

# (19) United States

# (12) Patent Application Publication (10) Pub. No.: US 2015/0165226 A1 Simon et al.

Jun. 18, 2015 (43) **Pub. Date:** 

#### (54) MAGNETIC STIMULATION DEVICES AND METHODS OF THERAPY

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Appl. No.: 14/636,498

(22) Filed: Mar. 3, 2015

## Related U.S. Application Data

(60) Division of application No. 13/938,931, filed on Jul. 10, 2013, now Pat. No. 8,972,004, which is a division of application No. 12/964,050, filed on Dec. 9, 2010, said application No. 13/938,931 is a continuation-inpart of application No. 12/859,568, filed on Aug. 19, 2010, which is a continuation-in-part of application No. 12/408,131, filed on Mar. 20, 2009, now Pat. No. 8,812,112, which is a continuation-in-part of application No. 11/591,340, filed on Nov. 1, 2006, now Pat. No. 7,747,324.

Provisional application No. 61/415,469, filed on Nov. 19, 2010, provisional application No. 60/814,313, filed on Jun. 16, 2006, provisional application No. 60/786,564, filed on Mar. 28, 2006, provisional application No. 60/772,361, filed on Feb. 10, 2006, provi-

sional application No. 60/736,002, filed on Nov. 10, 2005, provisional application No. 60/736,001, filed on Nov. 10, 2005.

#### **Publication Classification**

(51) Int. Cl. A61N 2/02

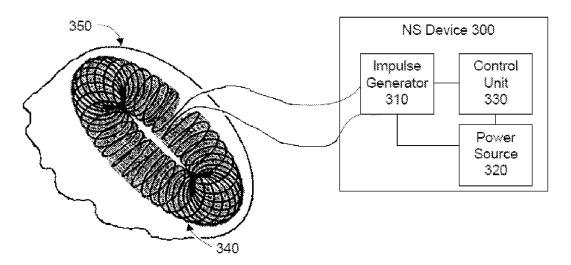
(2006.01)(2006.01)

A61N 2/00 (52) U.S. Cl.

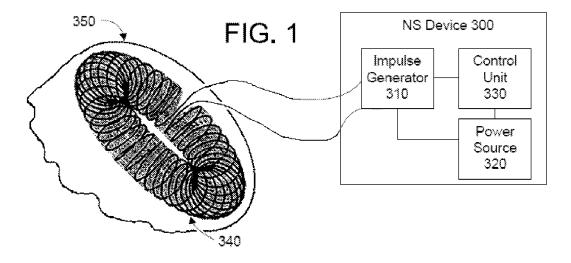
CPC . A61N 2/02 (2013.01); A61N 2/006 (2013.01)

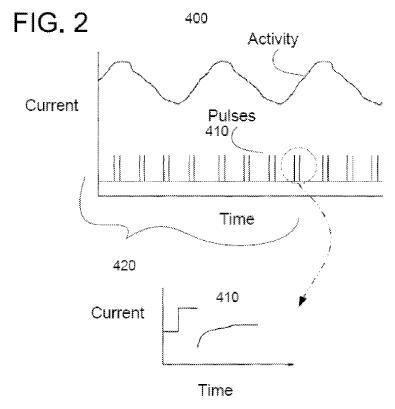
#### (57)ABSTRACT

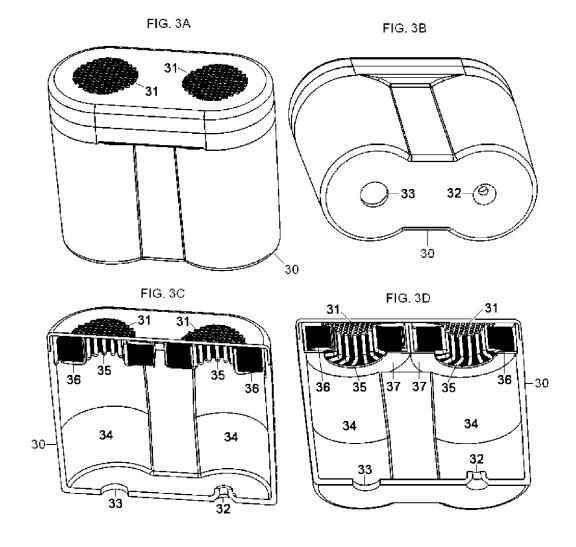
Devices and systems are disclosed for the non-invasive treatment of medical conditions through delivery of energy to target tissue, comprising a source of electrical power, a magnetically permeable toroidal core, and a coil that is wound around the core. The coil and core are embedded in a continuous electrically conducting medium, which is adapted to have a shape that conforms to the contour of an arbitrarily oriented target body surface of a patient. The conducting medium is applied to that surface by any of several disclosed methods, and the source of power supplies a pulse of electric charge to the coil, such that the coil induces an electric current and/or an electric field within the patient, thereby stimulating tissue and/or one or more nerve fibers within the patient. The invention shapes an elongated electric field of effect that can be oriented parallel to a long nerve. In one embodiment, the device comprises two toroidal cores that lie adjacent to one another.

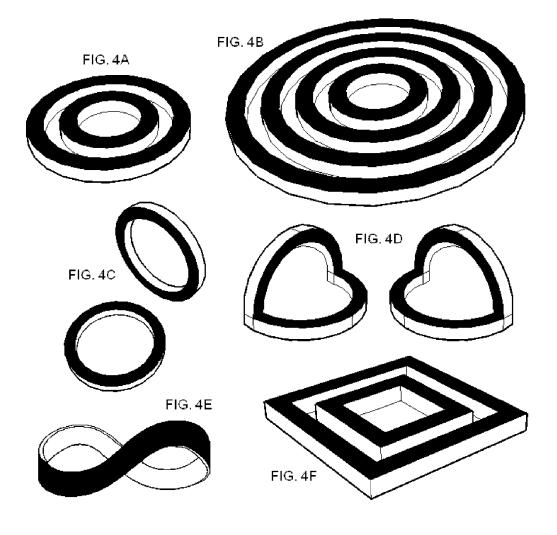




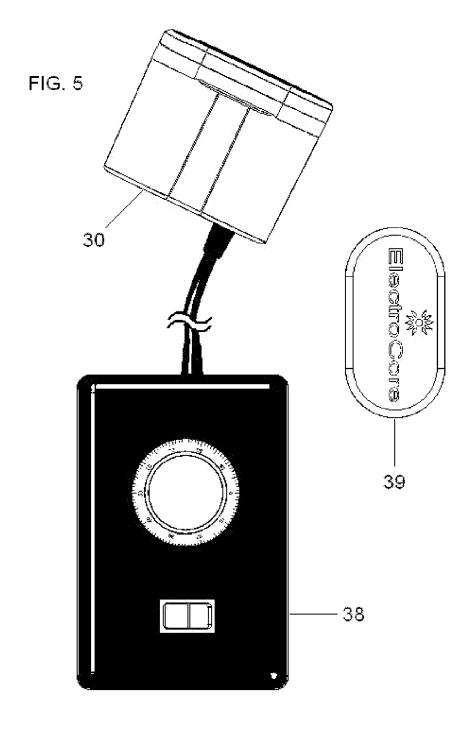














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