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Abou-Marie et al.

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(54) **ELECTROSURGICAL DEVICE FOR CREATING A CHANNEL THROUGH A REGION OF TISSUE AND METHODS OF USE THEREOF**

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See application file for complete search history.

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(57) **ABSTRACT**

An electrosurgical device and methods are disclosed for creating a channel through a region of tissue. The device comprises an elongate member for receiving the energy from an electrical energy source. An electrical insulation layer surrounds the elongate member along the device proximal region. An electrode tip is coupled to the distal end of the elongate member for delivering the energy, the electrode tip being configured and sized for delivering the energy in a manner such that electrical arcing is generated in the region of tissue in order to create a channel through at least a portion of the region of tissue. An electrically insulative thermal shield is disposed between the electrode tip and the device proximal region for preventing arcing therebetween during the delivery of the energy and for thermally protecting the device proximal region from heat produced by the delivery of the energy through the electrode tip.

12 Claims, 10 Drawing Sheets

