[0005]

In the cold storage apparatus described in PTL 1, there is a possibility that, depending on a situation, it is impossible to properly determine an amount of stored cold heat. In view of the above, the present disclosure provides a cold storage apparatus capable of determining a state of a cold storage element more securely and more properly.

Solution to Problem

[0006]

According to a first aspect of the present disclosure, there is provided a cold storage apparatus including a plurality of boxes arranged in a first direction in a cold storage room, each box containing a cold storage element, an air blower that is disposed in a storage room partitioned from the cold storage room such that communication between the storage room and the cold storage room is allowed and that creates a flow of air passing in a second direction through a space defined in the second direction between the plurality of boxes, the second direction crossing the first direction in a plane parallel to a bottom surface of the cold storage room in which the plurality of boxes are arranged, thereby circulating the air cooled by the cold storage element, a temperature sensor that detects, at a plurality of locations in the second direction, a surface temperature of at least one box, a surface temperature of the cold storage element contained in the at least one box, or an internal temperature of the cold storage element contained in the at least one box, a display information generator that receives an input of information indicating the temperature detected by the temperature sensor and generates state information indicating a state of the cold storage element based on the surface temperature of the at least one box, the surface temperature of the cold storage element, or the internal temperature of the cold storage element, and a display that displays the state information.

[0006a]

According to a second aspect of the present disclosure, there is provided a method of displaying information indicating a state of a cold storage element, comprising creating a flow of air by an air blower such that, in a cold storage room in which a plurality of boxes each containing a cold storage element are arranged in a first direction, the flow of air passes in a second direction through a space defined in the second direction between the boxes, the second direction crossing

the first direction in a plane parallel to a bottom surface of the cold storage room, thereby circulating the air cooled by the cold storage element; detecting, using a temperature sensor and at a plurality of locations in the second direction, a surface temperature of at least one box, a surface temperature of the cold storage element contained in the at least one box, or an internal temperature of the cold storage element contained in the at least one box; generating state information indicating the state of the cold storage element by acquiring, using a display information generator, an input of information indicating the temperature detected by the temperature sensor and generating the state information based on the information indicating the surface temperature of the at least one box, the surface temperature of the cold storage element, or the internal temperature of the cold storage element; and displaying the state information on a display.

[0007]

The cold storage apparatus described above is capable of more surely and more properly determining the state of the cold storage element.

Brief Description of Drawings

[0008]

[Fig. 1] Fig. 1 is a schematic diagram schematically illustrating a cold