

Elevator Pit Ladder Structure with Safety Switch and Elevator

Abstract

The present invention relates to an elevator pit ladder structure with a safety switch and an elevator, the elevator pit ladder structure has a ladder, the ladder comprising: two long sides extending in parallel with each other in a predetermined direction; and a plurality of tread portions that are connected between the two long sides and are disposed at a predetermined interval along an extension direction of the two long sides, the ladder being set to have a usage state and a storage state, wherein in the usage state one end of the ladder is placed at the bottom of the pit, while the other end is laid on the lower edge of a pit port, so the ladder is in a state enabling the user to climb; in the storage state the ladder is removed from the pit port and is supported on a second hoistway wall adjacent to a first hoistway wall provided with the pit port. The elevator pit ladder structure further comprises a support mechanism fixed to the second hoistway wall for supporting the ladder in the storage state, and a safety switch that is turned on in accordance with the ladder being supported on the support mechanism to operate the elevator and is turned off in accordance with the ladder being removed from the support mechanism to stop operation of the elevator.

FIG. 2