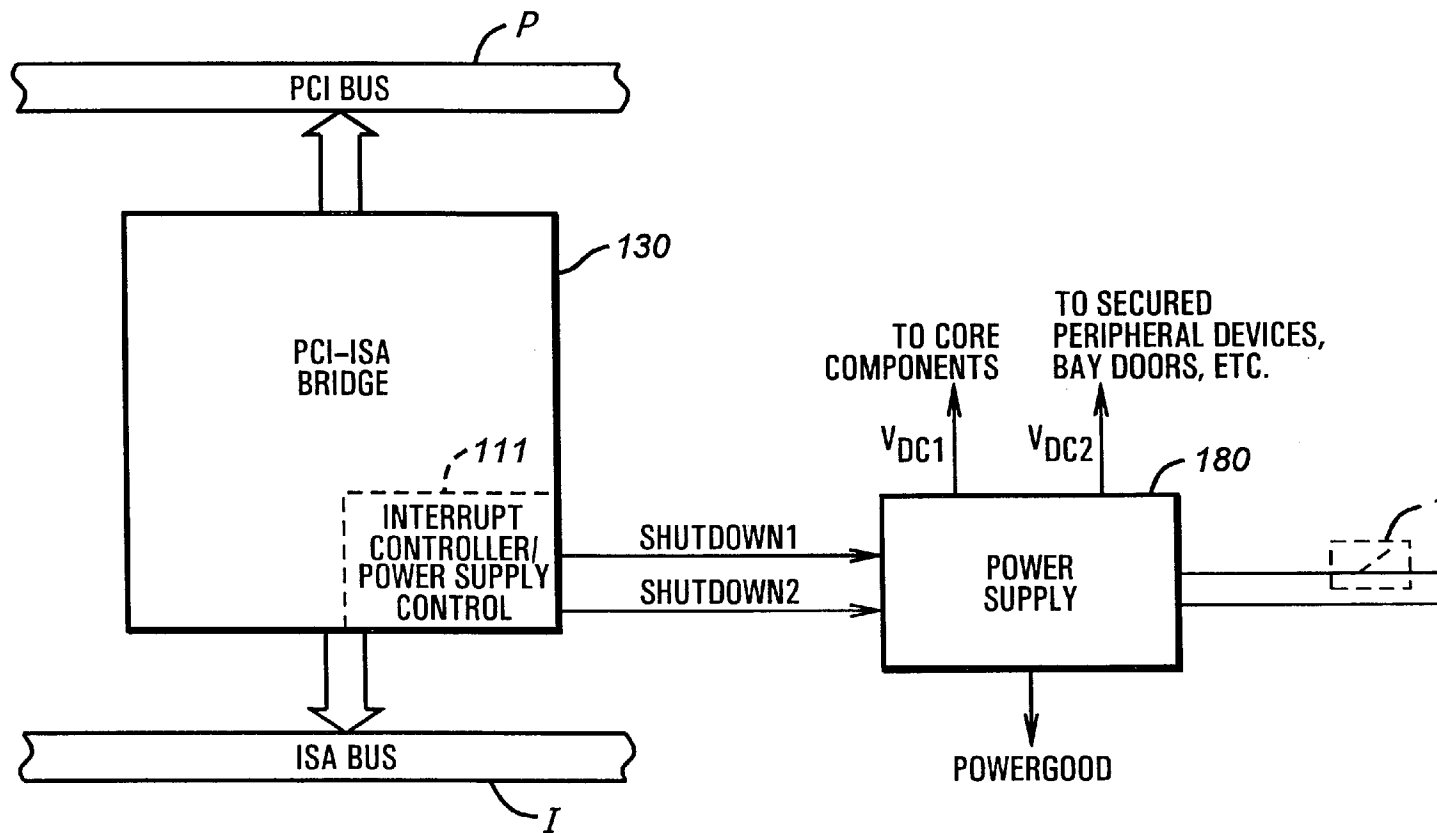


FIG. 2B



**FIG. 3**

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