

No. 8866. Improvements on Water Turbines.
(*Perfectionnements aux turbines hydrauliques.*)

Elbridge G. Libby, Medford, Mass., U.S., 4th June, 1878, (extension of Patent No. 2412), for 5 years.

No. 8867. Combined Shawl Strap and Head-Rest. (*Courroie de shawl et appui-tête combinés.*)

Edward P. Cowan, Philadelphia, Pa., U.S., 4th June, 1878, for 5 years.

Claim.—1st. The shawl strap and head rest arranged as described and adapted to be interchangeably used; 2nd. The combination with the rigid shawl strap bar having fixed socket tube, of an adjustable extension rod and a detachable head-rest secured to the ends of the extension rod, to serve as handle when used as a shawl-strap; 3rd. In a shawl-strap and head-rest, the head rest having perforated end-lugs for attachment, as a handle to a shawl-strap bar; 4th. The combination of the cushioned head rest having fixed screw-socket, with the adjustable extension-rod and fixed socket tube of shawl-strap bar, to be supported as head-rest; 5th. The combination of the main bar of the shawl-strap, carrying the fixed socket-tube and extension-rod, with an auxiliary bar, to which the straps are attached, and with means for locking the auxiliary bar below the main bar or at right angles thereto.

No. 8868. Art of Reducing Wood to Pulp.
(*Art de réduire le bois en pâte.*)

James G. Moore, Lisbon, N. H., U. S., 4th June, 1878, for 10 years.

Claim.—1st. Attaching first the exposed ends of all the fibres, and then putting and tearing out the remainder of the fibre, by means of a grinding surface acting in relation to the fibres. 2nd. A concave grinding surface, in combination with feed boxes or troughs therein inclosed when said boxes are so located as represented with reference to the concave grinding surface, that blocks of wood held and forced forward thereon may be reduced to pulp. 3rd. The combination of feeding boxes and plungers acting thereon, and racks on the plunger rods with a cog-wheel on a common shaft, whereby the plungers may be forced to feed blocks to the concave grinding surface; 4th. Feeding plungers operated by rack rod in combination with a contrivance for holding the racks in gear and permitting them to move out of gear.

No. 8869. Improvements on Hame Fastenings.
(*Perfectionnements aux colliers de cheval.*)

Madison Calhoun Cimarroa, and Samuel Edge, Fort Union, N. M., U.S., 4th June, 1878, for 5 years.

Claim.—1st. The combination of the catch plate C, the hook D, the loop-lever E and the lock loop F with each other and the hames A B. 2nd. The combination of the catch-plate C, the hook D, the loop lever E, the lock loop F and the spring G, with each other and the hames A B.

No. 8870. Improvements on Lifting Jacks.
(*Perfectionnements aux crics.*)

Vanderlyn H. Felt, Kendall, N. Y., U.S., 4th June, 1878, for 5 years.

Claim.—1st. The standard A bolted between the two bed pieces B and flaring backwards, so that the weight to be lifted at H, the point of the lever C is borne centrally by the base B. 2nd. The adjustable metal link or fulcrum D, which supports and is secured to the lever C, on the underside by the staple E; 3rd. Obtaining the fulcrum (by use of the link D), for the lever C outside of the standard A, thus giving the lever C more purchase. 4th. The plate G on the upper edge of the lever C, and the metal points g g on the contiguous side of the rear standard F, operating conjointly; 5th. The combination of the lever C and hook H.

No. 8871. Improvements on Folding Bedsteads. (*Perfectionnements aux couchettes pliantes.*)

Sanford S. Burr, Detham, Mass., U.S., 4th June, 1878, for 5 years.

Claim.—In folding wardrobe, a case A with the folding bed frame B, and the elastic and flexible bed bottom C, also the elastic springs E and the hinged legs G with the drawers K.

No. 8872. Improvements on Electric Telephones. (*Perfectionnements aux telephones electriques.*)

Elisha Gray, Chicago, Ill., U.S., 4th June, 1878, for 15 years.

Claim.—1st. The transmitter consisting of the combination, in an electric circuit, of a diaphragm and a liquid or equivalent substance of high resistance, whereby the vibration of the diaphragm causes variations in the resistance of the electric circuit, and consequently in the strength of the current traversing said circuit. 2nd. The combination in an electric circuit, of a diaphragm, a reservoir containing liquid forming part of the circuit, a rod attached to the diaphragm and projecting into the liquid and an adjustable connection, whereby the proper relation between the parts of the circuit is maintained as shown. 3rd. The combination of the basin-shaped vessel G, mounted upon a standard H, the magnet E mounted upon a post I, and the adjusting screw K; 4th. The combination, in an electric circuit, of a vocalizing chamber, the diaphragm and the magnet adjusted relatively to the diaphragm. 5th. The combination of the liquid transmitter A and the vocalizing receiver F. 6th. The combination, in an electric circuit, of a basin-shaped transmitter and receiver. 7th. The combination of the vocalizing receivers and transmitters; 8th. The combination, in an electric circuit, of the vibrating reed transmitters with a diaphragm receiver.

No. 8873. Improvements on Ventilators.
(*Perfectionnements aux ventilateurs.*)

Charles E. Darling, Lewiston, Me., U.S., 4th June, 1878, for 5 years.

Claim.—1st. The combination of radially recessed face disc clamped to the glass pane, with a correspondingly recessed inner disc that is centrally pivoted and adjusted between the same, to open or close the ventilator. 2nd. The combination of the recessed face discs B clamped to the pane, and inner disc C having central pivot and crank arms, and operating cords D.

No. 8874. Improvements on Drain Borers.
(*Perfectionnements aux machines a drainage.*)

Warren W. Snyder, Martinsville, Ohio, U.S., 4th June, 1878, for 5 years.

Claim.—1st. The combination of the adjustable branched standard F, the rod F, the point of cutter G, the rotating spirally corrugated or ribbed cutter H, and the rotating cutter and packer I, having its forward part spirally corrugated or ribbed, and its rear part smooth, with the beam A, handles B and upright D; 2nd. The combination of the adjustable branched standard F, the rod F, the rotating spirally corrugated or ribbed cutter H, and the rotating cutter and packer I having its forward part spirally corrugated or ribbed and its rear part smooth, with the beam A, the handles B and the upright D.

No. 8875. Improvements on Carriage Tops.
(*Perfectionnements aux couvertures des voitures.*)

Calvin C. Fosburgh, Louisville, Ky., U. S., 4th June, 1878 for 5 years.

Claim.—1st. The hollow canopy top C provided with the lid D, and combined with the curtains for which it constitutes a receptacle; 2nd. The hollow canopy top C, combined with the cover D, rollers E and curtains.

No. 8876. Improvements in Seeding Machines.
(*Perfectionnements dans les semoirs traceurs.*)

Thomas Galloway and John Larsen, Oshawa, Ont., 4th June, 1878, for 5 years.

Claim.—1st. The drag bar and tooth connected together at one end by a short link C and at an intermediate point between the ends, in such manner that they are divided into levers of say equal strength, which when the draft is applied oppose each other, forming a lock, the strength of which may be varied and utilized for the purpose of returning the tooth in a working position, subject to the conditions mentioned. 2nd. The link C with check blocks C₁ in combination with the tooth B, drag bar A and link D. 3rd. The tooth retaining spring F or its equivalent in combination with the locking and retaining devices. 4th. The tooth adjusting bracket E, in combination with the tooth B, links C D and the drag-bar A.

No. 8877. Implement for Extirpating Weeds.
(*Instrument pour arracher les mauvaises herbes.*)

Charles P. Rockhill, Toronto, Ont., 4th June, 1878, for 5 years.

Claim.—An agricultural implement composed of cutting blade F, with or without the prongs f connected to a frame A A₁, the said frame being supported by the wheel E at the point B, at which point the frame is made sufficiently flexible to allow the adjustment of its width upon the bar C.

No. 8878. Improvements on River and Fishway Registers. (*Perfectionnements aux registres de rivières et de passes migratoires.*)

David E. Price, Chicoutimi, Que., 4th June, 1878, for 5 years.

Claim.—1st. An open frame work A, provided with a spring door B and connecting clock mechanism, to register the passage of the fish through the door way; 2nd. The combination with a frame A having a door B, of the lever D, connected to its opening axis, a detent E operated by such lever, a spring H engaging with lever D, to close the door, and a clock mechanism operated by the detent E, for numerically recording on a dial plate N, the passage of the fish through the door way.

No. 8879. Improvements in Waggon Axles.
(*Perfectionnements aux essieux de voitures.*)

John Milne, Hamilton, (Assignee of George Patterson, St. Catharines) Ont., 4th June, 1878, for 5 years.

Claim.—The combination in the metal axle arm A, of the lugs B, cast thereon and forming the draw jack to which the shaft irons are to be coupled.

No. 8880. Improvements in Hay Rakes.
(*Perfectionnements dans les rateaux à foin.*)

Dickerson A. Calkins, Monsen, Mass., U. S., and John W. Elliott, Toronto, Ont., 4th June, 1878, for 5 years.

Claim.—1st. In combination with the axle A and boxes C C placed thereon, the sliding frame G is provided with the staples a a, and the shaft d provided with the eccentrics b b, and levers e; 2nd. The combination of the revolving shaft L, forked pins l, flat springs w and pivoted teeth r; 3rd. The combination with the tedder-shaft L, of the chain-wheels x x, chains y y, chain wheel z z, with springs d d and pinion b b, all arranged on the movable frame G, so as to throw the pinions in and out of gear with the cog wheels M, on the driving wheels B. 4th. The combination with the frame G, of the hollow arms O O, and the cast wheels N N, having their stems adjusted and held in said arms by the set screws e l. 5th. The rods 4 connected together by the toggle-joint 6, and provided with forked ends 5, fitting into slots cut in the sleeves 2, in combination with the taper recess casting of hub I. 6th. The cranked hand lever 7, in combination with the link 8 and toggle-joint 4, for operating the friction dump. 7th. The foot lever 9 connected by a link 12 to the lever 10, in combination with the link 13 and toggle joint 4.

No. 8881. Improvements in Wheat Heaters.
(*Perfectionnements aux élueurs à blé.*)

Edward H. Gratiot, Platteville, Wis., U. S., 4th June, 1878, for 5 years.

Claim.—The combination of cylinder B with corrugated sides H, the outer steam or hot air chamber C, with inner corrugated side F, and with or without grain mixers or strips I.

No. 8882. Improvements on Bank Check Books. (*Perfectionnements aux livres à mandats de banques.*)

Henry H. Norrington, West Bay, Mich. U. S., 4th June, 1878, for 5 years.

Claim.—A check, draft or other book of similar character made without stub sheets or stub blanks, and consisting of a leaf marked or printed on one side to form a blank for keeping a compact, continuous record of the business to which the book relates, followed by a series of leaves of blank checks for use in connection therewith, the whole arranged and bound as described.