

velling carriage of a hay-carrier, of the track-beam A, catch-pin *g*, trip *n*, latch *r* and trip-rod N, substantially as and for the purposes set forth.

### No. 19,874. Pump for Oil Wells.

(*Pompe pour Puits d'Huile.*)

James Hoskins, Petrolia, Ont., 1st August, 1884; 5 years.

*Claim.*—1st. The combination, with an oil well pump, of an exterior tube T forming a reservoir K, surrounding the pump cylinder or working barrel J, provided with perforations F, pipe piston rod O having perforations H and *c*, cup D, pipe piston G, tube H and plunger S for the collection of sediment scales, &c. as set forth. 2nd. The hemp packing D<sub>1</sub>, in combination with the pipe piston K<sub>1</sub>, jamnut E<sub>1</sub>, piston G<sub>1</sub> and cylinder H<sub>1</sub>, as described for the purpose set forth.

### No. 19,875. Brush Block Boring Machine.

(*Machine à Percer les bois des Brosses.*)

John C. Hall, and Clemence A. Mahle, Corry, Penn., U. S., 1st August, 1884; 5 years.

*Claim.*—In a brush block boring machine, the combination of the driving-shaft, with the shaft which carries the carrier-plate, the carrier-plate shaft being passed through the driving-shaft to one side of its centre, substantially as described.

### No. 19,876. Injector. (*Injecteur.*)

William T. Messenger, Cambridge, Mass., U. S., 1st August, 1884; 5 years.

*Claim.*—1st. In an injector, the three concentric nozzles, the first of which enters and closes the rear or base of the second, which enters the base or rear of the third, combined with a cylinder connected with the base of the third nozzle and inclosing the other two, the space between the said cylinder and second nozzle forming the inlet passage for the third nozzle and communicating with the first nozzle, whereby an inlet pipe connected with the said cylinder affords a common supply for the first and third nozzles, substantially as described. 2nd. The three nozzles and steam-inlet chamber communicating with the first and third, combined with the steam inlet controlling device consisting of a valve seating in the first nozzle, a piston operating in the said inlet chamber, and a stem connecting the said valve and piston, and provided with passages through which steam is admitted to the first nozzle as soon as the valve is unseated, substantially as described.

### No. 19,877. Ash Shifter. (*Crible à centre.*)

Burton H. Cook, Brooklyn, N. Y., U. S., 1st August, 1884; 5 years.

*Claim.*—1st. In a sifter, of substantially the kind set forth, the movable slide *g* adapted to form a cover for the sifter box and a chute to discharge the cinders, substantially as herein shown and described. 2nd. The combination, with the sieve and its enclosing box having a discharge door on the side below the sieve and a slot at the opposite side, of the slide *g* adapted to enter the slot, extend across the box and project through and open the said door, substantially as and for the purpose set forth. 3rd. The combination, with the sieve and its enclosing box having the slot *o* and the door *r* with its inward projection *s*, of the slide *g* adapted to enter the slot of the box, project across the same and come in contact with the projection *s*, and thus open the said door and keep it open and thereby form a chute through which the cinders are discharged. 4th. The combination, with the sieve, of the enclosing box formed with the slot *o* on one side, and the door *r* on the opposite side, and inclined ways *o<sub>1</sub>* extending across the box, with the movable chute slide *g* adapted to enter said slot, slide over the ways and project through said door-way, substantially as and for the purpose set forth. 5th. The combination, with the sieve and sieve box having slot *o* on one side and door *r* on the opposite side, with the inward projection *s* on said door, of the slide *g* having notched side or sides to engage the top of said projection, substantially as and for the purpose set forth. 6th. The combination, with the sieve and sieve box having two opposite sides higher than the sides at right angles thereto, with the lid *g* formed with the ledge or rim *o<sub>1</sub>* adapted to fit over the box between the higher sides, in combination with a way across the box below the sieve and a discharge door at the foot of the same adapted to receive said lid, so as to form a discharge chute when the cinders are dumped, substantially as herein shown and described. 7th. The combination, with the sieve box, of the rotary sieve H with its movable section *q* having hooked hinge leaves on one side and a suitable catch at the opposite side, with the corresponding sockets *k<sub>1</sub>* and *m<sub>1</sub>*, substantially as herein set forth. 8th. The combination, with the sieve box and the rotary sieve, of the movable hinge section *q* and the barbed spring catch *l* on one side thereof, with the engaging socket plate *m* on the sieve, substantially as herein set forth. 9th. The combination, with the sieve and its movable lid section *q*, of hooked hinge leaves *h* affixed to the lid and socket plate *k* affixed over the mesh of the sieve and engaging one end of the lid with the sieve, and a suitable fastening holding the opposite edge of the lid, substantially as herein shown and described. 10th. The combination, with the sieve and its lid of the hinging leaves *h*, *h* formed with the hooks *h<sub>1</sub>* and stops *h<sub>2</sub>*, substantially as and for the purpose set forth. 11th. The combination, with the sieve and its lid, of the barbed spring loop *l* and the socket plate *m* fixed to the mesh of the sieve, arranged and operating substantially as and for the purpose set forth. 12th. The combination, with the sieve and sieve box having the slot *o*, and a discharge door on the side opposite said slot, of the movable chute slide *g* adapted to enter said slot, and open said door, with the sliding valve *t* adapted to fit over said slot against said slide, substantially as herein shown and described. 13th. The combination, with the sieve A, the slide *g* and the sieve box *b* having the slot *o* and door *r* and the ways *o<sub>1</sub>* projecting beneath slot *o*, with the slide *t* covering said slot and resting on the ends of said ways, substantially as shown and described. 13th. In a sieve, the combination, with the heads *d*, *d* and meshed cylinder *c*, of the fastening brackets *n* secured

to heads and cylinder, substantially as shown and described. 15th. The combination with a cylindrical sieve, of the arched lid *g* formed with the underlying brace rods *j*, substantially as set forth. 16th. In combination, with a cylindrical wire cloth sieve having a movable lid section *g*, the hinging and binding plates *h*, *k* extending longitudinally over the ragged edges of the wire-cloth at the meeting edges of cylinder and lid, and fastened respectively to the respective edges thereof, substantially as herein shown and described. 17th. In combination, with a wire-cloth sieve and its lid section *g* provided with a suitable catch, of the catch or socket plate *m*, fixed on one side of the lid opening and extending longitudinally over the ragged edges of the wire cloth and bound therein, substantially as herein set forth.

### No. 19,878. Pump for Oil Wells.

(*Pompe pour Puits d'Huile.*)

John Walker, Petrolia, Ont., 1st August, 1884; 5 years.

*Claim.*—1st. In combination, with an oil or other deep well pump, an exterior jacket forming a receiving chamber surrounding the working barrel, having openings into said chamber to collect sedimentary deposits, scales, &c., as set forth. 2nd. In combination with the strainer M, suction pipe G, valve P and working barrel O, the jacket J forming a receiver Q, as set forth for the purpose described. 3rd. In combination with the strainer M, suction pipe G having valve P, barrel O, and plunger P having valve P<sub>1</sub>, the jacket K forming a receiving chamber R, as set forth for the purpose described. 4th. The combination, with the suction pipe G having valve P, barrel O having plunger F provided with valve P<sub>1</sub>, of the jackets J, K forming receiving chambers Q, R, as set forth for the purpose described.

### No. 19,879. Wrench. (*Clé à Ferrou.*)

Benjamin F. Stockford, Sturgis, Mich., U. S., 1st August, 1884; 5 years.

*Claim.*—1st. As an improvement in wrenches, the combination of a shank having a fixed jaw and provided with teeth in one side, a sliding frame, a jaw pivoted in a recess in the face of and near the front end or nib of the latter and having a face plate bevelled on its under inner side, and teeth adapted to engage those in the face of the shank, and a spring arranged to force the sliding jaw outward toward the fixed jaw, substantially as described and for the purposes set forth. 2nd. The combination of the shank or handle having a fixed jaw and provided with teeth in one side, the sliding frame, a jaw pivoted in a recess in face of and near the front and nib of the latter, and having a face plate bevelled on its under inner side and teeth adapted to engage teeth in the side of the shank, a spring arranged to force the sliding jaw outward toward the fixed jaw, and a stop block to rest upon and prevent the disengagement of the heel of the pivoted jaw from the teeth in the side of the shank, substantially as described and for the purposes set forth.

### No. 19,880. Burner and Lamp for Mineral Oils, &c. (*Bec et Lampe pour Huiles Minérales, etc.*)

Georg W. Lyth, Stockholm, Sweden, 1st August, 1884; 5 years.

*Claim.*—1st. In burners for mineral oils or their equivalents, a fine wire net inside the burner beneath the orifice or orifices for the issue of the vapourized oil, substantially as and for the purposes set forth. 2nd. In burners for mineral oils or their equivalents, a cap or cover surrounding the upper part of the burner, substantially as and for the purposes set forth. 3rd. The combination of two or more such burners, with the spreaders of the flame mounted in angles, and the whole surrounded by a cap or cover, substantially as described and for the purposes set forth.

### No. 19,881. Waggon Jack (*Chèvre de Carrosserie.*)

Ephraim Fields, Truro, N. S., 1st August, 1884; 5 years.

*Claim.*—The combination of the standards A, the lifting lever B working on the iron pin, which can be put in either of the several holes in standards A, and the T-iron for holding jack in position when weighted, substantially as and for the purpose hereinbefore set forth.

### No. 19,882. Rolling Mill and Roll Therefor. (*Laminoir et Rouleau de Laminoir.*)

Samuel R. Wilmot, Bridgeport, Ct., U. S., 1st August, 1884; 5 years.

*Claim.*—1st. The combination, with the upper working roller and its bearings, of mechanism for equally increasing or diminishing the pressure on both bearings, consisting of the adjusting wedge bar, shoes or blocks on which said screws bear, and the sliding wedge bar, and mechanism independent of said wedge bar for one bearing and roller, or simultaneously increasing the pressure on both bearings and relieving the pressure on the other bearing, substantially as described and for the purpose set forth. 2nd. The combination, with the upper working roller and its bearings, of the mechanism for equally increasing or diminishing the pressure on both bearings, consisting of the adjusting screws, the shoes or blocks on which they bear and the wedge bar, and a screw for moving said wedge bar longitudinally, the said wedge bar being channelled so as to receive said shoes. 3rd. The blocks and retain them laterally, substantially as described. 3rd. The combination, with the upper working roller, its bearings and adjusting screws, of a shaft mounted in fixed bearings, and mechanism for imparting motion from said shaft equally and simultaneously to both the screws for increasing the pressure on one bearing and relieving the pressure on the other bearing, substantially as described and for the purpose set forth. 4th. The combination, with the upper roller and its bearings, of the mechanism for rocking the roller consisting of adjusting screws having corresponding threads either right or left hand, and provided with worm wheels at their upper ends, and a worm or screw mounted in fixed bearings between and engaging with