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INVENTIONS PATENTED.

NOTE—Patents are granted for 15 years. The term of years for which the fees have been paid, is given after the date of the patent.

No. 18,006. Apparatus for Desiccating animal Matter. (*Appareil de dessiccation des matières animales.*)

Caroline H. Breer, (assignee of Henry Breer,) Syracuse, N. Y., U. S., 27th October, 1883; 5 years.

Claim.—1st. In combination with the rotary cylinder, the combustion chamber B provided with the recess R in the upper part of its rear end, and fitted close to the end of the cylinder below said recess and close to the periphery of the opposite end of the cylinder, and flue F communicating with the interior of the cylinder at the upper part of its front end, substantially as described and shown. 2nd. In combination with the rotary open ended cylinder C, the combustion chamber B provided at the upper part of its rear end with the recess R, and having its opposite end fitted closely to the periphery of the cylinder, the segmental plates *a* secured to the ends of the combustion chamber, and the flue F communicating with the upper part of the front end of the cylinder, substantially as shown and set forth. 3rd. In combination with the rotary cylinder C, the combustion chamber B provided with the chute D and discharge opening respectively at opposite ends, substantially as set forth. 4th. In combination with the combustion chamber B provided respectively at opposite ends with the chute D and discharge opening E, the spiders S formed with the rim *r*, the cylinder C mounted on said rim and the segmental plates *a* secured to the ends of the combustion chamber and fitted closely to the rim *r*, all constructed and combined substantially in the manner described and shown.

No. 18,007. Nut Lock. (*Ecrou de sûreté.*)

Charles L. Couvrette, Francis X. Barret and Joseph Mills, Montreal, Que., 1st November, 1883; 5 years.

Claim.—1st. The combination, with the plates C C, having slots *c c* and D D, of the bolts *d d* provided with split pins *f*, the fish-plate B and nuts *b₁ b₁*, substantially as and for the purposes described.

No. 18,008. Process for Purifying Lead.

(*Procédé d'affinage du plomb.*)

Francis J. Clamer, Philadelphia, Penn., U. S., 1st November, 1883; 5 years.

Claim.—The process of purifying lead, tin, zinc and similar metals, and preparing them for metal coating and amalgamating with other metals, which consists in providing a molten bath of the metal and subjecting it to the action of salomonica, arsenic and phosphorus, substantially as described.

No. 18,009. Can Filling Machine.

(*Machine pour remplir les boîtes métalliques.*)

Mathias Jensen, Astoria, Oregon, U. S., 1st November, 1883; 5 years.

Claim.—1st. The receiving hopper H with the semi-cylindrical rotary back E, in combination with the forks *f* attached to an arm in the rear, so as to be projected forward into the contents of the hopper, and a mechanism by which the part E may be moved downwards while the forks are projected through it, substantially as described. 2nd. The hopper H with its semi-cylindrical back E mounted upon a shaft, as shown, in combination with the cam N, lever O and con-

necting rod *d*, substantially as described. 3rd. The hopper H with its curved rotary back E and operating mechanism, in combination with the forks *f* projecting through the part E, the arm D, lever V and the actuating cam J, and lever K with the intervening connecting devices, substantially as described. 4th. The hopper H having the rotary back E, with mechanism by which it is caused to oscillate about its bearing shaft, in combination with the forks *f* and a mechanism by which they are projected into the hopper, when the part E is at the top of the stroke, and withdrawn when it is at the bottom, substantially as described. 5th. The rotary back E of the hopper and the forks *f*, with a mechanism for projecting them forward into the hopper and withdrawing them from it, in combination with the roller *g* through which the forks pass and by which they are guarded, substantially as described. 6th. The rotary back E of the hopper H, with the reciprocating forks *f*, and the cam N and lever O by which the part E is caused to oscillate, in combination with lever P to which the lever O is fulcrumed, and the suspended weight Pr, substantially as described. 7th. The rotary back E of the hopper H, with the cam N and rock shaft or lever O, in combination with the connecting rod *d*, with the screw and adjusting nuts *d₁*, or equivalent extension device, substantially as described. 8th. The hopper H with the rotary oscillating back E, the forks *f* operating as shown, in combination with a measuring chamber below the hopper, and the horizontally moving knives *j* and *k*, to sever the material and form a top to the chamber, substantially as described. 9th. The hopper H with a means for forcing the material into a measuring chamber below, and the knives *j* and *k* to sever the surplus material, in combination with the moving wall C by which the material is compressed within the chamber, substantially as described. 10th. The hopper H, with a device for forcing material into a measuring chamber below, and the knives *j* and *k*, as shown, in combination with the moving wall C, and the cam R, lever S and the connecting rod *l*, substantially as described. 11th. The moving wall C of the measuring chamber, the cam R and the lever S, in combination with the connecting rod *l*, having screw threads upon its end, and the adjusting nuts, substantially as described. 12th. The hopper H with its movable forks or forcing devices, the measuring chamber with its movable wall C and the knives *j* and *k*, in combination with the sliding end gate *n* and its operating lever M, substantially as described. 13th. The hopper H with the forks *f*, the measuring chamber with its movable wall C, knives *j* and *k* and the gate *n*, in combination with the reciprocating plunger B for discharging the material from the chamber, substantially as described. 14th. The reciprocating plunger B with the extension *v* and the link *y*, in combination with the lever U having the adjustable extension *x*, and the cam T, substantially as described. 15th. The plunger B and the cam T, with the extension lever U *x* and connecting link *y* as shown, in combination with the adjusting screw *w* by which the outward movement of the plunger is limited or regulated, substantially as described. 16th. The hopper H with the measuring chamber below, and the plunger B, in combination with the spout A to receive the cans, said spout having its end inclined or bevelled, substantially as described. 17th. The spout A upon which the cans are placed to be filled, said spout having its end inclined, and the top or longest side flattened to form an air passage, substantially as described. 18th. The spout A projecting from the measuring chamber to receive the cans to be filled, in combination with the plate or slide G upon which the cans are supported, and a mechanism by which the plate is moved beneath the spout or retracted from it, substantially as described. 19th. The plate or slide G with a mechanism by which it is moved towards the spout A and retracted therefrom, in combination with the arm or bar *t* and the rocker arm *u* by which it is caused to move beneath and raise the can to guide it upon the spout A, substantially as described. 20th. The reciprocating plate G with its standards *s* at its outer ends, and the annular standard *st*, at the inner end, so formed as to slide upon A, in advance of the can, and remove it when the slide is retracted, substantially as described. 21st. The inclined chute I with the concave curved portion II and the reciprocating slide or plate G, in combination with the rotary feeder or carrier F journaled above the plate G and having open spaces to receive the cans and carry them from the chute to the plate and thence to the discharge, substantially as described. 22nd. The rotary carrier or feeder F journaled above the plate G and having the pins *o* projecting from its ends, in combination with the notched stationary and reciprocating arms *p p*, substantially as and for the purpose described. 23rd. The rotary carrier or feeder F journaled above the plate G and having the pins *o* projecting from its ends, in combination with the stationary notched arm *p₁* and the arm *p₂*, with the lever K, cam J and connecting rod *q*, substantially as described.