

pose of fastening the roof without piercing the sheets and allowing water to escape. 2nd. In a car-roof, the combination of the laterally adjoining roof, boards E, of a length greater than that of the lining or joint sheets, and the ridge-clamps; 3rd. In a roof, the boards E having their inner or lower sides corrugated to fit a corrugated metal lining or metal joist strips.

No. 9181. Improvements on Well Pumps.

(*Perfectionnement aux pompes de puits.*)

John A. Newell and Ary Lucasse, Kalamazoo, Mich., U. S., 23rd September 1878, for 5 years.

Claim.—The socket couplings a b and nipples c c, in combination with the tube E for guiding a reamer in forming a seat for a valve box D, and for guiding the latter into its seat.

No. 9182. Improvements on Oil Wells.

(*Perfectionnements aux réservoirs à huile.*)

Charles Means, Modoc, Pa., U.S., 23rd September, 1878, for 5 years

Claim.—The combination of the return working barrel, the suction pipe and the vent pipe.

No. 9183. Compound for Washing Clothing.

(*Composé pour laver le linge.*)

John Lafontaine, Belleville, Ont., 23rd September, 1878, for 5 years.

Claim.—A compound of common soap dissolved in water and mixed in a solution of boiling water, sal soda, borax, unslacked lime, benzole and spirits of ammonia.

No. 9184. Improvements on Stoves and Ranges.

(*Perfectionnements aux poêles et aux landiers.*)

George R. Prowse, Montreal, Que., 23rd September, 1878, for 5 years.

Claim.—The frame A having projections E, arms G, in combination with the door C having staples D.

No. 9185. Improvements in Carriages.

(*Perfectionnements dans les voitures.*)

Daniel Conboy, Uxbridge, Ont., 23rd September, 1878, for 5 years.

Claim.—1st. The standards C provided with the bracket-arms D, in combination with the quadrant plates E. 2nd. The clump and screw fastening F, F, in combination with the quadrant plate E, and bracket arm D. 3rd. The combination of the pawl G with the notched quadrant plate E and bracket arm D. 4th. The quadrant plates E solidly attached to the rear bow and provided with the forwardly projecting arm G, to which the other principal bows are pivoted; 5th. The sectional hinge braces I pivoted to the front and rear bows and provided with the central overlapping hook joint; 6th. The intermediate bows H H, in combination with the folding horizontal braces I; 7th. A cover frame for buggies and carriages, in which the bows are arranged close upon the rear bow and the whole frame is mounted in such a manner that it may be adjusted and held at any position desired over the seat.

No. 9186. Machine for Dressing the Caps for the Journals of Railway Carriage Axles.

(*Machine à finir les couilles des fusées d'essieux des wagons de railroads.*)

Joseph N. Smith, Jersey, N.J., U. S., 23rd September, 1878, for 5 years

Claim.—1st. A table F to bear the work to be dressed, in combination with a suitable rotating cutter C, the table being arranged to rotate on an axis concentrically or eccentrically, with the cutter as desired, the eccentricity being effected by means of a radial adjustment; 2nd. A table F to bear the work to be dressed, in combination with a rotating cutter C, the table being arranged to rotate on an axis parallel with the axis of the cutter, and provided with mechanism whereby it may be thrown out of rotated gear if desired, and mechanism whereby it may be caused to traverse or move radially; 3rd. The combination of the table F provided with teeth on its margin, or their equivalent, the bed E arranged to traverse the bed plate of the machine, the slotted lever G, the idler pinion e and the pin z arranged to play in the slotted lever G; 4th. The plate c and tapered key j, in combination with the bed E; 5th. The table F provided with teeth or other equivalent mechanism, whereby it is rotated, and the ring d, in combination with the bed E; 6th. The combination of the plate B, or its equivalent, the strip c mounted thereon, the key j adapted to be adjusted by a suitable screw, the bed E, the ring d and the table F arranged to rotate on the bed E; 7th. The clamping mechanism composed of the pivoted jaws l l, screws of their equivalent m, plate k provided with a suitable clamp screw and bearing post n; 8th. The combination of the carriage J with the plate k and the clamping mechanism mounted thereon, and the bearing post n; 9th. The carriage I mounted upon the bed-piece H and arranged to be adjusted or moved thereon, in a direction at right angles to the radius of the table F, in combination with said table, the block H and the clamping mechanism borne by said carriage I; 10th. A clamping device to hold the piece to be dressed, composed of two jaws to grasp it, arranged to be drawn back so as to press it upon a fixed post or abutment; 11th. The arrangement in combination of the table F arranged to rotate on the bed E, and the bed E arranged to traverse radially with respect to the table; 12th. The arrangement in combination with a rotating table, with teeth on its periphery, adapted to be adjusted radially with respect to a driving pinion, of a device whereby the said pinion is kept in mesh with the teeth on the periphery of the table.

No. 9187. Improvements on Milk Coolers.

(*Perfectionnements aux boîtes à lait.*)

David Lockhart, Richmond, Que., 23rd September, 1878, for 5 years.

Claim.—1st. The bevelled bottom with groove or grooves; 2nd. The lip F placed over the mouth of the outlet spout; 3rd. The position of the gauge glass; 4th. The outlet spout E.

No. 9188. Improvements on Baskets.

(*Perfectionnements aux paniers.*)

Isaac I. Cole, Hillsdale, N.J., U.S., 23rd September, 1878, for 5 years.

Claim.—A basket whose ends and handle are secured by a single nail at each side.

No. 9189. Improvements in obtaining Cream from Milk.

(*Perfectionnements dans la production de la crème.*)

Philander Shaw, Boston, Mass., U.S., 23rd September, 1878, for 5 years.

Claim.—1st. The process of treating milk for raising cream by covering the mouth of the can containing the milk with a non-conductive cover; 2nd. The process for obtaining cream from milk by surrounding the milk can with a water jacket that is exposed, first to heat by which the milk is heated through the water jacket to the desired temperature, and afterwards gradually cooled from the bottom upwards; 3rd. The process for removing the cream from the milk, by gradually drawing the cream downwards through a tube; 4th. The apparatus for obtaining cream from milk, composed of the milk can a, the water jacket i contained in the vessel k, the closed receptacle l, the heater m and the cooler p; 5th. The milk can a for raising cream, in combination with its non-conducting cover b; 6th. The milk can a for raising cream, in combination with the telescopic tubes d f, the graduated scale g and the indicator h; 7th. The combination with a milk receptacle, of a discharge tube of which the end inside of the receptacle is adjustable to different altitudes.

No. 9190. Improvements on Railways.

(*Perfectionnements aux railroads.*)

James A. Bonnell and John M. Summers, Philadelphia, Pa., U.S., 23rd September, 1878, for 5 years.

Claim.—1st. The metal cross-tie or girder, having opposite side flanges or ribs a and a top rounded gently transversely, and merging with abrupt curves into the said sides; 2nd. A rail supporting girder or tie, having a transversely ribbed top; 3rd. The combination of the recessed girder A having openings i with the rails B, the interposed elastic blocks e and clamping blocks d.

No. 9191. Improvement on Car Windows.

(*Perfectionnement aux fenêtres des wagons.*)

Benjamin L. Wood, Taunton, and Benjamin D. Washburn, Boston, Mass., U.S., 23rd September, 1878, for 5 years.

Claim.—The frame A with its central bar C, the sashes B and the jointed lever K, or its equivalent, when combined together for the purpose of forming a detachable car window, as a new article of manufacture.

No. 9192. Improvement in Saw Teetl.

(*Perfectionnement dans les dents des scies.*)

Jesse King, Oswego, N.Y., U.S., 23rd September, 1878, for 5 years.

Claim. 1st. A saw-tooth made from iron or steel that will not temper or only partially temper with case hardened edges, in combination with a continuous set along the whole length of the bit of the tooth, 2nd. In combination with the first claim, a saw tooth with a flat semi-circular or angular top surface.

No. 9193. Improvements on Stove Pipes.

(*Perfectionnements aux tuyaux de poêles.*)

John Harrison, Cleveland, Ohio, U.S., 23rd September, 1878, for 5 years.

Claim.—A stove pipe rivetted at one end only, the combination of the folding lap D, grooves F C, rib or bead H and spring C.

No. 9194. Resonant Chamber for Cabinet Organs.

(*Chambre de résonance pour les basses-orgues.*)

George Blatchford, Mitchell, Ont., 23rd September, 1878, for 5 years.

Claim.—1st. A resonant air chamber for organs having the reed-board inserted into grooves inside of the chamber, 2nd. A resonant air chamber for organs made of a horizontal and a vertical section having solidifying or qualifying bars; 3rd. In combination with a resonant chamber for an organ an auxiliary front swell in connection with or independently of the grand swell at the top of the chamber, 4th. The combination of the knee-stop H lever G, pivot I and levers J K L M and N, lever O, lever P and leather strap attachment.

No. 9195. Improvements on Car Starters.

(*Perfectionnements aux leviers de mise en train des wagons.*)

Jesse H. Quackenbush and Henry M. Yeoman, East Saginaw, Mich., U.S., 23rd September, 1878, for 5 years.

Claim.—1st. In a car starting device, the pawl H pivoted in the block G sliding upon guides F, in combination with the draw bar E and ratchet wheel D; 2nd. The latch K, in combination with a draw bar E; 3rd. The pawl H pivoted in the block G sliding upon guides F and latch K, in combination with the draw bar E and ratchet wheel D; 4th. The pawl H pivoted in the block G sliding upon guides F, spring I and latch K, in combination with a draw bar E and ratchet wheel D; 5th. The pawl H pivoted in the block G, sliding upon guides F, spring I and latch K, in combination with the draw bar E and ratchet wheel D; 6th. The pawl H provided with the stem H' and arm d, in combination with the wedge block L, draw bar E and ratchet wheel D.

No. 9196. Sub-aqueous Drilling Apparatus.

(*Appareil de forage sous-marin.*)

Ebenezer E. Gilbert, Montreal, Que., 23rd September, 1878, for 5 years.

Claim.—1st. The combination of the spud C, bed G and tube L; 2nd. The combination of the bed G, sub-bed H and cylinder Z hinged thereto; 3rd. The combination of the chamber H, piston rod C, having a passage