



New connection on: : 26-04-2018 : 03:17:22 - Last disconnection on: :
25-04-2018 : 23:35:17

V 4.0.0.44358(LP,U,linux) (Rev:43856 2017-04-27 09:03:29 +0200#(D201802)) (RPM D201802)

Welcome to EPOQUE Rebuild under the Production Environment

[EPODOC: SS 3] glove and hand and (servo or motor)

Results in EPODOC **141**

[SS 4] 3 and voice

Results in EPODOC **0**

[SS 5] 3 and sensor

Results in EPODOC **14**

[SS 6] ..v

[EPODOC: SS 6] 3

Results in EPODOC **141**

[SS 7] ..v

[EPODOC: SS 7] glove and motor and voice

Results in EPODOC **2**

[SS 8] glove and hand and (electromyography or EMG)

Results in EPODOC **3**

[SS 9] ..v

[EPODOC: SS 9] 5

Results in EPODOC **14**

[SS 10] ..v



1/14 © EPODOC / EPO

- PN - [TW201801705](#) A 20180116
- PR - TW20160122017 20160713
- AP - TW20160122017 20160713
- DT - I
- PA - ORIENTAL INSTITUTE OF TECH [TW]
- TI - Master-slave typed **hand** rehabilitation device characterized by utilizing the fingers of one **hand** to drive the fingers of the other **hand** to perform synchronized movement, so as to improve the coordination of two hands and enhance rehabilitation effect
- AB - The present invention relates to a master-slave typed **hand** rehabilitation device comprising a master device and a slave device. The master device comprises a master **glove**, at least one curvature **sensor**, and a master control module. The master **glove** has a plurality of master finger sleeves. The curvature **sensor** is combined with the master finger sleeve for detecting the extent of bending of the finger. The master control module can receive the detection data of the curvature **sensor** and convert the data into wireless signal to transmit. The slave device comprises a fixation bracket, a slave **glove**, at least one stepping **motor**, a plurality of elastic bodies, and a slave control module. The fixation bracket comprises a fixation plate and a wrist sleeve capable of being buckled on the wrist of the rehabilitated **hand**. The slave **glove** has a plurality of slave finger sleeves for being sleeved on the fingers of the rehabilitated **hand**. The finger end of each slave finger sleeve is combined with at least one pulling string. The stepping **motor** is disposed on the wrist sleeve and has a rotational shaft used to wind or loosen the pulling strings. Those elastic bodies can provide the elastic force for the slave finger sleeves to return to the normal position. The slave control module is disposed on the wrist sleeve and can receive the wireless signal transmitted by the master control module so as to control the stepping **motor** to rotate clockwise or counterclockwise according to the wireless signal. By aforementioned structure, the present invention can utilize the fingers of one **hand** to drive the fingers of the other **hand** to perform synchronized movement, so as to improve the coordination of two hands and enhance rehabilitation effect.

2/14 © EPODOC / EPO

- PN - [CN206805470U](#) U 20171226
- PR - CN20172746989U 20170626
- AP - CN20172746989U 20170626
- DT - I
- PA - UNIV HEBEI TECHNOLOGY
- TI - 3D power feedback data gloves
- AB - The utility model discloses a 3D power feedback data gloves, these gloves of its characterized in that are including power feedback device, power module, data **glove** body, three -axis gyroscope **sensor**, wireless communication module and accelerometer, power feedback device includes microprocessor, eccentric wheel and **motor**, power module, microprocessor, data **glove** body, three -axis gyroscope **sensor**, wireless communication module and accelerometer all install on the back of the **hand** face of data **glove** body, the **motor** passes through bounding box to be installed on the back of the **hand** face of data **glove** body, installs the eccentric wheel on its output shaft, and eccentric wheel and **motor** pass through

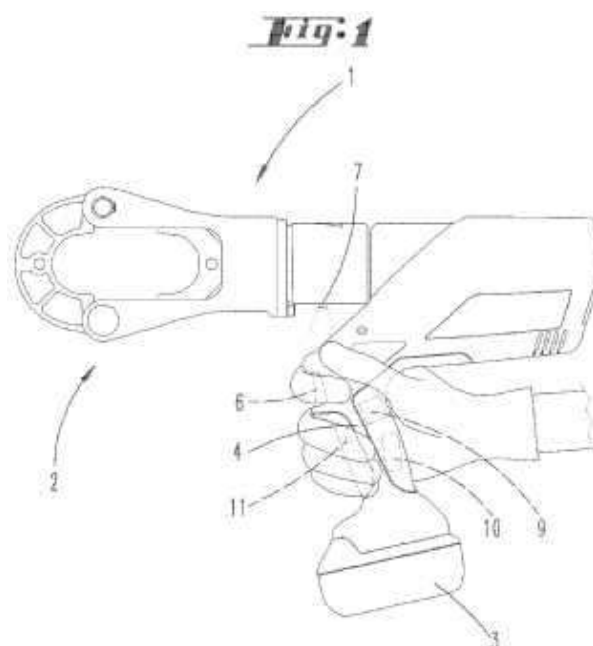
bounding box and surround, microprocessor passes through the data line and is connected with power module, three -axis gyroscope **sensor**, wireless communication module, **motor** and accelerometer respectively. Increased three - axis gyroscope **sensor** and accelerometer on the basis of the simple control of traditional gloves, gone on both cooperations to space omnidirectional perception.

3/14 © EPODOC / EPO

- PN - [CN107080310](#) A 20170822
- PR - CN20171478325 20170622
- AP - CN20171478325 20170622
- DT - I
- CNOI - [A41D19/0027](#)
- PA - UNIVNORTHEASTERN
- TI - Portable wearable power-assisted **glove**
- AB - The invention provides a portable wearable power-assisted **glove**. The portable wearable power-assisted **glove** comprises a **glove** body, a bent **sensor**, a lead screw **motor** driving device, a steel wire transmission mechanism and a control mechanism. The motion intention of fingers of the human body is obtained by using the bent **sensor**, the forward rotation and the reverse rotation of a lead screw **motor** are controlled by the controller, and the bent **sensor** is tightly connected with a finger stall through a silica sol solution, so that the reading of the **sensor** is high in stability. According to the portable wearable power assist **glove**, a rope drive mode is adopted, a steel wire rope simulates a tendon transmission mode so as to drive the fingers to move, so that the **glove** has an obvious power-assisted effect, the motion form of the **glove** can be well unified with the **hand** motion of the human body, and the **glove** has wearable comfort. Moreover, the rope drive mode has drive flexibility and man-machine interaction safety. A minitype lead screw **motor** drive mode is adopted in the driving device, and the driving device has the advantages of being small in size, large in driving force, low in mass, high in integration level, simple in control and the like.

4/14 © EPODOC / EPO

- PN - [WO2017101964](#) A1 20170622
- PR - WO2015EP79570 20151214
- AP - WO2015EP79570 20151214
- DT - *; Rep
- CT - |EP| ISR (A1)
[EP1690648](#) A2 20060816
 [XI] (MATSUSHITA ELECTRIC WORKS LTD [JP])
 [X] 1-6
 * paragraph [0001] -
 paragraph [0007] *
 * paragraph [0013] -
 paragraph [0016] *
 * paragraph [0027] *
 * figure - *
 [I] 7-10;
[DE10029138](#) A1 20020103
 [X] (HILTI AG [LI])



[X] 1-6
 * paragraph [0001] *
 * paragraph [0010] -
 paragraph [0021] *
 * figure - *;
[US6427249](#) B1 20020806
 [A] (MATTESKY HENRY[US])
 [A] 10
 * column 1, line 19 - line 55
 *
 * column 2, line 5 - line 43 *
 * figure - *;
[DE102014209032](#) A1
 20150730 [A] (BOSCH GMBH
 ROBERT [DE])
 [A] 1-10
 * paragraph [0008] -
 paragraph [0012] *
 * paragraph [0033] -
 paragraph [0036] *
 * figure - *

CCI - [B25F5/00](#)

PA - KLAUKE GMBH GUSTAV [DE]

TI - **MOTOR-DRIVEN HAND-HELD**
 TOOL, METHOD FOR USING
 A **HAND-HELD** TOOL,
 COMBINATION OF A **MOTOR-**
DRIVEN HAND-HELD TOOL
 AND **GLOVE**

AB - The invention relates firstly to
 a **motor**-driven **hand**-held
 tool such as, in particular, a
 cutting or pressing device,
 wherein the **hand**-held tool (1)
 has an actuation element for
 finger actuation or **hand**
 actuation by a user. In order
 to provide a **motor**-driven
hand-held tool which
 guarantees highest possible
 safety for working on voltage-
 carrying electrical lines,
 according to the invention,
 the **hand**-held tool (1) is
 configured such that the **hand**-
 held tool (1) can only be
 actuated if a **sensor** detection
 of a part guided onto the
 actuating element has been
 guided to a predetermined
 result. In addition, the
 invention relates to a method

for using a **hand**-held tool such as, in particular, a pressing device by a user wearing a part, such as a **glove**. In order to provide a method for using a **hand**-held tool of this type which leads to a maximum possible degree of safety, in particular when working on a current-carrying electrical conductor, according to the invention, the handheld tool (1) has a **sensor** (7) for detecting the part, such as the **glove**.

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PN - [CN103231471](#) A 20130807

PNFP - CN103231471B B 20150107

PR - CN20131134748 20130417

AP - CN20131134748 20130417

DT - I

CT - || STSE (A)

[CN102514136](#) A 20120627 [A] (ZHANGJIAGANG PIONEER AUTOMATION MACHINERY EQUIPMENT CO LTD)

[A]

[JP2010216041](#) A 20100930 [A] (SUMITOMO RUBBER IND)

[A]

[CN202186000U](#) U 20120411 [A] (ZHANGJIAGANG YICHENG MACHINERY CO LTD)

[A]

[CN202180562U](#) U 20120404 [A] (ZHANGJIAGANG YICHENG MACHINERY CO LTD)

[A]

[JPH07148754](#) A 19950613 [A] (YOTSUGI TECHNO KK)

[A]

PA - (A B)

UNIV HEBEI TECHNOLOGY

TI - (A B)

PVC **glove** automatic de-molding and grouping machine

AB - (A)

The invention discloses a PVC **glove** automatic de-molding and grouping machine. The machine is characterized in comprising a **glove** de-molding device, a **glove** conveying device, a counting and grouping device, a grouped **glove** output device, and a controlling system. The **glove** de-molding device is mainly composed of a pedestal, a gear box, and conductive rubber rollers. The gear box is used for switching the power of a de-molding **motor**, such that conductive rubber roller relative rotation is realized, and gloves passing the conductive rubber rollers can fall. The **glove** conveying device is composed of an elevation belt conveyor, a guiding belt conveyor, and a **sensor** support. With the device, a problem of insufficient **hand** mold line height is solved, and an operation space is provided for the grouping device. The **glove** counting and grouping device is mainly composed of a counting **motor**, a coupling, a flap, an optical axis, a bearing, and a support. With

the **glove** counting and grouping device, **glove** counting and grouping operations can be realized. The grouped **glove** output device is mainly composed of a stepper **motor**, an output belt, and an output support. With the grouped **glove** output device, grouped gloves are outputted.

6/14 © EPODOC / EPO

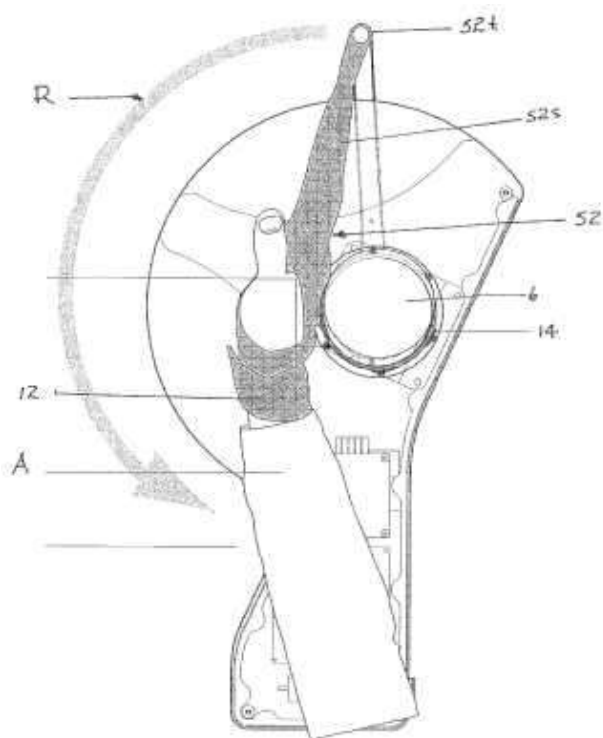
- PN - [RU2011150588](#) A 20130620
- PNFP - RU2494670 C2 20131010
- PR - RU20110150588 20111212
- AP - RU20110150588 20111212
- DT - I
- CT - || STSE (C2)
[US2009098519](#) A1 20090416 [] (BYERLY JENNIFER [US]);
[RU2325895](#) C2 20080610 [] (RUDNEV VJACHESLAV ALEKSANDROVI [RU], et al);
[RU2225192](#) C1 20040310 [];
[RU2112490](#) C1 19980610 [] (VOLG G TEKHN UNIVER);
[RU2114594](#) C1 19980710 [] (TSENTRAL NYJ NI SKIJ I PR, et al);
[RU2307639](#) C1 20071010 [] (RAJKINA TAT JANA ANATOL EVNA [RU])
- CTNP - || STSE (C2)
 [] - ПРОКОПЕНКО С.В. и др. Использование принципа проприоцептивной коррекции при восстановлении произвольных движений в паретичной руке у больных в позднем восстановительном и резидуальном периодах инсульта. - Ж. неврологии и психиатрии им. С.С. Корсакова, 2007, т.107, No. 4, с. 40-43. ,
 [] - КАДЫКОВ А.С. и др. Реабилитация неврологических больных. - М.: МЕДпресс-информ, 2009, с.78,
- PA - (C2)
 G BJUDZHETNOE OBRAZOVATEL NOE UCHREZHDENIE VYSSHEGO PROFESSIONAL NOGO OBRAZOVANIJA KRASNOJARSKIJ G M [RU]
- TI - (C2)
 METHOD OF CORRECTING FINE **MOTOR** SKILLS WITH APPLICATION OF **SENSOR** GLOVES
- AB - (C2)
 FIELD: medicine.SUBSTANCE: invention relates to medicine, rehabilitation, in particular, of patients with **hand** paresis. Patient's **hand** is placed and fixed in device in form of **sensor glove**; sensitive and current-conducting elements are placed and fixed relative to device. Device is switched to computer; computer game programme is downloaded and started. **Sensor glove** is used as manipulator in such a way that patients makes active movements of flexion-extension of **hand** and fingers, providing in this way corresponding specified movements of computer game object on monitor screen and causing by this activation of sensitive elements and their registration in computer. Course of correction sessions constitutes 28-30, 1-2 times per day 5 days per week. Duration of one session is determined by severity of patient's general state and constitutes in average 30-40 minutes.EFFECT: method ensures extension of functional possibilities, effective rehabilitation in case of **motor** disorders due to objective computer analysis of sensomotor processes with smaller time consumption, as well as possibility of rehabilitation of **motor** function of **hand** with participation of patient with impaired nervous system in rehabilitation process.2 cl, 1 ex, 1 tbl

7/14 © EPODOC / EPO

PN - [RU2455694](#) C1 20120710
 PR - RU20110116773 20110428
 AP - RU20110116773 20110428
 DT - I
 PA - NEJROKOM AOZT [RU]
 TI - INTELLIGENT **GLOVE** FOR DRIVER PREVENING DOZING BEHIND WHEEL
 AB - FIELD: information technology. ^ SUBSTANCE: **glove** further contains an illumination detector, a noise environment microphone, a three-coordinate accelerometer, a signalling RGB indicator and a USB port. The audio alarm has an audio generator with a speaker, a memory unit and a tactile vibrational signalling device. The control component has an awareness confirmation button, an individual sensitivity **sensor** regulator, an audio loudness **sensor** regulator for the speaker. The tactile vibrational signalling device is in form of a vibration **motor** and is attached to the inner surface of finger-palm wall of the cladding with possibility of contact with the side surface of the main flange of the second finger on the side of the first space between fingers. The awareness confirmation button is attached on the same side surface on the side of the middle flange of the second finger more distal than vibration signalling device with possibility of pressing the button using the first finger of the same **hand**. ^ EFFECT: high reliability and intelligent properties of the system owing to simultaneous consideration of the psychophysiological state of the driver, motility of the driver's actions when controlling the vehicle, and rapid accounting for external factors affecting the driver. ^ 9 cl, 16 dwg

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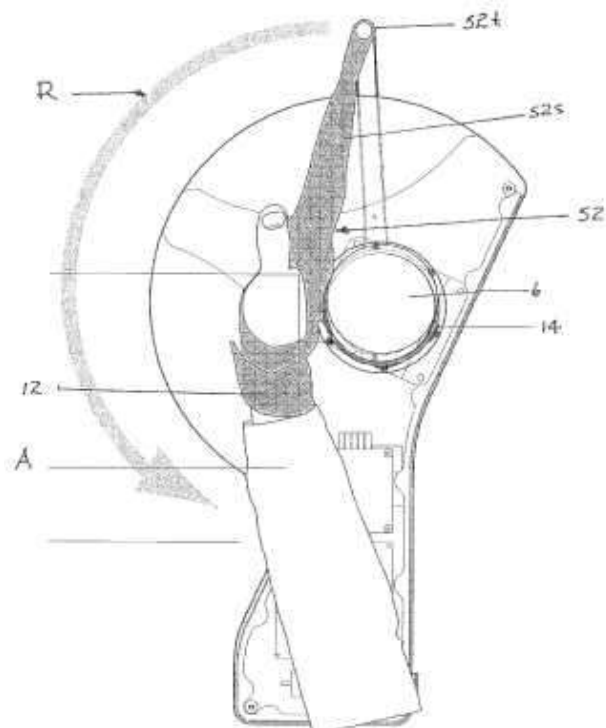
PN - [US2012238920](#) A1 20120920
 PR - US201113234325
 20110916; US20100403458P
 20100916
 AP - US201113234325 20110916
 DT - *; Rep
 CT - || R141 (A1)
[US4679548](#) A [];
[US5303696](#) A [];
[US5327882](#) A [];
[US5683351](#) A [];
[US5765228](#) A [];
[US6146341](#) A [];
[US2010152628](#) A1 [];
[US7618381](#) B2 []
 CCI - [A61H1/0285](#) ; [A61H1/0288](#)
 CCA - [A61H2201/1638](#) ;
[A61H2201/1671](#) ;
[A61H2201/5007](#) ;
[A61H2201/5035](#) ;
[A61H2201/5061](#) ;
[A61H2201/5064](#)
 PA - SCHNAPP MOACIR [US]; MAYS
 KITS [US]; HWANG MARGARET
 J [US]; TRIMBLE MATTHEW A
 [US]; NOVOKINETICS LLC [US]



- TI - REHABILITATIVE APPARATUS
FOR TREATING REFLEX
SYMPATHETIC DYSTROPHY
- AB - The apparatus provides active and passive exercise to the **hand** and wrist of a patient afflicted with the symptoms of reflex sympathetic dystrophy. The apparatus employs a **hand** or wrist **glove** to be worn by the patient's affected **hand**, the back of which is attached through an arm to a central post and the distal portion encasing the fingers, is attached to a vertical handle, which is rotated about the post, serving as the axis of rotation. A torque **sensor** is coupled to the **motor** shaft to measure the degree of patient input from a programmed speed and force rate by sensing the active input of the patient and reducing the **motor** input to the cycle allowing the patient to "drive" the exercise.

9/14 © EPODOC / EPO

- PN - [CA2752619](#) A1 20120316
- PR - US20100403458P 20100916
- AP - CA20112752619 20110916
- DT - I
- CCI - [A61H1/0285](#) ; [A61H1/0288](#)
- CCA - [A61H2201/1638](#) ;
[A61H2201/1671](#) ;
[A61H2201/5007](#) ;
[A61H2201/5035](#) ;
[A61H2201/5061](#) ;
[A61H2201/5064](#)
- PA - NOVOKINETICS LLC [US]
- TI - REHABILITATIVE APPARATUS
FOR TREATING REFLEX
SYMPATHETIC DYSTROPHY
- AB - The apparatus provides active and passive exercise to the **hand** and wrist of a patient afflicted with the symptoms of reflex



sympathetic dystrophy. The apparatus employs a **hand** or wrist **glove** to be worn by the patient's affected **hand**, the back of which is attached through an arm to a central post and the distal portion encasing the fingers, is attached to a vertical handle, which is rotated about the post, serving as the axis of rotation. In the described embodiment of the device, the handle is in CPM mode at all times, meaning the device is always moving the handle and there is no instance when the patient is moving the handle on his/her own or through his/her own force. However, in order for the patient to be able to move his/her **hand** "freely" during exercises, the handle constantly tries to stay ahead of and "out of the way" of the patient's **hand** by monitoring how much effort the patient is using. This effort is measured through the device by taking in as input the amount of torque the patient is putting on the handle. When there is significant torque on the handle in the direction in which the handle is moving, the device will increase the speed of the handle so that the handle moves ahead of the patient's **hand**. This allows the patient to not be inhibited by the **glove** or handle and continue moving at the patient's pace. The load cell is the component that acts as the torque **sensor** and is attached to the handle. The apparatus addresses specifically the range of motion of the wrist, both for flexion-extension and pronation-supination. The handle and arm are attached

via the arm to the vertical shaft of the **motor**, which is controlled by a computer program to assist or resist the input action of the patient rotating the **hand** and fingers through an exercise cycle. A torque **sensor** is coupled to the **motor** shaft to measure the degree of patient input from a programmed speed and force rate by sensing the active input of the patient and reducing the **motor** input to the cycle allowing the patient to "drive" the exercise. Conversely, should the patient relax the input, the torque **sensor** detects the lack and the program signals the **motor** to input the necessary energy to maintain the parameters of the cycle, wherein the machine tends toward becoming a passive motion exerciser. By being able to sense the patient input and accommodate the total energy developed during treatment, the **motor** continues the rotation of the patient's wrist, and effects a decrease in the tendon overload which normally occurs in normal physical therapy. The inclusion of a wrist **glove** provides an alternative embodiment for flexion and extension of the wrist with the orientation of the handle effectively at right angles to the center shaft, whereby the wrist is flexed and extended.

10/14 © EPODOC / EPO
 PN - [TW200842009](#) A 20081101
 PNFP - TWI312717B B 20090801
 PR - TW20070114712 20070426
 AP - TW20070114712 20070426
 DT - I
 PA - (A)

NAN KAI COLLEGE [TW]

- (B)

NAN KAI COLLEG [TW]

TI

- (A)

Hand controlled medical robotic system

AB

- (A)

A **hand** controlled medical robotic system utilizes two-wheel driven chassis as a carrier to carry a set of five-axis robotic arms. The motions of the carrier and the robotic arms are respectively controlled by a pair of data gloves. A **sensor** is installed on the back face of the fingers on the left data **glove** to detect the bending angle of the fingers. Signal variation caused by the bending angle of the fingers is transformed, modified and amplified to an appropriate range to control the rotation speed and direction of a **motor** through a circuit transformation module. The rotation speed and direction of the **motor** which drives the left wheel and the right wheel of the carrier are respectively controlled by the thumb and the forefinger of the user. The middle finger is used to control the carrier to move forward and backward. The carrier can move forward, make left and right turns, move backward, left-turn swerve and right-tuen swerve. Therefore, it has multiple degrees-of-freedom. The five-axis robotic arms include a rotation joint, a bending joint and a claw. Each joint has a **motor**. The right handfingers can respectively control the five-axis robotic arms so that the claw can pick up or place objects or position them precisely. Therefore, It is shown that the existing natural joints or fingers can be used for the actuation for the medical aid robotic system to active expected motions so that decrease nursing load of a family. In addition, it can satisfy the patients emotional need and thus is helpful in health recovery.

11/14 © EPODOC / EPO

PN

- [US5562707](#) A 19961008

PR

- WO1994CA00570
19941013; GB19930021086
19931013

AP

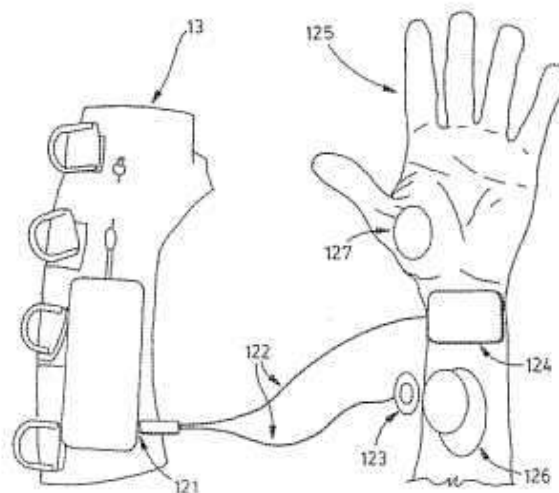
- US19950408828 19950322

DT

- **

CT

- || STSE (A)
[US3610250](#) A 19711005 [
] (SARBACHER ROBERT I)
[US4391279](#) A 19830705 [
] (STEIN ISRAEL M)
[US4558704](#) A 19851217 [
] (PETROFSKY JERROLD S [US])
[US4569352](#) A 19860211 [
] (PETROFSKY JERROLD S [US],
et al)
[US4580572](#) A 19860408 [
] (GRANEK HERMAN [US], et al)
[US4583547](#) A 19860422 [
] (GRANEK HERMAN [US], et al)
[US4763660](#) A 19880816 [
] (KROLL MARK W [US], et al)
[US4785813](#) A 19881122 [
] (PETROFSKY JERROLD S [US])



[US4911169](#) A 19900327 [
] (FERRARI ROBERT K [US])
[US5121747](#) A 19920616 [
] (ANDREWS BRIAN [GB])
[US5193540](#) A 19930316 [
] (SCHULMAN JOSEPH H [US],
 et al)
[US5330516](#) A 19940719 [
] (NATHAN ROGER H [IL])
[CA2064151](#) A1 19920929 [
] (NATHAN ROGER H [IL])
[EP0435416](#) A2 19910703 [
] (BERLANTSTEPHENRONALD
 [US])
[GB2186191](#) A 19870812 [
] (ANDREWS BRIAN)
 CTNP - || STSE (A)
 [] The Journal of
 Physiology, edited for the
 Physiological
 Society, by W. Almers et
 al., vol. 343, 1983:
 Caambridge
 University Press, pp. 20p
 21p
 [] Treatment of the
 Hemiplegic Upper Extremity
 Using
 Electrical Stimulation and
 Biofeedback Training, by R.
 Waters, M.D. et al., Report
 to the Veterans Administration
 Sep. 1980; pp. 253 266
 [] Functional
 Neuralmuscular Stimulation
 for Restoration of
 Hand Grasp, by P. E.
 Crago, Ph.D. et al., from the
 Applied
 Neural Control Laboratory
 Biomedical Engineering
 Department, Case
 Western Reserve Univ., Sep.
 1991; pp. 20 23
 [] FES Control of Multijoint
 System in the Paralyzed Upper
 Limb, Osaka International
 Workshop on FNS, Nov. 1989;
 pp.
 91 95
 CCI - [A61N1/05](#) ; [A61N1/36003](#)
 CCA - [A61N1/37205](#)

- PA - SIM & MCBURNEY [CA]
- TI - Garment for applying controlled electrical stimulation to restore **motor** function
- AB - A non-invasive self-contained functional electrical stimulation garment is disclosed. The garment, which is preferably in the form of a **glove**, may be donned in one piece by a user of reduced **motor** ability e.g. a person exhibiting **hand** tremors or who is a quadriplegic, paraplegic or hemiplegic. The garment is preferably made of a perforated elastic material and being adapted to fit over a part of said user's body. The garment has electrical connections internal to the garment that are adapted to make electrical contact with self-adhesive skin electrodes on the user. A joint movement **sensor** and a battery-driven electronic controller-stimulator located on the garment, with the electrical connections, **sensor** and controller-stimulator being electrically and cooperatively interconnected. In the form of a **glove**, the garment can permit a user of reduced **motor** ability to grip objects.

PN - [EP0516932](#) A1 19921209

PR - CH19910001652 19910604

AP - EP19920105261 19920327

DT - *; Rep

CT - || STSE (A1)
[GB2163570](#) A 19860226
[X] (HANGER & CO LTD J E);
[US3509583](#) A 19700505
[A] (FRAIOLI ANTHONY V);
[EP0133997](#) A2 19850313
[A] (HITACHI LTD [JP]);
[DE3332147](#) A1 19850321
[A] (SIEMENS AG [DE]);
[GB2223315](#) A 19900404
[A] (UNIV BRUNEL [GB]);
[GB2115935](#) A 19830914
[A] (LORD CORP)

CTNP - || STSE (A1)
[A] IEEE INTERNATIONAL
CONFERENCE ON ROBOTICS
AND AUTOMATION, Bd. 1, 15.
Mai 1989, THE REGISTRY
RESORT, SCOTTSDALE, AZ
Seiten 302 - 307; A. BICCHI ET
AL.: 'AUGMENTATION OF
GRASP ROBUSTNESS USING
INTRINSIC TACTILE SENSING',

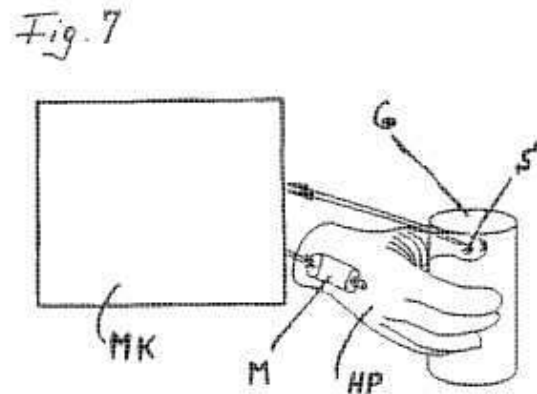
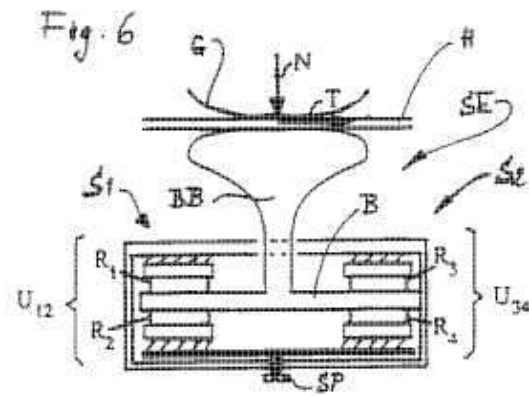
CCI - [A61F2/583](#) ; [A61F2/68](#) ;
[B25J13/083](#) ; [G01L5/226](#) ;
[G01L5/161](#)

CCA - [A61F2002/6827](#) ;
[A61F2002/7635](#)

PA - SCHWEIZ
UNFALLVERSICHERUNG [CH]

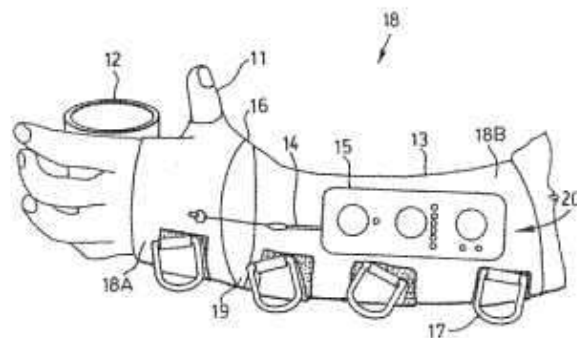
TI - Control device for the
grasping force of a
motordriven gripper,
especially for a **hand**
prosthesis.

AB - Slippage between a gripper
(HP) driven by a **motor** (M),
especially of a **hand**
prosthesis (HP), and the
article (G) gripped by the
gripper (HP) is avoided. For
this purpose, a **sensor** (SE)
with which both the normal
force (N) and the tangential
force (T) occurring between
the gripper (HP) and the
article (G) can be measured is



provided on the gripper (HP). Comparator means (MK) for comparing of a function of the two said forces (N and T) with an empirically determined slippage protection target value and for adjusting the gripping force by the **motor** are provided. Due to the fact that the forces acting between the gripper (HP) and the article (G) are measured and evaluated, it is possible to provide an intermediate position between the gripper (HP) and the article (G). For example, in a gripper (HP) designed as a **hand** prosthesis an aesthetic **glove** can be used. <IMAGE>

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- CT - |EP| ISR (A1)
[US5330516](#) A 19940719
 [PA] (NATHAN ROGER H [IL])
 [PA] 1,9,10,15,17,23,27,29;
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 [A] 1,17,24,29;
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- CTNP - |EP| ISR (A1)
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	PHYSIOLOGY, (1983), vol. 343, pages 20p - pages 21p, [A] 1,7,17,24,27
CCI	- A61N1/05 ; A61N1/36003
CCA	- A61N1/37205
PA	- UNIVALBERTA[CA]; PROCHAZKA ARTHUR [CA]; WIELER MARGUERITE [CA]; KENWELL ZOLTAN R [CA]; GAUTHIER MICHEL [CA]
TI	- GARMENT FOR APPLYING CONTROLLED ELECTRICAL STIMULATION TO RESTORE MOTOR FUNCTION
AB	- A non-invasive self-contained functional electrical stimulation garment is disclosed. The garment, which is preferably in the form of a glove , may be donned in one piece by a user of reduced motor ability e.g. a person exhibiting hand tremors or who is a quadriplegic, paraplegic or hemiplegic. The garment is preferably made of a perforated elastic material and being adapted to fit over a part of said user's body. The garment has electrical connections internal to the garment that are adapted to make electrical contact with self-adhesive skin electrodes on the user. A joint movement sensor and a battery-driven electronic controller-stimulator located on the garment, with the electrical connections, sensor and controller-stimulator being electrically and cooperatively interconnected. In the form of a glove , the garment can permit a user of reduced motor ability to grip objects.

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CCA - [A61N1/37205](#)

PA - (A1 C)
UNIVALBERTA [CA]

TI - (A1 C)
Garment for Applying
Controlled Electrical
Stimulation to Restore **Motor**
Function

AB - (C)
A non-invasive self-contained functional electrical stimulation garment is disclosed. The garment, which is preferably in the form of a **glove**, may be donned in one piece by a user of reduced **motor** ability e.g. a person exhibiting **hand** tremors or who is a quadriplegic, paraplegic or hemiplegic. The garment is preferably made of a perforated elastic material and being adapted to fit over a part of said user's body. The garment has electrical connections internal to the garment that are adapted to make electrical contact with self-adhesive skin electrodes on the user. A joint movement **sensor** and a battery-driven electronic controller-stimulator located on the garment, with the electrical connections, **sensor** and controller-stimulator being electrically and cooperatively interconnected. In the form of a **glove**, the garment can permit a user of reduced **motor** ability to grip objects.

