No. 10,766. Improvements on Bolt Heading Machines. (*Perfectionnements aux machines à entêter les boulons.*)

John A. Pillow and Randolph Hersey, Montreal, Que., (Assignees of James B. Clark and Lucas C. Clark, Plantsville, Ct., U. S.,) 26th December, 1879, for 15 years.

Claim.—1st. In a bolt heading machine, the combination of the following elements, first: the header or plunger C; second: shaping and holding dies F G; third: movable nippers made independent of and distinct from the dies, for acting upon the blank at a point immediately in advance of the header and advancing with said header, and fourth: suitable mechanism for operating said parts; 2nd. The header C recessed upon its two opposite sides, in combination with the nippers *a a* having shoulders *f*, which rest within said recesses and steady and govern the nippers while advancing with the header; 3rd. In a bolt header having the stationary holding and movable shaping dies, the combination of the shaping dies *m m*, laterally adjustable blocks *g g* to which said dies are hinged, and mechanism for fastening the blocks *g g* in position; 4th. The swinging shaping dies *m m*, in combination with the straps J J and the adjustable hooks *n n*; 5th. The preliminary head forming recess C^1, in combination with the countersunk face of the neck shaping dies, both being relatively shaped so as to produce the form of preliminary head: 6th. The neck forming dies having the transverse enlargement at the middle portion of the length of the neck.

No. 10,767. Improvements on Sewing Machines. (*Perfectionnements aux machines à coudre.*)

John C. Blackett, Glace Bay, N. S., 31st December, 1879, for 5 years.

Claim.—1st. The bracket A, spindle B, whirl E, clamp F, thumb screws G G G and ring screws H H.

No. 10,768. Sock Supporter. (*Bretelle de chaussette.*)

Clinton E. Brush, Toronto, Ont. (Assignee of Christopher C. Shelby, New York, U. S.,) 31st December, 1879, for 5 years.

Claim.—1st. An adjustable sock supporter arranged to encircle the limb and provided with a clamp or hook, at each end, by which the supporter is attachable to or detachable from the limb and sock; 2nd. A sock supporter provided with a clamp or hook, at each end, and an inserted ring or loop D.

No. 10,769. Safety Link for Railway Cars. (*Maillon de sûreté pour les voitures de chemins de fer.*)

James M. Foss, St. Albans, Vt., and William J. Watson, Chicago, Ill., U. S., 31st December, 1879, for 5 years.

Claim.—1st. The combination of the plates *a*, ears c, link *e* and the fastenings or bolts *f* forming a side bearing and safety link for railway cars.

No. 10,770. Improvements on Journals and Bearings. (*Perfectionnements aux tourillons et coussinets.*)

James H. McLean and Thomas Hostetter, St. Louis, Mo., U. S., 31st December, 1879, for 5 years.

Claim.—1st. A journal bearing lubricating slots *b b* connected in pairs by the grooves b_1; 2nd. A journal, for vehicles or for other purposes, constructed with two or more perforations or slots *e e* connected by longitudinal grooves *f*; 3rd. The combination of the journal D constructed with perforations or slots *e* and grooves *f*, and the bearing A constructed with slots *b b* and connecting grooves b_1; 4th. A journal bearing A constructed with lubricating slots *b b* having inclined faces c_3 c_3 and connected by grooves b_1.

No. 10,771. Improvements on Car Springs. (*Perfectionnements aux ressorts des wagons.*)

Augustus B. Davis and William B. Whitney, Philadelphia, Penn., U. S., 31st December, 1879, for 5 years.

Claim.—1st. The spring formed of plates A_1 of flat rhomboidal form; 2nd. A reversible spring formed of rhomboidal plates, and a clamp box having matched sides so that the plates fit either way to provide for reversibility; 3rd. The spring A formed of a series or pile of flat plates A_1 connected centrally by a clamp, saddle or box F and adapted to be reversed; 4th. The clamp for spring plates consisting of a box, E having matched sides a_1 and an inner convex or curved face or faces b_1; 5th. The rocking followers C having curved bottoms resting in recessed pedestals and also having pockets *b*, in combination with the springs A_1.

No. 10,772. Improvements on Crayon Holders. (*Perfectionnements aux porte-crayons.*)

Joseph Reckendorfer (Assignee of Joseph Hoffman), New York, U. S., 31st December, 1879, for 5 years.

Claim.—1st. The combination of the clamping case or sleeve, the expanding jaws tapered or provided with inclines acted on by the case or sleeve, to produce the closing of the jaws, the lead containing tube or receiver carrying said jaws, and longitudinally movable with respect to the case or sleeve, and the spring; 2nd. The combination of the case, the expanding jaws tapered or provided with inclines, the longitudinally movable lead holding tube or receiver, carrying said jaws and provided with a head or cap projecting from the rear of the case, and the retracting spring; 3rd. In combination with the jaws and the jaw operating device, the tubular sheath or handle composed of two sections, the one carrying the jaws, the other the jaw operating device, and the two being longitudinally movable to and from one another, with or without interposed spring.

No. 10,773. Improvements on Live Stock Cars. (*Perfectionnements aux wagons à bétail.*)

Thomas Clark, Truro, N. S., 31st December, 1879, for 5 years.

Claim.—1st. A freight car for live stock having an extra story separate from the stable floor and arranged for containing feed for the animals; 2nd. A freight car for live stock, having an upper story arranged for containing feed and water supply for the animals; 3rd. In a freight car for live stock, the hinged head post A, in combination with chains or ropes D d_1 d_2, for rapidly dividing the car into stalls and pens; 4th. A freight car divided by posts and chains A D into stalls, of which those adjacent to each other are arranged to face alternate side walls of the car, and in which the rear floor space of each stall is provided with an outward incline H_1, having floor opening h^1 with cover I, in connection with a rake aperture J; 5th. In a freight car for live stock, the rods B bolted through the walls, and the horizontal bars C provided with collars or shoulders b_2 to adapt them for use as hinge pins for the head posts A; 6th. A freight car for live stock provided with hoisting buckets and troughs E H, for conveying feed and water from the store room to the stable floor; 7th. A head stall formed of a pair of hinged plates A having reverted edges a_2, in combination with a bucket E provided with the guide grooves e_1; 8th. A head stall formed of a pair of hinged plates A having the reverted edges a_2 and the vertical hitch bars G, in combination with the buckets E and collar chains g_1; 9th. In combination with the stable room of a freight car for live stock, an upper store room N N divided by the walls L and partitions n_1, into a longitudinal passage M and lateral feed bins O O_1; 10th. The hinged trap doors S arranged in the floor of the feed bins O O_1 and operated from the central passage M of the feed store of a freight car for live stock, in combination with the hoisting buckets E; 11th. In a freight car for live stock, the water tank T arranged along the walls of the feed store N N, and provided with water traps U having handles *u* operated from the central passage M, in combination with the buckets E; 12th. The device for charging a pair of feed bins O O_1, simultaneously, viz.: the combination, with the said feed bins and the central hopper P, of the angular feed board Q Q_1 arranged astride the central passage M; 13th. In a freight car for live stock, the combination of the central portion of the roof provided with the hoppers P and intermediate vents p_2, the subjacent slide R provided with openings r_1, and the feed boards Q Q_1 for closing the apertures p_2 while filling the bins; 14th. In combination with the water tank T, the hose V suspended on hooks W, directly beneath the floor openings m_1 of the central passage M; 15th. In a freight car for live stock, the bridge X hinged at the end of the central passage M of the feed store and provided with the side rails or braces Y, in combination with suitable retaining catches and stops *x y* y_1 Z Z_1.

No. 10,774. Improvements in Freight Cars. (*Perfectionnements aux wagons à fret.*)

Edward D. Shaffer, Moncton, N. B., 31st December, 1879, for 5 years.

Claim.—A freight car having inclines H H and provided with top openings C, also bottom openings, the top openings having outside covers D and the bottom openings having inside floor doors G and outside covers F F.

No. 10,775. Improvements in Machines for Setting Rivets. (*Perfectionnements aux machines à poser les rivets.*)

Mellen Bray, Newton, Mass., U. S., 31st December, 1879, for 15 years.

Claim.—1st The hopper J provided with two slots *e* e_1 and two openings for the passage of the rivets therefrom, in combination with the inclined chute K provided, at its upper end, with two channels *f* f_1 coinciding, at their upper ends, with the slots *e* e_1 in the hopper, and converging towards each other and uniting in a single channel *g*; 2nd. In combination with the hopper J provided with two slots *e* e_1 cut in its bottom, the V-shaped plate L; 3rd. In combination with the chute K provided with the channels *f* f_1 *g* arranged relatively to each other, the plunger *h* adapted to be adjusted to a position to serve as a support for the rivets, in passing from the channels *f* f_1 to the channel *g*; 4th. In combination with the chute K provided with the channels *f* f_1 *g*, the plunger *h* provided with a series of teeth *r* serrations, and the spring latch *i* adapted to engage with said teeth and hold the plunger in the desired position; 5th. The chute K made up of the two pieces K_1 K_2 K_3; 6th. A pair of spring jaws N N_1, each provided with a semi-circular recess *o*, the shoulder *r* and inclined surface *s*, in combination with an inclined chute K and setting plunger G; 7th. The slotted plate P bent to the form shown and provided with the slot t_1 secured to the foot of the chute K.

No. 10,776. Treenail Wedge Machine. (*Machine à épiles.*)

John Lennerton, Princeport, N. S., 31st December, 1879, (Extension of Patent No. 4,222), for 5 years.

No. 10,777. Fracture Bed. (*Lit pour les fractures.*)

Isaac M. Rhodes, Hancock, Mich., U. S., 2nd January, 1880, (Extension of Patent No. 4,281), for 5 years.

No. 10,778. Improvements on Sewing Machines. (*Perfectionnements aux machines à coudre.*)

Richard M. Wanzer (Assignee of James Jamieson), Hamilton, Ont., 2nd January, 1880, (Extension of Patent No. 4, 231), for 5 years.

No. 10,779. Improvements in Churns. (*Perfectionnements aux barattes.*)

Donald D. Ferguson and John S. Loughlin, Alvinston, Ont., 5th January, 1880, for 5 years.

Claim.—1st. The combination of the post A and girts D E, with the rock shaft F and bridge piece G; 2nd. The combination of the socket *c*, pinion I and driving wheel H having the handle *b*, with the bridge piece G; 3rd. In a churning apparatus, the combination of the rock shaft F and bridge piece G carrying the wheel H and pinion I with the hook *a*.