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(54) **ELECTRIC CURTAIN**

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A61B 3/113	(2006.01)
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CPC . ***E06B 9/68*** (2013.01); ***A61B 3/103*** (2013.01); ***A61B 3/113*** (2013.01); ***G02B 26/005*** (2013.01); ***G02C 7/08*** (2013.01); ***G02C 7/085*** (2013.01); *E06B 2009/6827* (2013.01); *G02F 1/29* (2013.01)

(58) **Field of Classification Search**

CPC G01J 1/0411; G01J 1/42

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,475,031 A * 10/1984 Mockovciak, Jr. ... E06B 3/6722 136/291

2008/0194337 A1 8/2008 Hensel

* cited by examiner

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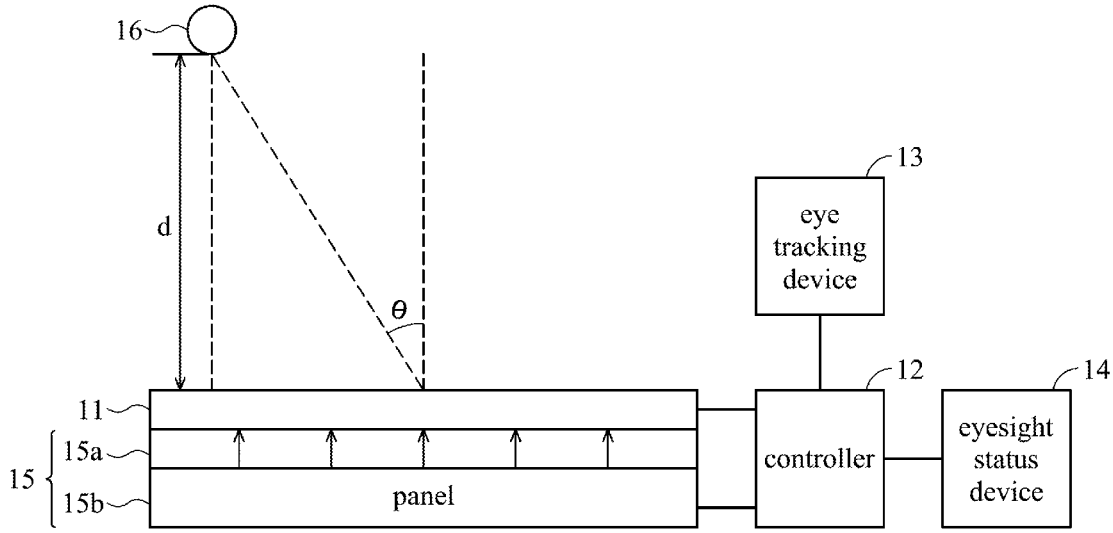
(57) **ABSTRACT**

An aspect of the invention provides an electric curtain. The electric curtain includes a sunlight detector for obtaining light information of sunlight and a light modulation device capable of receiving the sunlight and for adjusting an emergent angle of the sunlight to refract the sunlight to a ceiling of a room.

4 Claims, 8 Drawing Sheets