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- (71) **Applicant: CREO MEDICAL LIMITED** [GB/GB]; Creo House, Unit 2, Beaufort Park, Beaufort Park Way, Chepstow Monmouthshire NP16 5UH (GB).
- (72) **Inventors: HANCOCK, Christopher Paul;** c/o Creo Medical Limited, Creo House, Unit 2, Beaufort Park, Beaufort Park Way, Chepstow Monmouthshire NP16 5UH (GB). **DAVIES, Ilan;** c/o Creo Medical Limited, Creo House, Unit 2, Beaufort Park, Beaufort Park Way, Chepstow Monmouthshire NP16 5UH (GB). **HODGKINS, George;** c/o Creo Medical Limited, Creo House, Unit 2, Beaufort Park, Beaufort Park Way, Chepstow Monmouthshire NP16 5UH (GB).

(74) **Agent: MEWBURN ELLIS LLP;** Aurora Building, Counterslip, Bristol BS1 6BX (GB).

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- (54) **Title:** PULSE GENERATING CIRCUIT, AND ELECTROSURGICAL GENERATOR INCORPORATING THE SAME

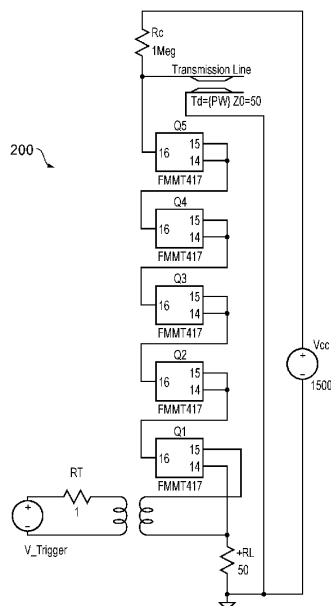


FIG. 5

(57) **Abstract:** The present invention relates to a pulse generating circuit for an electrosurgical generator, for generating a waveform suitable for causing electroporation of biological tissue. The pulse generating circuit comprises a voltage source connectable to a load via a switching element, and an open circuit coaxial transmission line connected between the switching element and the voltage source to be charged by the voltage source when the switching element is in an OFF state and to be discharged when the switching element is in an ON state. The switching element comprises a plurality of series connected avalanche transistors, and a trigger pulse generator configured to generate a trigger pulse to activate the plurality of series connected avalanche transistors. Furthermore, the impedance of the coaxial transmission line is configured to match a sum of (i) the impedance the plurality of series connected avalanche transistors, and (ii) the impedance of the load.

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