

No. 11,913. Improvements on Ore Separators.*(Perfectionnements aux séparateurs des minerais.)*

William L. Inlay, Camden, N.J., U.S., 30th October, 1880; for 5 years.

Claim.—1st. A vanning pan or tray having independent outlets at the end at which the ore is fed upon the tray, said outlets being on the same horizontal plane and for the discharge of ores of different specific gravities, and having vertical partitions or dividing boards arranged longitudinally of said tray and dividing or separating said outlets. 2nd. The vanning pan or separator tray C having independent discharges d d_1 d_2 d_3 , inclines e e_1 e_2 e_3 and dividing blocks G G₁ G₂ G₃, whereby minerals of different gravities may be discharged separately from the same tray. 3rd. In combination with tray C supported on rollers B B₁ or other supports and having slotted hangers I N, the crank or eccentric shaft H caused to revolve with variable speed, by means of the eccentric gear wheels K L, whereby the tray is moved in one direction of its path at a changing velocity differing in periods from that of its movement in the reverse direction. 4th. In combination with a tray or pan C supported on rollers B B₁ or other described supports, an eccentric or crank shaft H and means for causing said shaft to revolve at a changing velocity, whereby said tray or pan is reciprocated longitudinally at a variable speed. 5th. In combination with tray C, eccentric shaft H and eccentric wheels K L, the eccentric or crank shaft m , and hangers I N, whereby said tray is moved laterally and compound motions are produced for effecting separation of the minerals from the sand and division of the concentration according to sizes or gravities. In combination with tray C supported on rollers B B₁ and provided with hangers I N, crank shaft H, eccentric gears K L, shaft L, M and bevel gears m_2 m_3 .

No. 11,914. Improvements on Dish Washers.*(Perfectionnements aux laveuses de vaisselle.)*

Benjamin J. Howe, Sing Sing, N.Y., U.S., 30th October, 1880; for 5 years.

Claim. 1st. The combination with the covered vessels A B of the radial paddles E E and arched grating F. 2nd. The radial paddles E E decreasing in width from the shaft outwardly, having raised edges a on both sides, and long central ribs b . 3rd. The combination, with the covered vessel A B, of the arched grating F.

No. 11,915. Manufacture of Artificial Manures.*(Préparation des engrais artificiels.)*

Francis J. Bolton and James A. Wanklyn, London, Eng., 30th October, 1880; for 5 years.

Claim. 1st. The solid constituents of urine mixed with a small proportion of soot charcoal, burnt bones, or other suitable charred substance. 2nd. The method of evaporating urine, at or about a temperature of 100° centigrade, in contact with a small proportion of soot, charcoal, burnt bones or other charred absorbent materials, so as to produce a compound containing the solid constituents of urine in a more or less dry condition, suitable for manure or for obtaining ammoniacal products. 3rd. The method of evaporating successively two or more quantities of urine in contact with one and the same body of soot, charcoal, burnt bones or other suitable absorbent materials, so as to produce a compound containing in increased quantity the solid constituents of urine in a more or less dry condition suitable for manure or for obtaining ammoniacal products.

No. 11,916. Improvements on Shaft-Couplings.*(Perfectionnements aux embrayages des arbres de couche.)*

John Walker, Indianapolis, Ind., U.S., 30th October, 1880; for 5 years.

Claim. 1st. A shaft coupling consisting of an outer cylindrical continuous shell to the inner surface of which are attached two independently operating open ring clamps, each one of which has a fixed end and a free end and a bolt which passes loosely through the fixed end and into the free end, whereby, in the operation of the said bolt, the said free end of the clamp is drawn around its shaft toward the fixed end thereof. 2nd. A shaft coupling consisting of an outer cylindrical continuous shell to the inner surface of which are attached two independently operating clamps, adapted to be contracted in circumference by means of bolts.

No. 11,917. Improvements on Combination Pumps.*(Perfectionnements aux pompes à combinaison.)*

Frederick Crocker Sr., Olean, N.Y., U.S., 30th October, 1880; for 5 years.

Claim. 1st. The shafts D D₁, cranks F F₁ F₂ F₃ and parallel rods E E₁, together with the connecting rods, as a means of connecting together the piston rods of steam pumps. 2nd. A combination pump formed of four or more single acting vertical steam pumps, the whole connected together by the connecting rods, cranks F F₁ F₂ F₃, shafts D D₁ and parallel rods E E₁, arranged to act in rotation and produce an even and uniform pressure upon the delivery pipe.

No. 11,918. Improvements on Churn Dashers.*(Perfectionnement aux batte-beurre.)*

Hiram W. White, Yankton, Dakota, U.S., 30th October, 1880; for 5 years.

Claim.—The combination of the two sets of stationary oblique blades b b c c constructed and arranged to produce oblique and radial currents, and the inverted cup D constructed with a vertical margin pierced with apertures d producing radial jets of air to mingle with said radial currents of cream and the resulting upward currents.

No. 11,919. Improvements on Machines for Packing Bran.*(Perfectionnements aux machines à emballer le son.)*

William L. Williams, San Diego, Cal., U.S., 30th October, 1880; for 5 years.

Claim.—1st. The bran-packing machine consisting of feed cylinder A provided with clamps for receiving a bag, the sliding stamps i fitted within cylinder A, the sleeve k fitted on stamps i and provided with latches kr , for engagement with the stamp shafts and the revolving shaft carrying arm l ,

all combined for operation. 2nd. In machines for packing bran or similar materials, the loose sleeve k provided with pivoted latches kr and revolving cam l fitted for raising the sleeves k , by contact with the latches kr combined with the ratchet shafts of the sliding stamps. 3rd. The spring arms n provided with lugs n and the sliding collar o having a projection, combined with the reciprocating stamp shafts i and operating shafts c . 4th. The rods m suspended loosely in cylinder A beneath the sleeves k , in combination with the latched blocks ki , stamps i and operating cam l .

No. 11,920. Improvements on Ore Crushers.*(Perfectionnements aux broyeur des minerais.)*

Frank A. Huntington, San Francisco, Cal., U. S., 30th October, 1880; for 5 years.

Claim.—1st. A bifurcated crusher provided at its upper end with devices for oscillating it, in combination with dies a . 2nd. The bifurcated stamp B provided with means for oscillating it, in combination with dies a and the bevelled backing pieces p p . 3rd. The shoes a secured to the feet of the bifurcated stamp and having the rounded outer corners, whereby a grinding action is produced by each shoe, alternately, as the opposite one is lifted. 4th. The inclined or bevelled backing pieces p p set into or against the sides of the mortar, and adapted to receive the thrust of and act as a fulcrum against which the stamps turn, alternately, while the opposite stamp is lifted. 5th. The combination of the batteries with their oscillating stamps, and the V-shaped projection K with the hopper Z having the ore spouts W, and the actuating arms and levers, whereby the crushers are supplied with ore.

No. 11,921. Stovepipe Shelf and Drier.*(Tablette-séchoir à tuyau de poêle.)*

The Hamilton Industrial Works Company, (Assignee of Matthew Wilson, the Assignee of Thomas Wavel, legal representative of John C Schoonmaker.) Hamilton, Ont., 2nd November, 1880; (Extension of Patent No. 5,486.)

No. 11,922. Ozone Machine.*(Machine à Ozone.)*

Frederick W. Bartlett, Buffalo, N. Y., U. S., 2nd November, 1880; (Extension of Patent No. 5,337.)

No. 11,923. Improvements on Structures for Piers, Wharves, &c.*(Perfectionnement dans la construction des piliers, quais, &c.)*

Charles E. Hill, New York, U. S., 2nd November, 1880; (Extension of Patent No. 5,325.)

No. 11,924. Sap Spout.*(Gargouille à séve.)*

Zephaniah S. Laurence, St. Césaire, and Hiram A. Laurence, East Farnham, Que., 2nd November, 1880; for 5 years.

Claim. 1st. A sap spout obtaining its entire fastening and supporting hold perpendicularly from the upper and lower surface centres of aperture in the tree. 2nd. In combination with any sap spout, a stem or bucket support passing longitudinally through and in rear of the tube or spout proper. 3rd. In combination with any sap spout, a stem or bucket support projecting in front of the tube or spout proper having formed upon its upper edge a bucket retainer or catch, and upon its lower front end a drop director or point. 4th. The combination of the stem A with the tube H, the bucket catch E, the drop director or point F.

No. 11,925. Improvements in Machinery for Ironing, Airing, Wringing and Mangling.*(Perfectionnements aux machines à repasser, charifier, tordre et calandrier.)*

James Reidy, London, Eng., 2nd November, 1880; for 5 years.

Claim.—1st. The combination, with hollow rotary cylinder B, of the perforated jet pipe H extending through one of its journals, and having its end inserted in a recess in the opposite journal, the nozzle I provided with the cock K for the supply of gas, and a chamber surrounding said gas nozzle, whereby the gas serves to draw air into the jet pipe with it. 2nd. The combination, with a hollow roller or rotary cylinder, of a perforated jet pipe extending into the same, a nozzle provided with a cock for the supply of gas thereto, and a chamber communicating with said jet pipe and surrounding said nozzle provided with openings at the rear portion for the entrance of air, and made internally concave and tapering toward the front end which is in close proximity to the front end of the nozzle, whereby it acts as a deflector to deflect air close to the forward end of said nozzle.

No. 11,926. Improvements on Axle Couplings.*(Perfectionnements aux embrayages des essieux.)*

Conrad Embeck, New Haven, Mo., U.S., 2nd November, 1880; for 5 years.

Claim. 1st. A ball and socket coupling for the forward axles of vehicles, consisting of the ball G secured to the head block A, the socket bars H secured to the forward axle D, the collar L having eye N and the brace P having eye O. 2nd. In a ball and socket coupling for the forward axles of vehicles, the combination with the ball G attached to the head block A, the socket bars H attached to the axle D, and the brace P attached to the reach B and having eyes O Q, of the collar L having eye N, whereby the axle is held in an upright position and kept from rocking.

No. 11,927. Improvements in Oil Injectors for Steam Pipes of Engines.*(Perfectionnements aux injecteurs d'huile dans les tuyaux de vapeur des machines.)*

Joseph V. Renchard and John J. Renchard, Detroit, Mich., U.S., 2nd November, 1880; for 5 years.

Claim.—1st. In displacement lubricators, the trunk C provided with two passages G H. 2nd. The combination of trunk C provided with passages