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[54] **ELECTROPHORETIC IMAGE DISPLAY HAVING AN IMPROVED SWITCHING TIME**

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[58] **Field of Search** ..... 204/180 R, 180 P, 299 PE, 204/299 R, 299 EC, 300, 181; 96/1 A; 252/62.16; 355/3 R; 357/73, 60

[56] **References Cited**

U.S. PATENT DOCUMENTS

3,145,156	8/1964	Oster	204/299 PE
3,649,514	3/1972	Rosenberg	204/299 PE
3,668,106	6/1972	Ota	204/299 PE
3,674,475	7/1972	Silverberg	204/299 PE X
3,689,399	9/1972	Ota	204/181 PE X
3,756,693	9/1973	Ota	204/299 PE X
3,812,406	5/1974	Henri	357/73
3,890,039	6/1975	Cantarano	355/3 R
3,914,040	10/1975	McVeigh	355/3 R
3,936,172	2/1976	McVeigh	355/3 R

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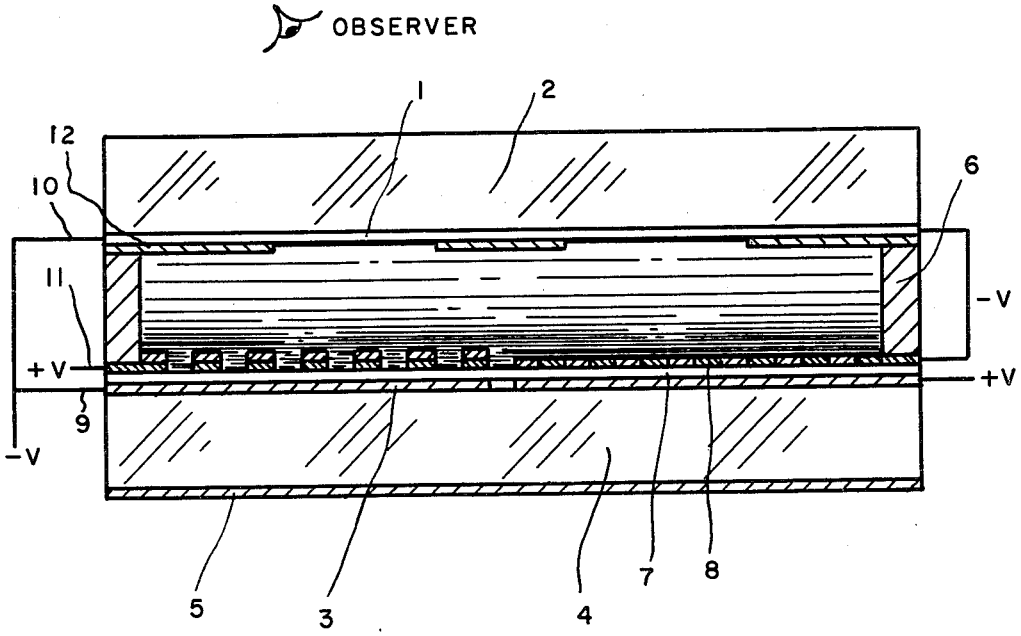
[57] **ABSTRACT**

An electrophoretic visual display device using an electrophoretic suspension with pigment particles in a dielectric suspending liquid and a dye for contrasting color, all enclosed in a unit comprising a transparent electrode spaced from at least one segmented electrode by an insulating member; a mesh electrode in the shape of the segmented electrode having holes barely visible to the naked eye is positioned on the transparent layer between the layer and the segmented electrode.

6 Claims, 1 Drawing Figure