

lower end secured to the brace, and a driver's seat mounted on the arms, substantially as specified. 3rd. The combination, with the board, of opposite pairs of recessed undercut sockets, the recesses tending inwardly and seat standards terminating in opposite outwardly projecting feet, and adapted to be inserted in the sockets, substantially as specified. 4th. The combination with the board 1, of transversely-opposite pairs of L-shaped undercut sockets and transversely-opposite pairs of undercut recessed sockets, and of opposite seat standards, terminating in opposite feet adapted to fit the sockets, and at a distance apart agreeing with that between the adjacent edges of each pair of longitudinally-opposite sockets, substantially as specified. 5th. The combination, with the buckboard and its rear axle, of opposite braces connecting the same and formed in sections, the ends of which are loosely connected with each other, substantially as specified. 6th. The combination, with the front platform and its supporting bolster, of a fifth wheel mounted under the bolster, an axle connected with the fifth wheel by means of a king bolt, and an L-shaped traveller connected to the lower end of the king bolt, and having its opposite end mounted for travel on a travelling rod connected to the rear end of the platform, substantially as specified. 7th. The combination, with the herein described vehicle, having the front bolster provided with the upper annular section, of a fifth wheel having an offset transverse bar centrally perforated and an inwardly-disposed stop, a front axle carrying an opposite annular section of the fifth wheel and having a central bearing lug projecting above the plane of the section and bearing on the transverse bar of the opposite section and having an aligning perforation, stops also projecting from the lower annular section and adapted to come against the stop of the opposite section, and a king bolt passing through the perforations, substantially as specified. 8th. In combination with the fifth wheel, the traveller 32, connected to the lower end of the king bolt of the fifth wheel, below the latter, and the travelling rod 33, connected to the wagon and having the traveller mounted thereon, as set forth.

No. 35,331. Waggon. (*Wagon*.)

Thomas Hill, Jersey City, New Jersey, U.S.A., 3rd November, 1890; 5 years.

Claim—1st. In a waggon, the platform, having a main frame constructed of angle-iron, embracing two sides and one end, bars extending from side to side of such frame and secured thereto, and boarding in and between the flanges of the angle iron frame. 2nd. In a waggon, the platform, having a main frame constructed of angle iron embracing two sides and one end, bars extending from side to side of such frame and secured thereto, boarding in and between the flanges of said angle iron frame, and reinforcing strips within the channel between said boarding and the upper flange of said angle iron frame. 3rd. In a waggon, the platform having a main frame constructed of two pieces of angle iron, one of which forms the front and sides thereof, and the other the back, the latter piece being bolted or rivetted to the underside of the ends of the former. 4th. In a waggon, the rear axle trestles or bridges formed of metal trusses bent to secure the required depth or distance from the platform, as set forth. 5th. In a waggon, the combination, with the rear axle, trestles or bridges formed of metal trusses, of spring pedestals, and a stay or stays taken from each of said pedestals to the cross-bars of the waggon. 6th. The rear angle iron A¹, apertured for the reception of skid hooks.

No. 35,332. Game. (*Jeu*.)

James McCardell, Newton, Iowa, U.S.A., 3rd November, 1890; 5 years.

Claim—The game of money-change, herein shown and described, comprising the following elements, a series of checks or jettons of varying size and denominations, the slotted box adapted for shuffling and dealing the same, and the removable partitioned frame, constructed and combined to co-operate substantially in the manner and for the purpose set forth.

No. 35,333. Device for Tightening and Fastening Freight Car Doors. (*Appareil pour assujétir et fermer les portes de char à marchandises*.)

John Clark Wands, St. Louis, Missouri, U.S.A., 3rd November, 1890; 5 years.

Claim—1st. The door-plate, having at one end an inwardly-projecting slotted or notched barrel, provided with an offset notch, in combination with a bevel-edged thimble secured to the door-jamb, and the fastening or tightening bolt, having a lug engaging said barrel and thimble, substantially as set forth. 2nd. In a car door fastening, the combination with the door-plate, having at one end a perforated stop lug, and at the other end an inwardly-projecting slotted or notched barrel, of the bevel-edged thimble bolted to the door-jamb, and the tightening bolt having a lug on one end, and the perforated handle on the other, substantially as specified. 3rd. The car door tightening devices and fastening, consisting of the keeper-plate on the middle portion of the rear jamb, the door-plate having the slotted or notched barrel and the perforated stop-lug, and the fastening or tightening bolt, having a toe lug engaging an angular notch or groove, of the barrel of the door-plate and a perforated lever-handle adapted to be locked or sealed to said stop-lug of the door-plate, substantially as specified.

No. 35,334. Gas or Oil Heating Stove.

(*Calorifère à gaz ou à huile*.)

Charles W. Jenks, Chicago, Illinois, U.S.A., 3rd November, 1890; 5 years.

Claim—1st. The stove, constructed substantially as shown and described, having the combustion chamber in the centre, provided

with deflecting plates, constructed as shown, and arranged over the burners and under the smoke-flue, the air-heating flue surrounding the combustion chamber, and exterior air-flue surrounding the air-heating flue, and an enlarged chamber or flue placed directly over the combustion chamber and communicating with the air-heating flue and exterior air flue by passages e¹, f², and f³, as specified. 2nd. The stove, constructed as shown and described, having the central combustion chamber, provided with deflecting plates over the burners, the air-heating flue surrounding the combustion chamber, the cap e, having flanges e¹, e² and e³ and perforations e⁴, in combination with the casing b¹, provided with the top plate f, having flange f¹, arranged, as shown, relatively to the cap e, as specified. 3rd. In a gas or oil-heating stove, and in combination a central combustion chamber, having the burners near the bottom, and the smoke-flue connected at the top, deflecting plates e¹, arranged over the burners and below the smoke-flue, a flange e¹, connected to an extension of the top plate of the combustion chamber, provided with a row of perforations e², the casing b¹ surrounding the combustion chamber and extending above it, the casing b² surrounding casing b¹ and extending above it, and the plate f, provided with the flange f¹, said plate and flange being arranged, as shown, relatively to casing b¹.

No. 35,335. Connecting and Joining together Electric Carbon Plates and Carbon Pencils. (*Moyen de raccorder et joindre les plaques de carbone, et carbone pour lumieres electriques*.)

John Blair, North Orillia, and Alexander Gokey Hunter, Dundalk, both of Ontario, Canada, 3rd November, 1890; 5 years.

Claim—1st. A means, whereby the short and broken pieces of carbon pencils may be utilized to a more profitable account. 2nd. A means, whereby a piece of large carbon pencil may be connected to a smaller carbon pencil for the purpose of producing a larger or smaller arc light at times and places when such change of light may be advantageous. 3rd. A means, whereby to join and connect two or more carbon pencils together for any and every purpose for which said extension may be required. 4th. A means whereby carbon pieces, stubs, and pencils, may be used together, all of which is substantially described and specified, and for the purposes herein set forth.

No. 35,336. Process of and Apparatus for Manufacturing Gas. (*Procedé et appareil de fabrication du gaz*.)

Marcellus A. Morse and Theodore G. Springer, both of Chicago, Ill., U.S.A., 3rd November, 1890; 5 years.

Claim—1st. The process of manufacturing gas, which consists in highly heating a body of high grade hard coal or coke by rapid combustion, and burning the resulting gaseous products with air, and storing the heat in a body of refractory material, and at the same time burning a body of slack or low grade cheap fuel with a slow combustion, and by means of the resulting gaseous products, heating a second body of refractory material, then suspending the combustion, then superheating steam by passing it through the body of refractory material heated by the waste gaseous products of the hard coal or coke, then decomposing such steam by passing it through the body of incandescent hard coal or coke, and then passing the resulting gases, together with a hydro-carbon, through the body of refractory material previously heated by the gaseous products arising from the low grade fuel for producing a fixed illuminating gas. 2nd. The process of manufacturing gas, which consists in raising a body of hard coal or coke to a state of incandescence by rapid combustion with air, burning the resulting gaseous products with air, and storing the heat in a body of refractory material, and at the same time heating a second body of refractory material by the combustion of gaseous products arising from a separate body of cheap low grade fuel, then suspending the process of combustion and passing a hydro-carbon, with steam in excess through the body of refractory material heated by the waste products of combustion of the hard coal or coke, decomposing the steam into carbonic acid and hydrogen gas, then passing such gases through the incandescent hard coal or coke to convert the carbonic acid gas into carbonic oxide, and the hydrogen into light carbureted hydrogen, and then passing the carbonic oxide and carbureted hydrogen, together with sufficient hydro-carbon to make an illuminating gas through the second body of refractory material previously heated by gaseous products from the low grade fuel, whereby the hydro-carbon is converted into fixed illuminating gas. 3rd. A cupola gas generator, having a fuel chamber and a fixing chamber, both in one structure, as described, the walls of the fuel chamber being constructed to flare from below, upward and outward and project at the top circumferentially outward beyond the base of the fixing chamber, and said projecting portion having one or more openings passing downward through its top and in line with the flaring walls, through which openings the fuel chamber may be evenly charged with fuel and the clinker readily cleaned from the walls, and said openings being provided with tight-fitting lids, as described.

No. 35,337. Galvanic Battery.

(*Batterie galvanique*.)

Edward Milton Burt, Paris, Illinois, U.S.A., 3rd November, 1890; 5 years.

Claim—1st. In a galvanic battery, an exciting solution formed of the soluble salts of burned Indian corn cobs, the same consisting of carbonate, phosphate, silicate, and chloride of sodium, potassium, iron, calcium and magnesium, as specified. 2nd. In a galvanic battery, an exciting solution formed of carbonate of potash and other soluble salts derived from the ash of the Indian corn cob, as specified.