

**No. 7556. Art of Utilizing Bisulphide of Carbon and Glycerine for Producing Motive Power.**

(*Art d'utiliser le bisulfure de carbone et la glycérine pour produire la force motrice.*)

William G. Smith, Montreal, Que., (Assignee of T. M. Fell, and H. B. Munster), 11th June, 1877, for 5 years.

**Claim.**—1st. The production of motive power from the bisulphide of carbon when the same is injected into, or used in connection with, heat and glycerine or a compound thereof, 2nd. Evaporating bisulphide of carbon by injecting same into heated glycerine, or a compound thereof, for the purpose of producing a dry, pure and undecomposed vapour for various uses in the arts and manufactures; 3rd. Procuring and using a high temperature circulating heated medium by the use of glycerine, for warming, heating or evaporating purposes, separately or in combination with the production of motive power.

**No. 7557. Improvements in the Running Gear of Buggies.**

(*Perfectionnements dans les trains de voitures.*)

James Field and Richard E. Hammill, Aeneater, Ont., 14th June, 1877, for 5 years.

**Claim.**—The combination and arrangement of the oblique angular springs A and B in connection with the coupling clips *d*, as arranged, and the spring block C in connection with the buggy body I and the spring A and B, also the circle (or fifth wheel) E.

**No. 7558. Lacing Stud for Boots and Shoes.**

(*Bouton pour lacier les chaussures.*)

Mellon Bray, Newton Mass. U.S. (Assignee of Alfred Dawes), 14th June 1877, for 5 years.

**Claim.**—A stud or hook, for lacing boots and shoes and other purposes, having a tubular shank or body *a* closed at one end and provided with shoulder *c*, discs *b* and *b'* and eccentric neck *e*, all made from a single piece of wire.

**No. 7559. Improvements on Suspension Rail and Tramways.**

(*Perfectionnements aux railrotes et tramways à suspension.*)

Alfred R. Howse and Joseph Spratt, Victoria, B.C., 14th June, 1877, for 5 years.

**Claim.**—1st. The combination of the engine H working on the line C with the boiler I suspended underneath the engine H, the said boiler I acting as a counterpoise and allowing the engine H to be freely used as on a double line of rails; 2nd. The combination of the hooks *f* with the levers E and the counterpoises F, to shift cargoes without disturbing the equilibrium of the travellers D D; 3rd. The mode of constructing the tramway with removable log-travellers A or with other materials composed of the *and* sleeper *a*, the upright *b*, the support *c* and the bed B, iron-nibed or otherwise fastened together in combination with the rail C and the traveller D, for the purpose of constructing a removable and cheap tramway A.

**No. 7560. Improvements in Washing Machines.**

(*Perfectionnements aux machines à laver.*)

William Church, West Haven, Ct., U.S., (Assignee of Thomas South), 14th June, 1877, for 5 years.

**Claim.**—A series of parallel rollers N, the combination of movable bars O, notched saddle plates P and fixed supporting rollers Q.

**No. 7561. Improvements on Stringed Musical Instruments.**

(*Perfectionnements aux instruments de musique à corde.*)

Michael H. Collins, East Medway, Mass., U.S., 14th June, 1877, for 5 years.

**Claim.**—The sounding board B as composed of the dome or other proper shaped top *r* and its annular supporter *e* in the circular case A, dome-shaped and provided with the mouth or bridge hole and elevated around such; The sounding board top composed of sectors and sections *s*, in whole or in part, and having the grain of the wood of each disposed lengthwise of it, The sounding board top composed of a series of sectors or sections *s* and provided with the disc or bridge rest *t*; The combination of the circular and dome-shaped case A with the sounding board B, composed of the top *r* and the annular supporter *e* thereof; The disc bottom *b* of the case provided with the flange *c* and groove *d*, in combination with the dome-shaped top and with the sounding board arranged with and applied to such bottom; The voice *l*, arranged and combined with the sounding board; The bridge composed of the three layers *w x y* of wood having their grain arranged as explained; The neck D provided with the auxiliary hand rest E arranged between the head G and the main hand rest F of such neck. The neck D open at its lower end and arranged to project over and rest upon the case dome, and chamber rest where over such as represented; The elongated chin rest M having its upper and lower edges parallel or about so; The head G as provided with the cross braces Z and arranged in its chamber L and with reference to the straining pins; Each straining pin H as provided with the shoulder *m*, disc *a*, washers *n n* and clamp screw *p*, arranged with it and the head G; The combination, with the dome shaped top, of the sounding board, the curved brace K arranged in the direction of and under the base string. The dome-shaped case provided with the transverse braces *a* at arranged in the crown and on opposite sides of the mouth of the dome.

**No. 7562. Middlings Purifier.**

(*Epurateur des genoux.*)

Joseph P. Reel and Andrew J. Seyler, Cedarville, Ill., U.S., 14th June, 1877, for 5 years.

**Claim.**—1st. The spreaders *a* arranged in passage E above the chute F, projecting from one side thereof partly across it and inclined at different

angles; 2nd. The combination of the passage E, separator *a*, chute F and spout G; 3rd. The spouts G and J, terminating at the top in the education the K combination with the feed board or floor M and the valve *b*, at the top of spout G; 4th. The series of knockers W rigidly attached to a common vibratory shaft X.

**No. 7563. Improvements on Stump Extractors.**

(*Perfectionnements aux arrache-racines.*)

Archibald M. Michael and Wallace Michael, Mapleton, Ont., 14th June 1877 for 5 years.

**Claim.**—1st. The wheels D D', chain wheel E, band F, chain G, bent arms J K, levers H I and rods L M, in combination with tripod A A', elevators B, hook C and lever N.

**No. 7564. Improvements in Harvesters.**

(*Perfectionnements aux faucheuses-moissonneuses.*)

William N. Whitely, Springfield, Ohio, U.S., 14th June, 1877, for 15 years.

**Claim.**—In a single wheel reaper the differential gearing to give motion to the knives and located on the master wheel axle outside of said wheel, in combination with the vibrating main frame: A gear wheel fitted loosely on the master wheel hub and driven by pawl clutch, combined with the differential wheel R, mounted on gimball points T upon said master wheel axle in combination with the main frame surrounding the said master wheel. The master wheel M, shaft K, boxes L M upon the frame F, combined with the differential gear wheels J R crank shaft O and vibrating driving arm A driven by said wheels, hinged pole and pivoted cutting apparatus to main frame; The master wheel M, shaft K, mounted in boxes L M on the frame F with the differential gear wheels J R, crank shaft O and vibrating driving arm located on the outer side of said wheel, combined with the raking mechanism located inside of said wheel. The vibrating driving arm rigidly secured to the oscillating differential wheel and jointed to the crank *o* of the shaft, outside of the balance wheel N. The oscillating differential wheel, combined with the sectional shield plate secured to the pawl case to prevent dirt, etc., from dropping off the wheel into said gearing; The vibrating driving arm A connected to the oscillating gear by bolts passing through legs on the same, radiating substantially from the centre of said oscillating gear.

**No. 7565. Improvements in Corking Machines.**

(*Perfectionnements aux machines à boucher.*)

Duncan R. Shaw, Toronto, Ont., 18th June, 1877, (Extension of Patent No. 1522), for 5 years.

**Claim.**—The combination of the receiver A, neck B, cap C, leather ring D with plunger E.

**No. 7566. Improvements on Bag Fasteners.**

(*Perfectionnements aux ferme-sacs.*)

Henry Redden, New York, U.S., 23rd June, 1877, for 5 years.

**Claim.**—A grain bag provided with apertured hem *a*, folding apron B and running cords C, the apron being fastened on the inside near inner edge of hem, while the cord runs parallel to hem, to allow the bag to be fastened quickly without sewing and opened without cutting.

**No. 7567. Improvements on Hay Rakes.**

(*Perfectionnements aux rateaux à foin.*)

Richard B. Sheldon, Shortsville, N.Y., U.S., 23rd June, 1877, for 5 years.

**Claim.**—1st. The double crank F kept in position by a coiled spring as the slide I on the upper end of the crank; 2nd. The hanging castings E having spring pawls *e*, also rods *h* and hand lever G, in combination with double crank F; 3rd. The foot lever L with the moveable fulcrum M in combination with slotted casting K.

**No. 7568. Improvements on Feather Renovators.**

(*Perfectionnements aux machines à rafraîchir la plume.*)

William Biggar and George Murwin, Fulton, Wis., U.S., 23rd June, 1877, for 5 years.

**Claim.**—1st. The chamber A provided with a stirrer and a steam inlet pipe *m*, combined with a fan *h* and an air heating furnace, 2nd. The chamber A provided with a revolving stirrer and a perforated plate *a* and close cover *b*, combined with the fan *h* and chamber G, provided with the intervening grating *e* and slide *f* and with the removable drawer *i*.

**No. 7569. Improvements in the Manufacture of Solder Wire.**

(*Perfectionnements dans la fabrication du fil à souder.*)

Hiland G. Hulbura, Placerville, Cal., U.S., 23rd June, 1877, for 5 years.

**Claim.**—1st. The process of forming solder wire by running the melted solder through a suitable nozzle into water, 2nd. The bowl D provided with the pipe E having the removable nozzle F, the said pipe being enclosed by a heater and the whole sustained by means of suitable supports over a water tank.

**No. 7570. Improvements on Nut Locks.**

(*Perfectionnements aux noix de sûreté.*)

Flavel W. Sullivan, Newark, N.J., U.S., 23rd June, 1877, for 5 years.

**Claim.**—The combination with the bolt A having right and left hand threads *a b*, of the nuts B C having slots *e*, washer D having a tang *d* bent over into said slots to lock the nuts combinedly.