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**(54) Title (EN):** MODULAR POWERED ELECTRICAL CONNECTION FOR SURGICAL INSTRUMENT WITH FEATURES TO PREVENT ELECTRICAL DISCHARGE

**(54) Title (FR):** CONNEXION ÉLECTRIQUE MODULAIRE ALIMENTÉE POUR INSTRUMENT CHIRURGICAL AVEC DES CARACTÉRISTIQUES POUR EMPÊCHER UNE DÉCHARGE ÉLECTRIQUE

**(57) Abstract:**

**(EN):** An apparatus includes a body assembly, a modular shaft assembly, and a coupling detection assembly. The body assembly includes a control circuit, a battery pack operable to power the control circuit, and a first electrical contact assembly. The modular shaft assembly includes a second electrical contact assembly that is configured to operatively engage the first electrical contact assembly when the modular shaft assembly selectively couples with the body assembly. A detection trigger member is configured to activate a detection activation member such that the detection activation member communicates a first detection signal to the control circuit when the modular shaft assembly selectively couples with the body assembly. The control circuit is configured to verify operative engagement between the first electrical contact and the second electrical contact in response to the control circuit receiving the first detection signal.

**(FR):** L'invention concerne un instrument comprenant un ensemble corps, un ensemble tige modulaire et un ensemble détection de couplage. L'ensemble corps comprend un circuit de commande, un bloc-batterie utilisable pour alimenter le circuit de commande, et un premier ensemble contact électrique. L'ensemble tige modulaire comprend un second ensemble contact électrique qui est conçu pour venir en prise fonctionnelle avec le premier ensemble contact électrique lorsque l'ensemble tige modulaire se couple sélectivement à l'ensemble corps. Un élément de déclenchement de détection est configuré pour activer un élément d'activation de détection de telle sorte que l'élément d'activation de détection communique un premier signal de détection au circuit de commande lorsque l'ensemble tige modulaire se couple sélectivement à l'ensemble corps. Le circuit de commande est configuré pour vérifier une mise en prise fonctionnelle entre le premier contact électrique et le second contact électrique en réponse au circuit de commande recevant le premier signal de détection.

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European Patent Office (EPO) : AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR

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Eurasian Patent Organization (EAPO) : AM, AZ, BY, KG, KZ, RU, TJ, TM

**Declarations:**

Declaration made as applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case where the declaration under Rule 4.17(iv) is not appropriate

Declaration made as applicant's entitlement, as at the international filing date, to claim the priority of the earlier application, where the applicant is not the applicant who filed the earlier application or where the applicant's name has changed since the filing of the earlier application (Rules 4.17(iii) and 51bis.1(a)(iii))