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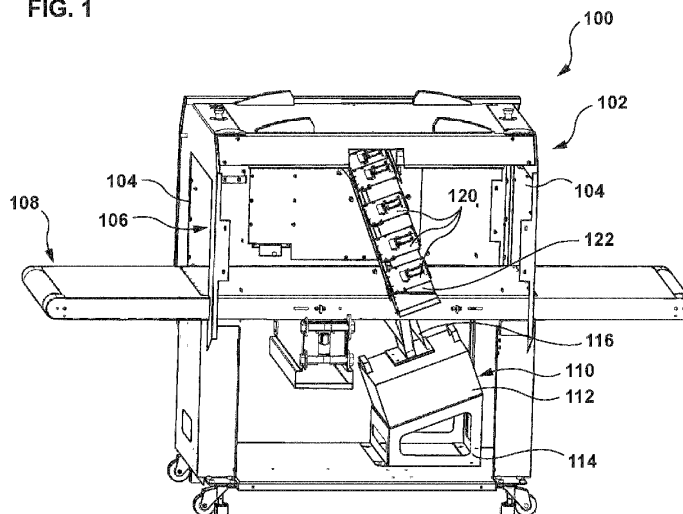
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(54) Title: METHODS FOR RECONSTRUCTING AN UNKNOWN OBJECT IN SCANNED X-RAY IMAGES

FIG. 1



(57) Abstract: A method for assigning attributes to an unknown object includes the steps of scanning the unknown object at least partially overlapping with a background object within an x-ray scanning device to provide dual-energy attenuation images having dual-energy attenuation information representing an overlap region wherein the background object and the unknown object overlap, decomposing the attenuation images into reference material equivalent path length images, removing the background object to provide reference material equivalent path lengths representing the unknown object, converting the reference material equivalent path lengths representing the unknown object into unknown object path lengths multiplied by a predetermined scaling factor, reducing the scaling factor to provide a contour of the unknown object and unknown object path lengths, and, determining a density and effective atomic number of the unknown object.

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