

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

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(45) **Date of Patent:** **Mar. 20, 2001**

(54) **INTELLIGENT BACKUP AND RESTORING SYSTEM AND METHOD FOR IMPLEMENTING THE SAME**

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Unknown, "*XactCopy*", DuoCor, Inc., Nevada City, CA.

* cited by examiner

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Related U.S. Application Data

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(51) **Int. Cl.⁷** **G06F 12/00**
(52) **U.S. Cl.** **711/162; 717/11; 714/6**
(58) **Field of Search** 711/162, 161; 717/11; 709/213; 713/2

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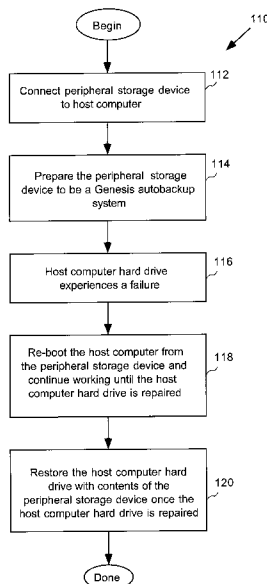
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(57) **ABSTRACT**

Disclosed is an apparatus, a system, a computer readable media, and a method for protecting data of a computer system. The method includes: (a) connecting a peripheral storage device to the computer system; (b) preparing a storage media of the peripheral storage device to be a protection enabled media; (c) selecting a backup set of data stored in a hard drive of the computer system, the backup set of data includes a default set of boot files and operating system files; (d) creating a spare tire backup using file-based copying from the hard drive of the computer system to the storage media of the peripheral storage device; (e) enabling the peripheral storage device to incrementally copy portions of the backup set of data from the hard drive of the computer system during normal use; and (f) booting the computer system from the peripheral storage device when a failure occurs with the hard drive that disables normal booting. In this manner, the user can resume uninterrupted work from the spare tire backup of the peripheral storage device until the hard drive failure is repaired.

35 Claims, 21 Drawing Sheets



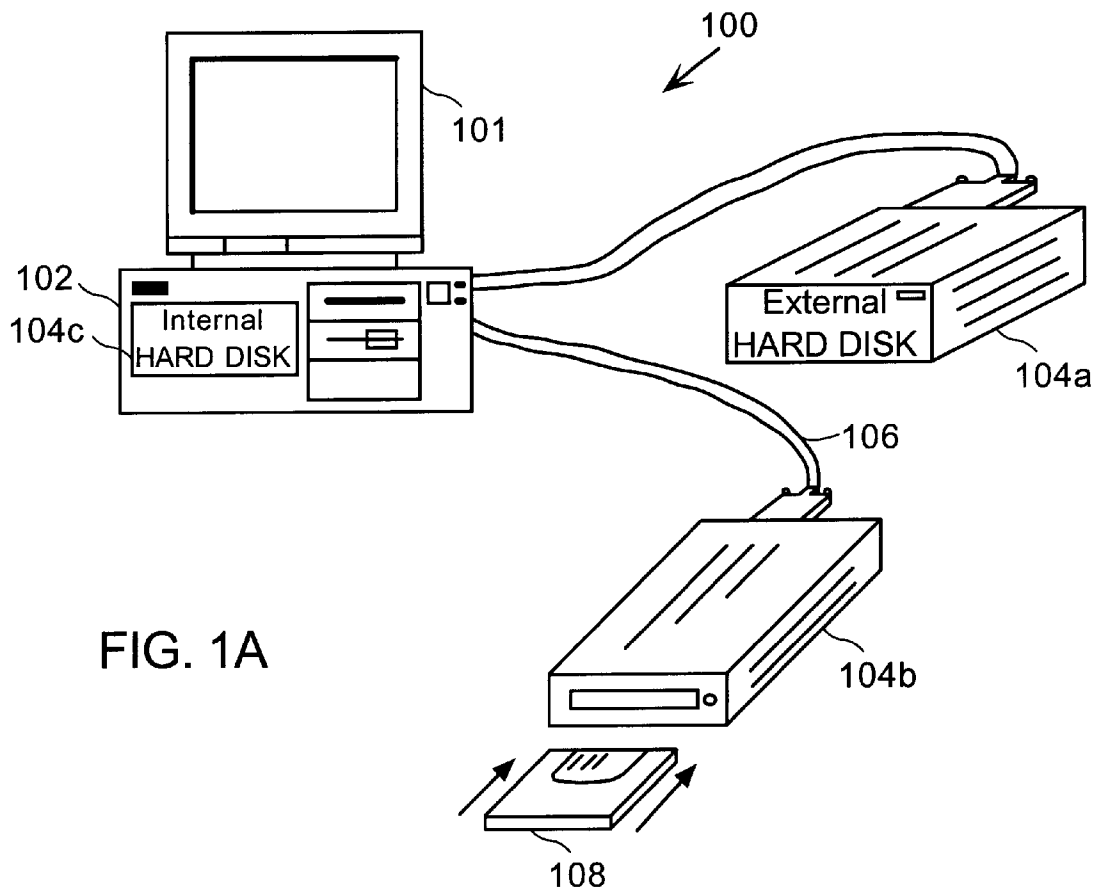


FIG. 1A

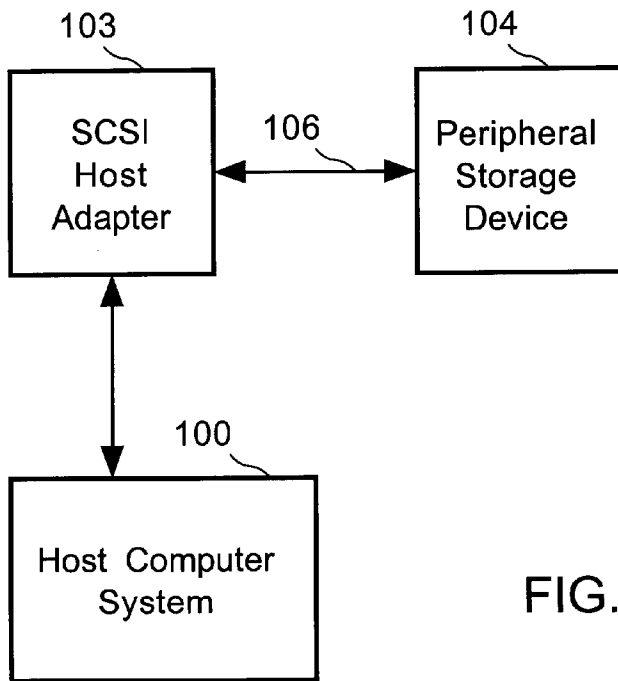


FIG. 1B

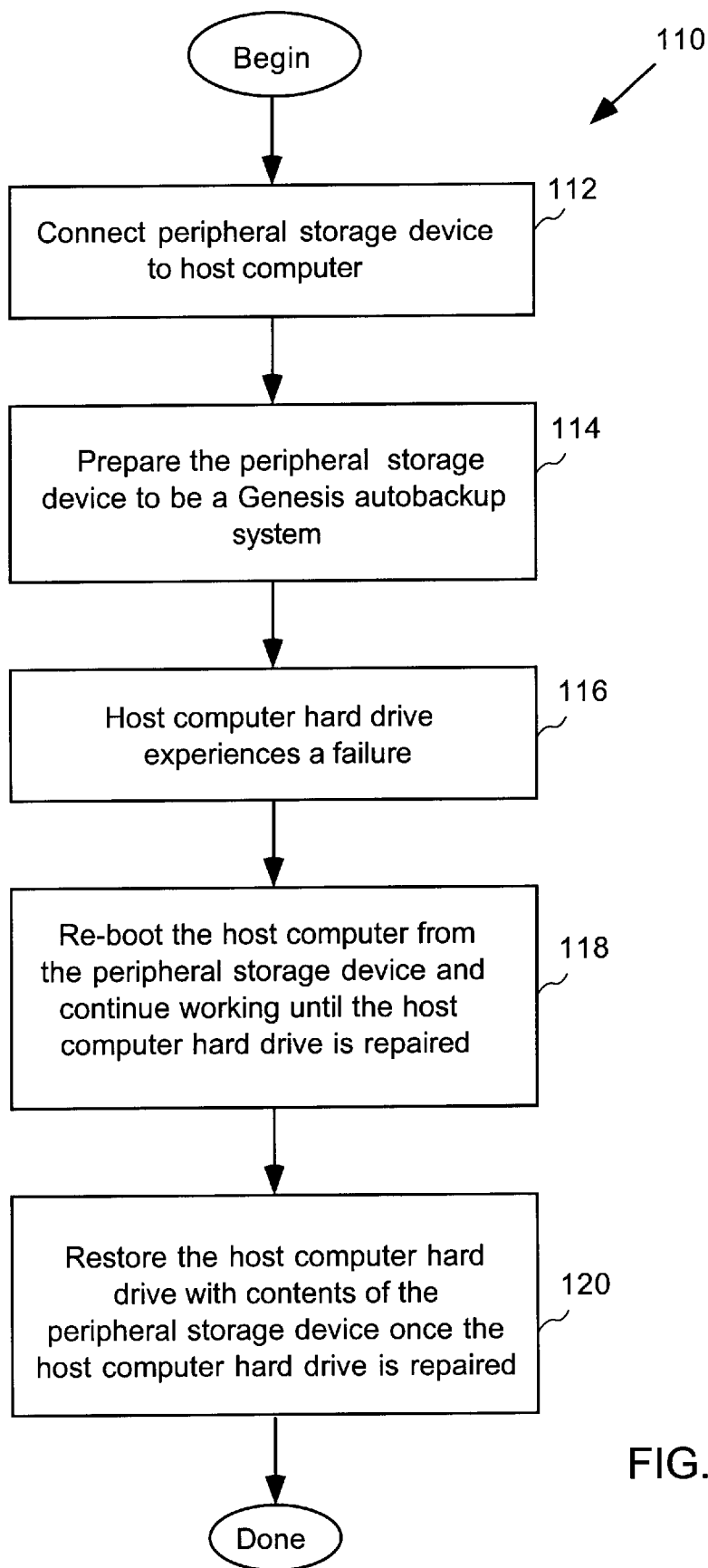


FIG. 2

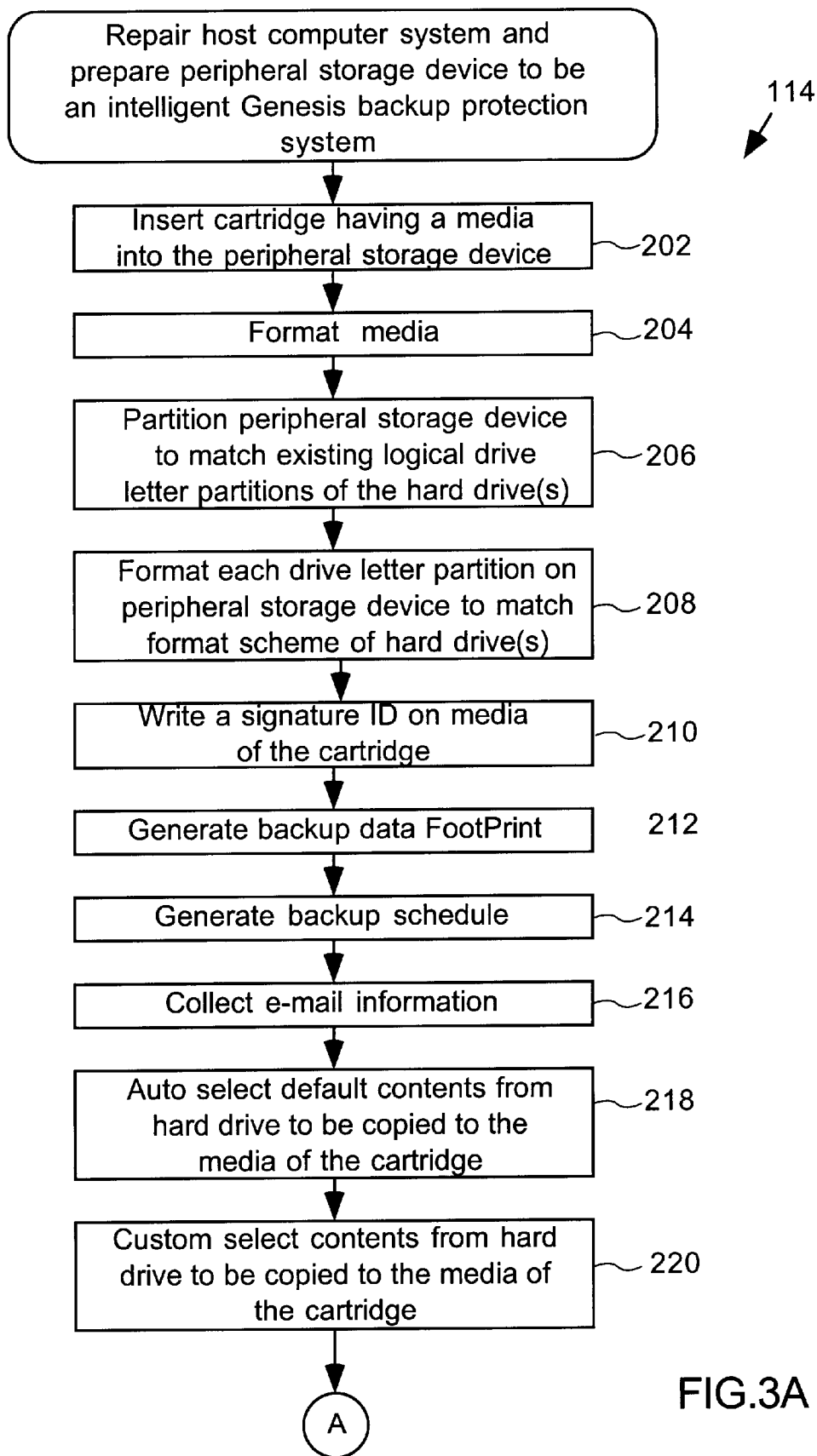


FIG.3A

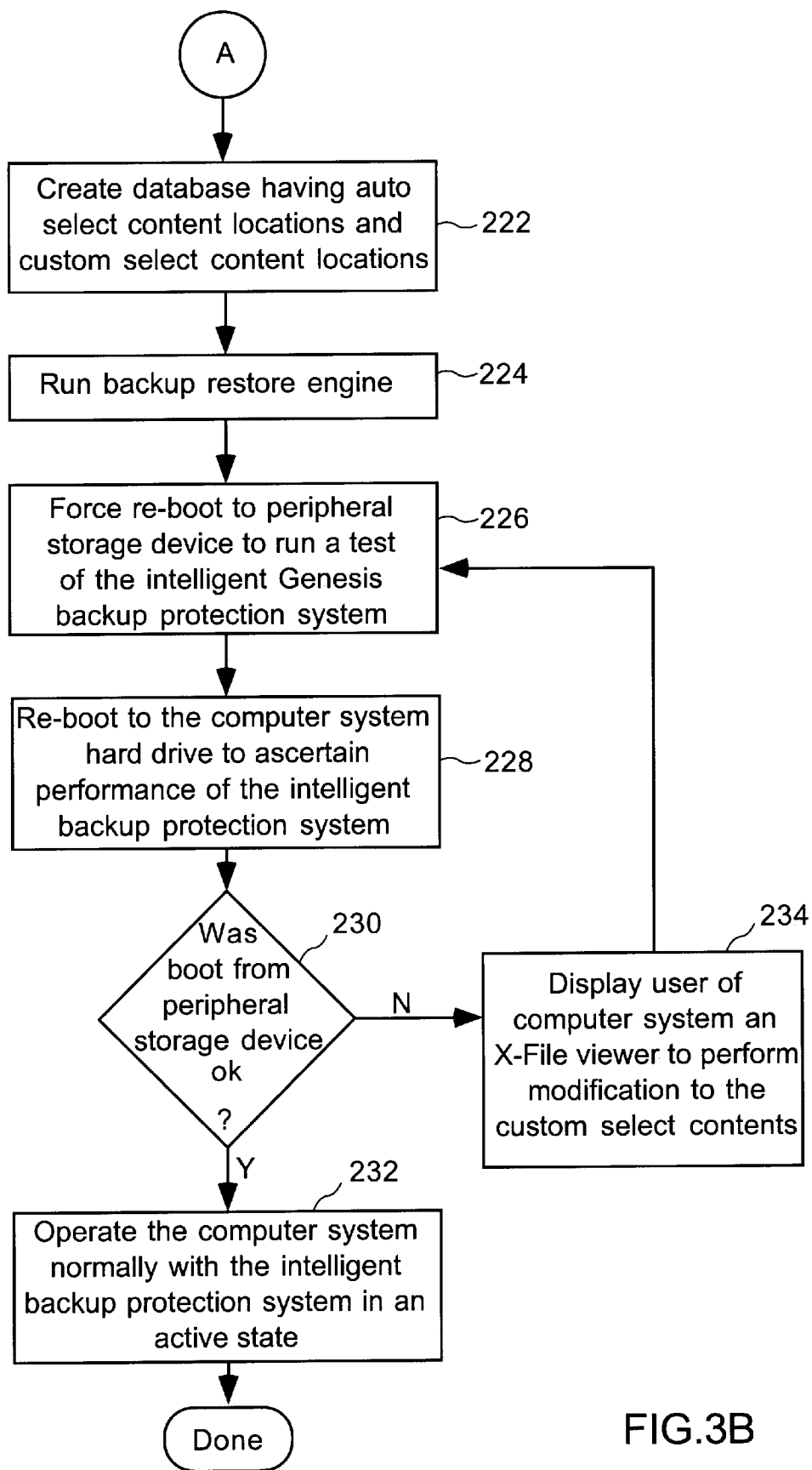


FIG.3B

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