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(71) Applicant *(for all designated States except US)*: **MKS INSTRUMENTS, INC.** [US/US]; 2 Tech Drive, Suite 201, Andover, MA 01810 (US).

(72) Inventor; and
(75) Inventor/Applicant *(for US only)*: **FLETCHER, William, Roger** [GB/GB]; Wirswall, Shropshire, Whitchurch (GB).

(74) Agent: **FLOCKHART-SHANKS, Brenda**; Proskauer Rose, LLP, One International Place, Boston, MA 02110 (US).

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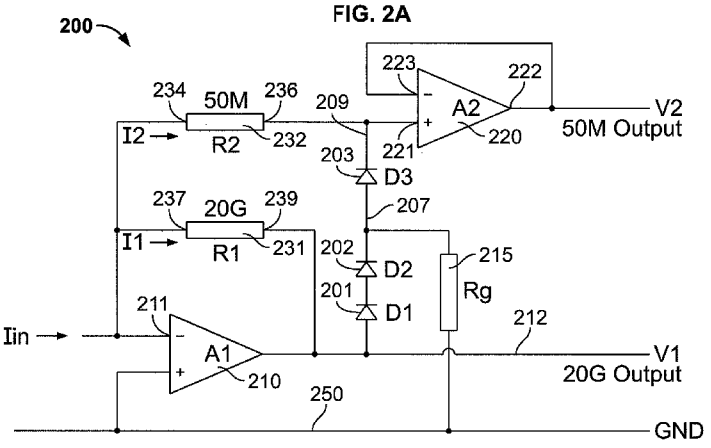
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(54) **Title**: A WIDE DYNAMIC RANGE ELECTROMETER WITH A FAST RESPONSE

FIG. 2A



(57) **Abstract**: A method and apparatus for measuring current includes sensing a first voltage at the output of an amplifier and computing a current based on the first voltage and the resistance of a first resistive element, which is electrically coupled between an inverting input of the amplifier and the output of the amplifier, if the first voltage is below a predetermined level. The method also includes sensing a second voltage at the output of a buffer and computing a current based on the first and second voltages and the resistances of the first resistive element and a second resistive element, which is electrically coupled between the inverting input of the amplifier and an input of the buffer and is also electrically coupled to the output of the amplifier through a at least one diode, if the voltage output from the amplifier is above the predetermined level.

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