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INVENTIONS PATENTED.

No. 10,015. Improvements on Whip-holders.

(Perfectionnements aux porte-foucts.)

Jas. Lowth, Chicago, Ill., U. S., 28th May, 1879, for 5 years

Claim—1st In a whip holder and in combination with a shell H, an adjustable throat section T, adapted to be closed upon a whip handle, by the insertion of anid whip handle and opened by the withdrawal of the same, 2nd In a whip holder and in combination with a shell H, the pivoted spindle B provided with the inclined wing D and the adjustable throat or jaw T.

No. 10,016. Improvements on Fire-Engines.

(Perfectionnements aux pompes a incendie.)

Alexander S. Walbridge, Mystic, Que., 28th May, 1879, for 5 years.

Claim.—1st. In combination with the valve chambers I I I, connected by section papes F and force papes J J, the pump cylinders D D D, radially stranged, having plungers with hinged plunger rods N, connecting with a vertical crank O, at the radial centre, suitably stepped and journalled, whereby when the crank is operated by sweeps V in a capstan head T and intermediate gearing the plunger rods successively pass the crank centre, 2nd The adjustable sliding leg 12 for supporting the front end of the engine when detached from the front truck. 3rd The stay rods W, hooked to the engine and having an eye at the opposite end for staking to the ground, to steady the engine when pumping, 4th The front truck frame, having a bose reel 9 mounted thereon and connected: 4 the engine by draw bars 10, and king bolt 11, 5th The front truck trame, supporting the forward end of the engine having the draft bar 4 and removable thills 7, whereby one or three borses abreast can be employed to draw the machine, and the thills used for working the engine 6th The plunger rods N, having a detachable connection with the crank O, whereby one or more of the pumps D can be thrown out of gear.

No. 10,017. Improvements on Watch Cases.

(Perfectionnements and bottiers des montres.)

Errs C Fitch New-York, U S. 28th May, 1879, for 5 years.

Claim—1st. An open face stem winding watch case formed in one seam less concave shell open in front to receive the movement. 2nd An open face watch case, formed in one seamless concave shell open in front to receive the movement and provided with a threaded edge on its face in combination with a bezel provided with a correspondingly threaded edge to screw upon the face of the case. 3rd In combination with an enclosing watch case, the outswinging ring B adapted to contain the movement and hinged to the margin of the encosing case. Ith In combination with an enclosing watch case, the outswinging ring B linged to the case at the base of the stem and adapted to contain a stem winding movement with its winding stud arranged to the with the winding stud arranged to the with the winding set of the stem. 5th The combination, with an enclosing watch case having the margin of its face provided with a threaded and shouldered rim. Of the bezel B having its rin formed with an internal thread and corresponding bevel edge or shoulder to screw upon that of the case and form a tight junct therewith this ha watch case the combination of the removable cap D adapted to be tightly fitted over the stem of the case to form a tight junct therewith the hard and case the combination of the removable cap D adapted to be tightly fitted over the stem of the case to toenchose the winding knob or other operative device thereon.

No. 10,018. Process and Apparatus for Deodorizing Petroleum Oil. (Procedé et appareil pour désinfecter le pétrole.)

Henry F. Howell, Sarnia, Ont., 28th May, 1879, for 5 years.

Claim - is: The treatment of crude petroleum and other oils, by subjecting them to the action of Chilorine or other gas, in such manner that a certain

proportion of the hydregon element is replaced by an equivalent of the gas, and. The treatment of crude petroleum and other oils, by subjecting them to the action of chlorine gas which substitutes itself for an equivalent quantity of the hydrogen element in said oils, 3rd. The process of treating crude petroleum and other oils, by subjecting them to the action of chlorine gas, saturating such gas with water or other liquid by which its atfluity for the hydrogen in the oil is developed and made active, 4th. An apparatus for treating crude petroleum or other oils, consisting of a closed cistern or retort retord with the following features: an oil inlet and discharge, a gas after and discharge, an outlet for removal of sediment or impurities, preferably, a transparent test tube and thermometer, and, when in use, a body of water or other liquid surrounding the gas escape ports of the feed pipe.

No. 10,019. Enamelled Cast Iron Wares.

(Fontes moulées émaillées.)

Eben C Quimby and Enoch Baldwin, Stourport, England, 28th May, 1879for 5 years.

Claim.—The improved manufacture of enamelled cast iron ware imore or less mottled or spotted, as desired) by the application, to the clean surface of the cast iron, of the above described composition or glass, consisting of borax and silica in equal, or about equal proportions, and more or less of the other above named ingredients.

No. 10,020. Improvements on Horse Rakes.

(Perfectionnements aux râteaux à cheval.)

William P Clark and Charles E Clark, Belmont, N. Y., U S., 28th May, 1879, for 5 years

Claim.—1st The combination with a pivoted rake and a revolving axie, of a crank arm hung loosely at, or on the said axie and connected with the rake, together with a clutch, one half of which is fixed to the axie, and the other half connected with the crank and capable of being thrown into engagement with the clutch of the axie to partly produce the crank and raise the rake. 2nd. The combination with a pivoted rake and a revolving axie and connected with the rake, together with a clutch arranged to counje the said crank with the axie and with a clutch actuating device adapted to lock the clutch in engagement when depressed, arranged in the path of the crank so that the continued revolution of the crank trips, the said clutching device disengages the clutch and allows the crank and rake to drop after a partial revolution and elevation of the same. 3nd. The combination, with a pivoted rake head and a divided axie actuated by the driving wheels, of a double crank hung loosely at or on the meeting ends of the divisions of the axie and connected with the rake, together with independent clutches arranged on each side of the crank, on each division of the axie, so that the rake may be automatically raised by the power applied from either wheel, 4th. The combination of a pivoted rake and a revolving axie provided with a device which is connected with the rake and capable of being clutched to the nale to effect the automatic lifting of the rake, with the locking spreading toggies h i and spring arms g, or equivalent, arranged to actuate the clutches and couple the said lifting device with the axie, in such manner that the clutches become locked in gear till the moment of trip or rolease, 5th. In combination with the rake not capable of the rolease, 5th. In combination with the hand lever which is a tranged to lift the rake head, the folicrim block k provided with a socket in front of the lever which is fitted with an elastic recoil cushion, 7th. In combination with rake teeth having their pivotal ends bent at right angl

No. 10,021. Improvements in Telephones.

(Perfectionnements aux téléphones.)

Francis Blake, jr., Weston, Mass., U. S., 28th May. 1879, for 15 years.

(l'aim.—lst. The method for holding the diaphragm of a telephone by means of springs pressing against one of its surfaces. 2nd. A spring forming or carrying one electrode of the circuit of a telephone and constantly pressing against the other electrode and diaphragm, to maintain the required initial