[CLAIMS]

[Claim 1]

An interlock device of a draw-out type circuit breaker, comprising: a tripping button that is linked to a tripping mechanism of the draw-out type circuit breaker; and an interlock rod that is placed so as to be movable up and down; wherein the tripping button mechanically prevents an operation to raise the interlock rod unless the tripping button is operated to place the draw-out type circuit breaker in an open state, so a power distribution board floor surface or a member fixed on the power distribution board floor surface and the interlock rod mechanically interfere with each other and the draw-out type circuit breaker is fixed at a predetermined position in the power distribution board.

[Claim 2]

The interlock device of a draw-out type circuit breaker according to claim 1, wherein when the interlock rod interferes with the power distribution board floor surface or the member fixed on the power distribution board floor surface, the interlock rod is placed in a lower position only when the draw-out type circuit breaker is placed at an operation position at which a main circuit portion in the power distribution board and the draw-out type circuit breaker are connected to each other by a connecting part of

them, at a disconnected position at which a necessary insulated distance is secured within the connecting part of the main circuit portion in the power distribution board and the draw-out type circuit breaker, or at a position outside the power distribution board.

[Claim 3]

The interlock device of a draw-out type circuit breaker according to claim 2, wherein when the interlock rod is placed at the lower position, the tripping button does not mechanically interfere with the interlock rod.

[Claim 4]

An interlock device of a draw-out type circuit breaker, comprising: a tripping button that is linked to a tripping mechanism of the draw-out type circuit breaker; and an interlock rod that is placed so as to be movable up and down; wherein when the interlock rod is placed at an upper position, the tripping button and the interlock rod mechanically interfere with each other, so the tripping button is kept in an operated state and thereby the draw-out type circuit breaker continues to be placed in an open state.

[Claim 5]

The interlock device of a draw-out type circuit breaker according to any one of claims 1 to 4, wherein the interlock rod has an interlock pin, which is integrally

formed with the interlock rod, by which the interlock rod is moved to a fixed position or a movable position for the draw-out type circuit breaker.

[Claim 6]

A draw-out type circuit breaker having the interlock device according to any one of claims 1 to 5, comprising: a main contact that closes and opens a main circuit; a driving unit that drives the main contact; a main circuit energizing part that allows a main circuit current to flow; a connecting part that enables the main circuit energizing part and the main circuit portion in a power distribution board to be removably connected to each other; and a moving device that moves the draw-out type circuit breaker; wherein the interlock device fixes the draw-out type circuit breaker accommodated in the power distribution board at a predetermined position.

[Claim 7]

A draw-out type circuit breaker having the interlock device according to claim 5, comprising: a main contact that closes and opens a main circuit; a driving unit that drives the main contact; a main circuit energizing part that allows a main circuit current to flow; a connecting part that enables the main circuit energizing part and the main circuit portion in a power distribution board to be removably connected to each other; and a moving device that

moves the draw-out type circuit breaker; wherein the interlock device fixes the draw-out type circuit breaker accommodated in the power distribution board at a predetermined position, and the tripping button, the interlock rod, and the interlock pin are placed on the front of the draw-out type circuit breaker.

[Claim 8]

The draw-out type circuit breaker according to claim 7, wherein when the interlock pin moves in a U-shaped hole formed in a front of an interlock pin fixture, which is fixed to the moving device, the interlock pin moves to the movable position and the fixed position in the draw-out type circuit breaker.

[Claim 9]

A power distribution board having the draw-out type circuit breaker according to any one of claims 6 to 8, comprising: a main circuit cable, a main circuit conductor, a main circuit bus, and a main circuit terminal connecting part, which are placed in the board, wherein the draw-out type circuit breaker is accommodated in the board, is electrically connected to the main circuit terminal connecting part so as to be detachable, and is movable to the operation position and the disconnected position.

[Claim 10]

The power distribution board according to claim 9,

comprising a shutter that covers a spacing formed between the main circuit terminal connecting part and a connecting terminal of the draw-out type circuit breaker when an electrical connection between the main circuit terminal connecting part and the connecting terminal of the draw-out type circuit breaker is disconnected.

[CLAIMS]

[Claim 1]

A draw-out type circuit breaker, comprising: a main contact that closes and opens a main circuit; a driving unit that drives the main contact; a main circuit energizing part that allows a main circuit current to flow; a connecting part that enables the main circuit energizing part and the main circuit portion in a power distribution board to be removably connected to each other; a moving device that moves the draw-out type circuit breaker; and an interlock device that fixes the draw-out type circuit breaker accommodated in the power distribution board at a predetermined position, characterized in that

the interlock device is provided with a tripping button that is linked to a tripping mechanism of the draw-out type circuit breaker, and an interlock rod that is placed so as to be movable up and down,

wherein the interlock rod has an interlock pin, which is integrally formed with the interlock rod, by which the interlock rod is moved to a fixed position or a movable position for the draw-out type circuit breaker,

wherein when the interlock pin moves in a U-shaped hole formed in a front of an interlock pin fixture, which is fixed to the moving device, the interlock pin moves to

the movable position and the fixed position in the draw-out type circuit breaker,

wherein the tripping button mechanically prevents an operation to raise the interlock rod unless the tripping button is operated to place the draw-out type circuit breaker in an open state, so a power distribution board floor surface or a member fixed on the power distribution board floor surface and the interlock rod mechanically interfere with each other and the draw-out type circuit breaker is fixed at a predetermined position in the power distribution board, and

wherein when the interlock rod is placed at an upper part of the U-shaped hole formed in the front of the interlock pin fixture, the tripping button and the interlock rod mechanically interfere with each other, so the tripping button is kept in an operated state and thereby the draw-out type circuit breaker continues to be placed in an open state.

[Claim 2]

The draw-out type circuit breaker according to claim 1, wherein when the interlock rod is placed at a lower part of the U-shaped hole formed in the front of the interlock pin fixture, the tripping button does not mechanically interfere with the interlock rod.

[Claim 3]

The draw-out type circuit breaker according to claim 1 or 2, wherein when the interlock rod interferes with the power distribution board floor surface or the member fixed on the power distribution board floor surface, the interlock rod is placed in a lower position only when the draw-out type circuit breaker is placed at an operation position at which a main circuit portion in the power distribution board and the draw-out type circuit breaker are connected to each other by a connecting part of them, at a disconnected position at which a necessary insulated distance is secured within the connecting part of the main circuit portion in the power distribution board and the draw-out type circuit breaker, or at a position outside the power distribution board.

[Claim 4]

The draw-out type circuit breaker according to any one of claims 1 to 3, wherein the tripping button, the interlock rod, and the interlock pin are placed on the front of the draw-out type circuit breaker.

[Claim 5]

A power distribution board, comprising: a main circuit cable, a main circuit conductor, a main circuit bus, a main

circuit terminal connecting part, which are placed in the board, and a draw-out type circuit breaker accommodated in the board, electrically connected to the main circuit terminal connecting part so as to be detachable, and being movable to the operation position and the disconnected position, characterized in that

the draw-out type circuit breaker is the draw-out type circuit breaker according to any one of claims 1 to 4

[Claim 6]

The power distribution board according to claim 5, comprising a shutter that covers a spacing formed between the main circuit terminal connecting part and a connecting terminal of the draw-out type circuit breaker when an electrical connection between the main circuit terminal connecting part and the connecting terminal of the draw-out type circuit breaker is disconnected.