

[Abstract]

SAFETY DEVICE FOR ELEVATOR FOR PROTECTING HAND FROM GETTING JAMMED

The present invention relates to a safety device for preventing a hand from being caught by controlling an operation of opening/closing a door while reducing impact when a person's hand is jammed in a gap between an elevator door and a door frame, and the safety device includes: a stationary frame 20 which has a cross section having a $\sqsubset$ shape and is installed along an overall length of a stepped portion of the door frame 10 between a door frame 10 of an elevator door and a hall door D of the elevator; a plate-shaped rotating frame 30 which is rotatably installed at one end portion of the stationary frame 20; an operating pin 40 which is installed on the stationary frame 20 to support a rear surface of the rotating frame 30, supported by a spiral spring S, pushed toward the inside of the stationary frame 20 by a rotation of the rotating frame 30, and protrudes to the outside of the stationary frame 20 by elastic force of the spiral spring S; a switch 50 which is installed in the stationary frame 20 such that the switch 50 is actuated when the operating pin 40 is pushed toward the inside of the stationary frame 20 by the rotation of the rotating frame 30; and a controller C which is connected to the switch 50 and stops an operation of the elevator hall door D or controls an opening/closing speed of the elevator hall door D when the switch 50 is actuated.

FIG. 4