

Title (en)  
SCANNING RADIOGRAPHIC APPARATUS AND METHOD.

Publication  
**EP 0000079 B1 19830112 (EN)**

Application  
**EP 78200018 A 19780601**

Priority  
US 80307777 A 19770603

Abstract (en)  
[origin: US4196351A] Visual display of dental, medical or other radiographic images is realized with an X-ray tube in which an electron beam is scanned through an X-Y raster pattern on a broad anode plate, the scanning being synchronized with the X-Y sweep signals of a cathode ray tube display and the intensity signal for the display being derived from a small X-ray detector which receives X-rays that have passed through the subject to be imaged. Positioning and support of the detector are provided for by disposing the detector in a probe which may be attached to the X-ray tube at any of a plurality of different locations and by providing a plurality of such probes of different configuration in order to change focal length, to accommodate to different detector placements relative to the subject, to enhance patient comfort and to enable production of both periapical images and wider angle pantomographic images. High image definition with reduced radiation dosage is provided for by a lead glass collimator situated between the X-ray tube and subject and having a large number of spaced-apart minute radiation transmissive passages convergent on the position of the detector. Releasable mounting means enable changes of collimator in conjunction with changes of the probe to change focal length. A control circuit modifies the X-Y sweep signals applied to the X-ray tube and modulates electron beam energy and current in order to correct for image distortions and other undesirable effects which can otherwise be present in a scanning X-ray system.

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**A61B 6/14**; **H05G 1/66**; **H01J 35/30**

IPC 8 full level  
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