

the pin *g* to move in, as specified. 8th. The combination of the pawl *B*, levers *J*, *l*, *l* and hook *C*, substantially as specified.

No. 20,856. Sugar Making Apparatus.

(Appareil pour faire le Sucre.)

John B. Noyes, Barnston, Que., 9th January, 1885; 5 years.

Claim.—1st. The combination of the portable fire arch *A*, and the boiling pan *B*, substantially as and for the purpose hereinbefore set forth. 2nd. The combination, with the portable fire arch *A*, of the evaporator *C*, substantially as and for the purpose hereinbefore set forth. 3rd. The combination, with the portable fire arch *A*, and the evaporator *C*, of the damper *a*z, substantially as and for the purpose hereinbefore set forth.

No. 20,857. Disintegrating Machine.

(Machine à Moudre.)

Silas Dodson, New York, N.Y., U.S., 9th January, 1885; 5 years.

Claim.—1st. A pair of burrs severally having a dress comprising groups of grooves *d*, one of each groups being radial and the others of each group being parallel therewith, and rows of cavities *e* of semi-cylindrical shape, arranged in the same plane with and beyond the outer ends of the groups of grooves, and having their flat sides or walls in radial lines, the dress of the two burrs being reversed, substantially as specified. 2nd. A pair of chilled cast iron burrs severally having a dress comprising groups of grooves *d*, one of each groups being radial and the others of each group being parallel therewith, and rows of cavities *e* of semi-cylindrical or analogous shape arranged in the same plane with and beyond the outer ends of the grooves, and having their flat sides or walls in radial lines, the dress of the two burrs being reversed, substantially as specified. 3rd. The combination, in a disintegrating machine, of a case, a stationary burr having an opening through it and affixed to the case, a rotary burr, a longitudinally adjustable shaft, a hopper at the side of the case, a conveyor arranged on the shaft between the rotary burr and the said hopper, and a spring abutting against the hopper and extending into a cavity in the conveyor, and a screw at the end of the shaft opposing the force of the spring, substantially as specified. 4th. The combination, in a disintegrating machine, of a case *C*, a stationary burr *A* affixed thereto, a rotary burr *B*, a shaft *D* on which the latter is affixed, a hopper *E* at the side of the case *B*, a conveyor *F*, a spring *G*, a screw *J*, and a washer *b* between a block actuated by the screw and the adjacent end of the said shaft *D*, substantially as specified. 5th. The combination of the case *C*, the burr *A* affixed thereto, the rotary burr *B*, the shaft *D* which carries the latter, the pulley *D*z on the shaft *D*, the shaft *L*, the pulley *L*z on the shaft *L*, the belt *H*, the chute *N*, the lever *K* vibrated from the shaft *L* and the rod *O*, substantially as specified. 6th. The combination of a rotary burr in a disintegrating machine, a shaft *D* carrying this burr, a hopper for the disintegrating machine, a chute for conducting material to the hopper, a pulley *D*z on the shaft *D*, a swivel or lever *K* for imparting motion to the sieve, a shaft *L* transmitting motion to the lever, a pulley *L*z on the shaft *L*, the belt *H* transmitting motion from the pulley *D*z to the pulley *L*z, substantially as specified. 7th. The herein described machine, comprising a shaft *D*, a stationary and a rotary burr, a hopper, a chute for conducting material to the hopper, a pulley *D*z on the shaft *D*, a sieve *J*, a lever *K* for imparting motion to the sieve, a shaft *L* transmitting motion to the lever, a pulley *L*z on the shaft *L* and the belt *H* transmitting motion from the pulley *D*z to the pulley *L*z, substantially as specified.

No. 20,858. Stove, &c. (Poêle, &c.)

George R. Prowse, Montreal, Que., 9th January, 1885; 5 years.

Claim.—1st. The combination of the fire-box *A*, oven *H*, up-take and down-take flues *K* and *R*, tubes *M* and *Q*, constructed, arranged and operating substantially as shown and described for the purposes set forth. 2nd. The combination of the fire-box *A*, oven *H* having perforations at *D*1, up-take and down-take flues *K* and *R*, tubes *M* and *Q*, space *U* having a controlling regulator by which a current of air is admitted to the oven, the whole constructed and arranged substantially as described, for the purposes set forth. 3rd. The combination of the fire-box *A*, situated as described at one side of the oven, flues *K* and *R* situated at the back of the stove, plate *F*z and baffle plate *E*1, the whole constructed and arranged substantially as and for the purposes set forth.

No. 20,859. Meat Tenderer. (Balle de Cuisine.)

Jane A. Clother, Cumberland, Wis., U.C., 9th January, 1885; 5 years.

Claim.—A meat tenderer consisting of the top *C* having the cutting plate *E*, and the bottom *B* having the cutting plate *D*, rim *b*, spout *b*1 and channel *b*2 between the cutting plate and the rim, as set forth.

No. 20,860. Rumble for Scouring Castings, Ores, &c. (Tambour pour Nettoyer les Fontes, Minerais, &c.)

Ezra W. Vanduzen, Newport, Ky., U.S., 9th January, 1885; 5 years.

Claim.—1st. The combination of the tank having a single water compartment, the shaft journaled on the tank, and the rotating cylinder constructed with an imperforate periphery and contracted open ends, and provided at one end with water supply buckets for lifting the water from the tank into the cylinder through one end thereof, and discharging such water at the opposite end of the cylinder directly into the tank, substantially as herein described. 2nd. In a machine for cleaning and treating castings, ores and other articles, the combination of a tank, a rotating cylinder journaled above the tank and extending down into the same, and a water displacer or level regulator moving in ways within the tank, and means for sustaining the regulator at any desired point, substantially as described. 3rd. In an ore washer or pulverizer, the combination of a tank *A*, a cylinder *B* mounted above the tank and extending down into the same and having an imperforate periphery and contracted open ends,

the water supply buckets at one end of the cylinder and inclined amalgam plates *P* beneath the cylinder and extending beyond the end thereof to gather such particles of metal as may escape in the overflow of water from the end of the cylinder, substantially as described. 4th. In an ore washer and pulverizer, the combination of the tank *A*, the rotating cylinder journaled above the same and extending down into it the water supply buckets, communicating with the interior of the cylinder through one end, and a feed spout *E*, and apron *c* for feeding the cylinder while in motion, substantially as described. 5th. The combination of the tank, the revolving cylinder supported on a shaft above the tank, and provided with bucket supply openings at one end, and a discharge opening at the other end, and a water displacer or level regulator within the tank, as set forth.

No. 20,861. Bottom for Boots or Shoes.

(Fond de Chaussure.)

Conrad F. Glanville, San Francisco, Cal., U.S., 9th January, 1885; 5 years.

Claim.—1st. In a boot and in combination with an outer and an inner sole, a rim or flange of rubber interposed between their edges, so as to form an inclosed central air-space between the soles, substantially as herein described. 2nd. In a boot or shoe, an outer and an inner sole with an edge interposed rim or flange of rubber forming an inclosed air space between the soles, in combination with a spring or springs acting between the soles within this space, substantially as herein described. 3rd. In a boot and in combination with an outer and an inner sole, a rim or flange of rubber interposed between their edges, so as to form an inclosed central air-space between the soles, said rim having its front or sides extended up to protect the upper, substantially as herein described.

No. 20,862. Steam Engine Reversing and Governing Device. (Appareil de Renversment et de Gouvernement des Machines à Vapeur.)

Albert Henry, Brockville, Ont., 9th January, 1885; 5 years.

Claim.—1st. In a steam engine, two-way rocking valve *K* in a shell *J* having ports 4, 5, and ports 2, 3 connecting with opposite ends of the steam cylinder operated by an eccentric rod, as set forth for the purpose described. 2nd. In a steam engine, the steam pipe *L* having cock 7, and exhaust branch *M* having cock 8, steam pipe *N* connecting with pipe *L* and provided with cock 9, and exhaust branch *o* having cock 10, said pipes 4, 5, 7, 8, 9, 10 operated simultaneously by a lever *P*, whereby steam can be admitted to either end of the cylinder through either the inlet and exhaust ports to reverse the stroke or otherwise, as set forth.

No. 20,863. Insulator for Electrical Conductors. (Isoloir pour Conducteurs Electriques)

Franklin L. Pope, Elmore, N.J., U.S., 9th January, 1885; 5 years.

Claim.—1st. A supporting insulator for telegraphic line-wires or other electrical conductors having upon its exterior a conical or expanding screw-winding, and provided with a socket having an interior spiral groove winding in the reverse direction to that of the exterior screw, substantially as and for the purpose set forth. 2nd. The combination, substantially as hereinbefore set forth, with a shackle or horseshoe formed with hooked ends, as described, for grasping a telegraphic line-wire or other conductors and thereby forming a stirrup or ring of a supporting insulator having a conical expanding screw-thread or spiral groove formed upon its exterior surface, and a reverse hollow screw formed upon its interior surface, whereby it may be secured to a supporting pin. 3rd. The combination, substantially as hereinbefore set forth, with a supporting pin having a screw-thread formed upon one end thereof, of an insulator constructed with a corresponding screw-groove formed within a socket for receiving said pin, and a conical expanding screw-thread or spiral groove formed upon its exterior.

No. 20,864. Water Cooler. (Fontaine.)

James O. Brookbank, Driftwood, Penn., U.S., 12th January, 1885; 5 years.

Claim.—1st. In a water-cooler, the receptacle *A* provided with faucets *B*, *B*1 upon different planes, and an inclined bottom having a V-shaped tapering recess, substantially as shown and for the purpose set forth. 2nd. A water-cooler having a base or bottom, with an inclined tapering recess, the lower portion of said recess being adjacent to a faucet *B*1 and above the base with a faucet *B*, substantially as shown and for the purpose set forth. 3rd. In a water-cooler having an inclined bottom *C* and faucets *B*, *B*1, for the purposes set forth, the base *A* supporting the cooler so that the same may be rotated thereon, for the purposes set forth.

No. 20,865. Electric Cable. (Câble Electrique.)

James Greenalgh and Philip Chase, Boston, Mass., U.S., 12th January, 1885; 5 years.

Claim.—1st. As a new article of manufacture, an electric cable having its body covered with a ribbon or strip of sheet metal applied spirally around the same, the edges of said strip being soldered or brazed together, substantially as described. 2nd. As a new article of manufacture, an electric cable having its body covered with a ribbon or strip of sheet metal applied spirally around the same, the edges of said strip being overlapped and soldered or brazed together, substantially as set forth. 3rd. As a new article of manufacture, an electric cable having its body covered with a ribbon or strip of sheet metal applied spirally around the same, said strip being corrugated longitudinally and having its edges soldered or brazed together, substantially as described. 4th. In an electric cable, the combination of the body *A* and covering *B*, constructed and arranged substantially as set forth.