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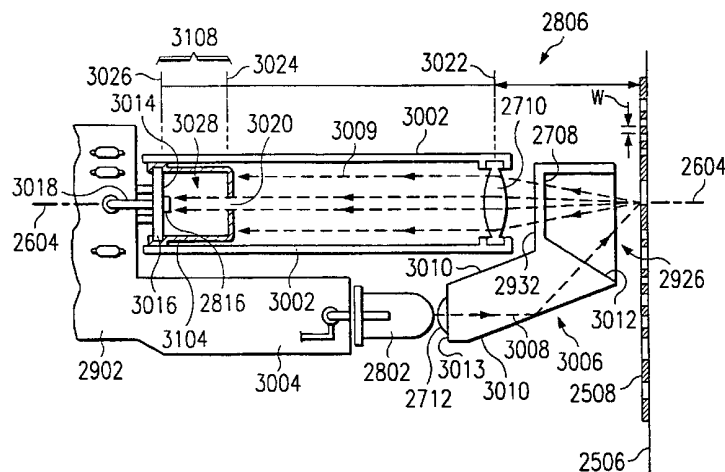
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(54) Title: OPTICAL READER AND USE



(57) Abstract: An optical reader is provided for reading a symbol representing information having areas of different light reflectivity. The optical reader comprises a radiant energy source, a photodetector, an optical system and a decoder. The radiant energy source generates a radiant energy for illuminating a target region. The photodetector generates output electrical signals indicative of the radiant energy incident there on. The optical system includes a projection portion and a collection portion. The projection portion directs the radiant energy along a projection path extending from the radiant energy source to the target region. The collection portion collects the radiant energy reflected from a symbol when the symbol occupies the target region and directs the collected radiant energy along a collection path extending from the target region to the photodetector. The collection portion includes one pinhole aperture disposed upstream on the collection path from the photodetector without intervening refraction or diffraction and one magnifying lens disposed upstream on the collection path from the pinhole aperture without intervening refraction or diffraction. The decoder decodes the output electrical signals of the photodetector to provide indication of the information contained in the symbol.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06K7/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, IBM-TDB

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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Y	column 3, line 28-53; figure 1	15, 25-29, 31,51,65
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Y	US 5 979 766 A (GERMAN GENE ET AL) 9 November 1999 (1999-11-09) column 5, line 31-39	25-28
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Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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