

Functional Electrical Stimulation

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WalkAide®

Introducing "WalkAide"...a new treatment option for patients experiencing foot drop...and Rinko Orthopedic has it!

We are your officially authorized and trained **WalkAide** specialists.

- WalkAide stimulates the muscles that dorsiflex the foot at the appropriate time during the gait cycle resulting in a much more natural, efficient walking pattern.
- Most patients with upper motor neuron-related foot drop who use WalkAide experience immediate and substantial walking improvement without surgery!



WalkAide helps patients with the following indications:

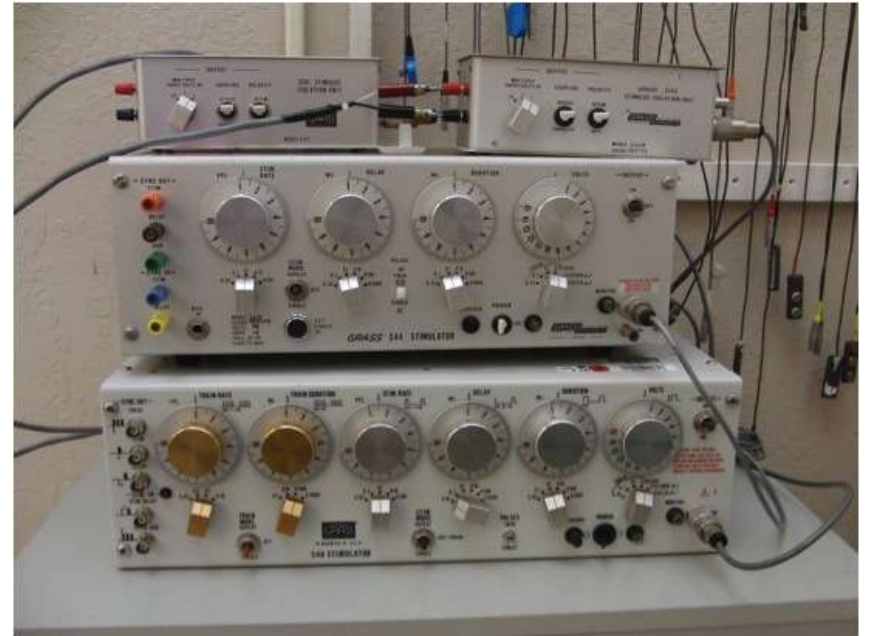
- CVA or Stroke



Our Goals

- Rapid prototype a system that would allow for synchronized delivery of FES.
- 8 channels
- Triggered by insole footswitches
- Target key muscles as determined from model.

Device Components



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United States Patent [19]

Andrews

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[54] HYBRID ORTHOSIS

[75] Inventor: Brian Andrews, Glasgow, Scotland

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Related U.S. Application Data

[63] Continuation of Ser. No. 928,061, Nov. 6, 1986, abandoned.

[30] Foreign Application Priority Data

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[52] U.S. Cl. 128/423 W; 128/421;

602/2; 602/16; 602/23

[58] Field of Search 128/421, 423, 423 W,

128/80 C, 80 F, 80 G, 68.1

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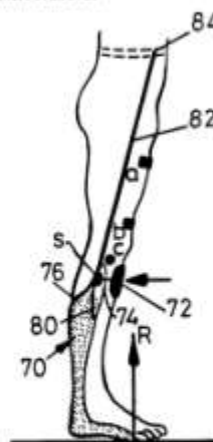
Attorney, Agent, or Firm—Pennie & Edmonds

[57]

ABSTRACT

A functional electrical stimulation orthosis for restoring locomotion in paraplegics is described. The orthosis has knee locks for each leg to enforce knee extension in a standing position, and a sensor located on each leg for sensing knee flexion. A plurality of electrodes are disposed on each leg to stimulate extension and flexion movements under the control of the patient. The orthosis can be used with crutches and stimulation of flexion and extension movement can be effected manually or automatically using an open-loop or closed-loop system. Various embodiments and modifications of the invention are disclosed. The orthosis can also be used in combination with other orthosis such as a foot ankle orthosis to provide a hybrid orthosis.

7 Claims, 1 Drawing Sheet



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