

No. 6443. Manufacture of Illuminating Gas.*(Fabrication du gaz d'éclairage.)*

Myron H. Strong, Brooklyn, N.Y., U.S., 17th August, 1876, for 5 years.

Claim.—1st. The gas making apparatus consisting of a retort filled with vertical tubes combined with the chimney and the supply pipe for petroleum or other liquid hydrocarbon. 2nd. The combination with a retort for making gas from liquid hydrocarbon, of a fire bed and a hopper for coal, and a gas delivering pipe leading from the hopper. 3rd. The method of manufacturing illuminating gas from liquid hydrocarbon by subjecting such liquid to the heat of a retort and passing the resulting gas through coal in a heated condition. 4th. The combined processes of manufacturing illuminating gas and alternately heating the retort for again making illuminating gas by employing the carbon deposited from the liquid hydrocarbon and the coke from the coal, in heating the gas making retort and using the hydrocarbon vapours and gases from the coal to carburize the hydrogen from the petroleum to form illuminating gas, and at the same time produce coke that aids in heating the retort.

No. 6444. Smokeless Furnace. (Fourneau fumivore.)

James W. Bonta, New Brighton, Pa., U.S., 17th August, 1876, for 5 years.

Claim.—1st. A base burning coal magazine arranged over a closed ash pit provided with blast pipe for injecting air in combination with a lateral heating chamber having outlets from its bottom for the discharge of the unburnable products of combustion in a downward direction; 2nd. In combination with the heating chamber of a furnace, a door or doors for closing the opening or openings of the heating chamber in combination with a movable deflecting shield or shields for the purpose of laterally deflecting the hot air pulled out from the heating chamber upon the opening of the door or doors; 3rd. A heating chamber provided with an outlet for the escape of unburnable products of combustion and an opening or mouth for allowing access to its interior provided with a movable door and a closed ash pit provided with a pipe for the injection of air, in combination with two vertical chambers or magazines closed at the top by movable covers for containing coal and discharging the same, after partial coking, into the opposite sides of the heating chamber; 4th. A sliding door for closing the mouth of the heating chamber of a furnace, and mechanism for raising such door in combination with a valve arranged in the air blast pipe of the furnace in suitable position to be acted upon by the mechanism which raises the door whereby when the door is raised the valve is closed; 5th. Two series of base burning coal magazines arranged over two corresponding series of closed ash pits provided with pipes for injecting blasts of air in combination with a melting chamber situated between the coal magazines, and having narrow openings in its opposite side walls, a short distance above its bed, for admitting the flames from the lower parts of the coal magazines; 6th. A series of base burning coal magazines and a melting chamber having an inclined bed, in combination with downward flues leading from the melting chamber when the inner mouths of the said flues are at, or nearly at, the same level as the lower boundary of the openings in the side walls of the melting chamber bed; 7th. A melting chamber in combination with a charging chamber, situated above the melting chamber and provided with movable cover and a swinging bottom for facilitating the charging of the melting chamber without permitting the escape of the heat therefrom; 8th. A melting chamber and a charging chamber in combination with a fire brick slide for closing the opening in the melting chamber which communicates with the charging chamber; 9th. A perforated pipe for injecting downward jets of air into the melting chamber in combination with a side magazine or magazines having a lateral opening or openings through which the gases and flames from the magazine or magazines are discharged into the melting chamber.

No. 6445. Flour Bolt. (Blutoir.)

Edwin Slagle and John M. Graham, Albany, N.Y., U.S., 17th August, 1876, for 5 years.

Claim.—1st. A flour or meal bolt consisting of a suspended movable frame, and a flexible cloth arranged in wave-like form between the boards A of the frame; 2nd. The combination with the cloth B of the cross pieces J and the boards A, the latter being connected in zig zag lines with the cloth between them; 3rd. The combination with the bottom cloth B, partition I and cross pieces J of the points a, tacks L and cords M; 4th. The combination of one or more coolers b d having wave-shaped bottom with the bolt; 5th. The combination of the wire riddle f and chute g with the bolt; 6th. In combination of riddles n and f adjustable section h of the latter and the chute g with the bolt; 7th. The combination of swinging knocker k having a protecting substance of soft material, with the shaking bolt; 8th. The brake m and weighted adjusting cord n combined with the swinging knockers; 9th. The vertically adjustable bars g, combined with the flexible hangers E and the bolt; 10th. The flexible hangers E connected to the bolt by detachable connection with bars t and secured to buttons n; 11th. The combination of rod f with the chute g, riddle f and the bolt B; 12th. The cloth B connected to the frame by points a, projecting from one side, and by tacks L and cords M on the other side; 13th. The combination of the tension rods et with the cloth B arranged in wave-like form.

No. 6446. Improvement in Cupola Furnaces.*(Perfectionnement dans les cubilots.)*

James Blackeney, Springfield, Mass., U.S., 17th August, 1876, for 5 years.

Claim.—The combination with cupola of flat circular plate A having curved inclined chutes B, plate D and pipe F. 2nd. The combination with tuyere of case G, having irregular hollows H in bottom, and openings I.

No. 6447. Improvements on Knife-heads for Harvesters.*(Perfectionnements aux lames de moissonneuses.)*

George W. Harrison, Lansing, Mich., U.S., 17th August, 1876, for 5 years.

Claim.—1st. In combination with the knife A, the base or heel plate B secured to the knife by rivets a and constructed at its top rear edge with under

cut varied projections or joints B₁ B₂ B₃. 2nd. In combination with the plate B constructed with projections and recesses B₁ B₂ B₃ the coupling head C constructed with varied recessed and notched base C₁ C₂ C₃ fitting therein; 3rd. A coupling head or pitman connection for harvesters made in two separate and distinct parts, whereby the head may be removed from the base plate by which it is secured to the heel of the knife and applied to different blades of different harvesters; 4th. The coupling head or pitman connection for harvesters, composed of separate and removable head C and base plate B, the two united by a joint between the two and bolt B₄ and to the knife by rivets or bolts passing through the knife and plate; 5th. The hollow coupling head C constructed with varied notched base C₁ and provided at each end with screw plugs D D. 6th. In combination, with the hollow coupling head C constructed with varied notched base C₁ and screw plugs D D at each end, the rubber packing E E and metal boxes F F placed at each side of the pitman arm and adapted to be adjusted independently of each other by the screw heads D D. 7th. In combination with the hollow head C and screw heads D D, the rubber packing E fitted within the head C and adapted to be adjusted at either end by the plugs D D. 8th. In combination with the head C and packing E F, the bent arm H, entering the cylinder through oblong opening D₂ and connected to pitman by screw coupling H₁; 9th. The combination of knife A, cylinder C, base plate B, made separate there with, and pitman arm H entering the cylinder only at one side; 10th. The pitman connection composed of separate base plate B and cylinder C, screw heads D D, rubber packing E E, metal boxes F F and pitman arm H.

No. 6448. Improvements on Harnesses.*(Perfectionnements aux harnais.)*

Frederick Walsh, Brantford, Ont., 17th August, 1876, for 5 years.

Claim.—The overcheck adjusters D, containing the double flanged roller F.

No. 6449. Gas Apparatus. (Appareil à gaz.)

George Drolet, Quebec, Que., 12th August, 1876, for 5 years.

Résumé.—1o. La combinaison des récipients superposés F G H 2o La toile métallique E brûlant l'air.

Claim.—1st. The combination of receptacles placed one over the other F G H; 2nd. The wire cloth E breaking the air.

No. 6450. Sad Iron Heater.*(Chaudière de fers à repasser.)*

John B. Christian, Hamburg, Iowa, U.S., 17th August, 1876, for 5 years.

Claim.—The lids or covers C pivoted to the top B and provided with lots and wings, in combination with the heater A and a sad iron.

No. 6451. Millston Dresser.*(Marteau à repiquer les meules.)*

Augustine Defor, Eliza, Minn., U.S., 17th August, 1876, for 5 years.

Claim.—1st. The driving wheel H, pinion I, connecting rod L, pick handle K and adjustable pivot N for the pick handle; 2nd. The feed screw G, pinion I, plate E, plate B, nut O and the supports P.

No. 6452. Improvement on Railroad and other Signals.*(Perfectionnement des signaux de railroads et autres.)*

John W. Hawley, Warsaw, N.Y., U.S., 17th August, 1876, for 5 years.

Claim.—1st. The combination with the suspended wire A of the hangers a and rock arms a; 2nd. The combination with the wire A of the crank rod B, pivoted link b and inclined top band c or equivalent; 3rd. The combination with the wires A A of the sliding wedge plates d d, spring bolt d and sliding plate or arm e; 4th. The combination with the sliding plate e, of the sliding rod D and depressing mechanism D; 5th. The combination with the signal of a depressing device attached to the track at a distance operated by a projection from the engine, a wire connecting said depressing device with the signal and a depressing mechanism at the signal with a rod resting near the signal for replacing the same.

No. 6453. Improvements in Corsets.*(Perfectionnements aux corsets.)*

Clara P. Clark, Wakefield, Mass., U.S., 23th August, 1876, for 5 years.

Claim.—1st. A corset having boneless bosom portions formed by the parts B C D; 2nd. A corset constructed with boneless bosoms, and back pieces extended obliquely upward to form a shoulder piece provided with the straps E which cross each other and pass over the opposite shoulders to the front of the corset, in combination with the skirt supporters G.

No. 6454. Improvements in Pails and Tubs.*(Perfectionnements dans les seaux et cuvettes.)*

James S. McMurray, Toronto, Ont., 17th August, 1876, for 5 years.

Claim.—1st. A sheet metal ear A formed with a button-shaped projection d and clinching pieces a and b b, in combination with the hoop B; 2nd. The eye E having ends e fitting and working within the space formed by the button-shaped projection d, in combination with the bail B.

No. 6455. Sewer or Cesspool Inlet Cover and Grating.*(Couvercle et grillage de regard d'égout ou de cloaque.)*

Henry W. Clapp, Concord, N.H., U.S., 17th August, 1876, for 5 years.

Claim.—1st. The combination of the grate A, base ring B and series of posts C; 2nd. The main supporter D, provided with the flanges b and d and with such and the concave c; 3rd. The combination of the said supporter D