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United States Patent [19]

Hiroya et al.

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[45] Date of Patent: **May 19, 1998**

[54] **ELECTRONIC TICKET VENDING SYSTEM AND METHOD THEREOF**

5,621,797 4/1997 Rosen 380/24

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[57] **ABSTRACT**

[21] Appl. No.: **558,741**

[22] Filed: **Nov. 16, 1995**

[30] **Foreign Application Priority Data**

Nov. 18, 1994 [JP] Japan 6-284623

[51] Int. Cl.⁶ **H04L 9/00**

[52] U.S. Cl. **380/24; 380/23**

[58] Field of Search 380/16, 24, 23, 380/30

A system comprises an electronic ticket vending and refunding device retained by a ticket publisher, a terminal device having a data input device, a data display device, and a data transmission and reception device, etc. which are operated by a purchaser, and an electronic ticket storage device retained by the purchaser, and the vending and refunding device and the terminal device are connected by a communication line such as a telephone line, and the storage device and the terminal device can be connected in contact or non-contact, and transmission and reception of data between the vending and refunding device and the storage device are executed by electronic money and an electronic ticket which are electronically signed, and a trouble of sending and receiving of an electronic ticket and electronic money is prevented by recording the transaction history as required.

[56] **References Cited**

U.S. PATENT DOCUMENTS

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18 Claims, 12 Drawing Sheets

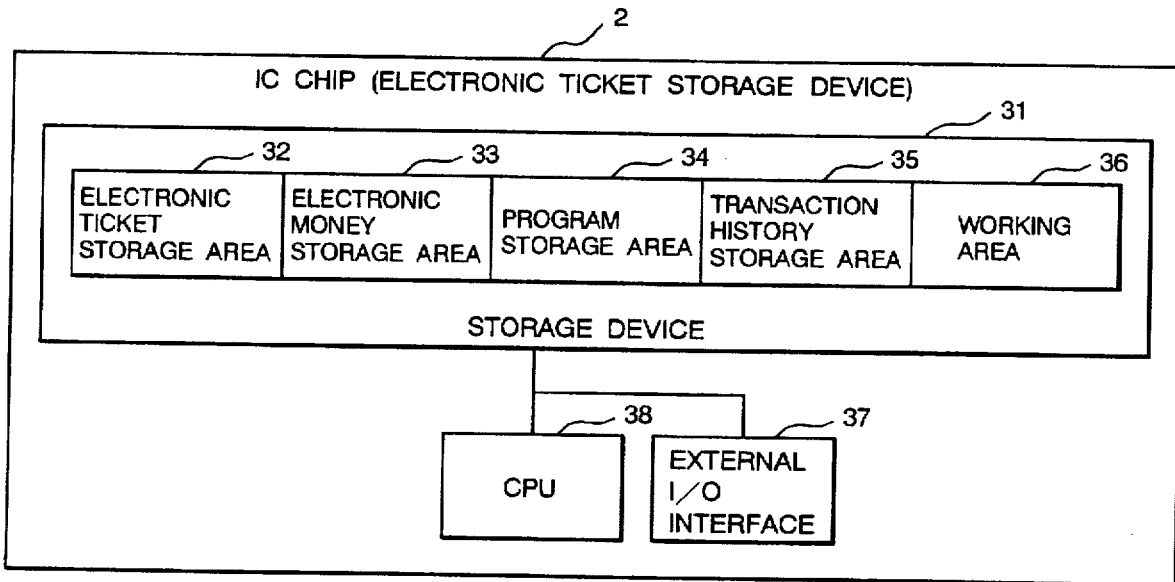


FIG. 1

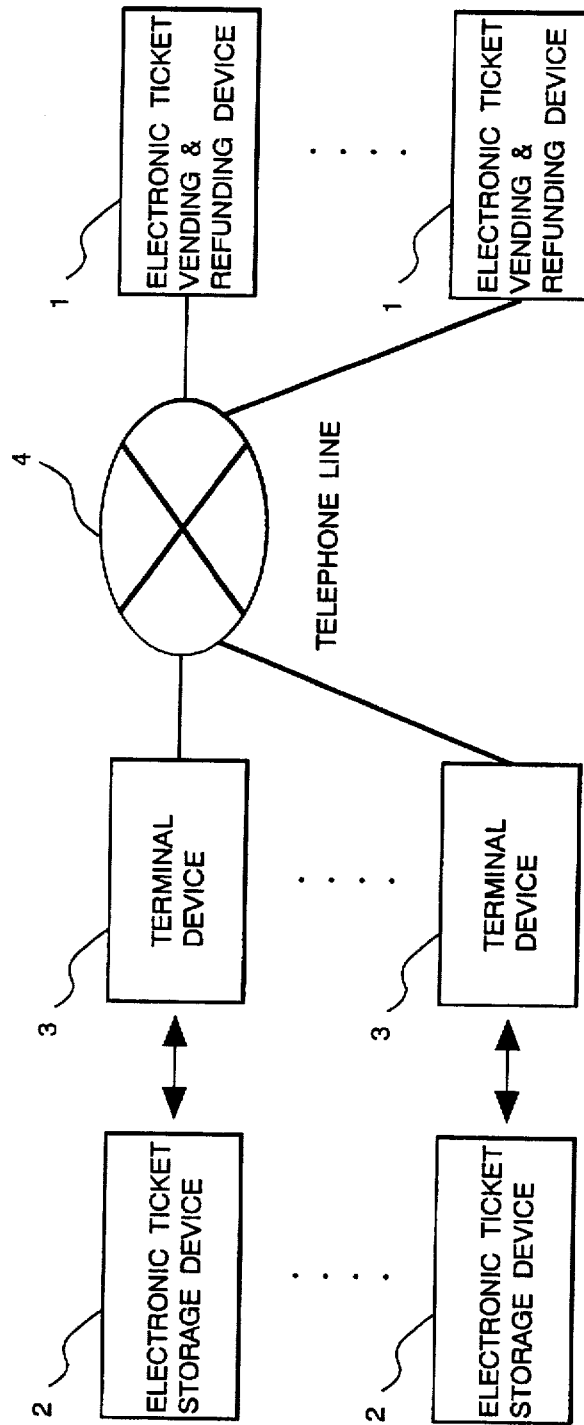


FIG. 2

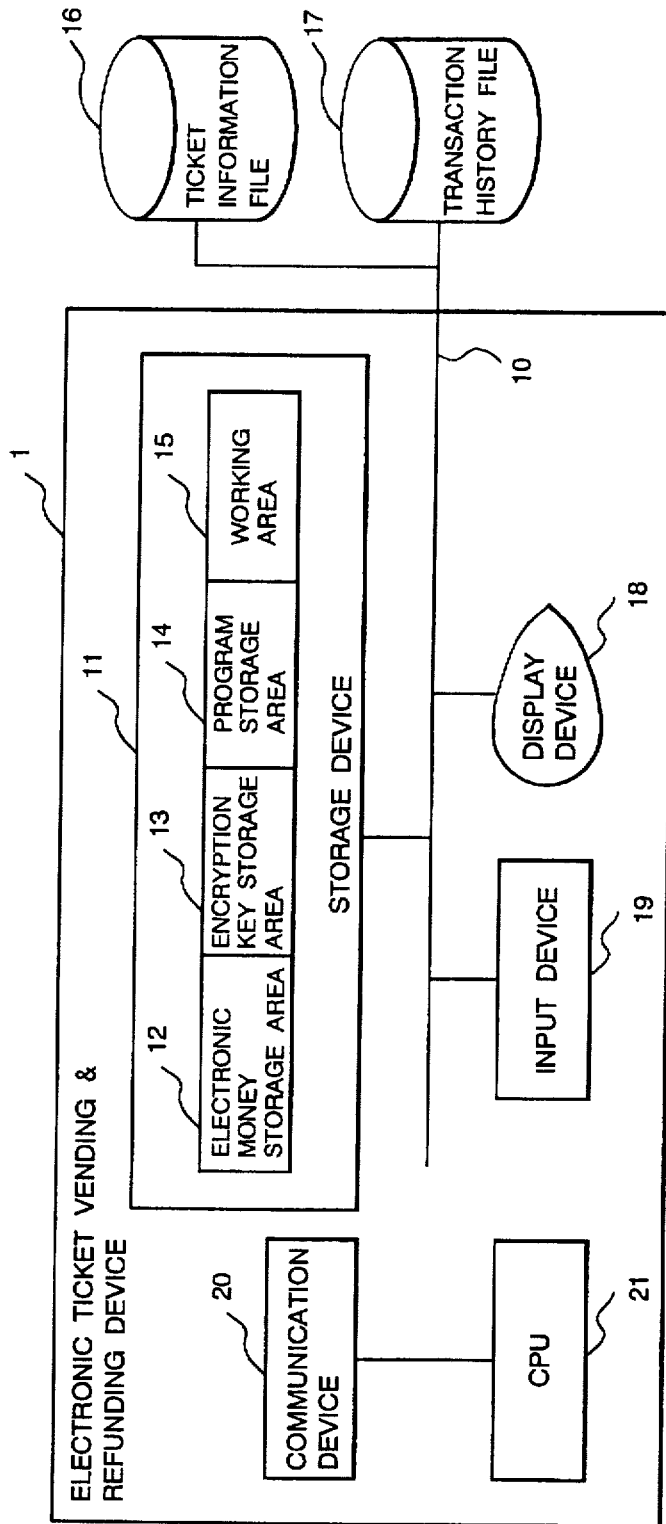


FIG. 3

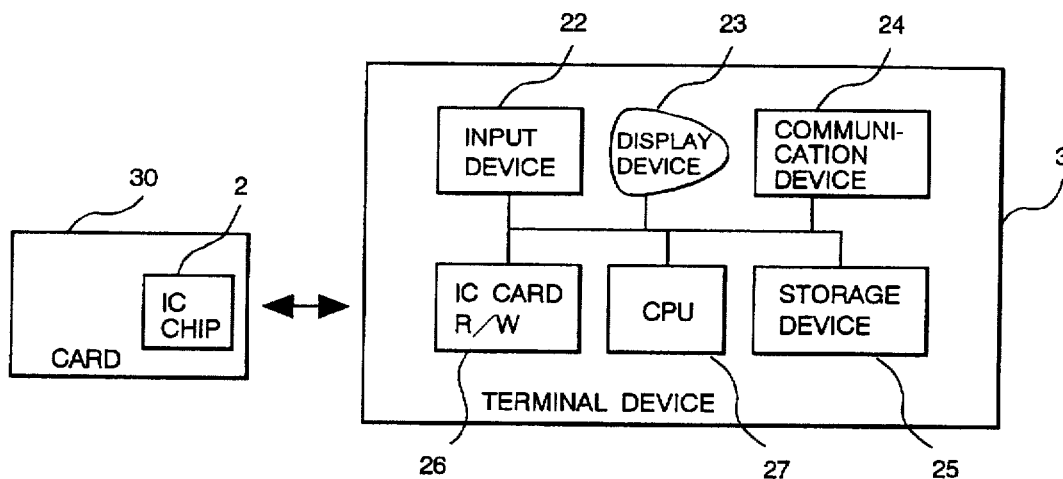


FIG. 4

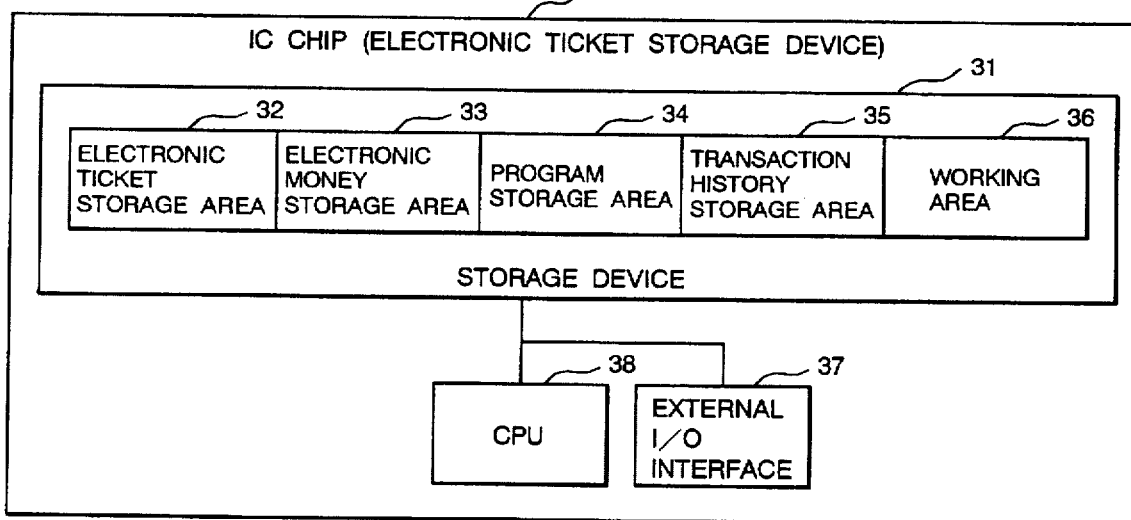
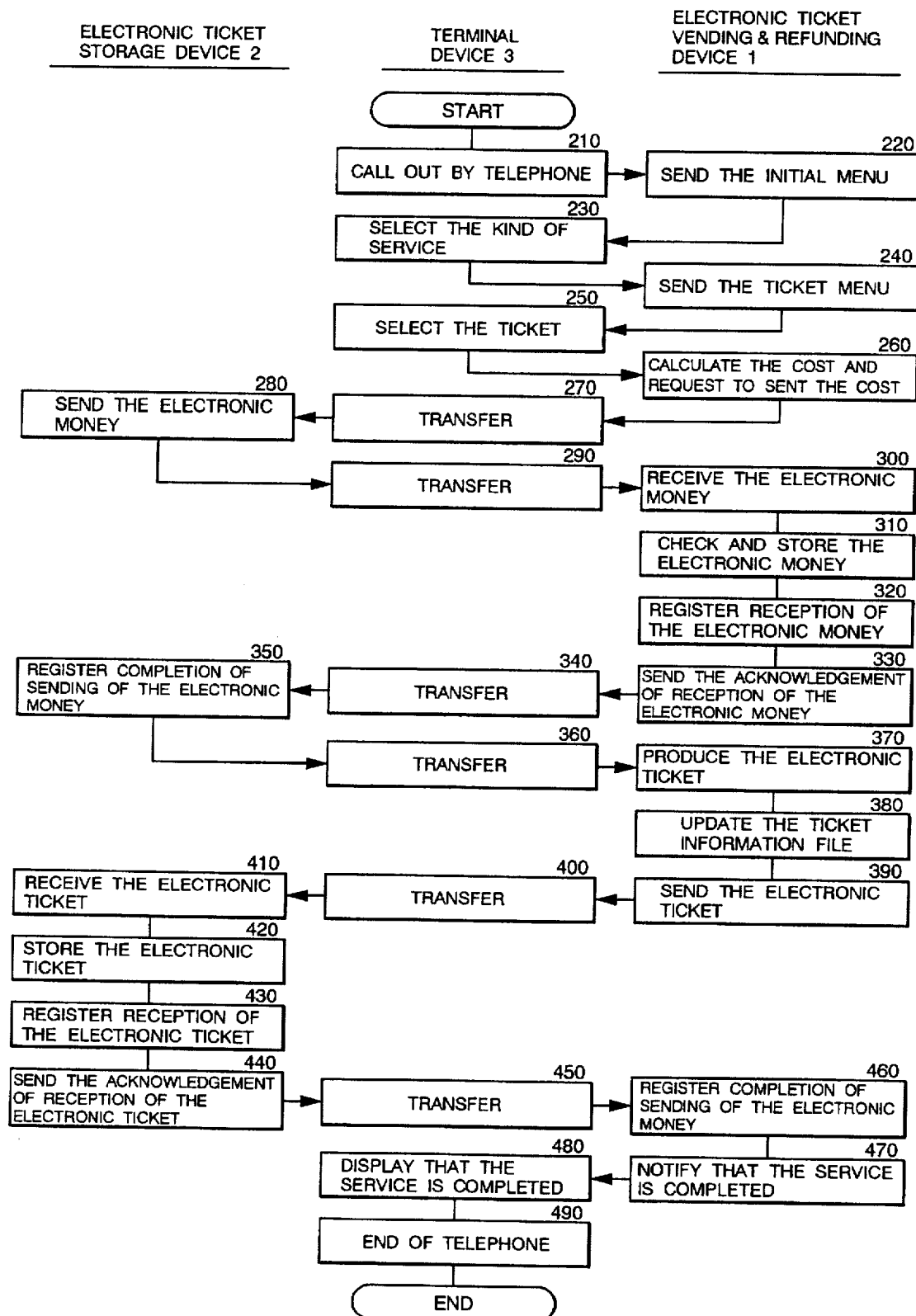


FIG. 5



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