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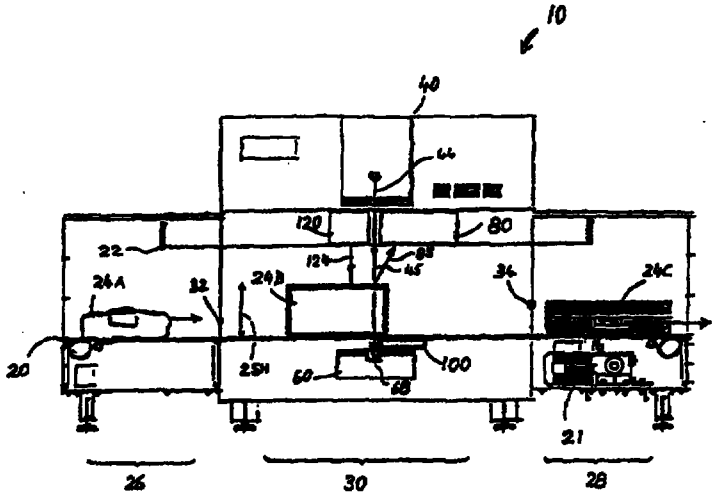
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(54) Title: DETECTING EXPLOSIVES OR OTHER CONTRABAND BY EMPLOYING TRANSMITTED AND SCATTERED X-RAYS



(57) Abstract

An X-ray inspection device (10) for detecting a specific material of interest in items of various sizes and shapes (24A, 24B, 24C) includes an X-ray source system located at an inspection region and constructed to expose the examined item to at least one beam of X-ray radiation, and one or more X-ray detection systems (60, 80, 100). The X-ray inspection device also includes one or more dimension detectors (120) constructed to measure a selected dimension of the examined item, an interface system connected to receive X-ray data and dimension data, and a computer programmed to utilize the data for recognition of the specific material of interest and to indicate its presence in the examined item. Each detection system includes one or more arrays of X-ray detectors arranged in a linear, circular or semi-spherical geometry.