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(54) Title: ELECTRONIC WEAPONRY WITH CURRENT SPREADING ELECTRODE

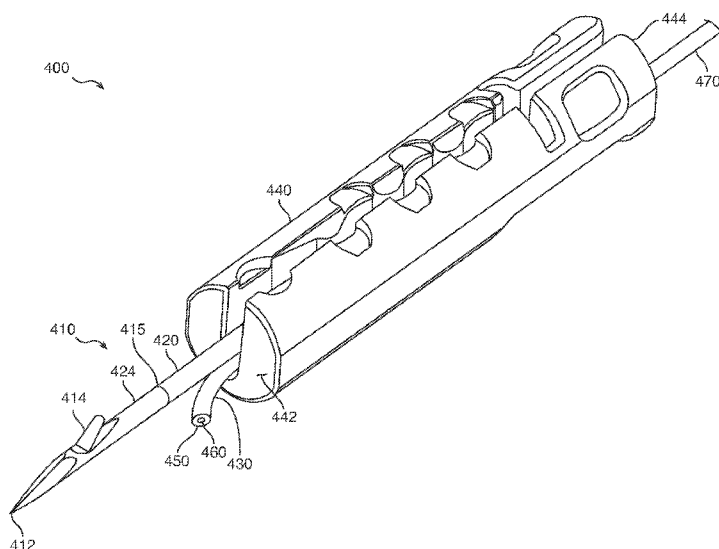


FIG. 4

(57) Abstract: An electronic weapon with an installed deployment unit, from which at least one wire-tethered electrode is launched, provides a stimulus current through a target to inhibit locomotion by the target. The wire tether, also called a filament, conducts the stimulus current. The one or more electrodes, according to various aspects of the present invention, perform one or more of the following functions in any combination: binding the filament to the electrode, deploying the filament from the deployment unit, piercing the material or tissue at the target, lodging in material or tissue of the target, focusing an electric field prior to ionization or while conducting a stimulus current, forming an ionized path for a stimulus current across one or more gaps, and spreading a current density with respect to a region of target tissue and/or a volume of target tissue. For an electrode that includes a body, spear, and filament, spreading may be accomplished by an end portion of the filament that extends forward of the body and activates the spear by ionization of air or by conduction through target tissue.