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United States Patent [19]
Pinault

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[54] **METHOD OF MAKING THE USE OF A TERMINAL OF A CELLULAR MOBILE RADIO SYSTEM MORE SECURE, AND CORRESPONDING TERMINAL AND USER CARD**

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[21] Appl. No.: **08/777,734**

[22] Filed: **Dec. 20, 1996**

[30] **Foreign Application Priority Data**

Dec. 21, 1995 [FR] France 95 15283

[51] **Int. Cl.⁶** **H04Q 7/32**

[52] **U.S. Cl.** **455/558; 455/410; 455/411**

[58] **Field of Search** 455/410, 411, 455/557, 558; 379/114, 143, 357; 235/380, 382; 380/21, 28, 30, 23, 3

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Primary Examiner—Dwayne D. Bost

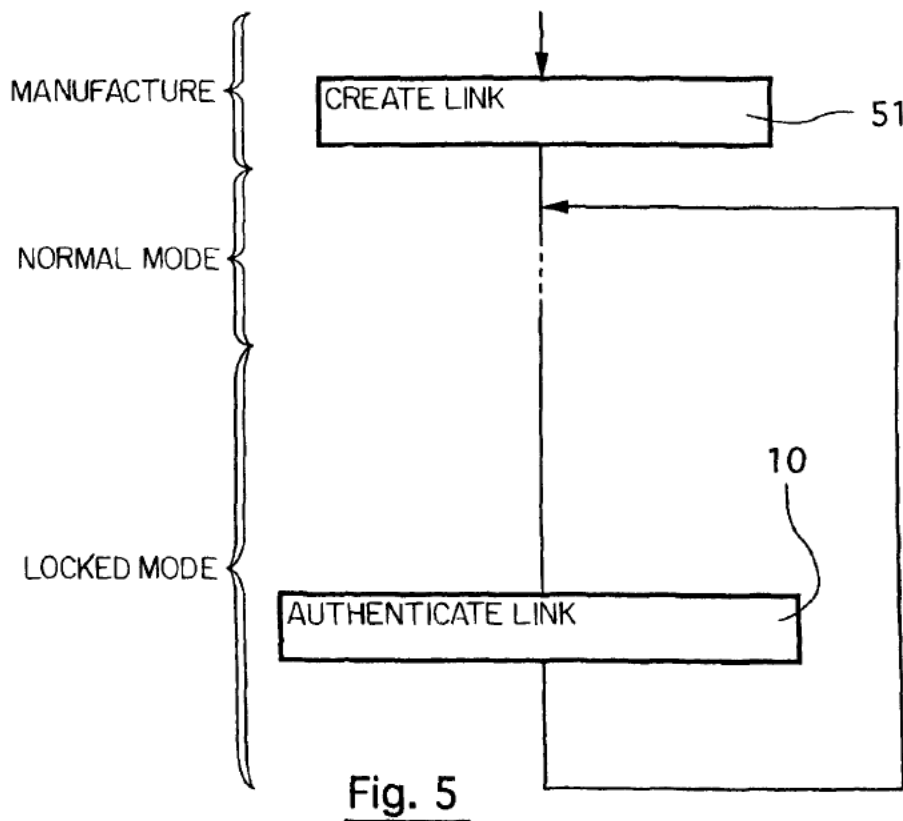
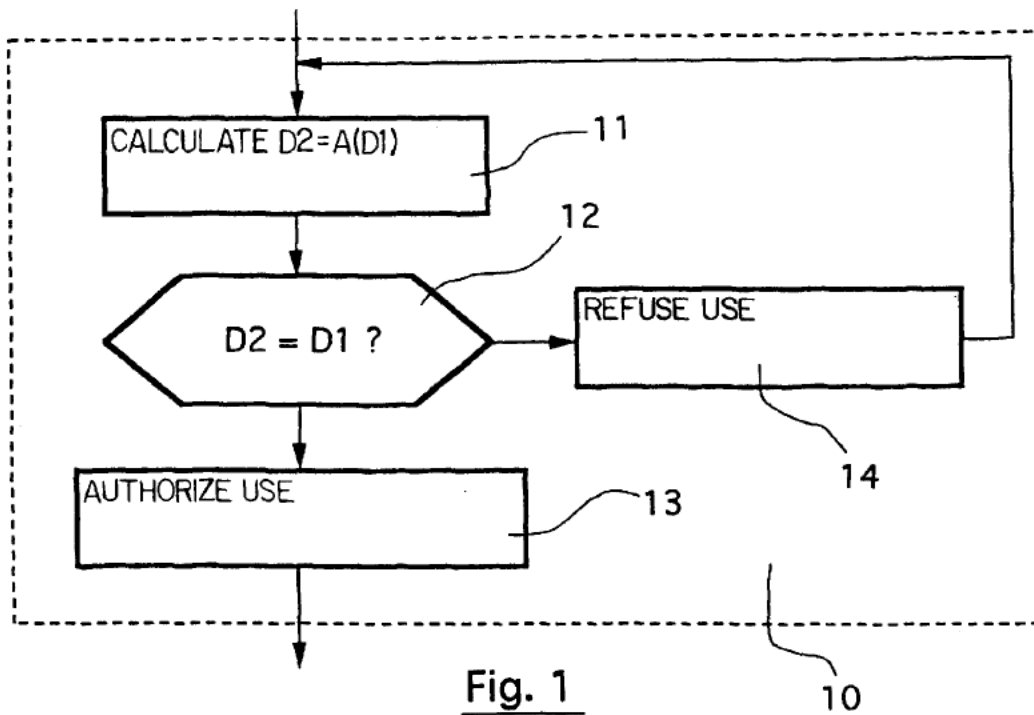
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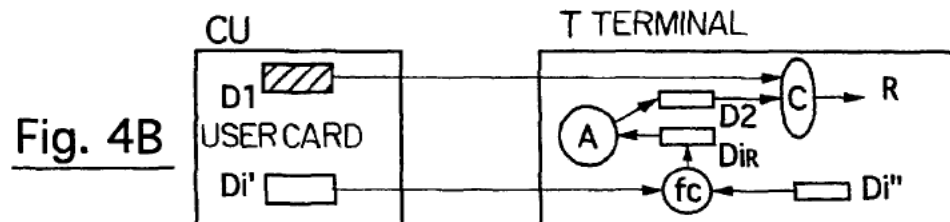
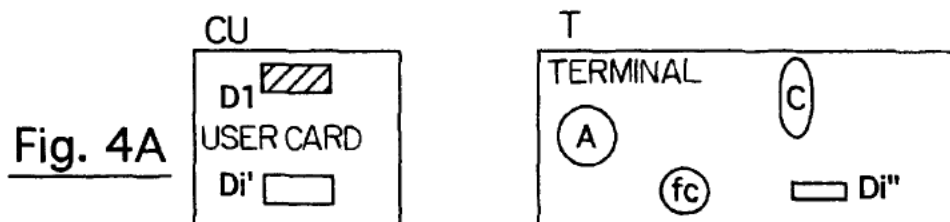
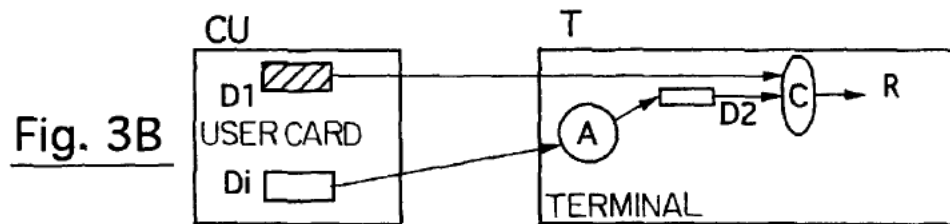
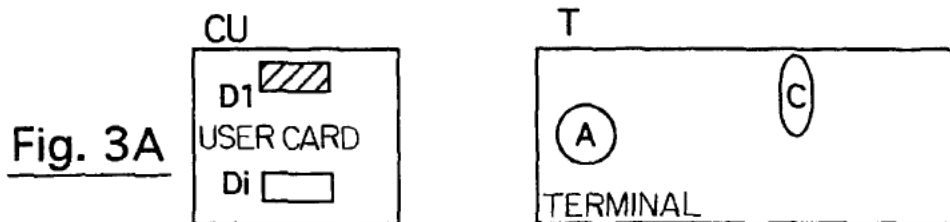
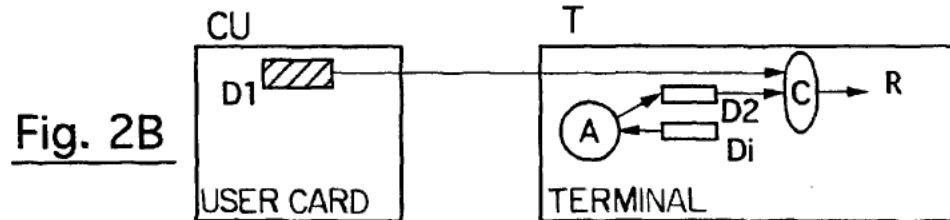
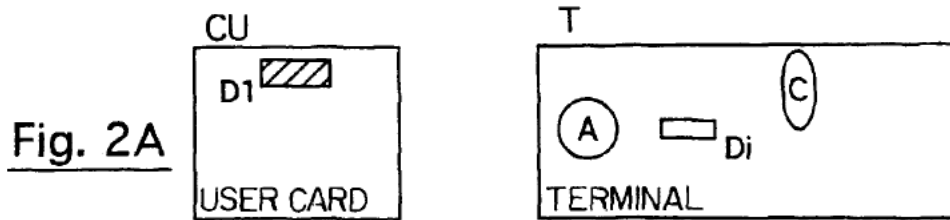
Attorney, Agent, or Firm—Sughrue, Mion, Zinn, Macpeak & Seas, PLLC

[57] **ABSTRACT**

A terminal of a cellular mobile radio system cooperates with a user card and is able to operate in at least two separate operating modes, namely a normal mode in which it can be used with any user card and a locked mode in which it can be used only with the user card to which it is locked, the latter constituting a linked user card. To make use of the terminal more secure, first locking data is stored in a memory area of the linked user card and, in the locked mode, the method includes a phase of authentication by the terminal of the user card with which it is cooperating. In the authentication phase second locking data is calculated in the terminal from the intermediate data read in a memory area accessible to the terminal using a calculation function specific to the terminal, and the first and second locking data is compared in the terminal and use of the terminal is authorized only in the event of equality, that is to say if the user card with which the terminal is cooperating is authenticated as the linked user card.

21 Claims, 5 Drawing Sheets





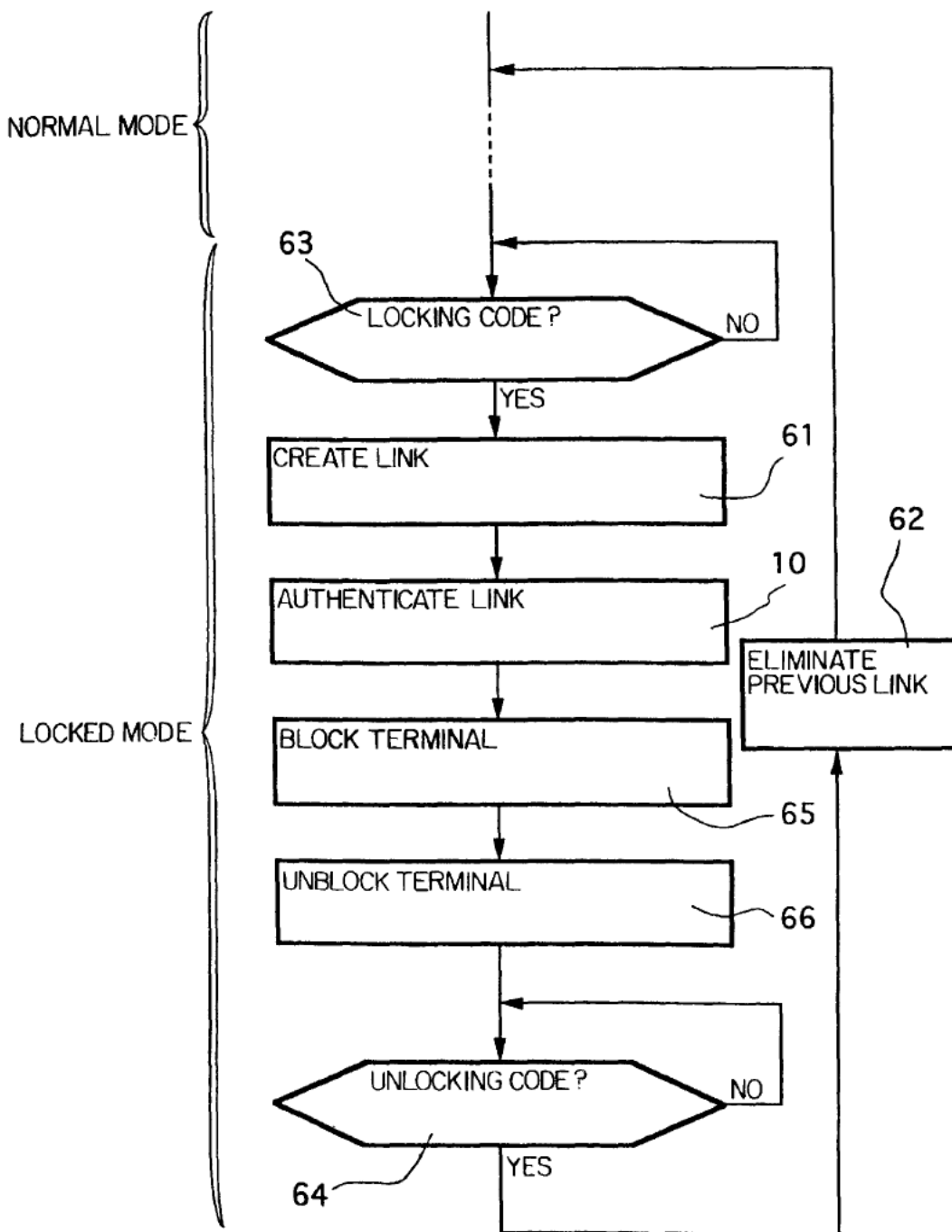


Fig. 6

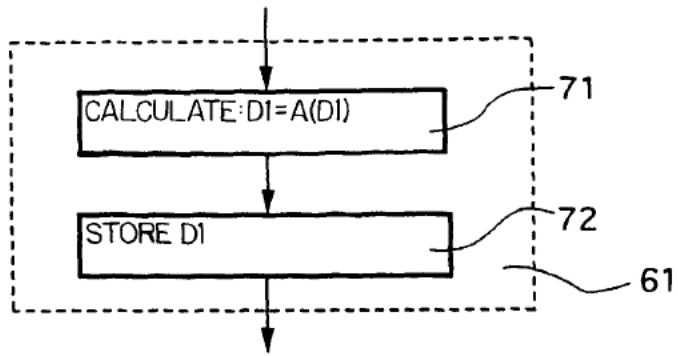


Fig. 7

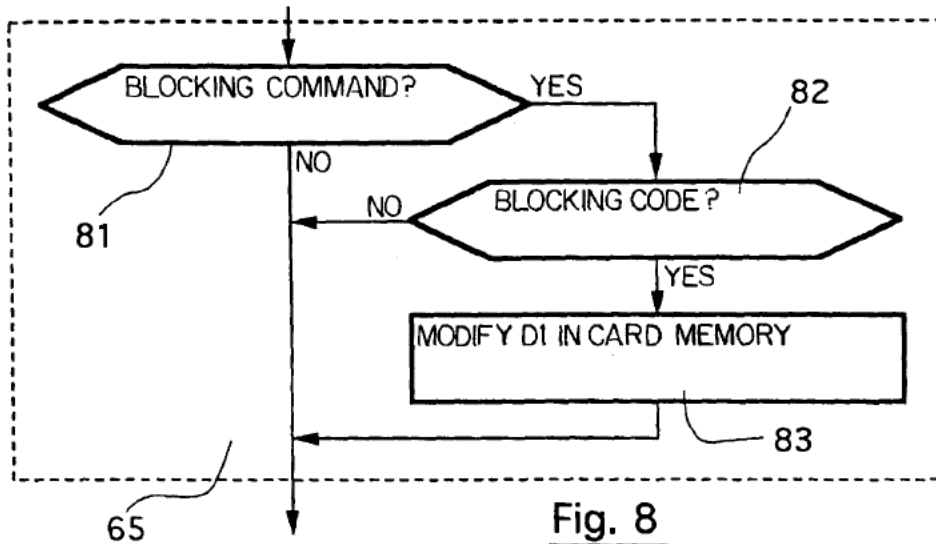


Fig. 8

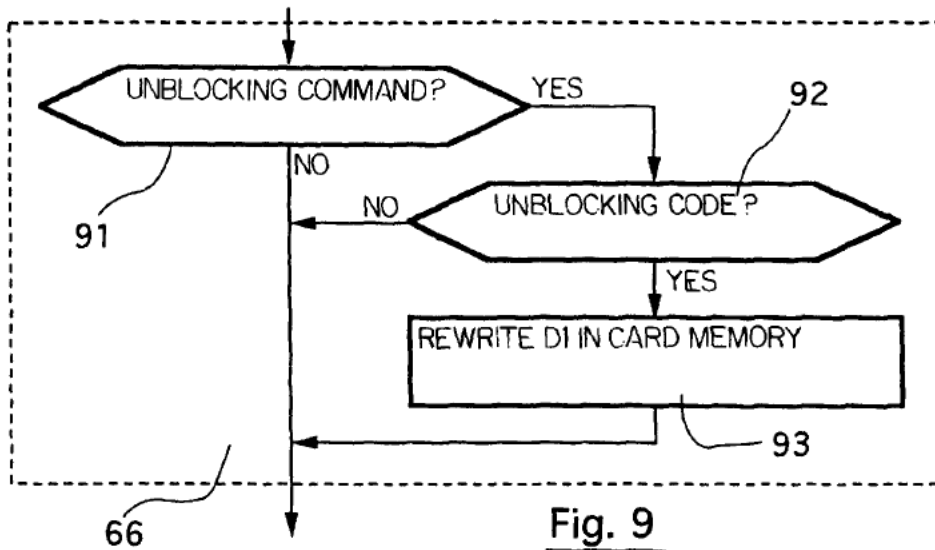


Fig. 9

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