

ABSTRACT

A battery replacement apparatus and a battery replacement system are applicable to an electric commercial vehicle. The battery replacement apparatus comprises: a main frame; a positioning mechanism constituted by a vertical positioning mechanism and a horizontal positioning mechanism, the vertical positioning mechanism being arranged within the main frame, and the horizontal positioning mechanism being arranged under the main frame; a rotating mechanism arranged under the vertical positioning mechanism; a lateral movement mechanism arranged on the rotating mechanism; and a push-pull mechanism arranged on the lateral movement mechanism. The battery replacement system comprises the battery replacement apparatus, and also comprises a power supply unit, a charging unit, and a monitoring and communication unit. The battery replacement apparatus can automatically replace battery packs in electric commercial vehicles, thus the efficiency of battery replacement is increased, and more battery replacements can be completed per unit of time, thereby allowing a charger to perform a fuller charge and to have an improved utilization rate.