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(54) **Title:** SHIELDING ASSEMBLY FOR A RADIOISOTOPE DELIVERY SYSTEM HAVING MULTIPLE RADIATION DETECTORS

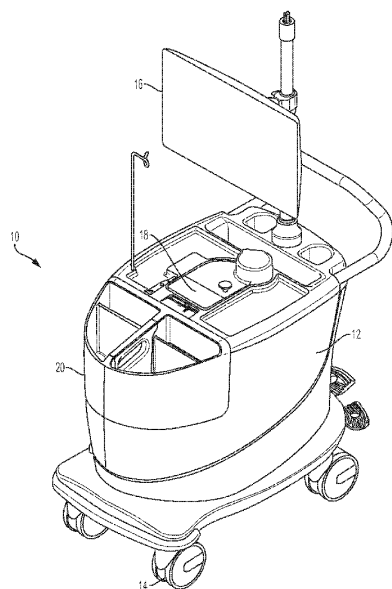


FIG. 1

(57) **Abstract:** A shielding assembly may be used in a nuclear medicine infusion system that generates and infuse radioactive liquid into a patient undergoing a diagnostic imaging procedure. In some examples, the shielding assembly has multiple compartments each formed of a shielding material providing a barrier to radioactive radiation. For example, the shielding assembly may have a first compartment configured to receive a radioisotope generator that generates a radioactive eluate via elution, a second compartment configured to receive a beta detector, and a third compartment configured to receive a gamma detector. In some examples, the compartments are arranged to minimize background radiation emitted by the radioisotope generator and detected by the gamma detector to enhance the quality of the measurements made by the gamma detector.

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