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- (54) Title: SMART PHONE APPLICATION FOR PROVIDING NEURO/MUSCULAR ELECTRO STIMULATION

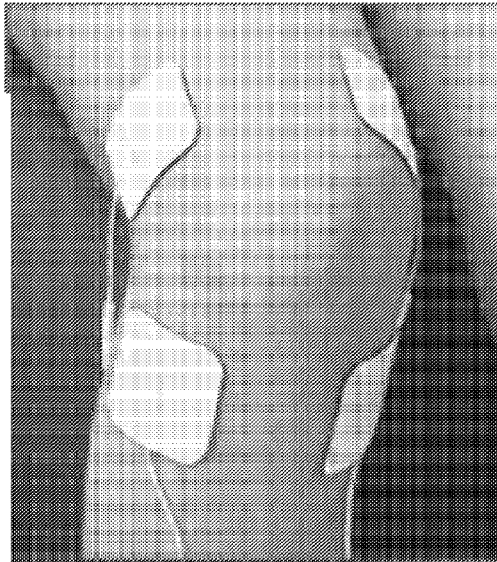
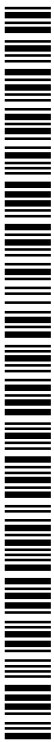


FIG. 1 - PRIOR ART

(57) Abstract: This invention relates to devices that providing neuro-muscular electro-stimulation to a stimulator patch adhered to body tissue. Previously, neuro-muscular electro-stimulation devices were not portable and accessible. Embodiments of the present invention use a mobile device (12) with a programmable downloadable application (14) to generate waveform signals. The waveform signals are employed by a power circuit (34) to generate and deliver energy conforming to the signals to a muscle pad (40a, 40b). This provides neuro-muscular electro-stimulation in a portable and accessible manner.



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A. CLASSIFICATION OF SUBJECT MATTER
 IPC(8) - A61N 1/36 (2015.01)
 CPC - A61N 1/36014; A61N 1/36003
 According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
 Minimum documentation searched (classification system followed by classification symbols)
 IPC(8) - A61N 1/36 (2015.01)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 607/48, 1; A61N 1/36*
 (Search term limited; see below)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 PubWest (PGPB, USPT, EPAB, JPAB); Google; PatBase (All);
 Search Terms: Stimulat*, electro*d*, muscle, muscular, pad, TENS, transcutaneous*, trans, cutaneous*, smartphone, smart phone, android, apple, iphone, laptop, tablet, control*, app, application, software, feedback, biofeedback, conduct*, gel, paste, compound, tape,


C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X -- Y	US 2011/0230702 A1 (HONOUR) 22 September 2011 (22.09.2011) Entire document, especially Abstract, para[0016]- para[0017], para[0033], para[0042], para[0054]- para[0060] and FIG. 1.	1-3, 5, 8-20 ----- 4, 6-7
Y	US 2012/0041513 A1 (TUCKER et al.) 16 February 2012 (16.02.2012) Entire document, especially Abstract, para[0077], para[0122]- para[0133].	4
Y	US 2012/0203305 A1 (SCHAUER et al.) 09 August 2012 (09.08.2012) Entire document, especially Abstract, para[0002]- para[0006] and para[0016]- para[0022].	6-7
A	US 2012/0259377 A1 (FREEMAN) 11 October 2012 (11.10.2012) Entire document, especially Abstract, para[0145]- para[0150], para[0195].	1-20
A	US 2013/0006322 A1 (TAI) 03 January 2013 (03.01.2013) Entire document, especially Abstract, para[0008], para[0043]- para[0047].	1-20
P, A	US 2013/0204741 A1 (UNDERWOOD) 08 August 2013 (08.08.2013) Entire document.	1-20
A	US 2011/0288610 A1 (BROCKE) 24 November 2011 (24.11.2011) Entire document, especially Abstract, para[0033], para[0099]- para[0105].	1-20
A	KAHN, Jordan. Hands on with ?i-Massager? iPhone-controlled electrical nerve stimulation and other iOS massage accessories. 09 January 2013 (09.01.2013). Accessed online <URL: http://9to5mac.com/2013/01/09/hands-on-with-i-massager-iphone-controlled-electrical-nerve-stimulation-and-other-ios-massage-accessories/ > Accessed (04 Feb 2015)	1-20

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* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

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