

Title (en)

Operating mechanism for electrical switching apparatuses with three separate positions.

Title (de)

Antriebsmechanismus für elektrische Schaltgeräte mit drei getrennten Stellungen.

Title (fr)

Mécanisme de manoeuvre pour appareillage de commutation électrique à trois positions distinctes.

Publication

EP 0058585 A1 19820825 (FR)

Application

EP 82400131 A 19820125

Priority

FR 8103041 A 19810213

Abstract (en)

1. Operating mechanism for the movable part of a multipole switching and closing apparatus enclosed in an electrical cell and connected to connection cables, adapted to be in three separate stable positions during the operating course of the mechanism (10), namely a first position (F) for service and for closing of the contacts of the corresponding poles of the apparatus, a second intermediary position (O) for opening the contacts and isolating the cables and a third position (T) for connecting the cables to earth, the movable contacts engaging corresponding terminals at the earth potential, the cinematic chain of said operating mechanism comprising : - an energy storing spring (24) associated to a toggle assembly (35, 38) with a quick dead point passage provided with a lever (38) pivotally mounted on an axis (36) of an operating crank (35), - a transmission device (30) cooperating with the toggle assembly (35, 38) and secured to said movable part, - and locking means (66; 56, 60, 62; 72) of the transmission device (30) in each of the three apparatus positions (F, O, T), characterized in that the mechanism (10) further comprises a control member (44) adapted to be either in a rest position when said transmission device (30) is moved by the toggle assembly (35, 38) between said first and second positions (F, O), or in an active earthing position, said member (44) cooperating with said toggle assembly (35, 58) and with a first locking means (56, 62) in order to provide in the rest position a fixed appui point for the operating spring (24) and for latching the locking means (56, 62) when the transmission device (30) is arrived from said first position (F), into abutment into said second position (O), the movement of the control member (44) from the rest position towards the active position providing the unlocking of the locking means (56, 62) and a shifting of the appui point and of the action line of the compression biased spring (24) for moving the unlocked transmission device (30) from said second intermediary position (O) towards said third earthing position (T).

Abstract (fr)

L'invention concerne un mécanisme de manoeuvre d'un appareillage électrique à trois positions distinctes, F de fermeture, O d'ouverture, et T de mise à la terre. La chaîne cinématique du mécanisme (10) comporte un ressort d'actionnement (24) associé à un dispositif à genouillère (35, 38) à passage brusque de point mort. L'axe de pivotement (36) de la genouillère est guidée dans une lumière (34) curviligne ménagée dans une came (30) solidaire de l'équipage mobile de l'appareillage. Une manivelle (44) de mise à la terre coopère avec le levier (38) de la genouillère pour modifier le point d'appui et la ligne d'action du ressort (24) sollicité en compression en fin de course d'ouverture pour entraîner la came (30) vers la position T de mise à la terre. Une tringle de liaison (50) accouplée à la manivelle (44) de mise à la terre commande le verrouillage et le déverrouillage d'un organe de blocage (56, 60) de la came (30) dans la position intermédiaire O. Application: cellule électrique préfabriquée pour réseau à moyenne tension.

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IPC 8 full level

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H01H 3/3047 (2013.01)

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- [A] GB 1072112 A 19670614 - ASS ELECT IND
- [A] FR 2181436 A1 19731207 - ALSTHOM CGEE [FR]

Cited by

CN106449302A; EP1026711A3; EP0110082A3; CN109273313A; FR2706674A1; CN108565152A; DE102014203902A1; CN106997825A; EP0277851A1; FR2609839A1; US4821008A; EP0448481A1; FR2660109A1; CN106449304A; AU2008202132B2; EP1993115A1; FR2916300A1; EP3282464A1; DE102016214783A1; FR2879340A1; EP1670009A3; EP0417015A1; FR2651603A1; EP0286474A1; FR2613123A1; US4916268A; US10276317B2; EP1402549A1

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