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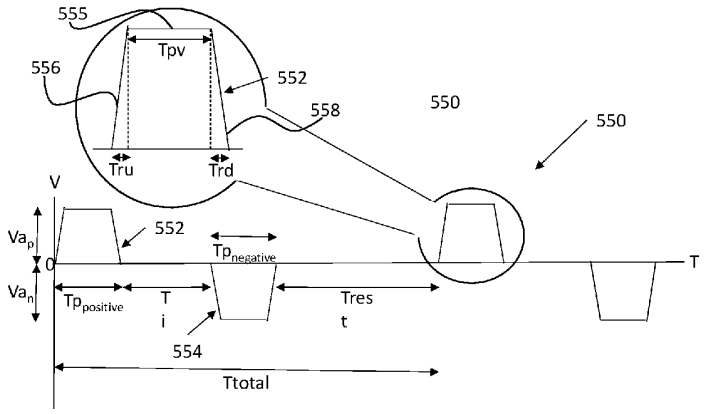
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(54) Title: ELECTRICAL DEVICE FOR PROVIDING PAIN RELIEF

Figure 5B



(57) Abstract: An apparatus for relieving pain in a region of the body of a user by contacting electrodes to a surface of the body of the user at the region and providing a series of electrical impulses to the region, the apparatus including: (a) at least two electrodes adapted to contact a surface of a body of the user; (b) a control unit; and (c) a signal generator, associated with the control unit and responsive thereto, the signal generator and the control unit adapted to operative connect to a power supply, the signal generator adapted, in an operative mode, to provide a series of electrical impulses to the surface of the body, via the electrodes, the series including a plurality of cycles, each of the cycles having a positive voltage pulse and a negative voltage pulse, wherein a frequency of the plurality of cycles is optionally within a range of 60-150 cycles per second, wherein a time-averaged voltage amplitude (Vap) of the positive voltage pulse, over an entire duration (Tppositive) thereof, is 20-90 Volts, and wherein a ramp-up section of the positive voltage pulse fulfills at least one of the following structural conditions: (1) the positive voltage pulse attains at least 80% of the time-averaged voltage amplitude, within a time (T80) of 70-150 nanoseconds; (2) the positive voltage pulse increases by at least 20 Volts, within 70 nanoseconds.

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