

No. 4111. FRANK W. OFELDT, Newark, N. J., U. S., 30th November, 1874, for 15 years: "Gas Machine." (Machine à Gaz.)

*Claim.*—1st. An arrangement of pipes *a*, *U*, *V*, *d* with an oil tank or gas generator *C* and an aerometer *E*, in such a manner that a current of air carried by a current of steam through the generator, will (liberated from steam) enter the aerometer, and on its return thence to the generator, reheated by the returned current of steam, will cause the oil to vapourize and in the form of gas, pass directly to the service pipe, so that the aerometer, without ever receiving any gas, will cause and maintain the gas pressure and a gasometer is dispensed with; 2nd. The arrangement of the pipe *a*, passing through the oil in the generator into the condensing tank *C*, with the pipe *U*, for the purpose of heating the oil without getting it mixed with water from condensation, separating the steam and air by condensation and collecting the former condensed in the tank *C*, and returning the liberated air by the pipe *U* to the aerometer *E*; 3rd. The two separate vessels (or separate compartments in the same vessel, *R* and *S*, one of which is provided with tubes *r*, passing through the other, for the purpose of heating a current of air passing through the former by a current of steam passing through the latter, in order to promote and maintain the formation of gas in a generator *C*; 4th. The use of a cork for a valve in a gas apparatus; 5th. The valve formed by the combination of the cork *C*, or other material, and the end *b* of the pipe *B* and operated by the buoyancy of the float *D*; 6th. The cup *C* in combination with the hollow stem or pipe *C*, provided with holes *C*, as shown, for the purpose of bringing the supply to the bottom of the oil in the generator *C*; 7th. The pipe *u* in combination with the boiler *T* (or with the tank *W*) and the condensing tank *C* for returning the condensed steam to the boiler; 8th. The air pump *H* in combination with the pipes *V*, *d*, *d*, generator *C*, boiler *T*, and aerometer *E* for starting the machine; 9th. The water vessel or chamber *C* in combination with the pipes *e*, *f*, to prevent the back flow of air through the injector *F* and pipe *Q*; 10th. The adjustable stops *b* in combination with the rod *h*, (working in the slot or hole *i* of the valve lever *a*) and with the aerometer *E* to insure the tripping of the injector-valve at any desired point; 11th. The combination of the injector-valve *P*, spring *E*, arm *F*, rods *G*, *H*, with an aerometer or similarly operating motor *E*, all constructed and operating as specified; 12th. The injector-valve formed of the check-valve *P*, in combination with the nozzles *O*; 13th. The generator *C*, in combination with the supply tank *A*, both arranged with relation to each other as specified; 14th. The automatic boiler *T*, and all its parts as described in combination with each and all parts of this or any similar apparatus as a motor and safe regulator of heat or motion.

No. 4112. JEAN B. CAMYRÉ, Montréal, Que., 1st December, 1874, for 5 years: "Steam Washing Machine." (Machine à laver à la vapeur.)

*Claim.*—1st. The combination of the steam conduits *B*, *B*, and *C*, *C*, having holes *a* and *b* with the flat false bottom *D*, when constructed and operated as set forth.

No. 4113. THOMAS WALLACE, Chicago, Ill., U. S., 1st December, 1874, for 5 years: "Emery Stone Pearlring Machine." (Machine à perler à meule d'éméri.)

*Claim.*—1st. The combination of the emery wheels *H* and wooden wheels *J*, cemented together upon the shaft *E*; 2nd. The combination of the emery wheels *H* and the projecting pins *L*; 3rd. The combination of the perforated case *V*, tight case *W*, openings *R*, and fan *G*; 4th. The combination of the spiral brush *X*, perforated bottom *O*, the air passage *P* and fan *G* as specified.

No. 4114. CHARLES MEE and JOSEPH GEORGE, Kingston, Ont., 1st December, 1874, for 5 years: "Improvements on Melodeons and Organs." (Perfectionnements aux mélodéons et aux orgues.)

*Claim.*—1st. The two bellows *C*, *C*, arranged below, and the reservoir *B*, above the sounding board *A*, all operating within the case; 2nd. The oscillating pedal lifter *G*, in combination with the bellows *C*, *C*, for operating the same automatically; 3rd. The straps *J*, for operating the bellows *C*, the feet pedals *H*; 4th. The alternate acting feet pedals *H*, *H*, linked to the lyre near the heel and receiving the whole pressure of the operator's feet; 5th. The resonant chamber *D*, on the sound board *A*, and air passages *K* connecting with reservoir *B*, as set forth.

No. 4115. WILLIAM INGLIS, Bolton, Eng., and JAMES INGLIS, Montréal, Que., 1st December, 1874, for 15 years: "Grain Elevator Boats." (Bateaux éleveurs à grain.)

*Claim.*—1st. An elevator hull composed of two pontoons *A*, held together by frame work *B*, upon which the deck *D*, is placed, 2nd. The combination of pontoons *A*, frame work *B* and watertight compartments *K* as set forth.

No. 4116. NILS NILSON, Minneapolis, Ma., 1st December, 1874, for 5 years: "Steam Brake for Railway Cars." (Frein à vapeur pour les voitures de railroute.)

*Claim.*—1st. The combination of the steam supply *C*, cylinders *B* and *B*, and their operating devices as described, with the brake bars *S* and brakes *9*, constructed and arranged to operate in the manner described; 2nd. The joints *H* and *I*, Fig. 1, constructed as described, to allow of lateral and longitudinal motion; 3rd. The coupling Fig. 5, composed of hooks *h*, screw sleeve wheel *m*, coupling pipe *f*, in combination with the steam-pipes *a*, as described.

No. 4117. GEORGE OTT, Warwick, Ont., 1st December, 1874, (Extension of Patent No. 217), for 5 years: "Bee-Hive." (Ruche.)

*Claim.*—1st. Providing the moveable roof *Q* with an internal ventilating frame *R*; 2nd. The central stiles *I*, in combination with the moveable comb frames *H*; 3rd. In combination with the surplus honey box *L*, or with the bee-hive *B*, having an open top, in the frame *M*, for affixing the comb-frames and for holding a transparent or obscure cover for the hive and box; 4th. The arrangement of the notched bar *J*, within the hive to hold the comb frame fixedly; 5th. The arrangement and use of the sliding door *U*, for regulating the ventilation of the hive; 6th. The slide *G*, when applied to a double entrance for closing and regulating the aperture.

No. 4118. CHARLES P. HOLMES, N. Y., U. S., 2nd December, 1874, (Extension of Patent, No. 1704), for 5 years: "A Churn." (Une baratte.)

*Claim.*—1st. The dasher *B*, when constructed of three concave angular sides, and arranged spirally on the shaft *A*, and angularly; 2nd. The exterior application of the revolving fan arranged at the side of the cream chamber; 3rd. The employment of a shield *K*, applied to the interior mouth of the fan aperture; and 4th. Constructing the cream chamber formed of three octagonal sides and united by a tongue and groove connection with each other and with the vertical side walls, as set forth.

No. 4119. CHARLES P. HOLMES, New York, U. S., 3rd December, 1874, (Extension of Patent, No. 1704), for 5 years: "A Churn." (Une baratte.)

No. 4120. RICHARD DUDLEY, Erie, Pa., U. S., 3rd December, 1874, for 5 years: "Torsion Springs for Waggon, &c." (Ressorts à torsion pour les wagons, &c.)

*Claim.*—The torsion springs *A*, *A*, widened at the inner end *a* and attached as shown to a bolster, bed piece, or seat *B*, the outer lever ends *b*, *b*, working in connection with a friction plate *c*, rockers, or rollers, all as specified.

No. 4121. EDWIN CHESTERMAN, Philadelphia, Pa., U. S., 3rd December, 1874, for 5 years: "Apparatus for Registering and Classifying the Fares of Passengers." (Appareil à enregistrer et classer les billets de passagers.)

*Claim.*—The combination of two or more counting registers *C*, *D*, *E*, *H*, in one case with an alarm bell *S* and a single intermediate striking mechanism operated by the several push knobs *K*; 2nd. The arrangement of one or more continuously counting registers in a non-opening case permanently rivetted or fastened so that access cannot be obtained to the interior mechanism, the said case having a transparent plate *W*; 3rd. The arrangement of one or more continuously counting registers in a non-opening case as described, the said case having a transparent plate *W*, and an extra locked lid *X*; 4th. The mode described of locking the registering wheels; 5th. The combination of a locking device upon the push knobs with two or more registers and an alarm bell as described.

No. 4122. JOSEPH B. McCUNE and RICHARD M. WANZER, Hamilton, Ont., 3rd December, 1874, for 5 years: "Apparatus for Sand Moulding for Metal Castings." (Appareil à mouler le sable pour couler les métaux.)