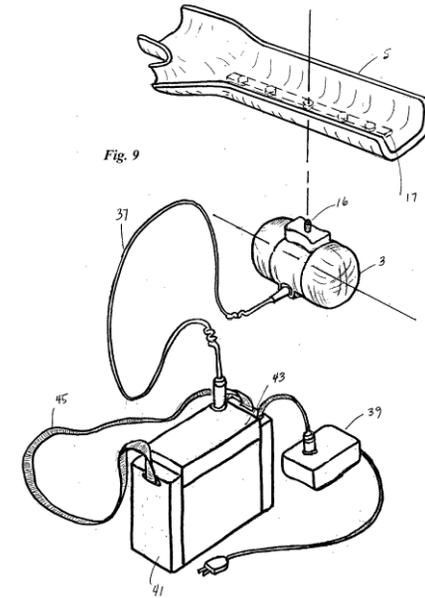


Patent #	Patent Description	Brief Description	Image
WO2015128090 A1	<p>...A mass transfer device comprising at least one mass element, which is designed, at least one mass element, depending on the manipulated variable relative to move the to the part of the body, such that the movement of the at least one mass element a drag on the body part exercises, which caused a by tremor counteracts movement of the body part. The device, in particular the sensor means, the controller and the mass displacement device thus form a control loop by means of which can be tremor movement actively compensated by corresponding displacement of at least one mass element or at least reduced.</p>	<p>Active tuned mass dampener</p>	
WO2014113813 A1	<p>A peripheral nerve stimulator can be used to stimulate a peripheral nerve to treat essential tremor, Parkinson tremor, and other forms of tremor. The peripheral nerve stimulator can be either a noninvasive surface stimulator or an implanted stimulator. Stimulation can be electrical, mechanical, or chemical. Stimulation can be delivered using either an open loop system or a closed loop system with feedback.</p>	<p>Peripheral nervous system stimulator</p>	
WO2016102958 A1	<p>... bind the user's lower arm, wrist and hand, leaving just the thumb and fingers free. Thus any involuntary movement within the bound area, irrespective of dimension, is transferred to the splint. A gyroscope is mounted to the splint in such a position that it counters this movement. In some embodiments, two gyroscopes are mounted to the splint with their rotational axes mounted orthogonally to one another. The device is claimed to be tunable to a particular patient's tremor profile by adjustment of the location of the gyroscope along the length of the splint. However, the skilled person will immediately appreciate that this device prevents all free movement within the lower arm other than of the fingers. Even movement of the thumb is considerably restricted, severely limiting the patient's range of activities, potentially exacerbating the practical consequences of the patient's condition rather than alleviating it. Accordingly, there is a need for improved tremor stabilization techniques.</p>	<p>Gyroscopic dampening and passive dampening</p>	

**US20030236475
A1 and
US6730049 B2**

The present invention removes the aforementioned disadvantages by providing a hand tremor stabilizer which is adjustable. In particular, the present invention discloses numerous embodiments which allow a plurality of gyroscopes to be mounted in numerous positions proximate the patient's arm, wrist, and arm area.

Multiple gyroscopes with adjustable positions and passive dampening

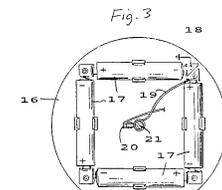
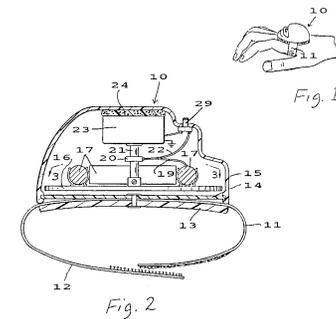


US5058571 A

The gyroscope 46 will coast after it is disengaged from motor 61 and holds the right hand steady insofar as the natural tremors are concerned. The powerful muscles of the right arm, and elsewhere, are, however, sufficiently powerful to override the gyroscopic action. The person may, therefore, for a short time (until the gyroscope 46 slows down), perform some useful tasks that he, otherwise, could not perform.

Single axis gyroscope

U.S. Patent Oct. 22, 1991 Sheet 1 of 2 5,058,571



US6458089 B1

The method comprises suspending a mass from the limb via a suspension configuration. The suspension configuration having an effective spring constant and/or a non-zero coefficient of damping in at least one direction such that the mass is driven to oscillate in the at least one direction out of phase relative to the trembling motion.

Passive tuned mass dampener

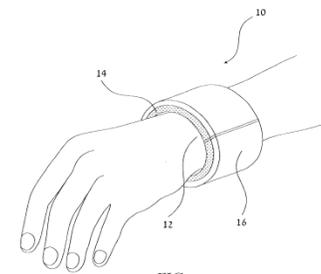


FIG. 1

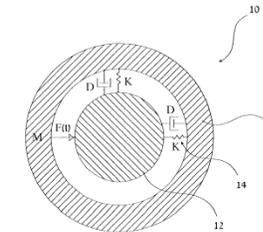


FIG. 2

US20030006357 A1

The invention results from the realization that a wearable device for actively controlling tremors using a proof mass stabilizer can only be connected to the wearer's body part (e.g., the wrist) and, that being the case, there is no fixed structure on which to mount the actuators but, by employing a wearable proof mass frame housing the actuators which then act on the mounting structure, the actuators themselves become proof masses for the system resulting in a lightweight, wearable, and balanced tremor control system.

Proof mass stabilizer

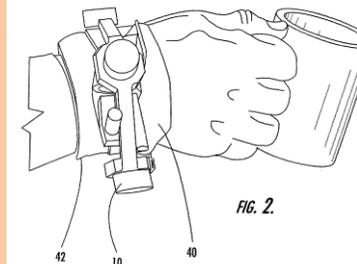
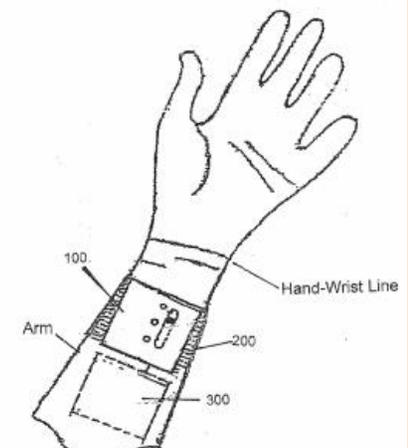


FIG. 2

US20150100004 A1

The present invention provides a mechanical device arranged to contact a part of the human body for selectively applying pressure to muscle and tendon groups in order to reduce tremor.

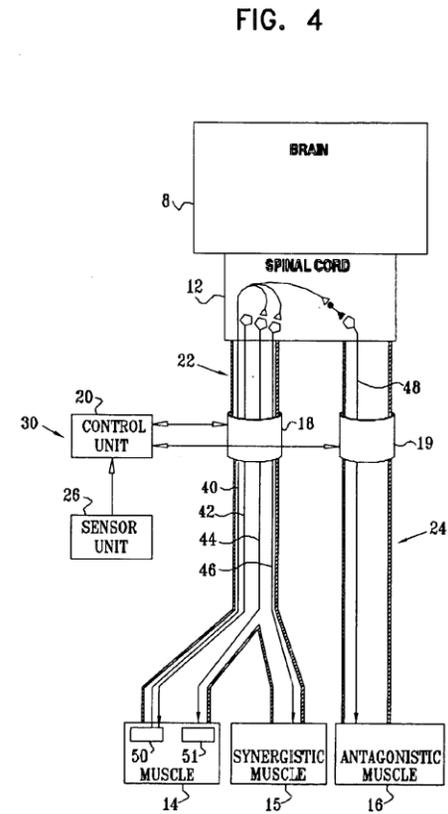
Applies pressure on muscles and tendons to suppress tremor



US6892098 B2

A method for treating spasticity of a subject is provided, including driving a current into a nerve of the subject that includes one or more sensory fibers, and configuring the current so as to inhibit propagation of action potentials in one or more of the sensory fibers, so as to treat the spasticity. In a preferred embodiment, the sensory fibers include one or more Ia sensory fibers, and configuring the current includes configuring the current so as to inhibit propagation of the action potentials in at least one of the Ia sensory fibers.

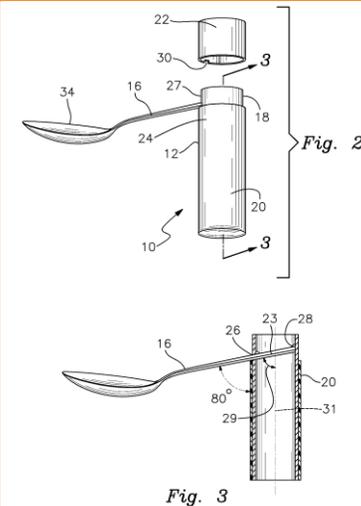
Peripheral nervous system stimulator



US20110005085 A1

There is provided an eating device including a grip configured so as to enable the grip to be grasped by a human hand. The grip is elongated and includes at least one side surface.

Expensive spoon



CN105380480 A

The present invention is to provide a spoon image stabilization, structural balance is set in the center of gravity position, thus ensuring people shaking hands, when the body does not shake spoon occur. (Translated)

\$300
spoon

US4237873 A

Mentioned are spoon splints to prevent wrist flexion (which may extend to the forearm), hand sandwich braces to aid in controlling wrist and hand extension and forearm splint braces which may go above the elbow joint to maintain full or mid-supinated forearm position. Such may permit flexion and extension at the elbow joint with the forearm and hand in position of mid-supination. It also may have a bar to prevent hand rotation through the wrist.

Large Full
upper body
brace with
springs
and
dashpots

