



US 20090285353A1

(19) **United States**

(12) **Patent Application Publication**
Ellenbogen et al.

(10) **Pub. No.: US 2009/0285353 A1**

(43) **Pub. Date: Nov. 19, 2009**

(54) **ARRAY CT**

Publication Classification

(75) Inventors: **Michael P. Ellenbogen**, Wayland, MA (US); **Richard Bijjani**, Cambridge, MA (US); **Michael Litchfield**, Winchester, MA (US); **Peter Conway**, Pepperell, MA (US); **William Aitkenhead**, Sharon, MA (US); **Bruce Lee**, Winchester, MA (US)

(51) **Int. Cl.**
A61B 6/00 (2006.01)
G01N 23/04 (2006.01)
(52) **U.S. Cl.** **378/9; 378/57**

(57) **ABSTRACT**

Embodiments of an Array CT scanning system for x-ray scanning objects (e.g., scanning airline baggage, packages, and cargo) can include a conveyor configured to transport baggage through a tunnel, a bottom mounted x-ray source configured to provide five fan beams through the tunnel, a side mounted x-ray source disposed at a height higher than the conveyor and configured to provide a fan beam through the tunnel, and a plurality of detectors disposed across the arcs of each of the fan beams. An image processing system can be configured to provide 3D type images of a scanned bag as a function of the information received from the detectors. The images can be derived through interpolation of the scan data. An operator can manipulate the image data and partially rotate the bag to discern objects located within. A side tray is provided to allow an operator to remove a suspect bag from an operational flow of bags. Image information can be stored for subsequent review. Multiple scanners can be networked together such that image and passenger information can be transferred to other workstations.

Correspondence Address:
MINTZ, LEVIN, COHN, FERRIS, GLOVSKY AND POPEO, P.C
ONE FINANCIAL CENTER
BOSTON, MA 02111 (US)

(73) Assignee: **Reveal Imaging Technologies, Inc.**, Bedford, MA (US)

(21) Appl. No.: **12/468,714**

(22) Filed: **May 19, 2009**

Related U.S. Application Data

(60) Provisional application No. 61/054,411, filed on May 19, 2008.

