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(54) Title (EN): SEMI-ACTIVE ABOVE-KNEE PROSTHESIS HAVING BANDING ASSIST DEVICE, AND CONTROL METHOD FOR SEMI-ACTIVE ABOVE-KNEE PROSTHESIS

(54) Title (FR): PROTHÈSE TRANS-FÉMORALE SEMI-ACTIVE AYANT UN DISPOSITIF D'AIDE À LA FLEXION, ET PROCÉDÉ DE COMMANDE POUR PROTHÈSE TRANS-FÉMORALE SEMI-ACTIVE

(54) Title (KO): 굴절보조장치를 구비하는 유사 능동형 대퇴 의족 및 유사 능동형 대퇴 의족의 제어방법

(57) Abstract:

(EN): The present invention presents: a semi-active above-knee prosthesis having a bending assist device provided to a passive above-knee prosthesis so as to enable the angle of bending of the passive above-knee prosthesis to be automatically increased so that the angle of bending of the prosthesis can be adjusted as necessary in specific conditions such as when going up and down the stairs; and a control method for the semi-active above-knee prosthesis. The semi-active above-knee prosthesis having the bending assist device comprises the passive above-knee prosthesis and the bending assist device, and the control method for the semi-active above-knee prosthesis relates to a method for controlling the operation of the semi-active above-knee prosthesis having the bending assist device, set forth in claim 1, and performs a flatland walking step, a stairs determination step, an ascending/descending determination step, a stairs-ascending walking step, and a stairs-descending walking step.

(FR): La présente invention présente : une prothèse trans-fémorale semi-active ayant un dispositif d'aide à la flexion disposé sur une prothèse trans-fémorale passive de façon à permettre l'augmentation automatique de l'angle de flexion de la prothèse trans-fémorale passive de telle sorte que l'angle de flexion de la prothèse peut être ajusté si nécessaire dans des conditions spécifiques, par exemple lors de la montée et descente des escaliers; et un procédé de commande pour la prothèse trans-fémorale semi-active. La prothèse trans-fémorale semi-active ayant le dispositif d'aide à la flexion comprend la prothèse trans-fémorale passive et le dispositif d'aide à la flexion, et le procédé de commande pour la prothèse trans-fémorale semi-active concerne un procédé pour commander le fonctionnement de la prothèse trans-fémorale semi-active ayant le dispositif d'aide à la flexion, définie dans la

revendication 1, et effectue une étape de marche sur terrain plat, une étape de détermination d'escaliers, une étape de détermination de montée/descente, une étape de marche de montée d'escaliers et une étape de marche de descente d'escaliers.

(KO): 본 발명은 수동형 대퇴 의족에 수동형 대퇴 의족의 굴절각을 자동으로 증가시킬 수 있도록 하는 굴절보조장치를 설치하여 계단을 오르내릴 때와 같이 특수한 환경에서 의족의 굴절각을 필요에 따라 조절할 수 있도록 하는 굴절보조장치를 구비하는 유사 능동형 대퇴 의족 및 유사 능동형 대퇴 의족의 제어방법을 제안한다. 상기 굴절보조장치를 구비하는 유사 능동형 대퇴 의족은, 수동형 대퇴 의족 및 굴절보조장치를 구비하며, 상기 유사 능동형 대퇴 의족의 제어방법은, 청구항 제1항에 기재된 굴절보조장치를 구비하는 유사 능동형 대퇴 의족의 동작을 제어하는 방법에 관한 것으로, 평지 보행단계, 계단 판단단계, 상승하강 판단단계, 상승 계단 보행단계 및 하강 계단 보행단계를 수행한다.

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