

No. 35,389. Hulling Peas. (*Battage des pois*)

Charles P. Chisholm and John A. Chisholm, both of Oakville, Ontario, Canada, 8th November, 1890; 5 years.

Claim.—1st. The improvement in the art of hulling green peas, which consists in removing the same from the pods by impact, substantially as described. 2nd. The improvement in the art of hulling green peas, which consists in carrying the filled pods to an elevated position and impacting the filled pods while falling so as to sever the connection of the two half-shells of the pods, and of the peas with the pods at one operation, substantially as described. 3rd. The process of hulling peas direct from the vine, which consists in subjecting the pea-vines with the green peas attached thereto, to the action of impact openers, whereby the connections of the peas with the pod and of the half-shells of the pod are severed at one operation. 4th. In the above described process for hulling peas direct from the vine, a machine consisting of a revolving cylinder covered with perforated rubber, or leather, a revoluble hulling drum arranged within the cylinder and longitudinal obliquely arranged impact openers upon the drum.

No. 35,390. Artificial Fuel.

(*Combustible artificiel.*)

William Bainbridge McClure, Hamline, Minnesota, Thomas Hodgson, Joseph Eugene McWilliams, John Williamson White and Edward Corning, all of St. Paul, Minnesota, U.S.A., 8th November, 1890; 15 years.

Claim.—1st. The within described composition of matter to be used as an artificial fuel, consisting of pulverize culm or coal dust, sand pulverized, burned or calcined lime dust, and melted naturally solid asphaltum having mixed with it naturally liquid asphaltum or its equivalent, substantially as specified. 2nd. The within described process of making artificial fuel, composed of coal dust, sand, pulverized calcined lime dust and asphaltums, which consists in first finely pulverizing the coal, then mixing with it, free from moisture, the sand and lime dust, then mixing the whole mass, subject to heat, with the asphaltum in a fluid state, then pressing the entire mass into blocks, and subsequently subjecting said blocks to a bath of cold water, as set forth. 3rd. In the process herein described, of making artificial fuel, pressed and molded into blocks and composed in part of a mixture of coal dust and asphaltum, setting and cooling said blocks by subjecting them, after they have been pressed, to a bath of cold water, as and for the purposes set forth.

No. 35,391. System of Transporting Goods by Electricity. (*Système pour transporter les marchandises par l'électricité.*)

David Gustavus Weems, Baltimore, Maryland, U.S.A., 10th November, 1890; 5 years.

Claim.—1st. In an electric railway system, the main rails, the upper electric rail, and a train of cars, the front and rear ends of which are pointed so that the axes will be below the longitudinal centre of the car and brake mechanisms carried by the train and actuated by the turning on and cutting off of the main current, substantially as described. 2nd. In an electric railway system, a car or locomotive having an electric motor, the upper electric rail, and the lower bearing rails forming with said car, an electric circuit, and an automatic brake mechanism carried by the train, and comprising an electro-magnet energized by the main current brake rods, carrying shoes and sliding rods having armatures which are attracted when the main current is turned on and springs for applying the brakes when said current is cut off, substantially as specified. 3rd. In an electric railway system, the locomotive and cars, with their main bearing wheels and upper smooth surface guide wheels, and the arched sections of the frame having the rails secured therein, said rails having a square configuration in cross-section, and the upper rail having a tread narrower than the periphery or tread of the guide wheels, whereby said wheels may move laterally on the upper rail, substantially as herein described. 4th. An electric railway system, comprising main and upper guide rails, traveling cars provided with guide wheels engaging the latter rail, an electric connection between one of said wheels and rails, and the motor or the car brake mechanisms on said cars, actuated by the turning on and off of the main current, and a frame work having the arched sections in which the rails are laid, substantially as set forth. 5th. An electric railway system, comprising the stationary dynamo, the traveling locomotive and cars, an upper electrically changed rail, and lower bearing rails of the current, and a means for reversing the motor on and off driving said train in a reverse direction, substantially as set forth. 6th. In an electric railway system for mail and express packages, a series of cars having ends adapted to telescope with each other, and pointed, and means for reversing the motors on the car and propelled said train in reverse directions, substantially as herein described. 7th. In an electric railway system for transporting packages of mail and express, a locomotive having an electric motor and a series of cars connected therewith, said cars having ends adapted to enter secondary current to effect a reversal of the motor, whereby the train is moved in opposite directions, substantially as herein described. 8th. In an electric railway system, cars of approximately uniform diameter throughout, and provided with compressible wings, whereat the ends of the cars may enter or telescope with contiguous cars plates having conductors leading from the electric rail to the brake mechanisms, and a locomotive and rear car having one end pointed, a train of cars and a means for effecting a reversal of the motors on the train, comprising a shifting magnet actuated by a secondary current to change its position, and thereby reverse the motors and

subsequent travel of the train, substantially as specified. 10th. In an electric railway system, the main and upper electric guide rails, a locomotive, and train of attached cars, said locomotive having a motor a shifting electro-magnet and fixed armatures on the locomotive, and a secondary current connected with the magnet, and changing the position of the magnet from one armature to the other whereby the motor is reversed, substantially as and for the purpose described. 11th. In an electric railway system, a locomotive having a motor, the cars, the lower bearing rails and the upper rail to which the main current is turned off and on, a magnet carried in a housing or box on the locomotive fixed armatures in said box and connected with the main current, a secondary current for moving the magnet from one armature to the other when the main current is cut off, and a spring for returning the magnet when the secondary current is removed, substantially as herein described. 12th. In an electric railway system, the main and guide rails, a main current charging the guide rail and leading therefrom to the motor on the locomotive, a box or housing having fixed armatures and shifting magnet therein, said armature being connected with the main current, a secondary current, a removable plug in the circuit thereof for making and breaking the same, and connections from the secondary current to the magnet whereby the position of the latter is changed and the motor reversed when the main current is cut off and the secondary current established, substantially as herein described. 13th. In an electric railway system, the main and guide rails, the main and secondary currents, a locomotive having a motor and attached cars, a removable plug in the secondary circuit for making and breaking the same, fixed armatures, and a shifting magnet on the locomotive, and connected with the main and secondary currents respectively, whereby the motor is reversed when the main current is cut off, and brake mechanisms in the main current, and automatically actuated when the main current is turned on and off, substantially as and for the purpose described. 14th. In an electric railway system in which a train of cars is operated by a current from an electric rail, a series of contact points of varying resistance, and in the motor circuit, a switching lever adapted to engage therewith, a second lever connected with the first lever and a plural series of varying or adjustable stops on the line of road and in the path of the switching levers, whereby increased or reduced currents are automatically transmitted from the electric rail to the motor. 15th. In an electric railway system, the combination of a train of cars having brake mechanisms magnet on the cars for actuating the brake mechanism, the main rails or tracks on electrically charged rail, a series of adjustable stop switching levers actuated by said stops for transmitting the current from the electric rail to the train, whereby the speed of the latter is controlled and connections between the magnets and switching levers. 16th. The combination, with a train of cars, an electric motor connected therewith, the main rails and the electrically-charged guide rail, of a plural number of switching levers carried by the train, graduated contact points in the path of the levers for increasing or decreasing the speed of the train, and automatic brake mechanism on the train in electric connection with the guide rail, substantially as described. 17th. In an electric railway system in which a train of cars is propelled by the current from an electrically-charged rail, suitable contact points of varying intensities on the train, in electric connection with the electric rail, a switching lever having a contact point adapted to move in the path of the varying contact points, whereby an increased current is transmitted to the train, a second switching lever connected with the first lever and adapted to reduce or entirely cut off the current from the train brake mechanism on the train connected with the varying contacts, and adjustable stops on the line of road for operating the levers, substantially as described. 18th. In an electric railway system in which a train of cars is operated by a current from an electric rail, a suitable motor on the locomotive, and a housing or frame having contact points N¹, O¹, P¹, with wires leading therefrom to the motor and to the brake mechanisms, a switching lever having a contact point adapted to move in the path of and to engage the contact point on the housing, a second lever connected with the first lever and suitable adjustable or varying stops on the line of road for tripping the levers, and automatically increasing or decreasing the speed of the train, substantially as described. 19th. In an electric railway system in which the train is propelled by a current from an electric rail, a mechanism for increasing and decreasing the speed of the train, comprising contact points N¹, O¹, P¹, and their connections between the electric rail and the motor on the train, a switching lever adapted to be moved into and out of contact with said points, a second lever connected with first lever and adjustable and varying stops on the line of road, and in the path of the levers, whereby when the switching lever is moved in one direction or from one contact point to another the speed of the train is increased, and when in the opposite direction the speed is decreased, substantially as herein described. 20th. In an electric railway system in which a train of cars is propelled by a current from an electric rail, said train having suitable brake mechanisms, of a mechanism for starting and stopping the train, and controlling its speed, comprising contact points of variable intensities, a switching lever having a contact point adapted to engage therewith, a second lever connected with the first lever moving with it but in an opposite direction, and stops on the line of road for tripping the levers, whereby the contact lever is moved from one point to another to vary the speed of the train, or may be moved out of engagement altogether with the varying contacts, whereby the current is cut off from the train. 21st. In an electric railway system for transporting mail, express packages, etc., the electric rail and bearing rails, the locomotive and means for conveying the current thereto, in predetermined quantities, consisting of a housing having graduated contact points, the pivoted lever K, having a contact point adapted to engage therewith, a second lever, a connection between the two levers, whereby they move in unison, a guide sheave or pulley for connecting the wires leading from the graded contact points to the locomotive, and the stops on the line of road for tripping the levers, substantially as and for the purpose described. 22nd. In an electric railway system, the combination of bearing rails and upper guide rail, a locomotive having a motor in electric connection with said rail, and cars attached to the locomotive and adapted to contain mail, express packages, etc., trip levers and graded contacts on the locomotive or cars, and a series of