

No. 5604. Manufacture of India Rubber Com-pounds. (*Fabrication des composés de caoutchouc.*)

George MacLellan, Glasgow, Scot., 20th January, 1876, for 5 years.

Claim.—A vulcanized compound of India-Rubber or caoutchouc and textile fibres, with sulphur, and with or without colouring matter mixed therewith.**No. 5605. Improvements on Rotary Steam Engines.***(Perfectionnements aux machines à vapeur rotatoires.)*

Orwin Adams, Battle-Creek, Mich., U. S., 20th January, 1876, for 5 years.

Claim.—1st. The combination of the cams *m, n*, and rollers *o, r*; 2nd. The metallic packing of a rectangular piston consisting of the combination of packing pieces *l* and *i*, the adjoining ends of which are bevelled to form close contact, and the springs *p, 3rd*. The combination of the steam chest *b*, formed as an interior frustum of a cone, with the valve *h*, shaped and channelled as described at *d* and *f*, and with the induction and exhaust passage *a*, and *E*, and the steam ports *c*; 4th. The steam cylinder *C*, contracted at the medium horizontal line abreast of the steam chest to the size of the piston churn *D*, and packed with horizontal packing *g*, in combination with the cylindrical drum *D*.**No. 5606. Apparatus for Cleaning Sinks, Cess-Pools, &c.***(Appareil à nettoyer les cloaques, puisards, &c.)*

Reuben A. McCauley, Baltimore, Md., U. S., 20th January, 1876, for 5 years.

Claim.—1st. The hollow piston *D*, provided with the weighted hinged valve *b*, having the flexible packing *a*, upon its face and the flexible packing *a*, partially surrounding the front portion of the piston and extending therefrom; 2nd. The induction nozzle *B*, provided with the weighted hinged valve *a*, and flexible packing *a*, upon the face of said valve, and also provided with the flexible packing *a*, partially surrounding the inner end of the nozzle and extending therefrom in combination with the hollow piston *D*, hinged valve *b*, and flexible packing *a*, all arranged within the pump; 3rd. The screws or stems *c*, adapted to enter the pump chamber *A*, in combination with the weighted hinged valves *a, a*, and *b, a*.**No. 5607. Improvements on Sulky Harrows and Hay Rakes.***(Perfectionnements aux herces à siège et aux râteliers à foin.)*

Melvin Wilson, Strathroy, Ont., 20th January, 1876, for 5 years.

Claim.—1st. The harrow *A, A*, constructed of the shape described, 2nd. The mode of attaching said harrow to the axle tree *B*, and wheel *C, C*, by means of the chains *D, D*, and controlling and operating devices as arms *E, E*, cross bar *F*, gear wheels *G*, and lever *H, 3rd*. The combination with the sulky harrow of a hay rake with movable bars *K, K*, connecting eyes *J, J, L*, and *M*; 4th. In combination with the tongue *N*, and double tree *o*, of a sulky harrow, the bar *P*, and supporting collar *R*.**No. 5608. Improvements on the Manu-facture of Illuminating Gas.***(Perfectionnements dans la fabrication du gaz d'éclairage.)*

Myron H. Strong, Brooklyn, N. Y., U. S., 20th January, 1876, for 5 years.

Claim.—The process of producing hydrogen gas by admitting petroleum or other fluid hydro-carbon into a retort among pieces of fire brick or other similar material in a heated condition and then reheating the retort for the next operation by the admission of atmospheric air for consuming the carbon deposited in such retort**No. 5609. Lamp Lighter. (Allumoir de lampe.)**

James Chapman, St. John, N. B., 20th January, 1876, for 5 years.

Claim.—The pole *A*, the frame *B*, the lamp *C*, swinging therein, and the key *E*.**No. 5610. Truck and Apparatus for Handling Bricks.** (*Camion et appareil à manier les briques.*)

Walter E. Gard, New-York, U. S., 20th January, 1876 for 5 years.

Claim.—1st. A truck *G*, for handling bricks in combination with the hack frames; 2nd. A truck *B*, for handling bricks provided with elevating and lowering lifters *m, m, m*; 3rd. The combination of the sliding lifters *m, m, m*, cords or chains *o, o*, and *p, p*, winding shaft *r*, and pulleys *s, s*; 4th. A hack frame *B*, provided with elevating timbers *d, d*; 5th. A transferring truck *D*, in combination with rollers *g, g*, and ways *h, h*; 6th. A brick handling apparatus composed essentially of a roller way *A*, hack frames *B, B*, and handling truck *G*.**No. 5611. Process for the Manufacture of Oakum.** (*Procédé pour la fabrication de l'étoupe.*)

John Pike, Chicago, Ill., U. S., (assignee of J. R. Blaney,) 20th January, 1876 for 5 years.

Claim.—The process of making oakum from hemp or flax, tow, jute or similar fibres by saturating the fibre in a solution of asphaltum and pine tar using benzine, kerosene or other oil as the solvent, and the recovery of said oil by distillation from the saturated fibre.**No. 5612. Watchman Detector. (Contrôleur de garde.)**

Henry A. E. Lefort and Godefroi Chapleau, Montreal, Que., 25th January, 1876, for 5 years.

Claim.—1st. In combination with any clock case the watchman detector arranged to revolve simultaneously with the hour hand and composed of two discs *D, D*, holding between them the slides *F*, drawn out by the draw bar *G*, and returned to their place by the stop *H*; 2nd. In combination with any detector having blades or slides thrust out beyond the periphery of the disc, the stop *H*, arranged as set forth.**No. 5613. Improvements on Heaters.***(Perfectionnements aux poêles-sourds.)*

James L. Masie, Cowansville, Que., 27th January, 1876, (Extension of Patent No. 4237), for 5 years.

No. 5614. Improvements on Heaters.*(Perfectionnements aux poêles sourds.)*

James L. Masie, Cowansville, Que., 28th January, 1876, (Extension of Patent No. 4237), for 5 years.

No. 5615. Apparatus for Illustrating Geo-graphy and Astronomy.*(Appareil démonstratif de géographie et d'astronomie.)*

Malcolm MacVicar, Potsdam, N. Y., U. S., 28th January, 1876, for 15 years.

Claim.—1st. The revolving equator *B*, and circle *C*, suspended on the equator by two points *a, a*, so that by its own motion on said points and the motion of the equator it can be made to represent any great circle on the globe; 2nd. The movable semi-meridian *D*, fastened to the circle *C*; 3rd. A movable meridian *E*, attached by a clamp screw and flange to the circle *C*, in such a manner that it revolves on the axis of the ecliptic and can also be made stationary so as to answer the same purpose as the brass meridian *E*, of the ordinary globe; 4th. The circles of illumination and twilight *H*, and *I*, fastened to the movable meridian *E*; 5th. The ball *T*, fastened to the movable meridian *E*, at ninety degrees from the pole of its axis, so that when the meridian revolves on its axis the ball will describe the apparent path of the sun round the earth; 6th. The semi-prime vertical *K*, fastened to the movable semi-meridian *D*; 7th. An equator revolving independently of the globe either in a groove in the globe or on the axis of the globe dividing the globe into hemispheres; 8th. The combination with a globe *A*, of the movable equator *B*, pivoted circle *C*, meridians *D*, and *E*, circles of illumination and twilight *H*, and *I*, semi-prime vertical *K*, pointer *L*, and the graduated ecliptic *M*; 9th. The combination of the globe *A* and its attachments with the arm *W*, wheel work *N, J, N*, and sun *T*.**No. 5616. Apparatus for Thawing Water Pipes.** (*Appareil à dégeler les tuyaux d'eau.*)

Thomas J. Sloan, New-York, U. S., 28th January, 1876, for 5 years.

Claim.—1st. A flexible tube strengthened by a spiral coil of wire fitted with a nozzle of rounded hemispherical or semi-spherical contour and provided with suitable means of rotation; 2nd. In combination with a boiler, a flexible tube constructed and adapted to follow the interior of a pipe when rotated therein and a suitable mechanical means of rotating said tube; 3rd. The combination of the reel *D*, with the flexible tube *C*, furnished with a nozzle *m*, and the steam or hot water outlet pipe of a suitable boiler; 4th. The combination of the hollow crank *E*, with the flexible tube *C*; 5th. The combination of the three way cock *c*, with the flexible tube *C*, the water outlet pipe *d*, and the steam outlet *e*, of the boiler; 6th. The reel *D*, constructed in the form of a core pointing in the direction of the out winding of flexible tube *C*; 7th. The cage *A*, the reel *D*, and the flexible thawing tube *C*, in combination with a suitable steam or hot water supply and suitable means of rotating the thawing tube; 8th. The collar *K*, and the jaw *J*, constructed with the double inclines in combination with the slide *I*, sleeve *G*, cam lever *w*, and flexible tube *C*, the whole arranged for conjoint operation.**No. 5617. Piston Packing. (Garniture de piston.)**

William W. St. John, Philadelphia, Pa., U. S., 28th January, 1876, for 5 years.

Claim.—1st. A piston packing having the area of the under portion increased in about the proportion in the wear of that portion is increased by the weight of the piston and rod; 2nd. The inner face of the packing rounded up or curved to sharp edges *D*, to admit the steam for pressing it against the cylinder; 3rd. The area of the under surface subject to steam pressure graduated to correspond with the graduated wearing surface by the flange *E*, and groove *F*; 4th. The head of the packing piece *H*, secured against the under side of the packing; 5th. The packing *B*, fitted to the piston head and the jointed piece *H*, by casting it in the groove of a piston as a mould.**No. 5618. Improvements in Stakes.***(Perfectionnements aux piquets.)*

Warren A. Durrie, Wilson, Wis., U. S., 28th January, 1876, for 5 years.

Claim.—A stake rod *A*, with ring *d*, when provided with the point *b*, and the flange shaped screw *F*.**No. 5619. Lock Nut. (Noix de sûreté.)**

Charles P. Baghott and John W. Thomson, Hamilton, Ont., 28th January, 1876, for 5 years.

Claim.—The construction and arrangement of the bolt *A*, with two flat sides *D, D*, in combination with a corresponding washer *C*, provided with openings *E, I*, to fit the bolt.**No. 5620. Advertising Device. (Système d'annonce.)**

Myron E. Dow, Manchester, N. H., U. S., 28th January, 1876, for 5 years.

Claim.—The combination of a hand bill with a medical plaster or adhesive paper.**No. 5621. Refrigerator. (Réfrigérant.)**

James H. Wickes, New-York, U. S., 28th January, 1876, for 5 years.

Claim.—1st. The combination with a provision chamber of a self-feeding base melting ice reservoir provided with openings at or near its bottom and extending around its circumference, the air to be cooled to be brought in contact with the ice at or near the bottom of the ice reservoir. 2nd. The combination with a self-feeding base melting ice reservoir of an air distributor situated within said ice reservoir and connected to an air forcing apparatus; 3rd. The combination with a hermetically closed provision chamber of an ice reservoir situated within said provision chamber, an air distributor situated within the ice reservoir, a system of pipes arranged within the provision chamber and an air forcing and suction apparatus connected to the air distributor and to the system of pipes.