US007334720B2

(54) **DATA STORAGE AND ACCESS SYSTEMS**

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Related U.S. Application Data

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(30) **Foreign Application Priority Data**

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(51) **Int. Cl.**
G06K 5/00   (2006.01)

(52) **U.S. Cl.** **230/380**; 235/382; 235/492; 235/451

(58) **Field of Classification Search** 235/380, 235/382, 492, 451; 711/100, 101, 103
See application file for complete search history.

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(57) **ABSTRACT**

Data storage and access systems are described for downloading and paying for data such as audio and video data, text, software, games and other types of data. A portable data carrier has an interface for sending and receiving data, non-volatile data memory for storing received content data and non-volatile payment validation memory for providing payment validation data to an external device. The carrier may also store a record of access made to the stored content, and content use rules for controlling access to the stored content. Preferred embodiments store further access control data and supplementary data such as hot links to web sites and/or advertising data. A complementary data access terminal, data supply computer system and data access device are also described. The combination of payment data and stored content data and, in preferred embodiments, use rule data, helps reduce the risk of unauthorized access to data such as compressed music and video data, especially over the Internet.

18 Claims, 17 Drawing Sheets
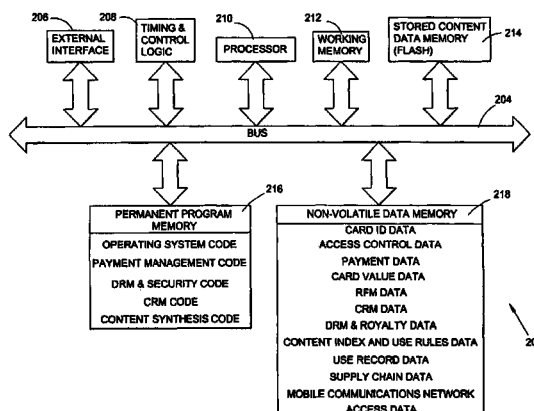
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Fig. 1

A

B

C

Fig. 2

Fig. 3

A

B

Fig. 4

A

B
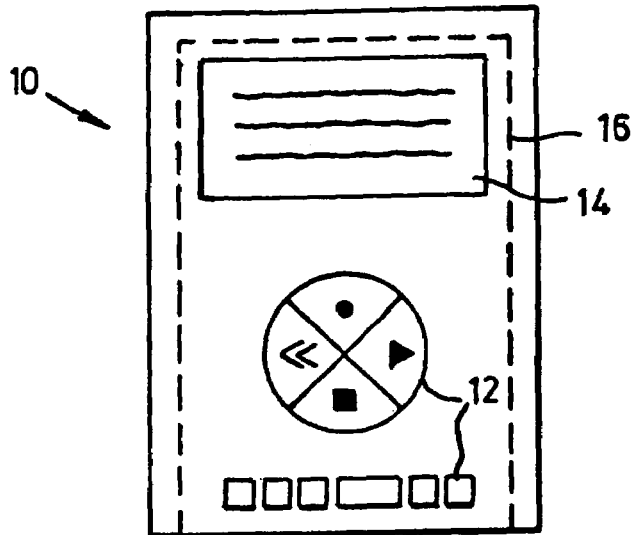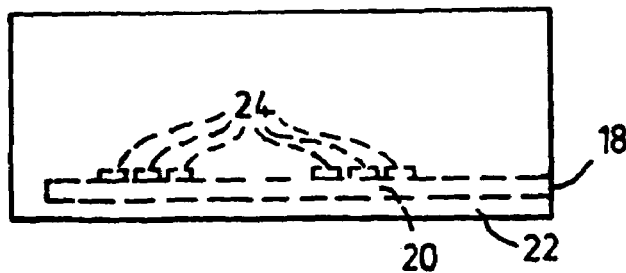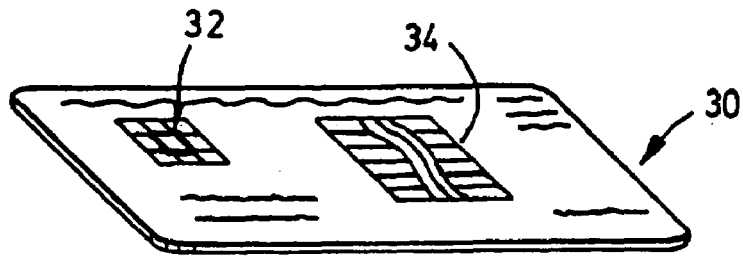
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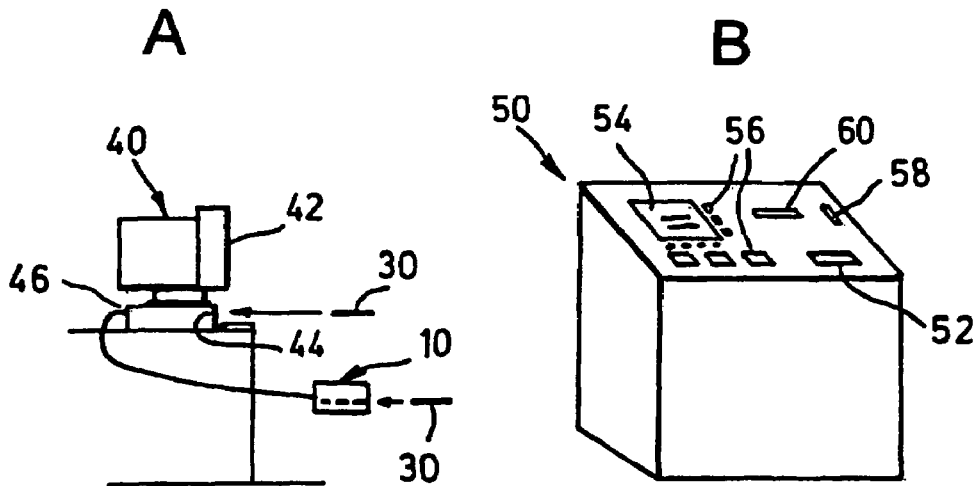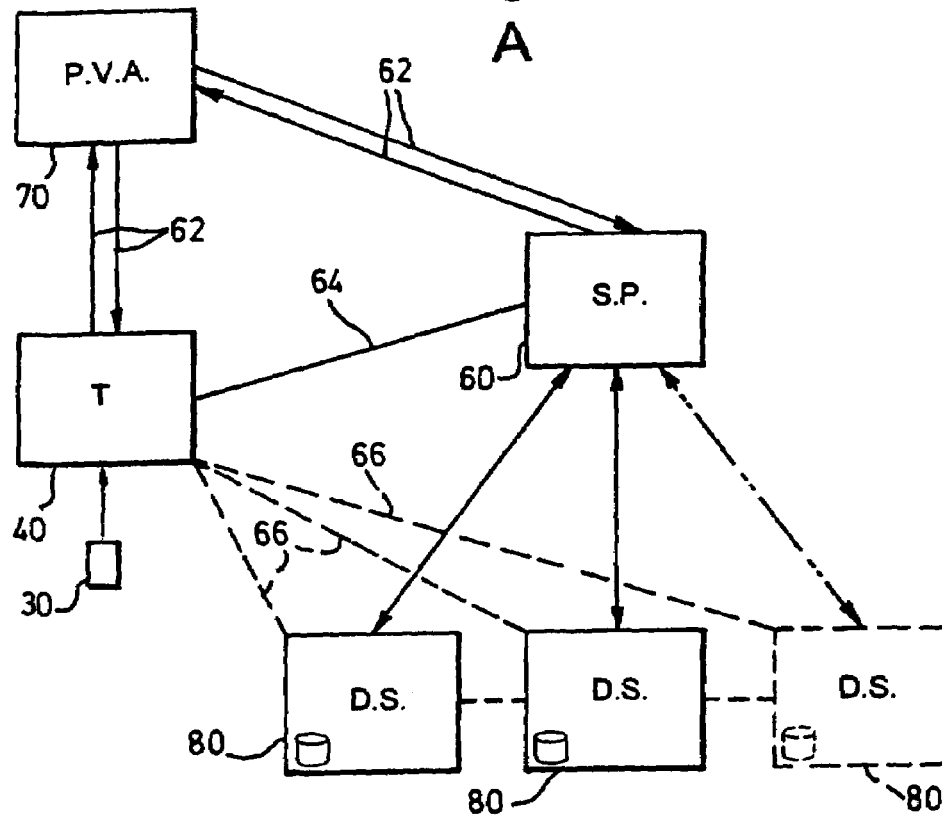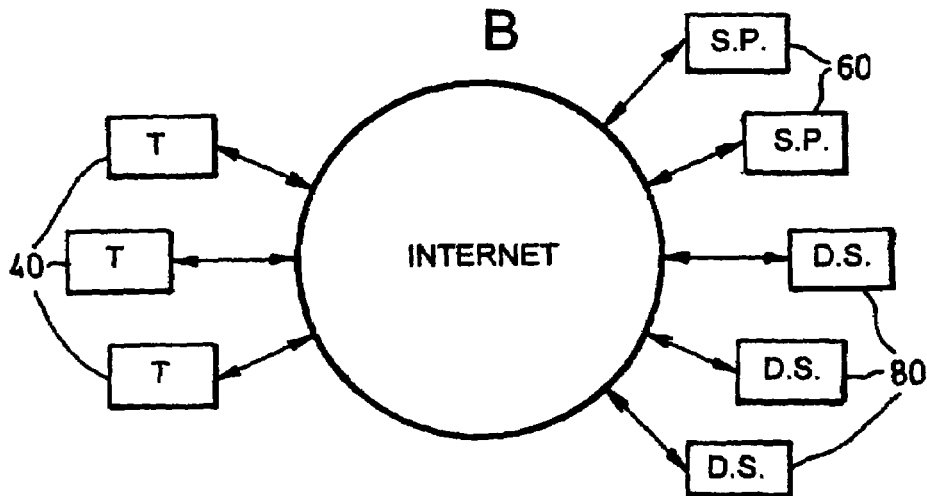
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