

[54] COLOR IMAGE PICK-UP APPARATUS

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[51] Int. Cl.<sup>3</sup> ..... H04N 9/04

[52] U.S. Cl. .... 358/44

[58] Field of Search ..... 358/41, 37, 40, 44

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Attorney, Agent, or Firm—Cushman, Darby & Cushman

[57] ABSTRACT

A color image pick-up apparatus using a single planar array of solid state light-sensitive elements with a color mosaic filter. The color mosaic filter is made up of three types of elements occurring in repeating patterns which are such that luminance-type elements occur at every other element portion along both of two orthogonal direction. The signal corresponding to luminance is separated from the output signal of the solid state light-sensitive elements and delayed for one horizontal scanning period. The high frequency component of the delayed signal is extracted. The extracted high frequency component signal is added to the signal corresponding to luminance which is succeedingly produced from the solid state light-sensitive elements.

9 Claims, 13 Drawing Figures

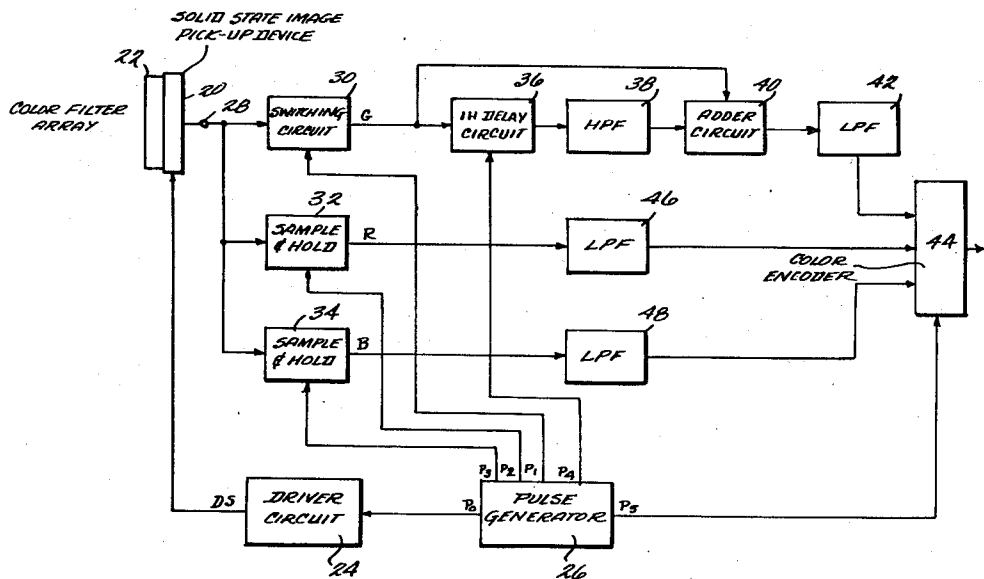


FIG. 1

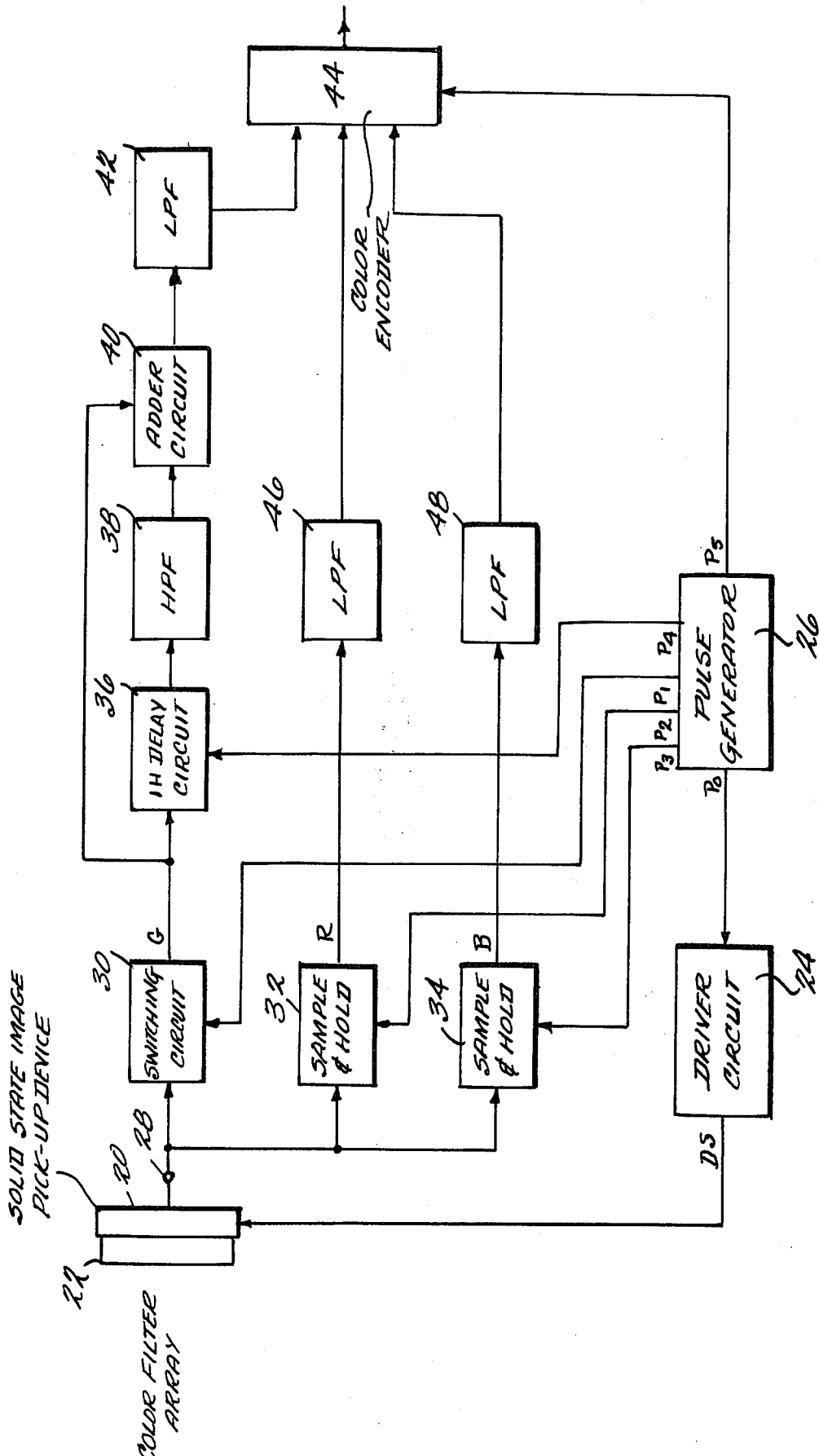


FIG. 2

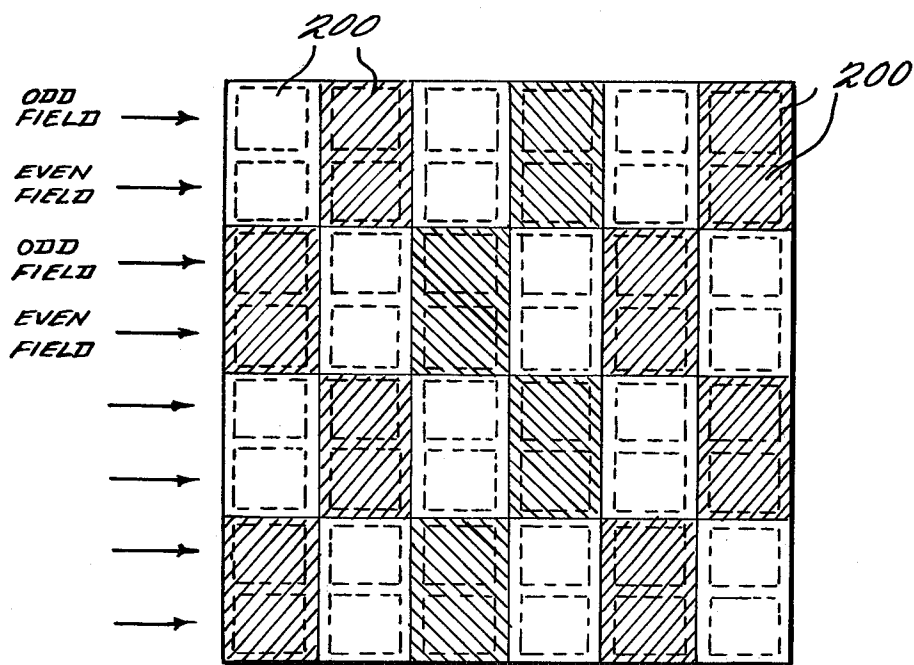


FIG. 3A

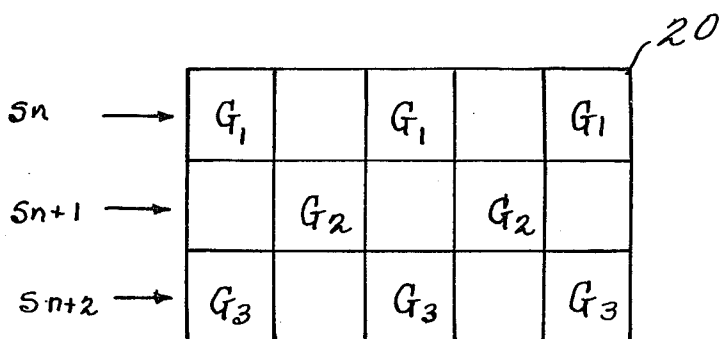


FIG. 3B

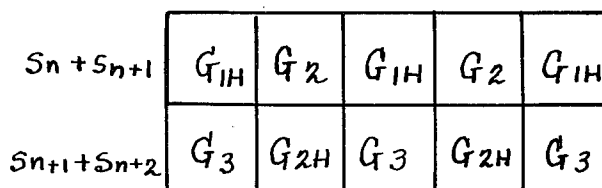


FIG. 4A

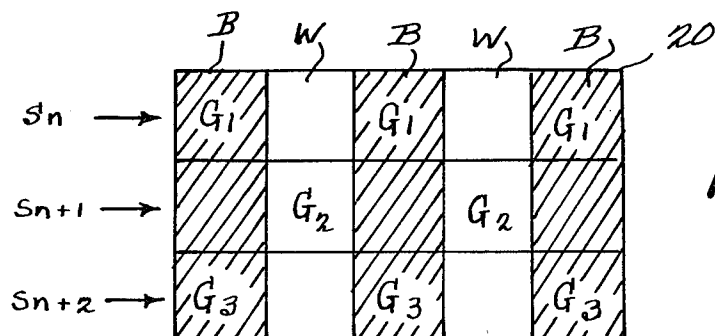
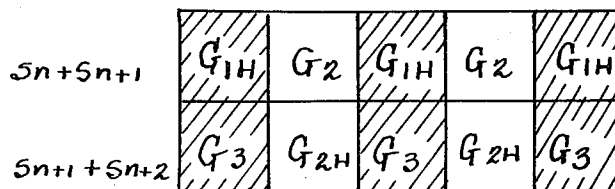
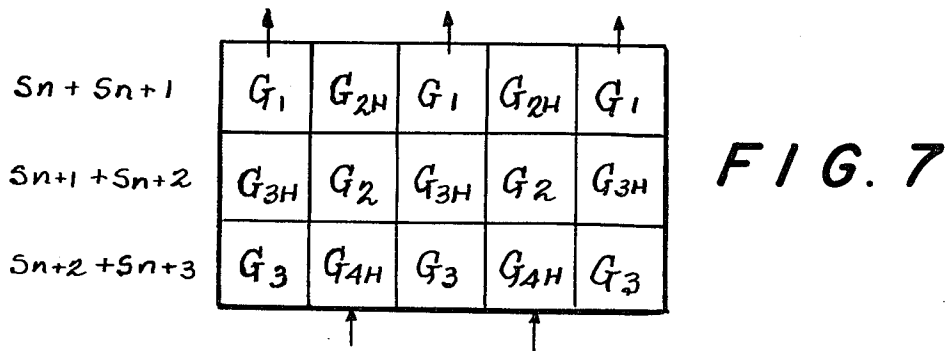
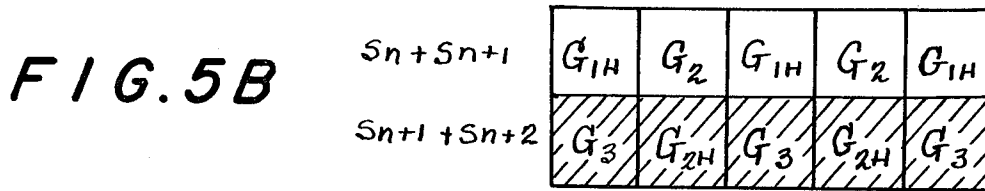
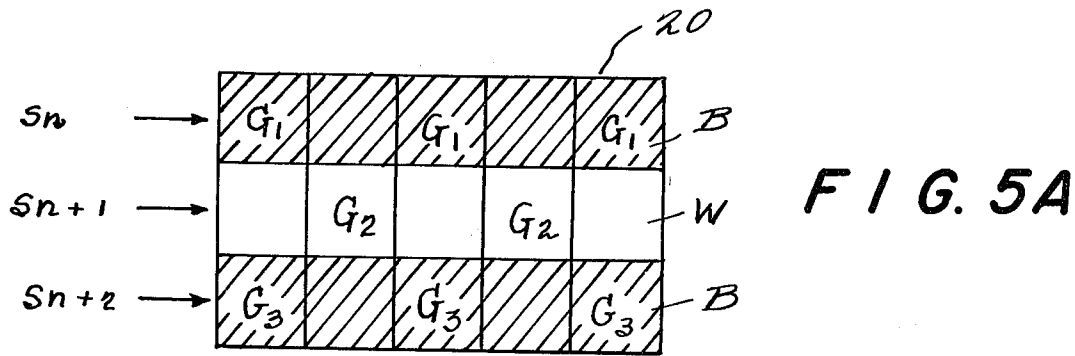


FIG. 4B





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