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Goshey et al.

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

(75) Inventors: **Michael M. Goshey**; **Guido Maffezzoni**; **Gilbert Chang-Tying Wu**, all of San Jose; **Yen-Chung Lin**, Saratoga; **John D. Nguyen**, Milpitas, all of CA (US); **Roger A. Stoller**, Harwood Heights, IL (US); **Kristine N. Luong**, Santa Clara; **Robert S. Hudson**, San Jose, both of CA (US); **David A. Coleman**, Silverdale; **Dennis M. Sumners**, Port Orchard, both of WA (US); **Thanh T. Bui**, San Jose, CA (US); **Tony Fu**, Placentia, CA (US); **Tony G. Kwan**, Milpitas, CA (US)

(73) Assignee: **Adaptec, Inc.**, Milpitas, CA (US)

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(58) **Field of Search** 711/162, 161; 717/11; 709/213; 713/2

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Primary Examiner—Do Yoo
Assistant Examiner—Nasser Moazzami
(74) *Attorney, Agent, or Firm*—Martine Penilla & Kim, LLP
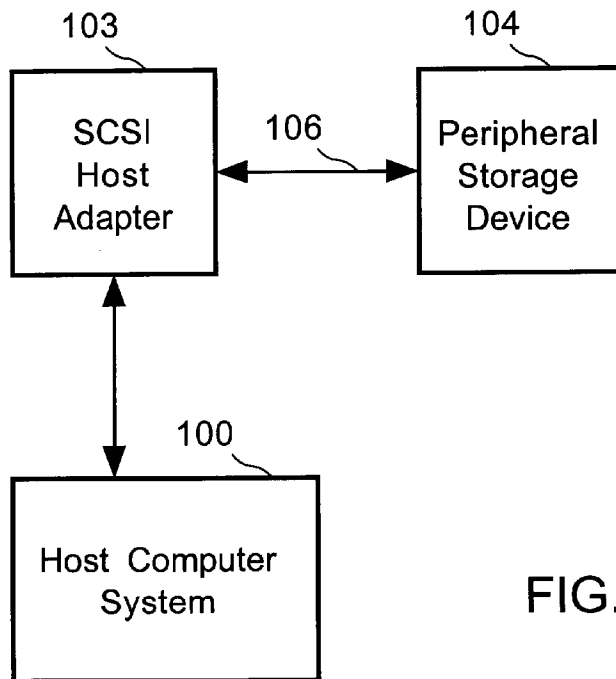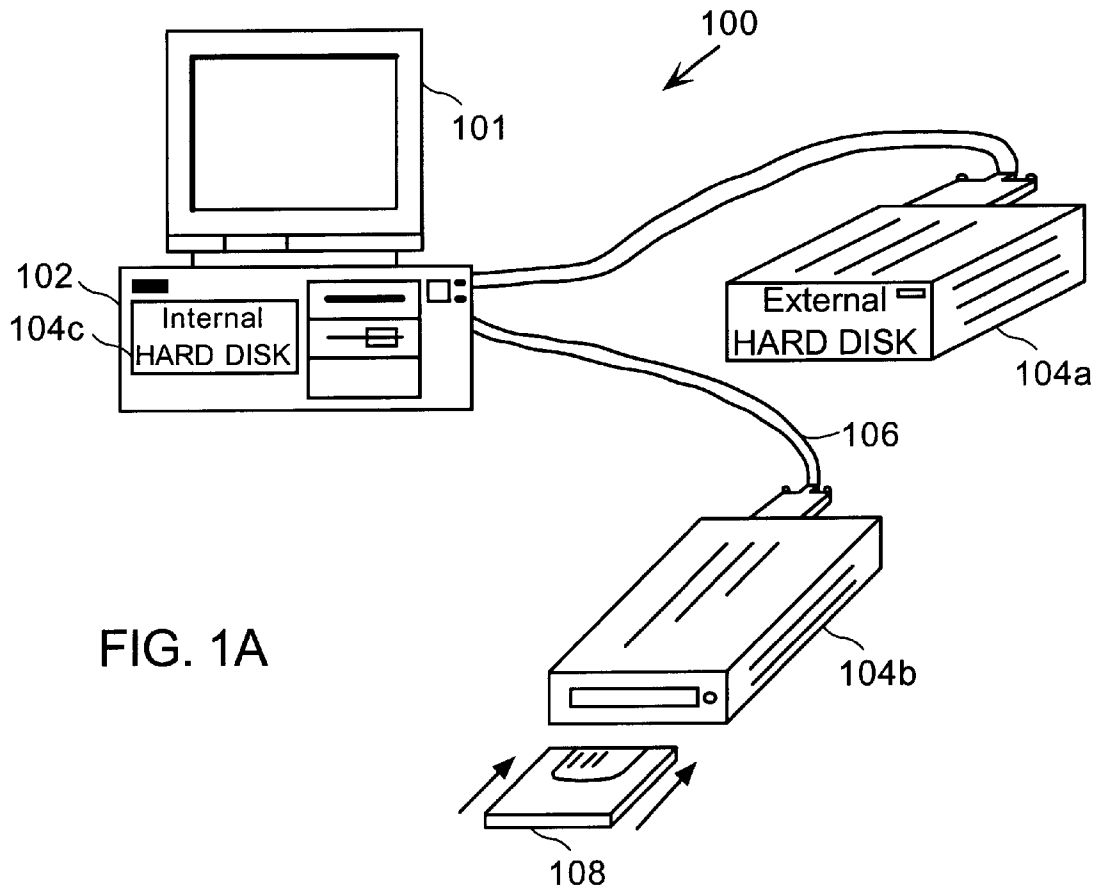
(57) **ABSTRACT**

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

100

101

102

104c

Internal HARD DISK

External HARD DISK

104a

106

104b

FIG. 1A

108

103

SCSI Host Adapter

104

Peripheral Storage Device

106

100

Host Computer System

FIG. 1B

110

Begin

112

Connect peripheral storage device to host computer

114

Prepare the peripheral storage device to be a Genesis autobackup system

116

Host computer hard drive experiences a failure

118

Re-boot the host computer from the peripheral storage device and continue working until the host computer hard drive is repaired

120

Restore the host computer hard drive with contents of the peripheral storage device once the host computer hard drive is repaired

Done

FIG. 2

Repair host computer system and prepare peripheral storage device to be an intelligent Genesis backup protection system

114

Insert cartridge having a media into the peripheral storage device ~202

Format media ~204

Partition peripheral storage device to match existing logical drive letter partitions of the hard drive(s) ~206

Format each drive letter partition on peripheral storage device to match format scheme of hard drive(s) ~208

Write a signature ID on media of the cartridge ~210

Generate backup data FootPrint 212

Generate backup schedule ~214

Collect e-mail information ~216

Auto select default contents from hard drive to be copied to the media of the cartridge ~218

Custom select contents from hard drive to be copied to the media of the cartridge ~220

A

FIG.3A

FIG.3B

DOCKET ALARM
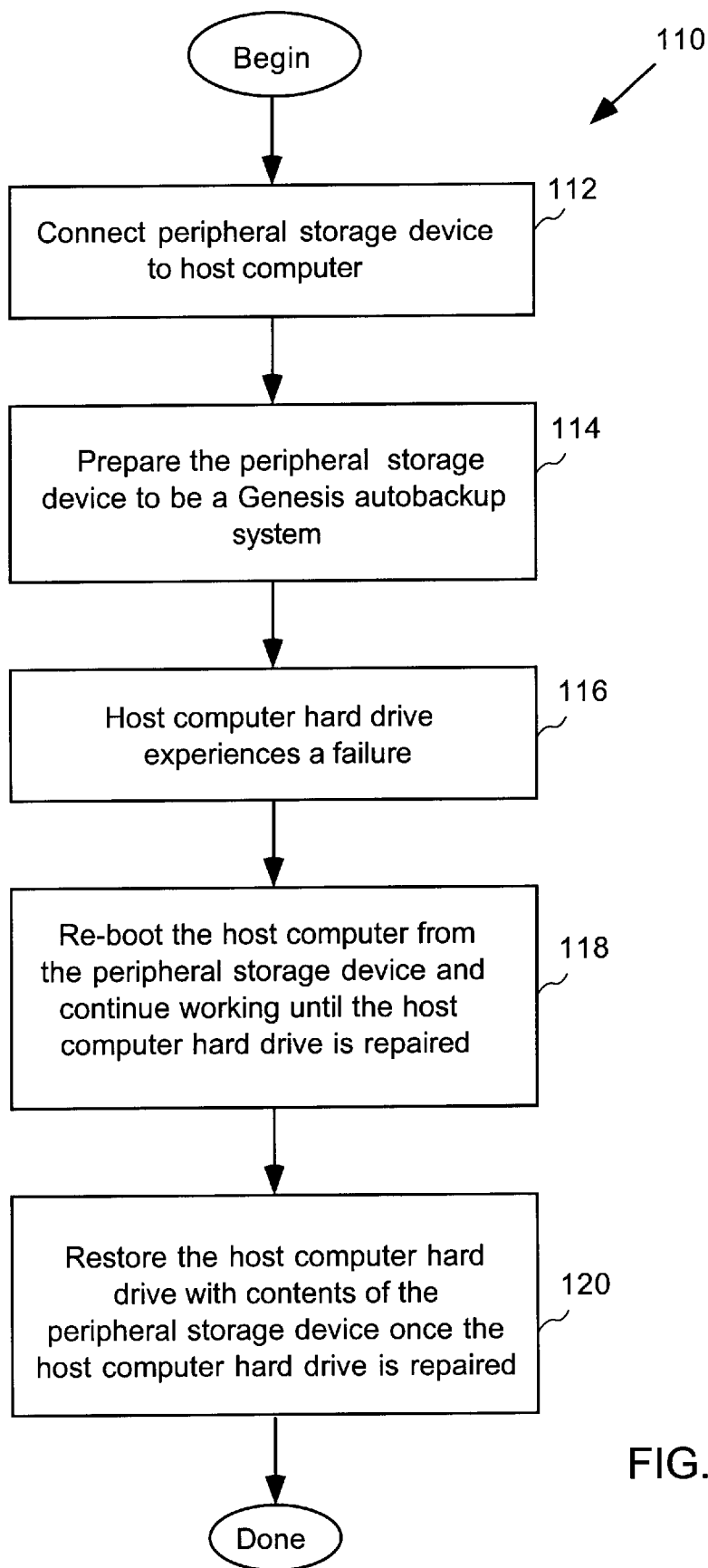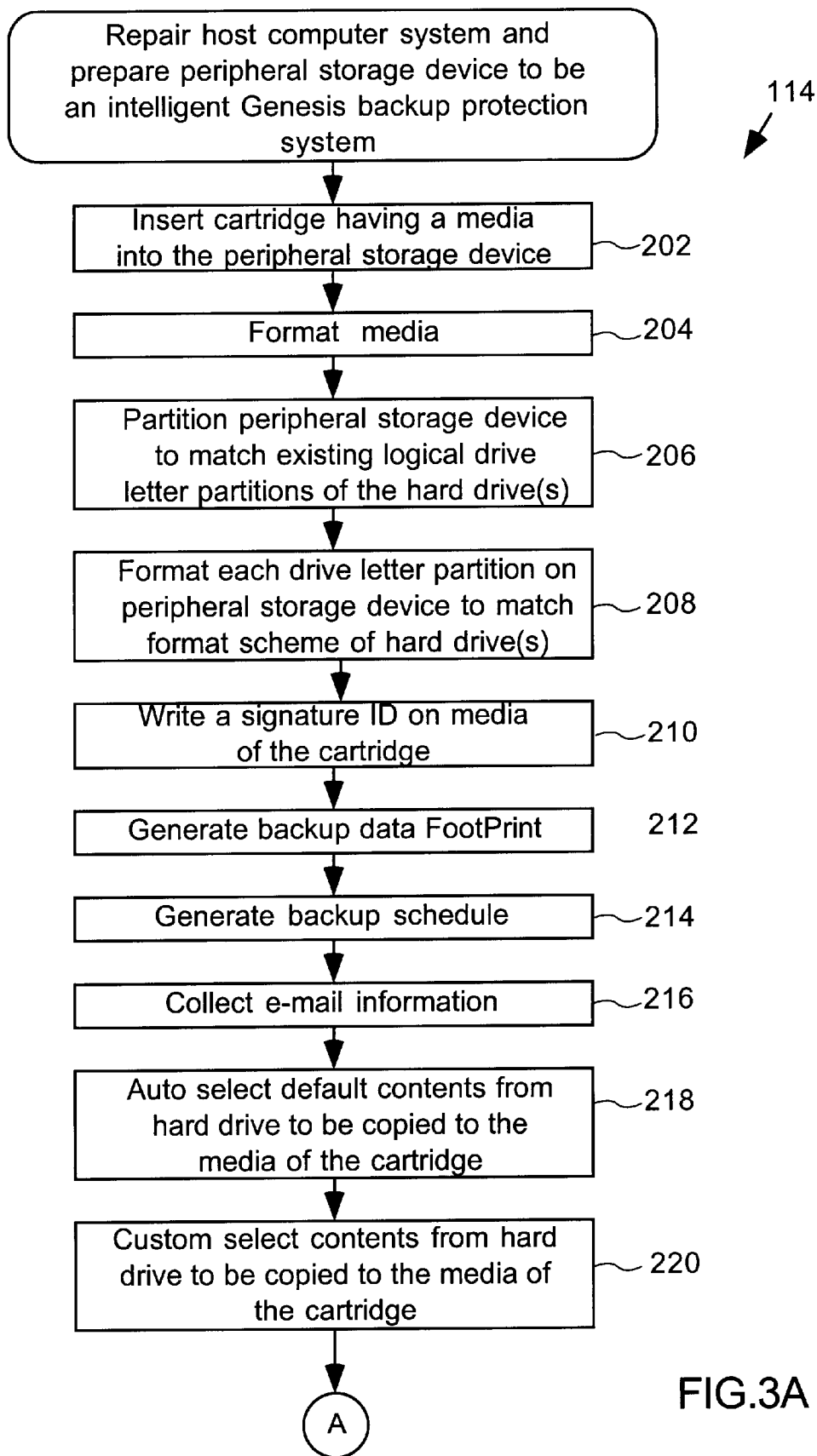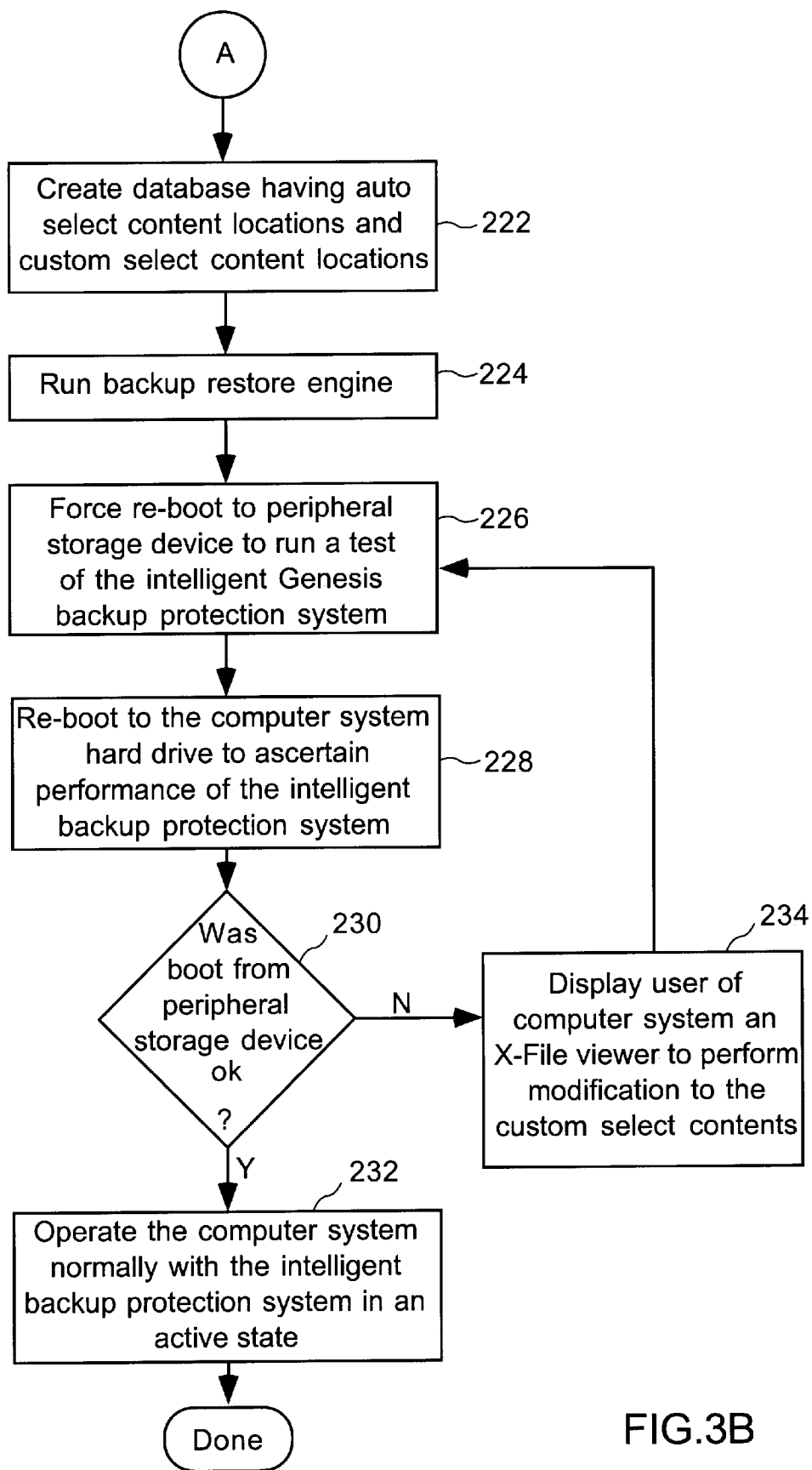
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