

Title (en)
OPERATION APPARATUS

Title (de)
BETRIEBSVORRICHTUNG

Title (fr)
APPAREIL D'ACTIONNEMENT

Publication
EP 4343806 A1 20240327 (EN)

Application
EP 21940709 A 20210518

Priority
JP 2021018761 W 20210518

Abstract (en)
The present invention provides an operation apparatus which needs no additional shock mitigating functional component to attain the labor reduction, and allows reduction in the number of components to prevent increase in the apparatus size. The operation apparatus is provided with a moveable iron core which drives a drive shaft for operating a moveable-side electrode opposingly disposed to a fixed-side electrode to bring the moveable-side electrode and the fixed-side electrode into an electrical contact state, and a coil disposed around the moveable iron core. The drive shaft and the moveable iron core are integrally operated in association with a switching operation into an open/close state between the moveable-side electrode and the fixed-side electrode. The operation apparatus has the drive shaft slidably supported by a first bearing at a side of the moveable-side electrode, the moveable iron core slidably supported by a second bearing at a side opposite the moveable-side electrode, and a stopper plate for stopping an axial movement of an end of the moveable iron core at a side opposite the moveable-side electrode. When the moveable-side electrode and the fixed-side electrode are in a connected (closed) state, a space is defined by the moveable iron core, the second bearing, and the stopper plate.

IPC 8 full level
H01H 33/666 (2006.01)

CPC (source: EP)
H01H 33/6662 (2013.01); **H01H 3/60** (2013.01); **H01H 33/38** (2013.01)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 4343806 A1 20240327; CN 116261766 A 20230613; JP 7422947 B2 20240126; JP WO2022244092 A1 20221124;
WO 2022244092 A1 20221124

DOCDB simple family (application)
EP 21940709 A 20210518; CN 202180065875 A 20210518; JP 2021018761 W 20210518; JP 2023522036 A 20210518