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(71)(72) Applicant and Inventor: HOLCOMB, Robert, R. [US/US]; Suite 1150, 2100 West End Avenue, Nashville, TN 37203 (US).

(74) Agents: SMITH, Gregory, C. et al.; Pravel, Hewitt, Kimball & Krieger, 10th floor, 1177 West Loop South, Houston, TX 77027 (US).

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(54) Title: ELECTROMAGNETIC THERAPEUTIC TREATMENT DEVICE AND METHODS OF USING SAME

(57) Abstract

An electromagnetic treatment device (10) includes a magnetic flux generator (12) and a power source (14). The magnetic flux generator (12) includes a plurality of electromagnetic bodies having at least four magnetic poles substantially in a single plane, the magnetic poles being oriented to define the four vertices of a quadrilateral shape. Preferably, the four magnetic poles comprise two positive and two negative poles, the two positive poles defining opposite diagonal vertices and the two negative poles defining opposite diagonal vertices of the quadrilateral shape. Each of the magnetic poles are magnetically attracted to the two oppositely charged poles and magnetically repelled by the like charged poles. Containment means hold the magnetic poles of the magnetic bodies in the above described configuration. Attached to the containment means are three important and function-altering components of the technology. Flux return ring (16a) is attached to the bottom of the described four electromagnetic heads; this ring enhances the flux field and controls unwanted stray induction currents as well as stray flux from the opposite pole. A flux focusing ring (16) is positioned around the flux heads adjacent to the insulated wire coils. Attachment means hold the focusing ring in proper location for maximum benefit. Attached to the flux focusing ring are focusing coils (18a, 20a, 22a, and 24a). These focusing coils are attached to the flux focusing ring in proximity to a head of like charge and at 45° to 90° angle to the long axis of the primary flux pole. In this position, the flux focusing coils along with the focusing ring, the flux return ring and the new iron core of this invention make the gradient steeper, increase the field strength and decrease heating and stray high currents. The flux return ring and the flux focusing ring are grounded to reduce stray induction currents and the variables that they add to the therapeutic magnetic field.