

for the exhaust of the valve *d*, the cylinder *E*, piston *i*, connection *k* to the valve *d*, the valve *t*, the floats *B* in the cylinders *A*, the rods *a* and beam *b*, having connection with the valve *t*, substantially as described. 2nd. The combination, with the cylinder *E*, valve *t*, piston *i*, rod *k*, steam chest *C* and valve *d*, of the guide-bar *l*, collars *m* and rubber buffers *n*, substantially as shown and described. 3rd. In a boiler feeder, the combination, with the water cylinders *A*, floats *B*, rods *a*, beam *b*, steam cylinder *E*, piston *i* and rod *k*, of the steam chest *C*, provided with ports *e*, *f*, the valve *d* and connections to a boiler and a water supply, substantially as shown and described. 4th. The combination, with the water cylinder *A*, of the pipe *g* from a water supply pipe *p* to a boiler cross pipes *r*, *r*, and check valves *u*, substantially as shown and described. 5th. In a boiler feeder, the combination of condenser *D*, with the water cylinders *A*, steam chest *C* and valve *d*, substantially as and for the purpose specified. 6th. In a boiler feeder, the pipe *p* connected to the boiler pipe *g*, from a water supply cross pipes *r*, and check valves *u* combined with the water cylinders *A*, substantially as described.

No. 21,953. Hame. (*Attelle*.)

George H. Bartlett, Sunapee, N.H., U.S., 2nd July, 1885; 5 years.

Claim.—1st. The combination, with the neck of the lower start, of the loose sleeve provided with an eye carrying the pole strap ring, as set forth. 2nd. The combination, with the draft bolt, of the sleeve having a rigid washer located above its lower end, substantially as shown, and the lower start having about its neck a loose sleeve provided with an eye carrying the pole strap ring, as set forth. 3rd. The combination, with the hame *A*, of the upper start *B*, the draft-bolt *C*, provided with sleeve *D*, having the rigid washer *H* located above its bottom, and the lower start *B*, having about its neck the loose sleeve *E*, provided with an eye carrying the pole-strap ring, as set forth.

No. 21,954. Steam Cooker. (*Cuisinière à Vapeur*.)

William F. Strangways, Brantford, Ont., 2nd July, 1885; 5 years.

Claim.—1st. A steam cooking boiler *A*, provided with a sloping ledge *a* on its circumference, and a cover *a*, with hinge *a*, and ring *a*, as shown and described and for the purposes set forth. 2nd. A steam cooking boiler *A*, provided with a receiver *a* and aperture *a*, between the receiver and boiler, as shown and described and for the purposes set forth. 3rd. In a steam cooking boiler *A*, constructed as described, the combination of a condenser *B*, with handle *C*, and made to fit the sloping ledge *a* of the boiler, substantially as shown and described, and operating as set forth. 4th. In a steam cooking boiler *A*, constructed as described, the combination of the dishes *a*, *a*, *a*, each of the said dishes supported in the boiler, as specified and shown. 5th. In combination with the dishes *a*, *a*, *a*, and the hooks *b* on the inner top edge of the same, the handle *D* with two or more hooks *d*, for lifting the dishes aforesaid.

No. 21,955. Buck-Board and Buggy Waggon. (*Wagon Planche et Boghei*.)

Edouard H. Rousseau, Granby, Que., 2nd July, 1885; 5 years.

Claim.—1st. The combination, in a buckboard, of the steel springs *B*, *B*, with the bent pieces *a*, *a*, *a*, as shown and described for the purpose set forth. 2nd. The combination, in a buck-board, of the springs *c*, *c*, *c*, provided with the slats *d*, *d*, *d*, with the bent pieces *a*, *a*, *a*, substantially as shown and described for the purpose set forth.

No. 21,956. Sheaf Lifter for Hay Forks.

(*Monte-Gerbe pour Fourches à Foin*.)

Frank Noble, London, Ont., 2nd July, 1885; 5 years.

Claim.—1st. The yoke *A*, having loops or eyes *a*, *a* at each end, in combination therewith, the rope or chain *B*, substantially as and for the purpose shown and described.

No. 21,957. Waggon Jack. (*Chèvre de Carrosserie*.)

William Morton, Campbellford, Ont., 2nd July, 1885; 5 years.

Claim.—As an invention, a lifting jack for waggons or other vehicles, the standard *A*, having notches and bolt holes, as shown, and being bolted or otherwise rigidly fixed to a frame, in combination with the lever *C*, fulcrumed on said standard *A*, and having a pawl *D*, engaging in the ratchet of the said standard, all substantially as shown and for the purposes specified.

No. 21,958. Power Press. (*Presse d'Emballage*.)

William L. Peters, Ameliasburgh, Ont., 2nd July, 1885; 5 years.

Claim.—1st. The vertical rods *A*, *A*, at ends of press, substantially as and for the purpose hereinbefore set forth. 2nd. The self-moving cams *B*, *B* and *F*, *F*, substantially as and for the purpose hereinbefore set forth. 3rd. The combination of the fulcrum links *C*, *C* and *E*, *E*, with the lever *D*, *D*, substantially as and for the purpose hereinbefore set forth. 4th. The combination of the levers *D*, *D*, with notches, substantially as and for the purpose hereinbefore set forth.

No. 21,959. Refrigerator and Refrigerator Car. (*Glacière et Char Frigorifique*.)

Henry C. Goodell, Atchison, Ks., U.S., 2nd July, 1885; 5 years.

Claim.—1st. The combination, in a refrigerator or refrigerator car, of the outer wall *e*, intermediate wall *d*, forming an air chamber, the inner wall *d*, suitable linings for said inner wall and wall *d*, and non-conducting fillings between said walls, substantially as described. 2nd. The combination, with the retaining walls, substantially as described, of a filling of lamp-black mixed with mica, or other suitable convenient material, substantially as and for the purposes set forth. 3rd. The ice-box separated into longitudinal compartments by walls *m*, *m*, with the intermediate air passage, and with floors inclined

downward from the centre to the sides, as described. 4th. In a refrigerator or refrigerator car, an ice-box having its bottom sloping downward from the centre to the sides, the central air passage, and the outer walls *u*, *u*, and depending flanges *o*, *o*, substantially as shown and described. 5th. In combination with the box having downwardly sloping floors from the centre to the sides, the walls *u* and the depending flanges *o*, *o*, and the prongs supporting the rods, substantially as described. 6th. The combination, in a refrigerator or refrigerator car, of double walls with suitable spaces between, a cloth or equivalent lining for said wall, and the filling of lamp-black, or mixture of lamp-black with other material, substantially as described. 7th. In a refrigerator or refrigerator car, an ice-box located in the top of the same, said ice-box being divided by two walls *m*, *m*, forming an air passage which opens into the car below and the box above, said box having also openings in its outer sides for the downward flow of the cooled air, substantially as described. 8th. In a refrigerator or refrigerator car, an ice-box located in the top of the same, said box being divided by two walls *m*, *m*, forming an air passage which opens into the car below and ice-box above, by which the warmer air in rising from the car passes through the space between the walls *m*, *m*, flows over said walls and enter the ice-box on each side, substantially as described. 9th. In a refrigerator or refrigerator car, an ice chamber located at the end of the car or compartment, and consisting of a framework constructed of upright walls *S*, *T*, and horizontal floor *U*, of grating form, substantially as herein described. 10th. The combination, with an air chamber, constructed as herein described, of the inclined plate *X*, provided with the gutter *st*, for receiving the drippings and deflecting the cold air to the interior of the car or compartment, substantially as herein described. 11th. The combination, with the upright posts *s*, *t*, of the horizontal strips *st* and *t*, having their upper and lower edges bevelled, substantially as and for the purpose herein described. 12th. The combination, with the horizontal strips *st* and the deflecting plate *X*, of the inclined plate *st*, substantially as and for the purpose herein described. 13th. The combination, with the horizontal strips *t*, of the upright posts *t*, provided with the grooves *tr*, substantially as and for the purposes herein described. 14th. The combination, with the plate *X* and the stanchions *R*, of the horizontal strips *st*, substantially as and for the purpose herein described. 15th. The combination, with the outer walls of the ice-box, of the upright posts *s* and *t*, and the strips *st* and *t*, forming air passages, substantially as and for the purpose set forth.

No. 21,960. Lawn Marker.

(*Traceur de Pelouse*.)

Robert B. Reynolds, Stockport, N.Y., U.S., 2nd July, 1885; 5 years.

Claim.—The combination, with the liquid tank *a*, mounted on a carrying wheel or wheels *b*, and the belt *e* arranged to run on a carrying wheel, of the guide rollers *d* located on the top of the tank, and the tension and stirring roller *f* arranged to be suspended and carried in the bight of the belt, and to cause the belt to run through the liquid in the tank, substantially as described.

No. 21,961. Saw Mill. (*Scierie*.)

David F. Milne and James T. Milne, Nassagawega, Ont., 2nd July, 1885; 5 years.

Claim.—In a saw-mill, the combination of a saw, a carriage-way provided with carriage moving mechanism and located so as to form a carriage pathway past the saw, a second similarly provided carriage way disposed parallel thereto, one or more log-carriages fitted to move on said carriage-ways, and two or more transfers, located one before and one after the saw, and adapted to shift said carriage or carriages from one carriage-way to the other, substantially as and for the purposes specified.

No. 21,962. Machine for Hoisting and Conveying. (*Machine pour Hisser et Transporter*.)

Alexander E. Brown, Cleveland, Ohio, U.S., 2nd July, 1885; 5 years.

Claim.—1st. In combination with the two piers, a bridge pivoted to the upper portions of both said piers, all substantially as and for the purposes hereinbefore set forth. 2nd. The combination, with the two piers and a bridge pivoted at one end to one of them, of a universal joint coupling connecting the other end of said bridge and the other pier, all substantially as and for the purposes set forth. 3rd. The combination, with the bridge, of one pier resting on a double track, another pier resting on one track only (so that it can be tipped toward or from the piece resting on the double track), and couplings or connections between the bridge and piers, which will permit one of the piers to tip as explained without in the least straining its couplings to the bridge. 4th. In combination with the piers capable of tripping (on a single track), and the bridge pivotally connected to said piers, means for clamping together the piers and the bridge-supporting beam, the whole constructed and operating substantially as hereinbefore set forth.

No. 21,963. Machine for Hoisting and Conveying. (*Machine pour Hisser et Transporter*.)

Alexander E. Brown, Cleveland, Ohio, U.T., 2nd July, 1885; 5 years.

Claim.—1st. In combination with the piers and cable of a cable tramway for hoisting and conveying apparatus, the hinged bridge or apron constructed and arranged as specified, so that, when raised or turned up, the cable is correspondingly bent or turned up and is thus retained in a taut and useful condition for that portion of its length which remains distended between the two piers, substantially as set forth. 2d. In combination with the piers, the cable and the bridge or apron, of a device for holding the cable taut, during and after the upward vibrating movement of the bridge, and operating, as specified, so that, during the upward movement of the bridge, the pull of the cable operate to either impede or render more difficult the said move-