

**No. 10,995. Improvements on Shovels, Spades, &c.** (*Perfectionnements aux pelles, bêches, &c.*)

Henry M. Whitney, Oswego, N. Y., U. S., 5th March, 1880; for 5 years.

*Claim.*—The combination with the blade A, of the handle B, secured to said blade by T-headed rivets D, and cap C, having upon its under side flutes or grooves b.

**No. 10,996. Reflecting Stereoscope Camera.**

(*Chambre noire à réflexion stéréoscopique.*)

Warren Harris, Danville, Vt., U. S., 6th March, 1880; (Extension of patent No. 4,463), for 5 years.

**No. 10,997. Process and Apparatus for charging Coal Gas retorts.** (*Procédé et appareil pour charger les cornues à gaz de charbon.*)

Abbott Q. Ross, Cincinnati, Ohio, U. S., 5th March, 1880; for 5 years.

*Claim.*—The method of charging gas retorts consisting essentially in: 1st, separating from the mass of coal a full charge for the retort and, then, blowing said charge in quickly at one operation, by the action of a fluid under pressure; 2nd, the method of charging gas retorts by means of a fluid under pressure, consisting essentially in exploiting said fluid against the coal by a series of blasts decreasing successively in force; 3rd, the method of charging gas retorts by means of a fluid under pressure, introduced behind or against the materials to be discharged, and directed towards the orifice of the retort; 4th, the charger E constructed with substantially vertical front and inclined rear walls, and a horizontal conduit H formed upon the lower end in continuation of the walls, with an opening or openings at the rear end to admit a blast; 5th, the combination upon one platform of a movable charger E, a reservoir B and a flexible or yielding connection between the charger and reservoir; 6th, in combination with a fluid reservoir and a charger capable of being moved backward and forward between the hopper and the mouth of the retort, the flexible jointed or telescopic pipe F extending from the charger to the reservoir, and provided with a cock f arranged at or near the reservoir, whereby the water of condensation is kept back and the pipe left empty when not charging; 7th, in combination with a charger E having a directing conduit H, at its lower end, and a blast pipe to force steam, or air, or other fluid through the conduit, a movable supporting frame whereby the charger can be advanced and retracted and can be elevated to direct the coal to the proper retort; 8th, in combination with the charger E and conduit H adjustable at different elevations, and with the flexible pipe F capable of yielding to the adjustment of the charger, the transverse discharge pipe or section F' rigidly attached to the charger or conduit, so as to follow the movements of the latter and insure the passage of the fluid through it in lines parallel to its floor; 9th, the discharged conduit, in combination with a series of charge compartments emptying successively into said conduit; 10th, the combined charger conduit and blast pipe, vertically adjustable by means of chains or pulleys, or their equivalent; 11th, the three part charging vessel capable of containing three full charges separate from each other, for the three retorts constituting one side of a bench and capable of vertical adjustment to the different retorts; 12th, the combination of the movable partitions, with the charger and conduit, whereby any one of the several compartments may be brought into communication with said conduit and the blast apparatus, for the purpose of discharging its contents into the retort; 13th, the combination of a main car or platform A, movable backward and forward in front of the retorts, a secondary frame or support for the charging vessel, movable in and out toward and from the retorts, and a hoisting engine located on the secondary frame for raising the charging vessel; 14th, a main car or platform A, movable backward and forward in front of the retorts, a secondary frame or support for the charging hopper, movable in or out toward or from the retorts, a steam charging hopper or vessel, and means for raising and lowering the same vertically, and a steam receiver and boiler located on the main car or platform and connected to the charging vessel by a flexible or jointed pipe; 15th a main car or movable platform A, a secondary movable frame or support for the charging vessel, a hoisting engine on the secondary frame, for raising the charging hopper, and a steam receiver and boiler on the main car and connected to the hoisting on the secondary car or frame by a flexible or jointed pipe; 16th, a main car or platform A, movable backward and forward in front of the retorts, a secondary frame or support for the charging vessel movable in and out toward and from the retorts, a vertically adjustable steam charging hopper or vessel, a hoisting engine on the secondary frame, for raising the steam charging vessel, and a steam receiver and boiler arranged on the main car and connected, both to the charging vessel and to the hoisting engine, by flexible or jointed steam pipes separately controllable; 17th, a vertically adjustable charging vessel raised and lowered by the movement of a hoisting shaft, in combination with a friction brake operating in connection with said shaft, for the purpose of controlling or arresting its movements and assisting in adjusting the charger to the different retorts and holding it in place when so adjusted; 18th, the combination of the platform A, charger and carriage D, with the receiver and boiler, both arranged on the main platform at the side of the carriage D, whereby the flexible or jointed pipe or pipes of minimum length receive steam from the top of the receiver, at the side of the secondary track and about midway of the movement of the carriage thereon, and are supported by such receiver in an elevated position, so as to clear the platform and accommodate themselves readily to the movements of the charger on the carriage or upper movable frame; 19th, the combination of the carriage, the charger and the flexible or jointed pipe with a steam or air cylinder and piston having the induction and exhaust on one side of the piston whereby the charger is raised by the induction of the steam or air and lowered by its education; 20th, the combination of the charger with the guides, the hoisting shaft, the wire ropes and pulleys, and the steam or air cylinder and piston arranged on the movable carriage, and connected to the receiver by a flexible or jointed pipe; 21st, the combination of the carriage D, having the triangular frame, with the inclined cylinder supported by one of the inclined sides of the carriage, and having its piston moving toward and from the hoisting pulley or shaft.

**No. 10,998. Improvements on Puddling Furnaces.** (*Perfectionnements aux fourneaux de puddlage.*)

William Stubblebine, Bethlehem, and Bernard C. Lauth, Philadelphia, Pa., U. S., 8th March, 1880; for 5 years.

*Claim.*—The combination of a gas and air chamber J, located above the fire chamber having a direct communication therewith, through openings i i and having a valved blast pipe n.

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William Stubblebine, Bethlehem, and Bernard C. Lauth, Philadelphia, Pa., U. S., 8th March, 1880; for 5 years.

*Claim.*—1st. The fire chamber, a gas chamber W, having a partition h and communicating with the said fire chamber through openings i i, on one side of the partition, and openings i, on the opposite side of the partition, in combination with a blast pipe, from which the air introduced into the said gas chamber is directed towards the openings i; 2nd, the combination in a puddling or heating furnace, of the chamber W, having a partition h, and communicating with the fire chamber, the partly perforated partition n, and a blast pipe k; 3rd, the combination of the fire chamber and ash pit of a puddling and heating furnace, with the gas chamber W, communicating with the said fire chamber, the partly perforated partition n and the two blast pipes k k' each provided with a suitable valve.

**No. 11,000. Improvements on Mail Cars.** (*Perfectionnements aux chars-poste.*)

Charles R. Harrison and Benjamin F. Moore, Fond du Lac, Wis., U. S., 8th March 1880; for 5 years.

*Claim.*—1st. The combination, in a car furnishing system and apparatus for handling and distributing mails, of the end and side bug racks A e e', brackets B, centre supports D, portable drop tables F and portable drop bag frames and bag rods G I; 2nd, the combination, in a sectional and folding pouch rack, of the binged section A a f e k e', swinging bracket B b x and wall piece C c x; 3rd the slotted hinge eye C, in combination with the rack journal f and latch and catch K b; 4th, the combination, in a portable centre support of detachable sections d e e' and detachable standard E; 5th, the combination in centre supports for table and bag racks, of the (straight or bifurcated) standard E d' with single or double longitudinal rods e e'; 6th the adjustable extension rod device L, in combination with centre support frame D, drop table F, cross rod I and end rack A e; 7th, the combination, in a detachable and portable drop table, of the plane F, adjustable hinge F' supporting hook m, double open hinge hook o and leg K; 8th, the adjustable table hinge F' f', in combination with the table F, support frame D and extension rod L; 9th, the combination, in a portable, detachable drop bag rack, of the oblong frame G, the hook hinge g and hook g', and support rod e; 10th, the single rod bag rack I, in combination with the extension rod L, hook eye i, hook z, and hook rod e; 11th, the combination in a rod clamp, of the r-cess B' and cap and bolt b, with the rod e and bracket B; 12th, the combination, in a label holder, of the double card slide H, its lugs h h' and the alternating opposite pointed bag hooks y y'; 13th, the combination, in a portable, detachable and sectional postal car apparatus, of the folding rack device A B C, raised label holder H h h', detachable centre support D e e' and E d', portable drop tables F, portable drop bag racks G I, extension rod device L and reversed table supports K o.

**No. 11,001. Malt Sugar.** (*Sucre d'orge.*)

John H. Nottorf, Berlin, Ont., (Assignee of Albert Oblaser, Detroit Mich., U. S.) 8th March, 1880; for 5 years.

*Claim.*—A compound of the extract of malt (prepared in the manner stated), and fine white granulated sugar.

**No. 11,002. Improvements on Gas Regulators.** (*Perfectionnements aux régulateurs à gaz.*)

John E. Birch, Stratford, Ont., 8th March, 1880; for 5 years.

*Claim.*—The combination of the ball valve H, working in the valve chamber I and the rod G, with the float chamber D and pipe K.

**No. 11,003. Improvements on Farm Gates.** (*Perfectionnements aux barrières.*)

Frederick J. Lee, Mallorytown, Ont., 8th March, 1880; for 5 years.

*Claim.*—1st. A swivel post axially pivoted to ground block G, and cap H and having a central slot provided with a roller, in combination with a gate having a bar bearing on said roller for rolling the gate to and fro in the slot whereby the gate can be swung; 2nd, a gate C constructed with an inclined bar I, bearing on a roller E in a post F axially pivoted, whereby the gate will close by gravitation; 3rd, in combination with the gate, the swing post F having a pivotal bearing on a pin fixedly secured in block G; 4th, the caps K, applied to the top of the gate posts B for weather protection.

**No. 11,004. Improvements on Bolt Fastenings.** (*Perfectionnements aux arrête-boulons.*)

Edward Leslie, Orangeville, Ont., 8th March, 1880; for 5 years.

*Claim.*—1st. The combination of the plate A having jaws a a, arm B having jaws b b, elbow latch C and spring D, operatively connected by the pittle d; 2nd, the latch C and spring D, in combination with the arm B having jaws b b, and plate A having jaws a a, pitted together.

**No. 11,005. Improvements on Scutching Machines.** (*Perfectionnements aux machines à teiller.*)

Calixte Ethier, St. Jérôme, Qué., 8th March, 1880; for 5 years.

*Claim.*—1st. In a flax-dressing machine, the rollers E F fluted, part of their length, to a coarse pitch, and, for the remainder of their length, to a