

combination of the tightening screw N, nut O, and the slide M; 4th. The self oiling recesses J, which contain the packing, cut into the bottoms and ends of the bed plates J.

No 2682. ALEXANDER RODGERS, Muskegon, Mich., U. S., 27th August, 1873, for 5 years: "Improvement on Saw-Mill Head Blocks." (Perfectionnement des poupées de scieries.)

The object being to afford a ready means of adjusting the log after each cut of the saw to the proper position for making another cut.

Claim.—1st. The dogs N, and M, in combination with their operating mechanism and the setting-jack C; 2nd. The chain tightener F; 3rd. The side dog S; 4th. The setting shaft D, furrow E, and chain e, in combination with the setting jack C; 5th. The gauge cylinder F, in combination with the setting racks b, and b', and the indicator h, and movable arm h; 6th. The reciprocating racks b, and b', and their operating mechanism in combination with stationary rack a; 7th. The rack G, in combination with the eccentric P, and pin, is, n, m; 8th. The setting-jack c, provided with the two sets of dogs S, and m, m', and the mechanism for operating the same in combination with the block B, and carriage A, all the parts being constructed and operating as specified.

No. 2683. DANIEL FORWARD, Rochester, N. Y., U. S., 27th August, 1873, for 5 years: "Process of Tanning Hides." (Procédé de tannage des peaux.)

Claim.—1st. The process of tanning, the saturation of the hides or pelts with petroleum or its distilled products after being prepared to absorb the same by treatment with a chemical or alkaline solution; 2nd. The process of tanning, the treatment of the hides or pelts with a solution of alum, salt and white vitriol dissolved in water in about the proportions stated, and saturating the hides or pelts after such treatment with crude petroleum or its distilled products to be afterwards removed by evaporation.

No. 2684. THOMAS McVEIGH, Litchfield, Que., 27th August, 1873, for 5 years: "Illuminating Oil." (Huile d'éclairage.)

Claim.—An illuminating oil composed of naphtha and potatoes, salt, oil of sassafras, gum, camphor, sal soda, alum, cream of tartar and alcohol, mixed together, in about the proportions stated.

No. 2685. GEORGE F. DEAN & FREDERICK Y. C. HILL, Montreal, Que., 27th August, 1873, for 5 years: "Combined Chair and Lounge." (Chaise et causeuse combinées.)

Claim.—1st. The combination of the side pieces A, bent pieces D, legs H, and connecting bars K; 2nd. The combination of the links M, and N, with the bent pieces F, and side pieces A; 3rd. The combination of the side pieces A, and bars B, B', and B'', bent pieces D, with bars E, legs H, connecting bars K, and links M, and N.

No. 2686. WILLIAM A. P. RHODES, Kingston, N. B., 27th August, 1873, for 5 years: "Horse Collar Pad." (Bourrage de collier à cheval)

Claim.—A horse collar pad manufactured from woollen textile material quilted and sewn together and having an elastic inserted piece D, and roll portion C, as set forth.

No. 2687. HENRY CARTER & DANIEL STEWART, Aylmer, Ont., 27th August, 1873, for 5 years: "Machine for Cutting Bolts." (Machine à couper les boulons.)

Relates to an improved machine or tool for cutting off the ends of bolts &c., above the nut by the operation of a chisel-edged cutter operated by a pair of levers constituting the handles of the implement.

Claim.—The combination of the stock A, having a chisel edge B, and chisel block C, provided with a chisel D, sliding therein and operated by the levers F, eccentrically pivoted to the head stock and chisel block, in the manner set forth.

No. 2688. THOMAS MAXON, Springfield, Ohio, U. S., 28th August, 1873, for 5 years: "A Lifting Jack." (Un cric.)

Claim.—The combination of the slotted post A, rack bar C, with grooved foot D, roller G, swinging arms K, lever I, with hook J, pawl F, with thumb piece m, and the springs d, h.

No. 2689. JOSEPH LISLE, Lindsay, Ont., 28th August, 1873, for 5 years: "A Rocking Churn." (Une baratte à bascule.)

The rocking motion being centred on pivots and assisted by the spring attachment.

Claim.—The combination of the pivot F, and springs B.

No. 2690. HENRY H. WAINWRIGHT, Philadelphia, Penn., U. S., 28th August, 1873, for 5 years: "A Gas Apparatus." (Un appareil à gaz.)

Claim.—1st. A gas apparatus in which two or more acid reservoirs are combined with a single generating chamber E, containing scrap metal; 2nd. The shelf or grate b, arranged in the generating chamber E, above the communications between the said chamber and the acid reservoirs; 3rd. The combination with the generating and acid chambers of valves D, D, or tubes D, D, with cocks; 4th. The combination of the air pipe F, and gas pipe F', with the chambers E, and G; 5th. The gas distributing perforated ring h, or its equivalents, attached to the pipe F', and contained within the carbureting chamber G; 6th. The check valve Y, in the pipe F; 7th. The combination of the acid reservoirs with evaporating pans.

No. 2691. WALTER C. CHURCH, London, Eng., 28th August, 1873, for 5 years: "Improvements on Steam and Hydraulic Engines partly applicable to Steam Hammers and to Valves for regulating the Flow of Fluids under Pressure." (Perfectionnements aux machines à vapeur et hydrauliques applicables, en partie, aux marteaux à vapeur et aux soupapes pour régler la chute des fluides en pression.)

Claim.—1st. The construction and use of a circular equilibrium slide valve B, for steam and hydraulic motive power engines and steam hammers provided with an internal bearing surface C, in the centre of the exhaust opening in the valve in combination with an isolated bearing surface A, in the centre of the exhaust port flush with the port face as described and illustrated on sheets 1 and 2 of the drawings; 2nd. The making an isolated bearing surface A, in the centre of the exhaust port of the cylinder and flush with the port face as described and illustrated on sheets 1 and 2 of the drawings; 3rd. The use of the before mentioned loose cap D, held by a spring F, in contact with the valve chest cover E, or central plate when the steam or fluid pressure is shut off in combination with a loose piece C, in the manner described and illustrated on sheets 1 and 2 of the drawings; 4th. The use of a valve with two distinct bearing surfaces A, and B, the one A, being in contact with the port face, and the other B, in contact with a raised bearing surface C, secured to an isolated bearing surface, or support D, in the centre of the exhaust as described and illustrated on sheets 3 and 4 of the drawings; 5th. In reducing the pressure on circular regulator or other valves for controlling and regulating the flow of fluids under pressure by making them with an annular valve face C, working in conjunction with an annular port or opening a, and providing apertures b, d, d', in the back of the central part of the valve for the admission of steam or other medium of pressure into a chamber formed between the back of the valve and the surface over which it works as described and illustrated on sheet 5 of the drawings; 6th. In making the before mentioned circular regulator or other like valves so as to rotate freely within the buckle C, of the valve spindle as described and illustrated on sheet 5, of the drawings.

No. 2692. JOHN WEEKS, Woodstock, Ont., 28th August, 1873, for 5 years: "Bug Exterminator." (Exterminateur de punaises.)

Claim.—1st. The application of steam for the purposes set forth; 2nd. The machine for applying the steam composed of the furnace A, boiler B, steam tube C, steam valve D, and safety valve E.

No. 2693. CYRUS KINNEY, London, Ont., 28th August, 1873, for 5 years: "A Mop Handle." (Un manche de balai à laver.)

Claim.—The combination of hinge joint E, attached to head or ferrule B.

No. 2694. JOHNSON M. GROVER, Montreal, Que., 29th August, 1873, for 5 years: "A Churn." (Une baratte.)

Claim.—1st. The auger shaped dasher E; 2nd. The spindled dove and casting e, and corresponding piece f; 3rd. A combination of the dasher E, dovetail piece e, and f, with the frame, body and gearing of the churn.

No. 2695. SOLOMON W. KIRK, Philadelphia, Penn., and WILLIAM R. GRIFFITH, New York, U. S., 29th August, 1873, for 5 years: "Process for Separating Metals from their Ores." (Procédé pour séparer les métaux de leurs minerais.)

Claim.—1st. The method or process of separating and obtaining the precious or other metals from the matrix, by subjecting the mixed pulverized ore, and mercury to heat in vacuo; 2nd. The method or process of separating the precious metals and recovery of the mercury as described, viz., subjecting the one previously roasted and pulverized mixed with a sufficient quantity of mercury to heat in vacuo, and retaining and condensing the vapour given off as specified.