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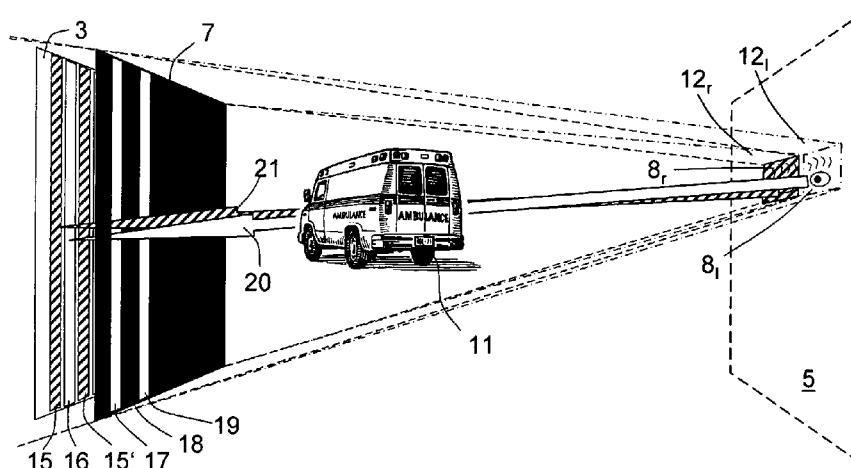
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(54) Title: METHOD AND DEVICE FOR ENCODING AND RECONSTRUCTING COMPUTER-GENERATED VIDEO HOLOGRAMS



(57) Abstract: A method and a device for encoding and reconstructing computer-generated video holograms with the help of a conventional LC display aims to reconstruct holographically three-dimensional scenes using electronically controllable pixel in a holographic array (3) with a minimal resolution, as free as possible from flickering and cross-talking, in real time, and for both eyes at the same time in a large viewing zone. The method takes advantage of an optically focusing means (2) in order to image vertically coherent light emitted by a line light source (1) into viewing windows (8R, 8L) after modulation by the pixel array (3). The holographic reconstruction (11) of the scene is rendered visible from viewing windows (8R, 8L) for both eyes of an observer by way of diffraction at the pixels. According to the invention, the controllable pixels are disposed in pixel columns (15, 16), which encode separate holograms of the same scene for both of the observer's eyes (R, L), where said holograms are one-dimensional in vertical direction and horizontally interleaved. An image separation means (7) with separating elements arranged parallel to the pixel columns releases the respective pixel columns (15, 15' or 16, 16) for one eye and covers them for the other eye.

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