

- [54] **METHOD AND APPARATUS OF ENCRYPTION OF OPTICAL IMAGES**
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- [73] Assignee: **Rotlex Optics Ltd., Beersheba, Israel**
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- [30] **Foreign Application Priority Data**
- Apr. 18, 1986 [IL] Israel ..... 78541
- [51] **Int. Cl.<sup>3</sup>** ..... **H04L 9/00**
- [52] **U.S. Cl.** ..... **380/54; 380/10; 380/20**
- [58] **Field of Search** ..... **380/54, 10, 20**
- [56] **References Cited**

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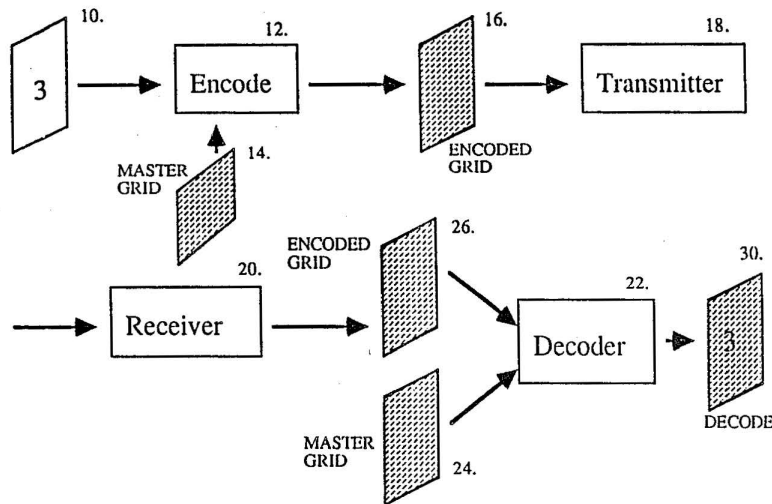
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[57] **ABSTRACT**

A method of encoding an optical image comprises: converting the optical image to an image grid comprised of an image matrix of pixels each having at least two possible intensity values; providing a master grid comprised of a master matrix of pixels each having at least two possible intensity values; and transmitting, for each pixel location of the image matrix, a pixel intensity value representing the intensity value of the master matrix at the corresponding location, its complement, or a random intensity value, depending on the intensity value of the pixel in the image matrix at the corresponding location. Also described is an apparatus for carrying out the above encoding method.

**19 Claims, 6 Drawing Sheets**



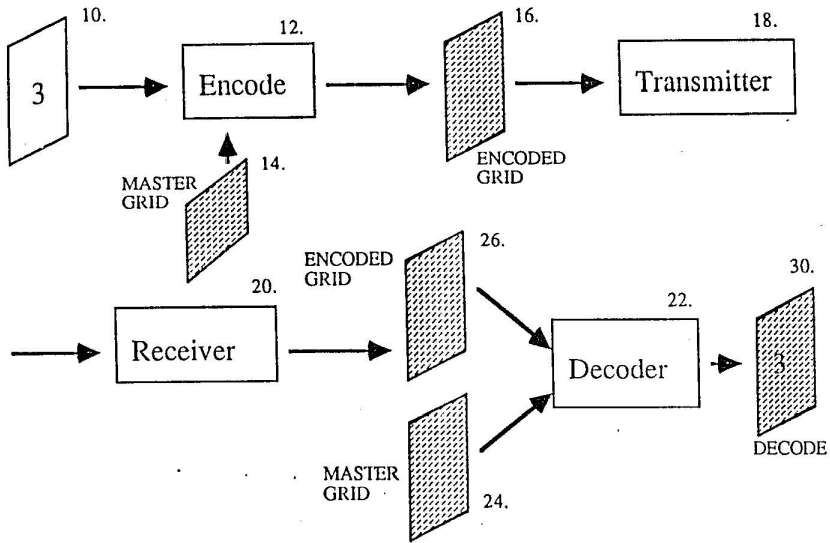


FIG. 1

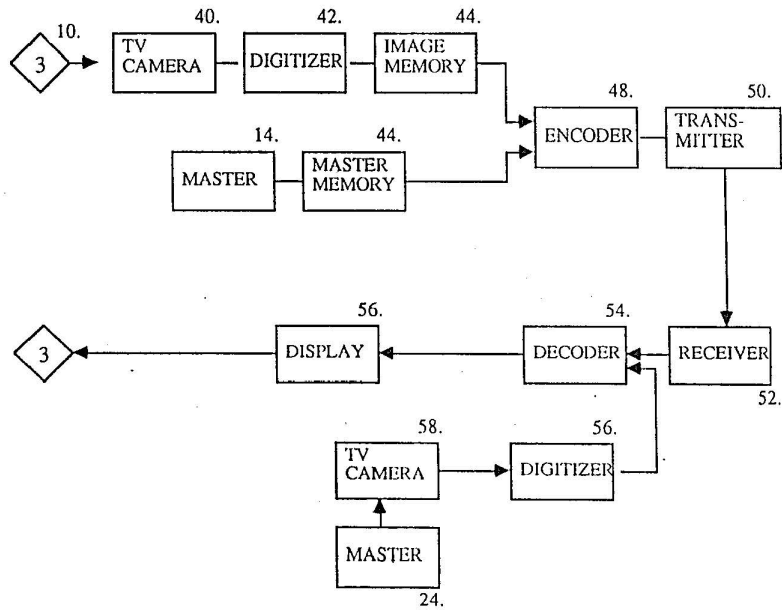


FIG. 2

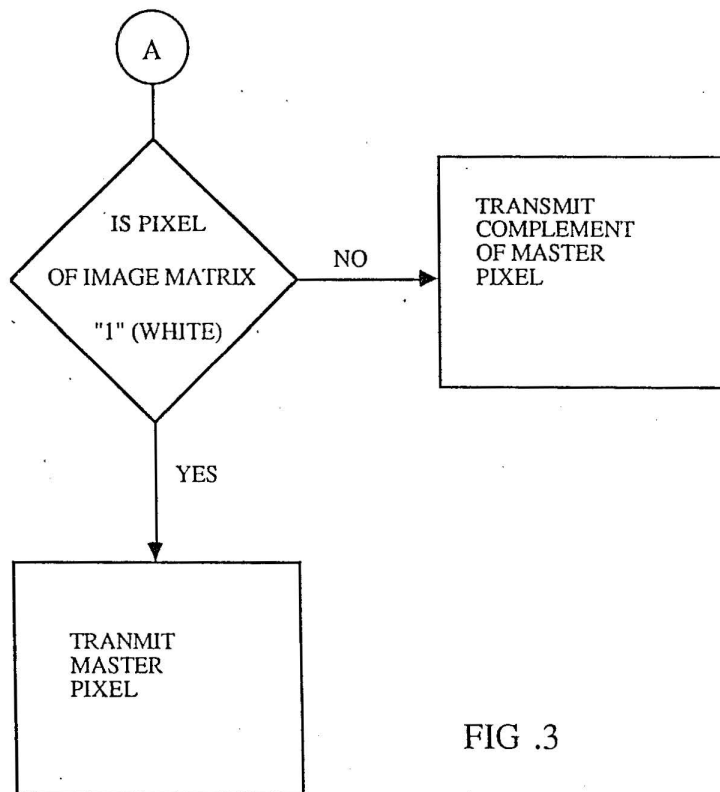


FIG. 3

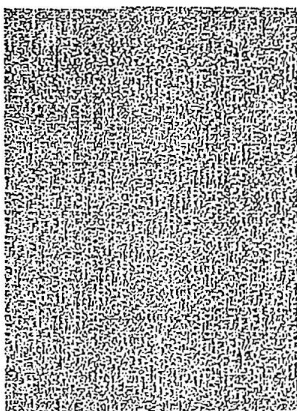


FIG. 4 A (MASTER GRID)

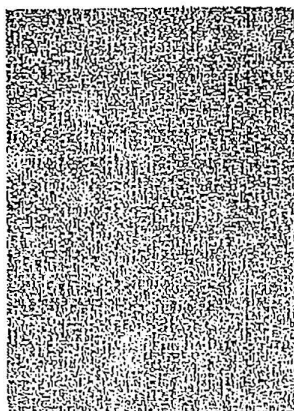


FIG. 4 B (ENCODED GRID)

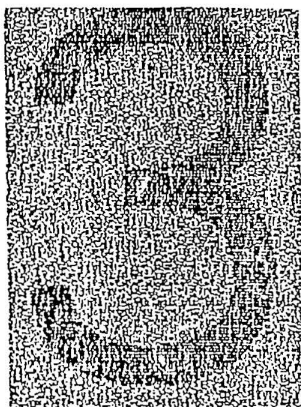


FIG. 4 C (DECODED PICTURE)

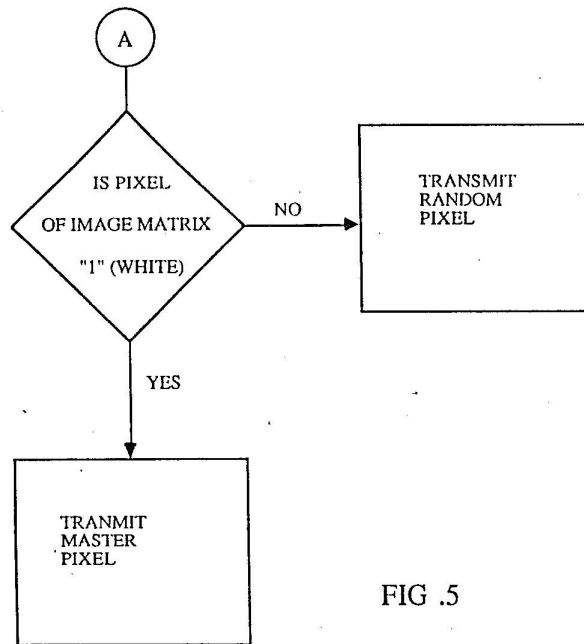


FIG .5

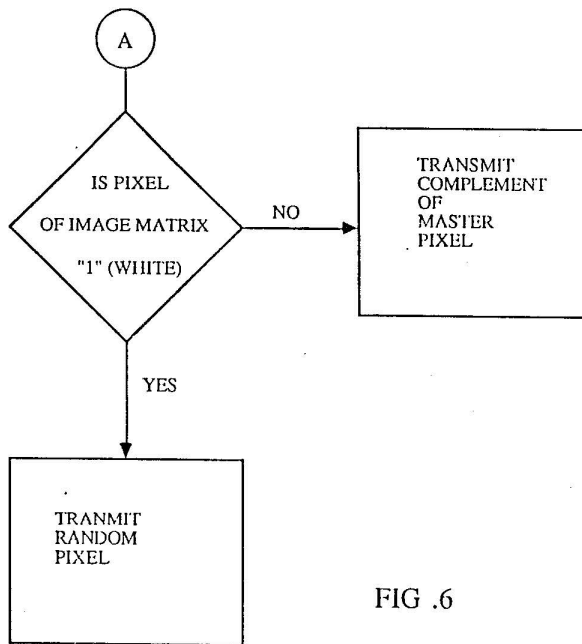


FIG .6

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