

No. 15,961. Car Wheel. (*Roue de char.*)

Adolphus Davis, Montreal, Que., 11th June, 1881; for 5 years.

Claim.—A car wheel composed of the following elements, viz.: a hub and tire, each having a projecting flange, or shoulder formed on it, respectively on the outer and inner periphery, and plates secured on each side of such flanges by bolts or rivets and forming the web. 2nd. In a plate car wheel, the connecting plates or web formed with edges cut obliquely at an angle corresponding to that of the rebate faces of the tire and hub.

No. 12,962. Improvements on Road Scrapers.(*Perfectionnements aux éboueurs.*)

William J. Johnson, Harwich, Ont., 11th June, 1881; for 5 years.

Claim.—The combination of plate C and curved bail B with any common form of road scraper, for the purpose of causing it to leave its load freely, and for rendering the operation of working the scraper easy.

No. 12,963. Improvements on Wheels. (*Perfectionnements aux roues.*)

Oliver H. Burdett and Ira C. Dickerson, New Athens, Ohio, U. S., 11th June, 1881; for 5 years.

Claim.—1st. A truss wheel constructed with an open or skeleton rim held to the hub by truss rods and nuts. 2nd. The combination, with the rim A and hub D, of the bevel headed and screw-tipped truss rods or spokes F and nuts d, whereby the said rim and hub are held together. 3rd. The combination, with the open faced or skeleton rim composed of bands A B and cleats C, of the annularly flanged hub D, screw tipped truss rods or spokes F provided with bevelled heads c and nuts d. 4th. As a means of holding the rim to the hub, the truss rods or spokes F F.

No. 12,964. Improvements in Carburetters.(*Perfectionnements aux carburateurs.*)

Ira W. Shaler, Brooklyn, N.Y., U.S., 11th June, 1881; for 5 years.

Claim.—1st. A packing for carburetters formed of granulated wood. 2nd. The combination of a wire gauze cone F, perforated metal plate E, packing a, drip cock C, chambers D J, standard B, bracket G and opening H.

No. 12,965. Improvements in Fuel. (*Perfectionnements dans le combustible.*)

William C. Siffken, Victoria, B.C., 12th June, 1881; for 5 years.

Claim.—Fuel made by a combination of coal slack, or fine screenings, clay, saw dust and water, pressed into hard cakes of various forms and sizes, and the ready combustion of such cakes of fuel and diminution of smoke by conical perforations pierced through them.

No. 12,966. Improvements on Cheese Safes.(*Perfectionnements aux garde-fromage.*)

William H. Gordon, Detroit, Mich., U.S., 12th June, 1881; for 5 years.

Claim.—A close cheese safe, three sides of which are formed of glass or other suitable material, while one side is open and provided with a sliding door composed of slats united edge to edge by a facing of fabric.

No. 12,967. Improvements on Electric Lamps. (*Perfectionnements aux lampes électriques.*)

Joseph V. Nichols, Brooklyn, N.Y., U.S., 12th June, 1881; for 15 years.

Claim.—1st. The combination of a glass globe enclosing an incandescent conductor in a vacuum with conducting wires connected with said conductor and metallo-vitreous cement interposed between the glass of the globe and the conducting wires, and united to both by fusion. 2nd. In a glass globe enclosing the incandescent or light giving part in vacuum, in combination with conducting wires of copper or other metal of high conductivity and metallo-vitreous cement interposed between the glass of the globe and the conducting wires, and united to both by fusion.

No. 12,968. Improvements on Grain Gleaners.(*Perfectionnements aux glaneuses.*)

William Hewitt, London, Ont., 12th June, 1881; for 5 years.

Claim.—1st. In combination with the teeth C of a gleaner arranged near the ground and directed forward, a gathering mechanism constructed, arranged and actuated to take into the grain at a point in advance of the teeth points, and to travel backward to and along the teeth. 2nd. In a wheeled grain gleaner having the teeth C, the gathering mechanism described, which consists essentially of the front and rear sprockets E₁ E₂, the chain or chains E₃, and the rake E₄ E₅ having the arm E₂ laterally retained at a point E₇ outside the orbits of the chain E₃, said gathering mechanism being arranged to carry the grain backward upon said teeth C, and combined with suitable actuating mechanism. 3rd. In combination with the gatherer E₄ E₅ having an orbital and vibrating movement, and with the teeth C, the lifting arm D arranged to raise beneath the gavel delivered by the fingers E₁ at the rear extremity of the orbital movement of said fingers. 4th. In combination with a gatherer, arranged as described, to draw forward from beneath the gavel in delivering the same to the binder, a stripper A₈ and a lifter D. 5th. The compressing arm D₃ pivoted as shown and provided with the lever arm d₁ combined with the lifter D and link d₂. 6th. In combination, the shaft D₄ bearing the lifters D, and the segmental gear wheel D₇ having the long terminal tooth or lug d₇, the segmental gear D₆ having cam face d₆ and notches d₄ d₅, the spur D₄, rigid with D₆, the sprockets E₁ E₂ of the gathering mechanism, and the common driving spur E₄ of said gathering mechanism and of the spur D₄. 7th. The combination, in a gleaner, of a tongue G pivoted to the frame to vibrate horizontally, and a hand lever connected with said tongue, whereby the operator may sway the frame without changing the course of the team. 8th. In combination with the tongue pivoted to the frame to vibrate horizontally, and the lever G connected with the tongue, the guide H₃ having the notch h₃

whereby the frame may be swayed at pleasure, with reference to the tongue and team and may also be set in line with the tongue. 9th. In the binder's platform J pivotally suspended from the gleaner frame to swing backward and forward.

No. 12,969. Improvements on Dynamo-Electric Machines. (*Perfectionnements aux machines électro-dynamiques.*)

Hiram S. Maxim, Brooklyn, N.Y., U.S., 12th June, 1881; for 15 years.

Claim.—1st. The combination of an armature with one or more wings or fans for drawing air into it. 2nd. The combination of wings or fans M M with an armature provided with air-passages and having radial extensions between the coils. 3rd. The combination of the radial-arm plate L L with the removable hub D and its commutator bars. 4th. The combination of the radial arms L L with the commutator bars carried by the hub D and the washer K and nut J. 5th. The combination of the brush holders E E with the arms F F and boxing. 6th. The combination of the radial arms L L with the removable hub D and the brushes E E.

No. 12,970. Improvements on Dynamo-Magneto-Electric Machines. (*Perfectionnements aux machines magnéto-électro-dynamiques.*)

Hiram S. Maxim, Brooklyn, N.Y., U.S., 12th June, 1881; for 15 years.

Claim.—The combination of the hinged spring arm B with the brush D carried in a longitudinal groove or chamber in said arm, and held by a clamp near the outer extremity of said brush.

No. 12,971. Improvements on Carburetters.(*Perfectionnements aux carburateurs.*)

William McKenzie and James H. Masson, Detroit, Mich., U. S., 12th July, 1881; for 10 years.

Claim.—1st. A series of independent carburetting cells inclosed within a common shell, each shell being provided with a separate air inlet pipe opening at the outer end into a common chamber, into which air is forced. 2nd. The combination, with a series of independent carburetting chambers, each inclosed within a common shell and each provided with a separate air inlet pipe connecting at its outer end with a common air chamber, of a series of gas outlet pipes, one communicating with each chamber.

No. 12,972. Improvements on Governors.(*Perfectionnements aux gouverneurs.*)

Henry E. Plant, London, Ont., 12th June, 1881; for 5 years.

Claim.—1st. A horizontal gearless governor. 2nd. The horizontal arm J. 3rd. The horizontal arm J and spindle C working through the centre of it. 4th. The arms G G. 5th. The pulley K provided with groove S and arms G G. 6th. The segment N. 7th. The combination of crank-shaped forging M and segment N. 8th. The combination of crank-shaped forging M and idler pulley O. 9th. The combination of crank-shaped forging M, feather key e, upright L provided with groove d, coil spring b and segment N.

No. 12,973. Gas Apparatus. (*Appareil à gaz.*)

Edward B. Reynolds, Cleveland, Ohio, U.S., 12th June, 1881; for 5 years.

Claim.—In an apparatus for obtaining an illuminating and heating gas, the packing composed of a pasty mass of charcoal and gasoline, and a tightly compressed mass of cotton or other fibrous material.

No. 12,974. Improvements on Bridge Trusses. (*Perfectionnements aux armatures des ponts.*)

Edwin Thacher, Pittsburgh, Pa., U.S., 12th June, 1881; for 5 years.

Claim.—1st. A bridge truss, consisting of a primary triangular truss composed of top and bottom chords and a web of struts and ties arranged in the form of triangles, free to change figure from the effects of temperature, the centre ties extending each over a greater number of panels than any strut, over not less than two, and over a number not exceeding the number in half span less one, the panel points intermediate between the tops of the centre ties, and not at joints of the primary truss being supported by vertical suspenders, or by pairs of suspenders inclined from the top of the centre strut and from the outermost limits of suspension, said inclined suspenders being also connected with each other, but having no fixed connection with the bottom chord nor with the centre ties at intermediate points of intersection. 2nd. Inclined suspenders, in combination with a triangular truss having a bottom chord always in tension, which supports the weight of that chord without having any fixed connection with it, by means of a stirrup attached to the pin above.

No. 12,975. Improvements on Gas Regulators. (*Perfectionnements aux régulateurs à gaz.*)

Henry Bricker, Toronto, Ont., 12th June, 1881; for 5 years.

Claim.—1st. The combination of the hemispherical sections A B forming the shell, the lower one having valve chamber D and the upper one tubular portion R and both having flanges a b at the line of equator, for uniting the sections by screws c. 2nd. The combination, with the sections A B, the former having tubular portion R and the latter flange d, of the diaphragm H and ring L, diaphragm I and ring N, valve spindle G having air passage J, and a valve F. 3rd. The combination of the receiving chamber B and lower and upper air chambers Q P connected by an air passage J in spindle G.

No. 12,976. Improvements on Automatic Scales. (*Perfectionnements aux balances automatiques.*)

Bernhard C. Meyer, Bethalto, Ill., U.S., 12th June, 1881; for 5 years.