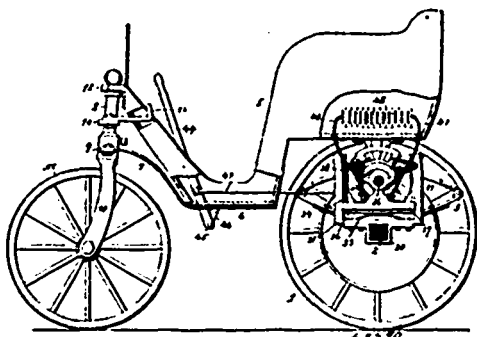


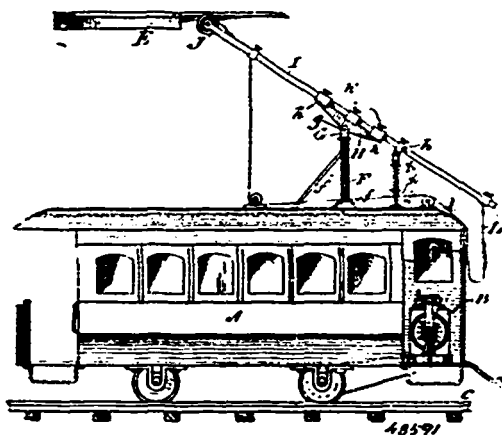
between the arms of said bracket, and electrically connected to said battery, friction discs mounted upon the shaft of the motor, and friction discs carried by the wheels of said axle, screw-threaded



standards supported upon said axle, lift-screws engaging the same, bearing-boxes carried by said lift-screws and engaging the motor-shaft near its opposite ends, arms mounted rigidly upon said lift-screws, and means to operate the same so that the motor-shaft will be raised or lowered, substantially as set forth.

No. 48,591. Trolley Contact and Switch.

(Contact de trolley et aiguille.)



The Thomson-Houston International Electric Company, Portland, Maine, assignee of Charles A. Coffin, Boston, Massachusetts, and Albert Wahl, Chicago, Illinois, all in the U.S.A., executors of Charles J. Van Depoele, late of Lynn, Massachusetts, deceased, 3rd April, 1895; 6 years.

Claim.—1st. In electric railways the combination of a supply conductor suspended along the line of travel, a car or other vehicle having a support extending upward from the upper part thereof, and an arm hinged and pivoted to swing freely upon the support and carrying a contact adapted to engage the suspended conductor, substantially as described. 2nd. In electric railways the combination of a car, a supply conductor suspended along the line of travel of the car, a post or support, upon the upper portion of the car, an arm carrying a contact adapted to engage the suspended conductor, said arm being hinged and pivoted upon the post or support upon the car whereby said arm may freely swing vertically and laterally with respect to the top of the car and be turned entirely around upon its pivot to operate from either direction, substantially as described. 3rd. In electric railways the combination of a car, a supply conductor suspended along the line of travel, of the car, a post or support along the upper portion of the car, an arm carrying a contact adapted to engage the suspended conductor, said arm being hinged and pivoted upon the post or support upon the car whereby said arm may freely swing vertically and laterally with respect to the top of the car and be rotated upon its pivot to operate from either direction, and a tension spring for pressing said arm upward and maintaining said contact, substantially as described. 4th. In an electric railway the combination of a vehicle a support mounted thereon, a contact carrying arm hinged and pivoted to swing freely upon said support and a rope or other flexible connection secured to the contact carrying device and to the said pivoted support and arranged upon the exterior of the vehicle whereby the contact carrying arm can be lowered and the pivoted support and arm be moved into any desired position, substantially as described. 5th. The combination with a car, of a post or standard mounted thereon, a sleeve pivotally supported upon the post and having laterally extending arms, a contact carrying arm hinged in the upper portion of the sleeve, a tension

spring or springs secured to one of the arms and to the lower part of the contact carrying arm for maintaining an upward tension at its outer extremity, and a cord passing through the other arm for manipulating the rotatable contact arm carrying frame, substantially as described. 6th. The combination of a car, an overhead conductor, a contact device making underneath contact with the conductor, a standard on the roof of the car, an arm carrying a contact device pivoted on the standard and also on a transverse axis and free to swing thereon, a spring connected to the arm for pressing the contact device upward against the conductor, and a line or lines connected with the arm for moving the same. 7th. In an electric railway, the combination of a car, an overhead conductor situated above the car, a standard on the car, an arm carrying a contact device at its free extremity, said arm being pivoted upon the standard and also upon a transverse axis and adapted to swing freely thereon to permit the contact device carried by its free extremity to follow the line of the conductor, and a line connected with the arm for moving the same. 8th. In an electric railway, the combination of a car, an overhead conductor, a standard on the car, an inclined pole carried by a transverse axis upon said standard and free to swing around said standard, and a grooved or flanged contact device carried by said pole and engaging said conductor at its lower side, substantially as described. 9th. In an electric railway, the combination of a car, an overhead conductor situated directly above said car, a contact device making underneath contact with said conductor, and a pole carried by the car and carrying said contact device and pivoted so as to swing freely around a vertical axis, substantially as described. 10th. In an electric railway, the combination of a car, an overhead conductor above the car, an arm carrying a contact device at its outer end said arm mounted on a transverse axis, a spring connected to the arm for pressing the contact upward against the conductor, a line for moving the arm, having a stop for limiting the upward movement of the arm. 11th. In an electric railway, the combination of a car, an overhead conductor, a standard on the car, a rotating support thereon, an inclined contact carrying arm hinged upon said support, and a tension spring secured so as to rotate with the support and acting upon the said arm for holding the contact device in position. 12th. In an electric railway, the combination with a car, of a standard on the car, a rotating support thereon, an arm hinged upon said support and provided with a grooved or flanged contact device for engaging with a suspended conductor, and a tension spring secured so as to rotate with the support and acting upon the said arm for holding the contact device in position. 13th. A reversible contact device for an electric railway vehicle, consisting of a standard, a rotating support thereon, a contact carrying arm hinged upon said support, and a tension spring secured so as to rotate with the support and acting upon the contact carrying arm for holding the contact device in position. 14th. The combination with a hinged contact carrying arm for an electric railway vehicle pivotally mounted upon a support, of a plurality of tension springs acting on the contact carrying arm for maintaining the upward tension at its outer extremity. 15th. The combination with a hinged contact arm for an electric railway vehicle pivotally mounted on a support, of a plurality of tension springs secured to a clamp attached to the said arm. 16th. In an electric railway, the combination with an overhead conductor, a contact device making underneath contact with the conductor, and a switch plate attached to the conductor and provided with means for depressing the contact device. 17th. In an electric railway, the combination with an overhead conductor for receiving underneath contact, of a switch plate attached thereto and provided at its extremities with means for depressing the contact device. 18th. A switch for suspended electric railway conductors, comprising a box suspended from the conductor and formed with two or more branching compartments leading therethrough, the outer extremities of each compartment sloping upward toward the conductor, substantially as described. 19th. A switching device for electric railways, consisting of an open bottom metallic box or frame secured to and depending from the under side of a suspended conductor and formed with upwardly inclined outer extremities.

No. 48,592. Coin Actuated Vending Machine.

(Appareil de vente actionné par une pièce de monnaie.)

Joseph P. Beretta, Chicago, Illinois, U.S.A., 3rd April, 1895; 6 years.

Claim.—1st. In a device of the class described, the combination, with a suitable casing containing the necessary auxiliary devices, of mechanism for delivering a definite quantity of merchandise from the interior of the casing, a coin chute, an operating handle adapted to be grasped by the hand and a coin-operated pawl adapted to engage the delivering mechanism and pivoted to the handle above the coin chute in position to be raised by said coin and thereby engaged with the delivering mechanism, substantially as described. 2nd. In a coin actuated vending machine, the combination, with a suitable casing containing a receptacle for merchandise and suitable delivering mechanism, of a pivoted operating handle extending within the casing, a block pivoted upon said handle and bearing a pawl adapted when in the proper position to engage and operate the delivering mechanism, a coin chute having a bottom eccentric with relation to the handle pivot and a lug upon the block extending over the chute and having a cam surface oppositely arranged to the