

(12) United States Patent Reinstein

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(54) QUALITY ASSURANCE DEVICE FOR A MEDICAL LINEAR ACCELERATOR

Mini–Gard[™], by Nuclear Associates, Carle Place, New York, 2 pages (no date provided).

OTHER PUBLICATIONS

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* cited by examiner

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(*) Notice: Subject to any disclaimer, the term of this

(57) ABSTRACT

patent is extended or adjusted under 35 U.S.C. 154(b) by 238 days.

A quality assurance device is provided for ensuring the accuracy and reproducibility of the mechanical parameters of medical linear accelerators (Medical LINACs). The quality assurance devices is configured for placement within two parallel slots on the gantry of a Medical LINAC and includes off-the-shelf components for ensuring the accuracy and reproducibility of an optical distance indicator (ODI) distance measurement readout, collimator and gantry angles indicated by a display of the Medical LINAC, a radiation field size indicated by the Medical LINAC display, the centering of cross-hairs on the gantry with the intersection of the Medical LINAC axes, and alignment of the two lasers emanating from two positions toward the Medical LINAC with the intersection of the Medical LINAC axes.

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(75) Inventor:

(22) Filed:

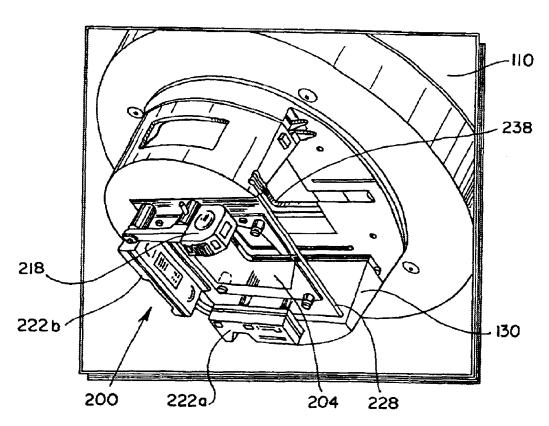
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U.S. PATENT DOCUMENTS

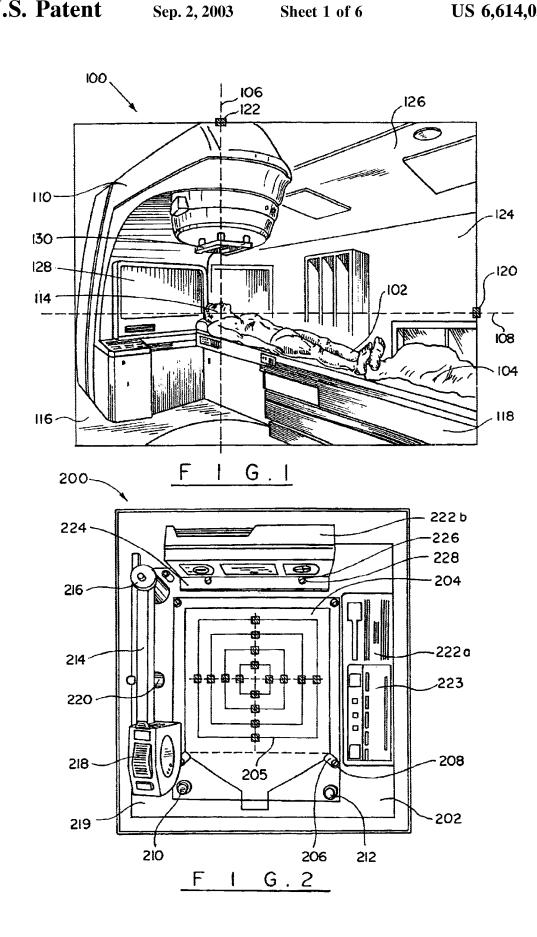
(51) Int. Cl.⁷ A61N 5/00; G21G 5/00

4,726,046 A	*	2/1988	Nunan	250/492.1
5,142,559 A	*	8/1992	Wielopolski et al	250/492.3
5,553,112 A	*	9/1996	Hardy et al	378/206

8 Claims, 6 Drawing Sheets

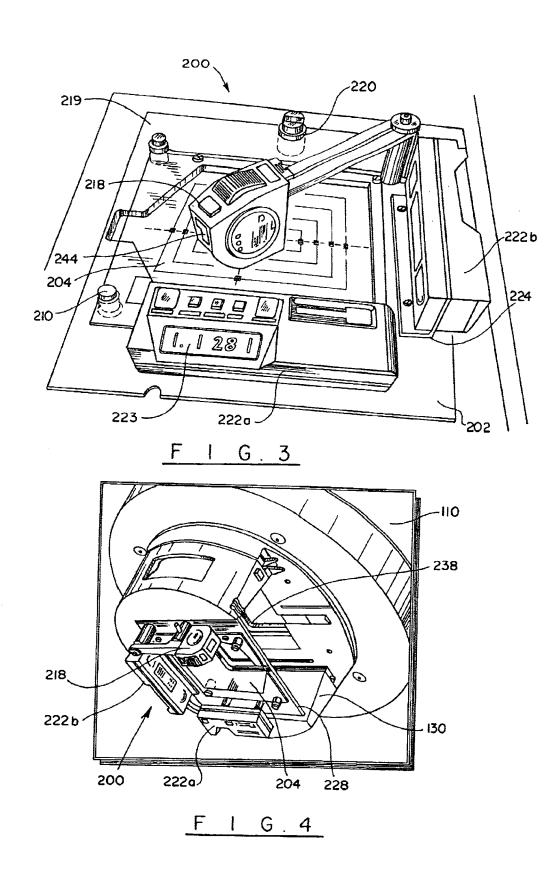


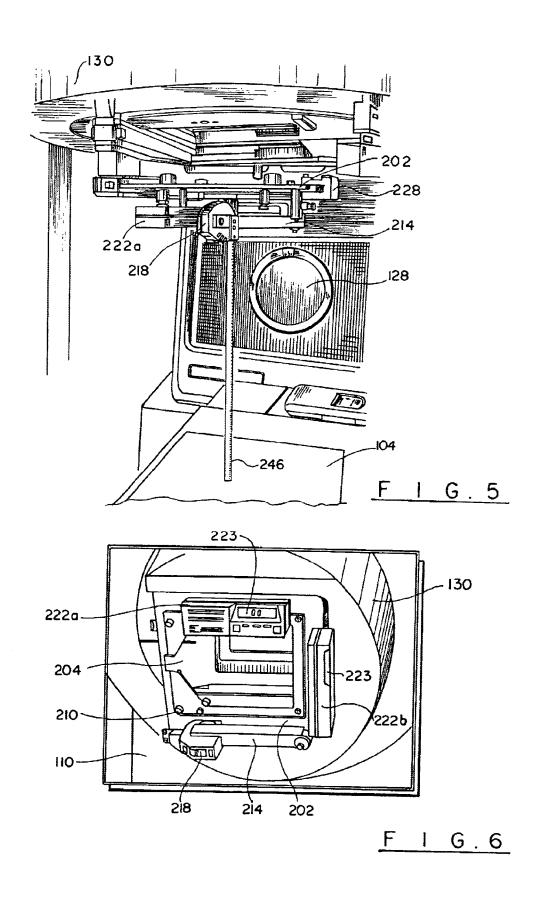


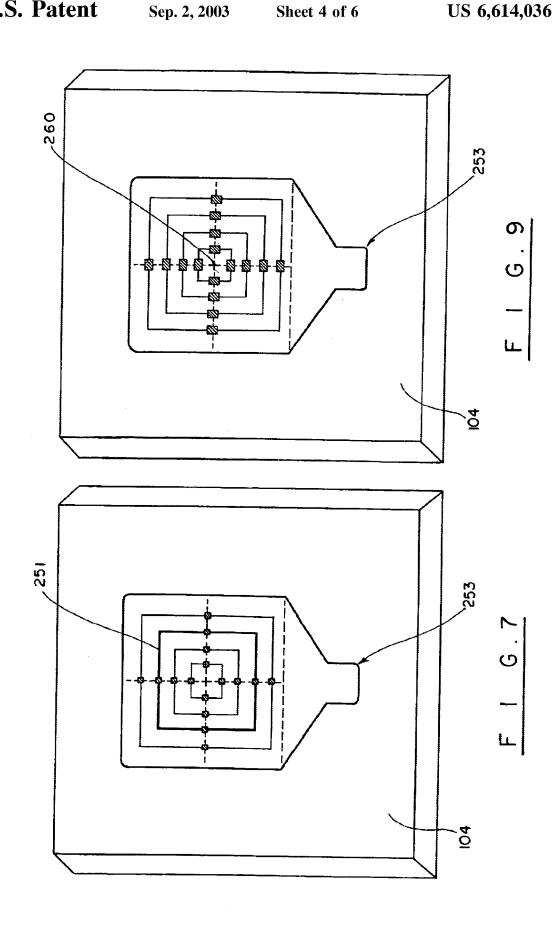




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