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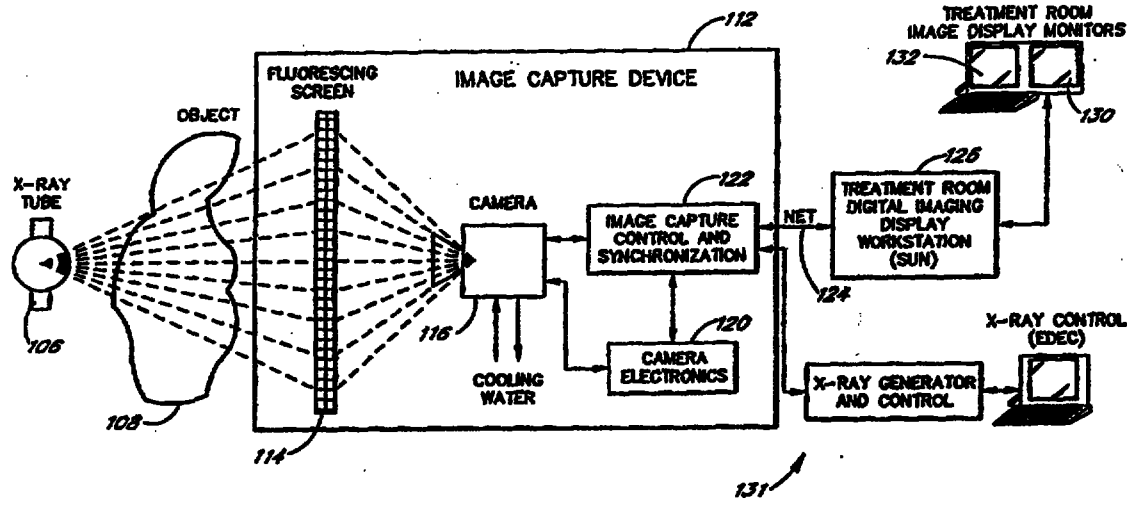
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(54) Title: PROTON BEAM DIGITAL IMAGING SYSTEM




(57) Abstract

A proton beam digital imaging system comprising an X-ray source which is movable into the treatment beam line that can produce an X-ray beam through a region of the patient. An X-ray receiver receives the X-ray beam after it has passed through the patient and the X-ray receiver generates photons that correspond to the X-ray image. The photons are directed to a TEC CCD camera to produce a patient orientation image which displays the orientation of the center of the beam relative to selected monuments in the patient's skeletal structure. The system also receives a master prescription image which displays the target isocenter with respect to the same selected monuments of the patient's skeletal structure. By comparison of the relative positions of the center of the beam in the patient orientation image and the isocenter in the master prescription image with respect to the selected monuments, the amount and direction of movement of the patient to make the beam center correspond to the target isocenter is determined.