

No. 4549. IRWIN BRIDGMAN, Toronto, Ont., 1st April, 1875, for 5 years: "Improvements on Railway Cars." (Perfectionnements aux wagons de railroutes.)

*Claim.*—A passenger railway car having at each end thereof a vestibule in which the car door is hinged swinging outwardly, and having the closets adjacent to the vestibule forming one or both sides, of one or both vestibules.

No. 4550. DUNCAN D. McMILLAN, La Crosse, Wis., 1st April, 1875, for 15 years: "Self-regulating Gas-Burner." (Bec à gaz modérateur.)

*Claim.*—The combination of the lower section or shell A, provided with a circumferential annular chamber *a*, having bottom openings *m*, the top section having upwardly converging channels *b*, and the flexible diaphragm C, and valve D, secured between the two sections inside the annular gas chamber.

No. 4551. JOHN W. WEST, Boston, Mass., U. S., 1st April, 1875, for 5 years: "Spooling Machine." (Machine à bobiner.)

*Claim.*—1st. The head stock I, rods K, bar S, rod H, screw *d*, *e*, arms *a*, *ai*, in combination with a device for automatically changing the movements of the rods K; 2nd. The arms *a*, *ai*, provided with the studs *b*, *bi*, in combination with the levers *f*, *f*, springs *g*, *g*, and screw *d*, *e*; 3rd. In combination with the finger M, the rocking shaft W, bar Q, and slotted bars P, for actuating the levers *f*, *f*; 4th. In combination with the rods K, the wires *n*, eyes L and lever *x*; 5th. The rod K, provided with the stop V and the spoke J, provided with the pin *z*; 6th. The stop mechanism described, the same consisting of the levers U, provided with the noellets G, the levers T, provided with the eyes *t*, and the lever H, combined to operate with the shipper *q*; 7th. The spool rods C, provided with the pulleys D, and arranged in the arc of a circle alternately with the rods K, provided with the fingers M, in combination with devices for conjointly rotating the rods C, and producing reciprocating rectilinear movements of the rods K.

No. 4552. JOHN PORTH and HENRY SCHEUERLE, New-York, U. S., 1st April, 1875, for 5 years: "Nail Machine." (Machine à clou.)

*Claim.*—1st. The novel combination of the shaft L, crank W, rod *b*, bar U, rod T, sliding-bar Q, blocks P, and *p*, pincer-rod R, nail-blank S, sliding bar X, levers *m*, *m*, pins *v*, *v*, spring levers *n*, *n* and frame N; 2nd. In communicating to the after end of the pincer-bar R, a vibrating motion, diminishing gradually as the same advances toward the machine; 3rd. The moveable block P, operated by the weight Z, in combination with the transverse-sliding bar Q, by which the lateral motion is given to the pincer-bar R; 4th. The arrangement of two cranks V, V', of unequal length, connected by a bar or rod U, and operated from a rotating shaft L, in combination with a sliding-bar Q; 5th. The combination of the levers or springs *n*, *n*, sliding-pins *v*, *v*, levers *m*, *m*, sliding bar X, with slices *u*, *u*, attached, and crank V; 6th. The arrangement of the strap Y, with plate *h* screws *s*, *s*, in combination with the cam C, and arm E', and other parts.

No. 4553. HENRY BLAND, Luton, Eng., 1st April, 1875, for 5 years: "Improvements on Sewing Machines." (Perfectionnements aux machines à coudre.)

*Claim.*—1st. The application and use to and in sewing machines of an oscillating feed block, mounted on a crank arm or lever carried by a rocking shaft; 2nd. The combination with the oscillating feed block mounted and actuated as set forth of the two feeding surfaces when arranged to operate together; 3rd. The application and use of a lever acting upon inclined surfaces or of an equivalent arrangement for regulating during the working of the machine, the throw of the feeding surface independently of the feeder; 4th. The combination with the adjustable presser, forming also an adjustable guide for one portion of the material to be sewn, of the plate for separating the two portions of such material; 5th. The peculiar construction and arrangement of shifting guide, operating by hand during the progress of the work; 6th. Guiding the material to be stitched as it enters the machine by passing it over a tubular support containing a yielding pin with enlarged head so arranged as to yield to any irregularity in the width of the material which passes over such support; 7th. The combination with the above mentioned shifting guide and its guide pins of an adjustable plate or gauge for accommodating various widths of plait or braid.

No. 4554. WILLIAM A. HOLWELL, Montreal, Que., 1st April, 1875, for 5 years: "Sash Regulator." (Ajustage de croisées de fenêtres.)

*Claim.*—1st. The combination of the lifter A, (Fig. 1), with the stud C, bent-lever D, (Fig. 2), and wire-chain or rod E, leading to the sash-fastener, 2nd. The combination of the lifter A, (Figs. 3 and 4) directly with the wire (or other equivalent device) B, leading to the sash-fastener, as set forth.

No. 4555. FRANÇOIS CUNY and PIERFORT T. BRIANT, Ottawa, Ont., 1st April, 1875, for 5 years: "Scrubbing Brush." (Brosse à frotter les planchers.)

*Claim.*—1st. The board-strip B, receptacle D, india-rubber strip E, spring F, coil-springs G, G, hooked-wires H, H, lip J, J, in combination with a scrubbing-brush A, as set forth.

No. 4556. THOMAS DEWITT, Grand Ledge, Mich., U. S., 1st April, 1875, (Extension of Patent No. 3163), for 5 years: "Washing Machine." (Machine à laver.)

*Claim.*—The combination of the ribs or bars *f*, *f*, *h*, *h*, and the cylinder, and cylinder-head.

No. 4557. THOMAS DEWITT, Grand Ledge, Mich., U. S., 1st April, 1875, (Extension of Patent No. 3163), for 5 years: "Washing Machine." (Machine à laver.)

No. 4558. JOHN BORER, West Flamboro', Ont., 1st April, 1875, (Extension of Patent No. 333), for 5 years: "Cultivator or Gang Plough." (Cultivateur ou charrue à soc-multiples.)

*Claim.*—The construction and arrangement of the braces R, R, the lever E, on the rear end of the long tongue, the hook G, and the chain J.

No. 4559. WILLIAM S. TORRIE, Moncton, N. B., 5th April, 1875, (Extension of Patent No. 350) for 5 years: "Manufacture of Soap." (Fabrication du savon.)

*Claim.*—1st. Saponifying common rosin by treatment with soda; 2nd. The combination of the saponified rosin with soap made from tallow or from bone or other grease.

No. 4560. FRANCIS ROURK, Montreal, Que., 5th April, 1875, for 5 years: "Apparatus for Ventilating Sewers and Mines." (Appareil de ventilation des égouts et des mines.)

*Claim.*—The combination of the exhauster A, connected to the sewer B, and with the purifying vessel C.

No. 4561. WILLIAM T. ROOT and WILLIAM G. WOOD, Ingersoll, Ont., 5th April, 1875, for 5 years: "Boiler Magazine for Heating Coal." (Soute-étuve pour chauffer le charbon.)

*Claim.*—The iron pipe C, and heating space *d*, in combination with the magazine B.

No. 4562. GEORGE McEWAN, Derby, Vt., U. S., 5th April, 1875, for 5 years: "Milk Pan Discharge Tube and Stoppie." (Tuyau de décharge et tampon de boîte à lait.)

*Claim.*—1st. The stoppie or valve A, made of glass or other suitable material ground to fit a seat upon the inner circumference of the discharge tube B, and its application to milk-pans. 2nd. The combination of the stoppie or valve A, with the metallic discharge-tube B, tinned or galvanized to facilitate the process of soldering to a milk-pan, as set forth.

No. 4563. GEORGE A. BEIDLER, Philadelphia, Pa., U. S., 5th April, 1875, for 10 years: "Lamp Burner." (Bec de lampe.)

*Claim.*—1st. The rarefying conductor B; 2nd. In combination with the rarefying conductor B, the conical deflector A. 3rd. The combination of the conical deflector A, rarefying conductor B, cap C, wick tube D, screw E, and gas-tube *d*, all as set forth.