Claims

1. An aid device configured to assist a transfer operation of a care receiver, the aid device comprising:

a base, on which the care receiver places his or her feet;

a support arm portion, being provided on the base, which is configured to support a part of the care receiver’s body and is operable in an upright direction to make the care receiver stand or in a seating direction for seating the care receiver;

an actuator configured to drive the support arm portion;

a linking mechanism configured to transmit a driving force of the actuator to the support arm portion and allow the position of the support arm portion driven by the actuator to change independently of the driving state of the actuator; and

a damping mechanism configured to generate a resistive force for an operation on at least one operating direction of the support arm portion,

wherein the support arm portion comprises an arm, being swingably provided on the base in the front-rear direction, and a support portion, being swingably provided on the arm in the front-rear direction, which is capable of supporting a part of the care receiver’s body;

wherein the actuator is an extensible actuator configured to perform a first expansion operation extending from a contracted length to a predetermined intermediate length and a second expansion operation extending from the intermediate length to an extended length; and

wherein the linking mechanism further comprises:

a first linking member, being swingably provided on the arm, which is configured to swing in the upright direction in accordance with the first expansion operation of the extensible actuator and is pressed against the arm without swinging in accordance with the second expansion operation of the extensible actuator, and

a second linking member, fixed to the support portion, configured to

swing in the upright direction by being pushed by the first linking member and separate from the first linking member in response to an external force from the care receiver, thereby allowing the current position of the arm to change to the upright direction,

wherein the damping mechanism has a main body portion and a movable portion partially fitted into the main body portion, the damping mechanism is installed between the arm and the first link member such that the movable portion is extendable and contractable relative to the main body portion, and generates a resistive force corresponding to the operating speed of the movable portion of the damping mechanism when the movable portion of the damping mechanism is extended from the main body portion or contracted into the main body portion.

2. The aid device of claim 1, wherein the damping mechanism generates the resistive force in both operational directions of the support arm portion.

3. An aid device configured to assist a transfer operation of a care receiver, the aid device comprising:

a base, on which the care receiver places his or her feet;

a support arm portion, being provided on the base, which is configured to support a part of the care receiver’s body and is operable in an upright direction to make the care receiver stand or in a seating direction for seating the care receiver;

an actuator configured to drive the support arm portion;

a linking mechanism configured to transmit a driving force of the actuator to the support arm portion and allow the position of the support arm portion driven by the actuator to change independently of the driving state of the actuator; and

a damping mechanism configured to generate a resistive force for an operation on at least one operating direction of the support arm portion,

wherein the support arm portion comprises an arm, being swingably

provided on the base in the front-rear direction, and a support portion, being swingably provided on the arm in the front-rear direction, which is capable of supporting a part of the care receiver’s body;

wherein the actuator is an extensible actuator configured to perform a first expansion operation extending from a contracted length to a predetermined intermediate length and a second expansion operation extending from the intermediate length to an extended length; and

wherein the linking mechanism further comprises:

a first linking member, being swingably provided on the arm, which is configured to swing in the upright direction in accordance with the first expansion operation of the extensible actuator and is pressed against the arm without swinging in accordance with the second expansion operation of the extensible actuator, and

a second linking member, fixed to the support portion, configured to swing in the upright direction by being pushed by the first linking member and separate from the first linking member in response to an external force from the care receiver, thereby allowing the current position of the arm to change to the upright direction,

wherein the damping mechanism is a rotary type mechanism interposed in a swinging shaft portion in which the arm supports the first linking member in a swingable manner, and generates a resistive force in swinging of the first linking member with respect to the arm.