

HORSESHOE-SHAPED LOCK

ABSTRACT

A horseshoe-shaped lock (30) is provided, comprising: a case (309) provided with a lock body portion, a battery compartment housing (310) arranged inside the lock body portion, a lock pin (3073B) provided with a retaining groove and configured to open or close a lock opening through movement thereof, a tongue (3071) arranged on the outer surface of the battery compartment housing (310) and configured to stop or release movement of the lock pin (3073B) by entering or exiting from the retaining groove of the lock pin (3073B), a first force application member (3073A) for exerting, on the lock pin (3073B), a force allowing it to move in the direction of opening the locking opening, a second force application member (3078) for exerting, on the tongue (3071), a force allowing it to move in the direction of entering the retaining groove of the lock pin (3073B), a PCB (311) accommodated in the battery compartment housing (310), a battery (3081) accommodated in the battery compartment housing (310) and configured to provide electric power to all electronic components in the horseshoe-shaped lock (30), a motor (3077) arranged on the outer surface of the battery compartment housing (310), a motor driving module mounted on the PCB (311) and configured to drive an output shaft of the motor (3077) to rotate, a tongue driving member (3074) connected to the output shaft of the motor (3077) and configured to convert a rotational driving force of the motor (3077) into a driving force allowing the tongue (3071) to move out of the retaining groove of the lock pin (3073B).

FIG. 5