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U.S. Patent No. 11,459,811 entitled "Movement Assembly" issued October 4, 2022 to Karl Simon GmbH & Co. KG of Aichhalden, Germany. Invented by Ulrich Bantle of Mannheim, Germany. The invention relates to a movement assemblage, in particular for a drawer, a sliding door, a hinged door, a hatch, or a similar movable furniture part, having a push-out assemblage; the push-out assemblage comprising a guide element (90) on which an energy reservoir (80) acts; the guide element (90) being displaceable from a parked position into an ejection position; and a switching piece (99), which is displaceable with respect to the guide element (90), being attached to the guide element (90). For improved movement guidance, provision is made according to the present invention that the switching piece (99) comprises a guide element (99.4) that is guided in a guide track (74) of the fitting.

U.S. Patent No. 11,458,776 entitled "Tread Wear Monitoring System and Method" issued October 4, 2022 to Bridgestone Europe NV/SA of Zaventem, Belgium. Invented by Vincenzo Ciaravola, Alessandro Boldrini, Lorenzo Alleva, and Alfredo Corollaro all of Roma, Italy. The invention concerns a tread wear monitoring method comprising a tread wear model calibration step (1) and a tread wear monitoring step (2), wherein the tread wear model calibration step (1) includes determining (13) a calibrated tread wear model based on tread-wear-related quantities and first frictional-energy-related quantities. The tread wear monitoring step (2) includes: acquiring (21), from a vehicle bus (40) of a motor vehicle (4) equipped with two or more wheels fitted, each, with a tire, driving-related quantities related to driving of the motor vehicle (4); computing (22) second frictional-energy-related quantities related to frictional energy experienced, during driving, by a given tire of the motor vehicle (4) by providing a predefined vehicle dynamics model that mathematically relates the acquired driving-related quantities to the second frictional-energy-related quantities, and computing the second frictional-energy-related quantities by inputting the acquired driving-related quantities into the predefined vehicle dynamics model; and performing a tread wear estimation (23) and a remaining tread material prediction (24) based on the second frictional-energy-related quantities computed and the calibrated tread wear model. The tread wear model calibration step (1) further includes: performing (11) tread wear tests on one or more tires; and measuring (12) tread-wear-related quantities indicative of tread depth reductions resulting from the performed tread wear tests, and first frictional-energy-related quantities related to frictional energy which the tested tire(s) is/are subject to during the performed tread wear tests. Determining (13) a calibrated tread wear model includes: providing a predefined reference tread wear model that mathematically relates frictional energy experienced by a tire along a driving route to tread wear caused by said frictional energy through given parameters; computing calibration values of the given parameters by inputting the measured tread-wear-related and first frictional-energy-related quantities into the predefined reference tread wear model; and determining the calibrated tread wear model by applying the computed calibration values in the predefined reference tread wear model.

U.S. Patent No. 11,458,777 entitled "Tread Wear Monitoring System and Method" issued October 4, 2022 to Bridgestone Europe NV/SA of Zaventem, Belgium. Invented by Vincenzo Ciaravola, Marco Andrea Maggi, Alfredo Corollaro, Lorenzo Alleva, Alessandro Boldrini, Valerio Bortolotto, and Rufini Flavia all of Roma, Italy. The invention concerns a tread wear monitoring method comprising a preliminary step (6) and a tread wear monitoring step (7). The preliminary step (6) includes: performing tread wear tests on one or more tires; measuring tread-wear-related quantities and first frictional-energy-related quantities, wherein the tread wear-related quantities are indicative of tread wear resulting from the performed tread wear tests, and the first frictional-energy-related quantities are related to frictional energy which the tested tire(s) is/are subject to during the performed tread wear tests; and determining a calibrated tread wear model based on the measured tread-wear-related and first frictional-energy-related quantities. The tread wear monitoring step (7) includes: acquiring, from a vehicle bus (40) of a motor vehicle (4) equipped with two or more wheels fitted, each, with a tire, driving-related quantities related to driving of the motor vehicle (4); computing, based on the acquired driving-related quantities and a predefined vehicle dynamics model related to the motor vehicle (4), second frictional-energy-related quantities related to frictional energy experienced, during driving, by at least one tire of the motor vehicle (4); estimating, based on the second frictional-energy-related quantities and the calibrated tread wear model, tread wear experienced by said at least one tire of the motor vehicle (4) during driving; and estimating a current average remaining tread material amount of said at least one tire of the motor vehicle (4) based on the estimated tread wear. Additionally, the preliminary step (6) further includes: determining, based on one or more of the measured tread-wear-related quantities, a first correction factor related to irregular tread wear due to tire features; and training an artificial neural network to provide second correction factors related to irregular tread wear due to tire usage. Finally, the tread wear monitoring step (7) further includes: providing a second correction factor by means of the trained artificial neural network based on one or more of the acquired driving-related quantities; and computing a corrected remaining tread material amount based on the current average remaining tread material amount, the first correction factor and the second correction factor provided by the trained artificial neural network based on the one or more acquired driving-related quantities.

U.S. Patent No. 11,460,432 entitled "Extended Life Electrode Measurement Method and Apparatus" issued October 4, 2022 to Halogen Systems, Inc. of Incline Village, Nevada. Invented by Michael A. Silveri also of Incline Village, Nevada and Adam Moore of Reno, Nevada. A method and apparatus extend the measurement life of a working electrode in a three-electrode amperometric sensor by applying an activation sequence of voltages and a measurement sequence of voltages to the input of a potentiostat. The activation sequence includes multiple cycles wherein each cycle includes a low (more negative) voltage and a high (more positive) voltage (e.g., 0 volts) with reference to a signal ground reference. In one mode, the measurement sequence includes multiple cycles of three voltage pulses, wherein each cycle includes a measurement voltage pulse followed by a high (more positive) pulse, followed by a low (more negative) pulse. The cycles are repeated N times. In a second mode, the measurement sequence comprises a fixed measurement voltage having selectable duration.

U.S. Patent No. 11,460,280 entitled "Firing Mechanism for a Grenade and a Grenade" issued October 4, 2022 to Alliance Development Group Ltd of Worcestershire, United Kingdom. Invented by Duncan Thomas also of Worcestershire, United Kingdom. A grenade firing mechanism 12 has a body 18 defining an internal chamber 32 in which a firing pin structure 40 is located. The firing pin structure is actuated by an inertia toggle 64 having a first end contained within the chamber and a second end region 72 which projects from the body. A safety lever 16 is releasably mounted to the second end region 72 of the inertia toggle in an operative position to prevent the inertia toggle moving to actuate the firing pin structure. A lever spring 104 is operative to eject the lever from the inertia toggle allow the firing pin structure to be actuated when the grenade is deployed. The lever 16 carries an abutment pin 120 which extends through the body to engage the firing pin structure 40 to inhibit the firing pin structure moving in a firing direction when the lever is in its operative position. The inertia toggle may have a convex abutment surface which engages the firing pin structure. The firing mechanism is particularly suited to a sound flash distraction grenade.

U.S. Patent No. 11,459,712 entitled "Method for Milling off Traffic Areas with a Milling Drum, as well as Milling Machine for Carrying out the Method for Milling off Traffic Areas" issued October 4, 2022 to Wirtgen GmbH of Windhagen, Germany. Invented by Matthias Fritz of Hennef, Germany. A method for milling off traffic areas with a milling drum of a milling machine comprises: obtaining and storing target profile data of a desired target profile of a surface of the traffic area in target condition, wherein target values for a locally desired milling depth are assigned to position data in a stationary coordinate system independent of the milling machine; determining the current position of the milling drum in the coordinate system and detecting a current milling depth; during the milling operation, controlling the milling depth as a function of the target value assigned to the current position of the milling drum and the currently detected milling depth; updating the target profile data in the current position of the milling drum on the worked traffic area by the currently actually milled milling depth; and storing the updated target profile data.