No. 7462. Machine for Blowing Organs.

(Machine à souffler les orgues.)

George M. Healey, Port Hope, Ont., 15th May, 1877, for 5 years.

Claim.—The combination of the two levers P, axle rollers Q, bearings L, oscillating rods *d*, blow pedals F, and the bent projection *i*.

No. 7463. Improvements on Churns.

(Perfectionnements aux barattes.)

William H. Bodkin and Alexander McBride, London, Ont., 15th May, 1877, for 5 years.

Claim.—The use of the perforated inner cylinder *b* through which the cream is alternately drawn in and forced out, whilst being at the same time agitated by the dash.

No. 7464. Improvements on Railway Car Springs.

(Perfectionnements aux ressorts des voitures de railroutes.)

George F. Godley, Philadelphia, Pa., U. S., 15th May, 1877, for 5 years.

Claim.—1st. The forms of bars B C D E F H I having thick and thin parts in cross section, the parts that become upset having sloping sides *b c d e f h i* which become parallel in coiling; 2nd. The bars D E having flaring edges *d*, *e* which meet before the spiral becomes solid and form additional springs, said bars having as great a thickness of metal through *x x* as through *y y*; 3rd. The bars G H I for forming spirals, the coils of which fit into one another when the spring becomes solid; 4th. The trefoil car spring case consisting of the telescope or sliding sections constructed and adapted for the reception of 3 spiral springs, 5th. The combination with trefoil case O, of spiral springs P P arranged within said case, 6th The combination with the bolster S T, of springs P P, so that two springs of each case will be nearer the middle or centre of said bolster than the remaining or third spring, 7th. In combination with the bolsters S T, the trefoil cases O O and spiral springs P P.

No. 7465. Improvements on a Lift-Gauge.

(Perfectionnements à un appareil pour essayer la force musculaire.)

Orlando Thayer, Buffalo, N. Y., U. S., 15th May, 1877, for 5 years.

Claim.—A combined test gauge and apparatus for applying electricity in which the handles of the test gauge are capable of being charged with positive and negative electricity respectively, whereby the person manipulating said handles establishes the circuit between the two poles of a galvanic battery while applying his power to said handles; 2nd. An elastic test gauge consisting of a suitable case provided with the frame E, having the toothed segment F engaging with a pinion on the indicator staff, the rods I attached to the plate H and each connected with the battery wires N; 3rd. The combination with the case A, of the rods I I, plate H, springs *h*, segment F, rod G and the pinion on the indicator staff.

No. 7466. Car axle Box. (*Boîte d'essieu de wagon.*)

William W. Whitaker, Gloversville, N. Y., U. S., 15th May, 1875, 6 years.

Claim.—1st. An axle box provided with a divided hopper B filled with waste, or equivalent absorbent, arranged to afford a constant supply of lubricant to the axle by the operation of capillary attraction in such waste; 2nd. The combination, in an axle box, of a dividing plate C, oil conducting bearing plate E and absorbent G, the capillary attraction in which latter operates to return the lubricant once used to the axle for re-use continuously.

No. 7467. Improvements on Plough Clevises.

(Perfectionnements aux volées de charrues.)

David Urquhart, Port Perry, Ont., 15th May, 1877, for 5 years.

Claim.—1st. The oscillating plough clevis formed integrally of the arm A, segment B and cross-head F perforated; 2nd. The regulating bolt H passing through the plough beam C, in connection with the perforated segment B having oscillating arm A pivoted to the plough beam C.

No. 7468. Improvements in Shoe Fastenings.

(Perfectionnements dans l'ajustage des souliers.)

Frank G. Farnham, Hawley, Pa., U.S., 15th May, 1877, for 5 years.

Claim.—1st. The base plate A having perforations *a* and a central lug a^2 arranged upon it; 2nd. The base plate A, in combination with the washer or stitch plate a^1; 3rd. The spring key B formed of one piece of spring metal and having a central looped seat b^1 and a looped end b^2 for the reception and accommodation of the lug a^2, 4th. The face plate C having a central opening *c* and attaching lugs c^1; 5th. The base plate A, the spring key B, and the face plate C.

No. 7469. Improvements in Picture Frames.

(Perfectionnements aux cadres d'images.)

Charles Lippe, New York, U. S., 15th May 1877, for 5 years.

Claim.—Holding the frame E to frame A by aid of the pins G G and the plates I and L.

No. 7470. Improvements in the Manufacturing of Picture Frames.

(Perfectionnements dans la fabrication des cadres d'images.)

Charles Lippe, New York, U. S., 15th May, 1877, for 5 years.

Claim.—Spandrels made of *papier maché*, gypsum, plaster of Paris, or other light fusible and plastic material.

No. 7471. Improvements in Hoes.

(Perfectionnements dans les houes.)

Moses Johnson, Lockport, N. Y., U. S., Whitfield Douglas and Edward McCall, Hamilton, Ont., 15th May, 1877, for 5 years.

Claim.—1st. A hoe and ferrule made from a single piece of steel with double or single blade C C, 2nd. The ferrule cut from the middle length of the blade and bent together to form the ferrule, and made fast to handle by means of two rivets; 3rd. The openings G from whence the ferrule was cut which prevents the earth from clogging to hoe blade around the ferrule 4th A hoe C C with or without corrugations E; 5th. A hoe C having double blades, and double blades left at right angles with ferrule for thinning out turnips, &c., or being used as a scraper and constructed with or without corrugations.

No. 7472. Combined Feed Water Heater, Lime Extractor, and Condenser.

(Appareil à chauffer l'eau d'alimentation et extraire la chaux, et condensateur combinés.)

William J. Austin and Willis A. Austin, Chicago, Ill., U. S., 15th May 1877, for 5 years.

Claim.—1st. An enclosing shell within which is contained one, two or more alternately arranged steam chambers and filtering chambers, through which the water passes successively in a subdivided condition from the top downwards; 2nd. The combination with the alternately arranged steam chambers and filtering chambers, the exhaust pipe F provided with one two or more spreading discs K; 3rd. The combination with a feed water pipe perforated to throw water in sprays, of the flanged disc I, 4th In combination with the alternately arranged steam and filtering chambers the feed pipe D with perforations and flanged disc I; 5th. The combination with the shell A and exhaust pipe F, of the perforated diaphragms G.

No. 7473. Machinery for Making Screws.

(Appareil à faire les vis.)

Henry S. Lansdell, Brooklyn, N. Y., U. S., 15th May, 1877, for 5 years.

Claim.—The combination with the basin or hopper D, of the rotating screw or screw blank lifter E; 2nd. The grooved guide F within the basin or hopper D, in combination with the rotating lifter E; 3rd The hood G in combination with the grooved guide F, the double pronged or divided screw or screw blank lifter E and the basin or hopper D, 4th The drop tube H, in combination with the grooved guide F, the screw or screw blank lifter E, and the basin or hopper D; 5th. The vibrating screw or screw blank carrier I, in combination with the drop tube H and the box L having a receiving cavity *h*; 6th. The combination of the plunger *m*, the supply tube K to the chuck J, the box L having a screw or blank receiving cavity *h* and the screw or screw blank carrier I, 7th. The combination of the sliding mandrel O, the arm P thereon, the bell crank Q and the rotating screw or screw blank lifter E operated from said bell crank; 8th. The combination of the sliding mandrel O, the arm S, the bar *w* and the toe *k* of the carrier I; 9th. The combination with the chuck J which holds the work to be threaded, of a centering tumbler B^1; 10th. The combination of a centering tumbler B^1 with the sliding die holders G^1 G^2 or other mechanism for cutting the threads on screw blanks, or on the ends of rods, and so that said centering tumbler is adjusted into position and out of the way by said mechanism; 11th. The combination of the slide C^2 with the pivoted centering tumbler B^1, the switch f^3, the fixed guide g^3 and the lever catch h^3 having a stud or pin i^3; 12th. The combination of the fixed guard or projection D^2 with the pivoted centering tumbler B^1 constructed with a bearing or resting surface c^1; 13th. The die holders G^1 G^2 in combination with the plate H^1 constructed to concentrically enter said die holders; 14th. The combination of the cone or wedge J^1 with the pivoted or swinging die holders G^1 G^2, having reduced portions S^1 and the frame E^1 in which said die holders slide.

No. 7474. Improvements in Feed Cookers.

(Perfectionnements dans les poêles de cuisine.)

John P. Martin, Xenia, Ohio, U.S., 15th May, 1877, for 5 years.

Claim.—1st. An adjustable feed cooking cylinder or drum having a weighted bottom or base B for retaining it in the water vessel; 2nd. The cylinder C having conical flanges E E^1, in combination with the cylinder A and the grate D; 3rd. The combination of the main cylinder A, the interior cylinder C having grate D, the flanges E E^1, ventilator H and exit pipe I having a damper *a*.

No. 7475. Sash Relishing Machine.

(Machine à assembler à mi-bois)

William H. Fisher, Selins Grove, Pa., U. S., 15th May, 1877, for 5 years.

Claim.—1st. The saw C with the tables B and D, the chisel F with its operating rod G and crank wheel H, all arranged upon a common frame A and the operative parts driven by a common driving shaft I; 2nd. The chisel F and its arbor F^1 united together by the screw *f* and jamb nut *f*; 3rd. The table D adjustable, as to height, by means of the screws *d d*, the shaft E and the cog wheels *e* e^1.

No. 7476. Improvements in Fruit Jars.

(Perfectionnements dans les pots à fruits.)

Adam Dickey, Middletown, Ohio, U. S., 15th May, 1877, for 5 years.

Claim.—A fruit jar composed of black glass.