

No. 34,807. Fetter Lock. (*Cadenas de chaîne.*)

William Moran and Charles A. Ingalls, Erie., Penn., U. S., 2nd August; 1890; 5 years.

Claim.—In a fetter lock, the combination, with the enclosing plates C and C', provided with the corresponding flanges N, N', and the perforated ears K, K', of the ring A, the latch or shackle G, having a cam shoulder H', lever B, spring D and stops J, substantially as and for the purpose set forth.

No. 34,808. Cock. (*Robinet.*)

Phillip Mueller, Decatur, Ill., U. S., 2nd August, 1890; 5 years.

Claim.—1st. A cock, comprising the body having the oblique inlet chamber, the outlet and the waste hole, the stem carrying the waste valve, the bar in the inlet chamber pivoted on the stem, and carrying an inlet valve, and a piston on the stem in position to check the outlet before the inlet is closed, as and for the purpose set forth. 2nd. In combination with the stem of a stop and waste cock, the tilting frame connected with the stem and having the depressed angle, and the weight adapted to slide on the frame and having a flexible connection extending upward, as set forth. 3rd. In combination, a stop and waste cock having a rack formed on its stem, a tilting frame with a depressed angle having a pinion in mesh with the rack, and a weight adapted to slide on the frame and having a flexible connection extending upward, as set forth. 4th. A cock, comprising the body, having an inlet chamber, an outlet, and a waste hole, a stem carrying a waste valve and connecting with an inlet valve and a piston on the stem in position to check the outlet before the inlet is closed, as set forth.

No. 34,809. Wind Mill. (*Moulin à vent.*)

George B. Thurber, Upton, Que., 2nd August, 1890; 5 years.

Claim.—In a wind wheel, an upright shaft B, with fixed wheel G, surrounded with tangential slats, and an outer mobile wheel on the shaft B, provided with fixed shields C, the whole as shown and described for the purpose set forth.

No. 34,810. Sand Blast Apparatus.

(*Appareil à jet de sable.*)

Jeremiah E. Mathewson, Sheffield, Eng., 2nd August, 1890; 5 years.

Claim.—1st. In sand blast apparatus, the combination of a divided blast pipe, with a sand hopper arranged in relation to the blast pipe so that the dry sand shall fall therefrom by gravitation and enter the divided blast pipe at the division, as and for the purpose set forth. 2nd. In a sand blast apparatus, the combination of a divided blast pipe, a sand hopper arranged so that the dry sand shall fall therefrom by gravitation and enter the blast pipe at the division, a separating chamber surrounding the blast pipe and a settling chamber connected therewith, and provided with an exhaust, as and for the purpose set forth. 3rd. A sand blast apparatus, in which the settling chamber, or the receptacle for the condensed steam and the mud arising from the pulverization of the sand, and the surface under treatment, is arranged below or away from the sand hopper and its connections, as and for the purpose set forth. 4th. In a sand blast apparatus, in which steam is the motor, a blast pipe, as C', having its open lower end entering a dish-shaped hopper supported by or placed immediately above the steam jet C, such hopper being supplied with sand in regulated quantities by gravitation, direct from the dry sand chamber, as set forth, whereby the liability of the sand to come in contact with moisture from the condensed steam is avoided. 5th. In apparatus for cleaning castings, and for operating on other work which cannot be conveniently done by a stationary apparatus, by means of the sand blast, and in which the propelling steam is separated from the sand by a counter current of air, the combination with the blast apparatus, supported or suspended in such a manner that the direction and position of the blast may be quickly and readily changed, according to the requirements of the work in hand, of a separating chamber carried by the blast apparatus, and flexibly connected with a fixed settling chamber and an exhaust, as and for the purpose set forth. 6th. The sand blast apparatus, consisting of a stationary exhaust apparatus and settling chamber, a blast apparatus provided with a separating chamber flexibly connected with the exhaust, a sand hopper carried by a sling or frame, which also carries the blast apparatus, so that the relative position of the hopper and blast apparatus are insured, and tuckle, provided with automatic gripping mechanism, and which permits of the position and direction of the blast apparatus being changed, all as described and illustrated.

No. 34,811. Apparatus for Purifying and Refining Oil. (*Appareil à épurer et raffiner l'huile.*)

Emil Noppel, Philadelphia, Penn., U. S., 2nd August, 1890; 5 years.

Claim.—1st. An apparatus for refining and purifying oil, consisting of a tank, a reservoir therein, a discharge pipe leading from said reservoir to a heating chamber, a traversing chamber surrounding said heating chamber and in communication therewith, discharge nozzles and a heating pipe, said parts being combined, substantially as described. 2nd. A pipe with a reservoir therein, the latter having a discharge pipe extending to near the bottom thereof, concentric chambers surrounding the outlet end of the discharge pipe, a heating pipe within the central chambers, and nozzles or outlets on the outer chamber, said parts being combined substantially as described. 3rd. In an apparatus, substantially as described, a tank, a reservoir therein, a discharge pipe leading from said reservoir, a chamber surrounding the outlet end of said discharge pipe, in combination with a deflector above said chamber, as stated. 4th. In an apparatus for refining and purifying oil, a tank with outlets at different heights, a reservoir with a discharge pipe in said tank, communicating cham-

bers around the outlet end of said pipe, a heating pipe in one of said chambers, and nozzles or outlets on the outer chamber, combined substantially as described. 5th. In an apparatus for purifying and refining oil, a heating chamber provided with a pipe for discharging foam and gas from said chamber, substantially as described. 6th. The pipe L, leading from the heating chamber G to the reservoir B, substantially as described. 7th. The heating chamber F and the surrounding chamber G, in combination with the chamber H and the discharge pipe J rising from said chamber H, the several chambers being in communication, substantially as and for the purpose set forth. 8th. The chamber H communicating with the heating chamber F, in combination with the tank A, and the pipes J, the latter rising from said chamber H, and projecting above the water line of said tank, substantially as described. 9th. The tank A, the heating chamber F therein, the steam pipe K in said chamber, and the chamber G surrounding said chamber F, said pipe K and said chamber F projecting above the water line of said tank, substantially as described. 10th. In an apparatus for purifying and refining oil, a tank having a heating chamber therein, and a pipe leading from the supply reservoir into said chamber, in combination with a steam pipe in said tank, at the bottom thereof, substantially as described. 11th. In an apparatus, substantially as described, the hollow deflector P, with openings therein, for the purpose set forth.

No. 34,812. Electric Battery.

(*Batterie électrique.*)

Charles A. Hussey, New York, N. Y., U. S., 2nd August, 1890; 15 years.

Claim.—1st. In an electric battery, designed for two fluids, a porous diaphragm for separating the two fluids, and extending solely in a horizontal or approximately horizontal plane, and having non-porous vertical walls, substantially as specified. 2nd. In an electric battery, designed for two fluids, the combination, with a cell, of a cup having a porous bottom portion, and an upper non-porous portion, substantially as specified. 3rd. In an electric battery designed for two fluids, a cell made of porous material, the upper portion being made non-porous by the application of a material closing the pores and resisting the fluids in the battery, substantially as specified. 4th. In an electric battery designed for two fluids, the combination with a cell provided with a spout, of a cup arranged in the upper part of the cell, its bottom being above the lower portion of the spout, substantially as specified.

No. 34,813. Multiple Pointed Corrugated Fastener. (*Agraffes métallique et gouffes.*)

Ferdinand W. Starr, Springfield, Ohio, U. S., 2nd August, 1890; 5 years.

Claim.—1st. A corrugated fastener, provided with multiple entering points or edges, substantially as shown and described. 2nd. A corrugated fastener, provided with multiple points or edges, and a re-entering draw-cutting edge. 3rd. A corrugated fastener, having a head end adapted to resist the driving action, and an entering end provided with sharpened multiple points or edges, the penetrating portions of which extend obliquely to the plane of general direction of the fastener. 4th. A corrugated fastener, each corrugation of which is provided with a double point or edge, and a re-entering angle which is sharpened to form a draw-cutting edge that registers with and intersects the ridge of said corrugation. 5th. A corrugated fastener, consisting of a single corrugation having multiple points or edges, and a draw-cutting edge, substantially as described. 6th. A corrugated fastener, having a multiple-pointed draw-cutting edge on its entering end, and beveled side edges to facilitate the insertion of said fastener.

No. 34,814. Manufacture of Horse Shoes.

(*Fabrication des fers à cheval.*)

James Vernon, Newton Stewart, Scotland, 2nd August, 1890; 5 years.

Claim.—1st. In moulds for casting horse shoes, the employment of inclined removable cores for the purpose of producing, in the casting, nail holes set at a proper angle to the plane of the shoe, as hereinbefore described. 2nd. In moulds for manufacturing horse shoes complete, the combination of a stationary back part A, movable cover A', and group of nail hole cores d, loosely jointed to plate D, all arranged and operating substantially as hereinbefore described and illustrated. 3rd. In moulds for manufacturing horse shoes, the combination with a back part A and cover A', and nail hole cores d, of a chisel, as I, for cutting off the runner from the casting.

No. 34,815. Sporting Calendar.

(*Calendrier de campagne.*)

Arthur H. Robinson, Minneapolis, Minn., U. S., 5 years.

Claim.—1st. A calendar, provided with spaces representing the days of the month, with pictures of persons engaged in a sport placed upon the spaces representing the days upon which said sport is to occur, substantially as described and for the purpose set forth. 2nd. In a calendar, having spaces representing the days of the month, a pictorial representation designating a particular sport placed upon one or more of said spaces, and a record blank or score card corresponding with said sport and placed upon the same space, with said pictorial representation, substantially as described. 3rd. In a calendar, in combination with the sheets representing the different months, having the days of the month marked thereon, the pictorial representation designating a particular sport placed upon one or more spaces or dates of the said calendar, a record or score corresponding with said sport placed upon the same space therewith, and a recapitulation sheet or blank for the purpose of recording the results of the different sports, substantially as described.