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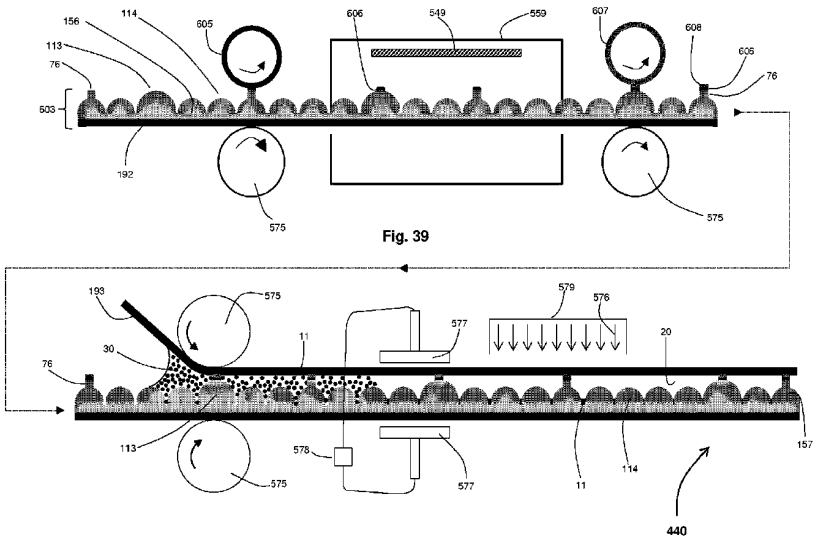
(54) AN ELECTROPHORETIC DEVICE HAVING A TRANSPARENT LIGHT STATE

(57) A light attenuator comprises a cell comprising a first substrate and a second substrate spaced apart from the first substrate. A layer between the substrates contains an electrophoretic ink, a surface of the layer adjacent the second substrate comprising a monolayer of closely packed protrusions projecting into the layer. The protrusions have surfaces defining a plurality of depressions in the volumes there between. The ink includes charged particles of at least one type, the particles being responsive to an electric field applied to the cell to move between a first extreme light state, in which particles are maximally spread within the cell to lie in the path of light through the cell and to strongly attenuate light transmitted through the cell; over the surface of the protrusions, which deflect the particles from their path from the first substrate to the second substrate; to a second extreme light state in which the particles are maximally concentrated within the depressions to remove them from the path of light through the cell and to substantially transmit light through the cell.



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