CLAIMS

[Claim 1]

A load detector, comprising:

a beam-type load cell which is supported on a support base in a cantilever manner; and

a platform connected to the beam-type load cell,

wherein the platform includes a main body on which a subject is to be placed and a slope having a first end, which is connected to the main body, the slope being configured to guide the subject to the main body,

the slope is configured to swing between a first position in which a second end of the slope is in contact with a placement surface on which the load detector is placed and a second position in which the second end is separated from the placement surface, and

the platform further includes a lever connected to the first end of the slope and positioned above the main body.

[Claim 2]

The load detector according to claim 1, wherein the lever includes a contact part configured to move by being pushed by the subject on the main body and an arm connecting the contact part and the slope.

[Claim 3]

The load detector according to claim 1 or 2, wherein a recess configured to accommodate the lever is provided in an upper surface of the main body.

[Claim 4]

The load detector according to any one of claims 1 to 3, wherein the lever includes a movement regulation part configured to regulate movement of the subject placed on the main body.

[Claim 5]

A load detector, comprising:

a beam-type load cell which is supported on a support base in a cantilever manner; and

a platform connected to the beam-type load cell,

wherein the platform includes a main body on which a subject is to be placed and a slope having a first end, which is connected to the main body, the slope being configured to guide the subject to the main body,

the slope is configured to swing between a first position in which a second end of the slope is in contact with a placement surface on which the load detector is placed and a second position in which the second end is separated from the placement surface,

the main body includes an opening, and

the platform further includes a lever connected to the first end of the slope and disposed below the main body to cover the opening.

[Claim 6]

A load detector, comprising:

a beam-type load cell which is supported on a support base in a cantilever manner; and

a platform connected to the beam-type load cell,

wherein the platform includes a main body on which a subject is to be placed and a slope having a first end, which is connected to the main body, the slope being configured to guide the subject to the main body, and

the slope is configured to swing between a first position in which a second end of the slope is in contact with a placement surface on which the load detector is placed and a second position in which the second end is separated from the placement surface,

the load detector further comprising an urging member configured to urge the second end of the slope toward the second position.

[Claim 7]

The load detector according to any one of claims 1 to 6, wherein the main body includes a plate configured to keep or retain the subject during load detection and a wall provided on the plate.

[Claim 8]

The load detector according to any one of claims 1 to 7,

wherein the beam-type load cell includes a first beam-type load cell which is supported on a first support base in a cantilever manner to have a free end and a second beam-type load cell which is disposed to face the first beam-type load cell and which is supported on a second support base in a cantilever manner to have a free end,

the platform is provided between the first beam-type load cell and the second beam-type load cell and further includes a first connection part connected to the first beam-type load cell and a second connection part connected to the second beam-type load cell,

the free end of the first beam-type load cell and the free end of the second beam-type load cell face opposite directions to each other in an extending direction of the first beam-type load cell, and

the first connection part of the platform is connected to the first beam-type load cell on a side of the free end of the first beam-type load cell and the second connection part of the platform is connected to the second beam-type load cell on a side of the free end of the second beam-type load cell.

[Claim 9]

A load detector, comprising:

a beam-type load cell which is supported on a support base in a cantilever manner; and

a platform connected to the beam-type load cell,

wherein the platform includes a main body on which a subject is to be placed and a slope having a first end, which is connected to the main body, the slope being configured to guide the subject to the main body,

the slope is configured to swing between a first position in which a second end of the slope is in contact with a placement surface on which the load detector is placed and a second position in which the second end is separated from the placement surface,

the beam-type load cell includes a first beam-type load cell which is supported on a first support base in a cantilever manner to have a free end and a second beam-type load cell which is disposed to face the first beam-type load cell and which is supported on a second support base in a cantilever manner to have a free end,

the platform is provided between the first beam-type load cell and the second beam-type load cell and further includes a first connection part connected to the first beam-type load cell and a second connection part connected to the second beam-type load cell,

the free end of the first beam-type load cell and the free end of the second beam-type load cell face opposite directions to each other in an extending direction of the first beam-type load cell, and

the first connection part of the platform is connected to the first beam-type load cell on a side of the free end of the first beam-type load cell and the second connection part of the platform is connected to the second beam-type load cell on a side of the free end of the second beam-type load cell.

[Claim 10]

The load detector according to claim 8 or 9, wherein the first beam-type load cell is disposed parallel to the second beam-type load cell.

[Claim 11]

A load detection system configured to detect a load of a human subject on a bed, the system comprising:

a plurality of load detectors each of which is the load detector as defined in any one of claims 1 to 10, the plurality of load detectors being disposed under legs of the bed, respectively; and

a controller connected to the plurality of load detectors and configured to calculate the load of the human subject based on an output of the load detector.