No. 15,286. Improvements on Hay Stackers.

(*Perfectionnements aux machines à mettre le foin en meules.*)

Jacob H. Bean, Macon, Ill., U.S., 11th August, 1882; for 5 years.

Claim.—1st. A frame work of sufficient height suitably braced and stayed, combining two pairs of parallel rails serving as supports and guides, of a travelling elevating device provided with wheels or equivalent, and actuated by cords, or equivalent, running over pulleys and being controlled and deviated at each end of its course by notches. 2nd. The counter-balanced starting back lever L having its cross arm L pivoted to the frame work, and working in combination with the elevating rake. 3rd. An elevating rake or platform consisting of front and rear prongs *r r1* secured to the bars *r2 r3*, arms *r4* carrying friction bowls *b1 b2* or equivalent devices, and pulley P. 4th. The combination of the elevating rake with the rails F1 F2 and the frame work generally. 5th. The rail F constructed with a short leg *f1* at the top and combined with the rail F2 constructed with and to form notches *f2 f3*, in combination with the general frame work. 6th. The pulleys P P1 P2 and the cords C or equivalents, combined with the bracket B, rake R and the general frame work F. 7th. The notch *f3*, leg *f1* formed in and forming part of the rails F1 F2, in combination with the arms *r4*, bowls *b1 b2* or equivalents, and platform carried by said arms to form dumping device.

No. 15,287. Improvements on Refrigerators

(*Perfectionnements aux garde-manger.*)

George H. Aird, Brantford, Ont., (Assignee of John O. Beck, Laporte, Ind., U.S.,) 11th August, 1882: (Extension of Patent No. 7763.)

No. 15,288. Improvements on Car Brakes.

(*Perfectionnements aux freins des chars.*)

John W. Cloud, Altoona, Penn., U.S., 11th August, 1882; for 5 years.

Claim.—1st. In combination with any proper mechanism for applying brake pressure to the wheels of auxiliary mechanism, for increasing or decreasing the amount of pressure so applied in proportion to the increase or decrease in the load of the car. 2nd. In combination with a spring of proper construction adapted to actuate a proper brake device, a base for said spring moved by a part of the car body above the carrying springs, which has a vertical movement proportioned to the variations in the weight of the load. 3rd. In combination with the spring G, friction pulley *i* and the pulley *j*, the auxiliary mechanism K L for increasing or decreasing the pressure of the friction pulley in proportion to the increase or decrease in the weight of the load. 4th. In combination with the bolster K having a vertical movement directly proportioned to the load, and the spring plank D having no such movement, the interposed mechanism L adapted to increase or decrease the amount of brake pressure in proportion to the increase or decrease in the weight of the load. 5th. In combination with the spring G adapted to actuate the friction pulley *i*, the base L connected to and receiving movement from a part of the car body having a vertical movement proportioned to the variations in the load. 6th. In combination with a spring adapted to actuate proper brake devices, a movable base for determining the amount of pressure exerted by the spring, and means for holding the spring out of action. 7th. In combination with a spring adapted to actuate proper brake devices, a movable base for the springs for actuating the base to increase or decrease the pressure exerted by the spring.

No. 15,289. Improvements on Car-couplings.

(*Perfectionnements aux attelages des chars.*)

Lewis P. Bajliff, Wapakoneta, and John Coup, Cleveland, Ohio, U. S., 11th August, 1882; for 5 years.

Claim.—1st. A draw-head having concave lower wall, recessed upper wall, and transverse rock shaft B provided with key *b*, in combination with the hinged plate D, spring E, the rotating of said rock shaft releases the coupling hook. 2nd. In combination with the rock shaft B, key *b* and the coupling hook C, the hinged plate D and spring E. 3rd. In combination with the rock shaft B the mechanism for rotating the frame consisting of the grooved wheel *w* connected by cord or chain K with vertical sliding rod *r* playing in brackets *f g* and operated by either of the levers *l* or *m m*, connected to said rod *r* by the link coupling joint *h*, for either coupling or uncoupling cars.

No. 15,290. Improvements in Oil Ejectors for Lubricating Steam Machinery.

(*Perfectionnements aux godets à l'huile pour graisser les machines à vapeur.*)

George F. Miller, (Assignee of Claudius Verniaud and Milton S. Cabell,) Quincy, Ill., U. S., 11th August, 1882: for 15 years.

Claim.—The oil reservoir A, the valved pipe K for introducing water of condensation into the oil reservoir, the upper joint pipe C having the valve with conical valve seat, the steam filled glass gauge, the lower joint pipe G, the pipe O, condenser B and drain cock F.

No. 15,291. Apparatus for Recovering waste Alkalies.

(*Appareils de rérivification des alkalis perdus.*)

John A. Fisher, Dundas, Ont., (Assignee of John W. Dixon, West Manayunk, Penn., U. S.,) 11th August, 1882; (Extension of Patent No. 7767.)

No. 15,292. Apparatus for Recovering waste Alkalies.

(*Appareils de revivification des alkalis perdus.*)

John A Fisher, Dundas, Ont., (Assignee of John W. Dixon, Manayunk, Penn., U. S.,) 11th August, 1882; (Extension of Patent No. 7767.)

No. 15,293. Improvements in Car-couplings.

(*Perfectionnements aux attelages des chars.*)

Bernard W. Arnold, Litchfield, Ill., U. S., 12th August, 1882; for 15 years.

Claim.—1st. The combination, with the draw-head having an inclined ridge *b* for guiding the link L and having a dovetailed slot D in its top provided with jaws C extending upwards from the top, and arranged to hold on a shoulder *c* the shoulder *c2*, of the coupling bar E being partly dovetail sectioned and having, in its lower end, a pin E1 adapted to slide in the grooves *d1* in the slots D and D1 in the draw head, and hold the coupling pin in proper position to be engaged and released by the link. 2nd. In combination with the coupling bar E, the rocking shaft R with lever R2 being worked by handles R1 and connected to the said coupling bar by the link *r*. 3rd. The depression *a* in the lower part of the rear portion of the recess B, in combination with the coupling bar E, shoulder *c2* and link L, for the purpose of adjusting the height of the free or projecting end of the link when coupling.

No. 15,294. Improvements on Devices for Manufacturing Railway Frogs.

(*Perfectionnements aux appareils pour fabriquer les rails de croisement des chemins de fer.*)

Frederic C. Weir, Cincinnati Ohio, U. S., 12th August, 1882; for 5 years.

Claim.—1st. The art of making railway frogs from rails by cutting off the flanges and heads of the point rails by means of shears, shaping said point rails in dies so as to form the taper or point joint and bending to the proper angle, the several parts of the frog by means of bending jacks, the said shears, dies and bending jacks being all operated by a powerful press or presses. 2nd. The art of making railway frogs from short sections of rails by cutting, by shears, the flanges and head of the point rails, shaping by means of dies the flanges of the short point rails, so that said rails will partially rest upon the flange of the main point rail fitting, by means of dies, the taper point of the rails to each other, and bending by means of bending jacks the several sections to the desired angle, said shears, dies and bending jacks being operated by a powerful press or presses. 3rd. In appliances for making railway frogs the combination, with a powerful press, or presses, of shears for cutting the flanges and heads of the point rails, shaping dies for shaping the flanges of the short point rails, so as to enable said rail to rest upon the flange of the main point rail, dies for fitting the taper points of the rails to each other, to form the taper or point joint, and bending jacks for bending the various parts to the desired angles. 4th. In combination with the press platen and pressure plate, the shears *f g* and clamp L *l1* for shearing the flanges and heads of the point rails of railway frogs. 5th. In combination with a press platen and press plate, the clamping dies D1 D11 and the swaging die D111 for shaping the flange of the short point rail, to partially fit and rest upon that of the main point rail. 6th. In combination with a press platen and press plate, the dies H1 *m1 h1* and H11 *h11* for shaping the head, web and flanges of one point rail to accurately fit the other point rail. 7th. A jack for bending railway rails composed of the press A B, supporting horns *s s*, stud R1 and adjustable stop *r*. 8th. The channel dies T *t* with grooves *t1* and edging-tools *v*, for bending and finishing the channel irons.

No. 15,295. Improvements on Wire Fence Nails.

(*Perfectionnements aux clous des clôtures en fil de fer.*)

Charles W. Dean and Edgar Robinson, South Wareham, Mass., U.S., 12th August, 1882; for 5 years.

Claim.—1st. In a nail-blank B having a raised head c and divergent sharp pointed legs of unequal length, having the outer bevels of their points parallel with each other. 2nd. A nail having a raised head and divergent sharp-pointed legs of unequal length, the shorter leg having the bevel of its point bent parallel with the long leg.

No. 15,296. Improvements on Car-Couplers.

(*Perfectionnements aux attelages des chars.*)

James A. Gowans and John MacMillan, Paris, Ont., 12th August, 1882; for 5 years.

Claim.—1st. A draw-head having a projecting lug formed on its top, in combination with a link provided with a projecting tail piece pivotally connected to the draw-head and operated by mechanism arranged to throw the link into a horizontal or vertical position. 2nd. A coupling link C provided with a tail piece *a* having a pivot pin *b* near its end, in combination with the arms *c* arranged to receive the pivot pin and themselves pivoted on the sides of the draw-head in such a manner that they are permitted to fall forward, but prevented passing backward beyond a vertical position. 3rd. A coupling link C provided with a tail piece pivotally connected to the draw-head and having pivotally fixed to its end a link *d*, in combination with a connecting rod D connected at one end to the link *d*, and at the other to the bell crank E pivoted upon the end of the car. 4th. A coupling link C provided with a tail piece pivotally connected to a draw-head and suitably connected to one end of the bell crank E, which is pivoted upon the end of the car, in combination with the horizontal rod F supported in bearings G on the end of the car and extending towards either side of the same, the said rod being jointed at *f* for the purpose of permitting the vertical adjustment of the rod caused by the altering angle of the bell crank as the rod is moved longitudinally. 5th. In a car coupling in which the coupling link is pivotally connected to the draw-head and connected to the horizontal rod F by a rod and bell crank, the combination of a vertical rod H connected to the rod F and extending to the top of the car, the said rod H being pivoted to the back of the car upon a pin passing through a vertical slot. 6th. In a car-coupler in which the coupling link is pivotally connected to the draw-head and operated by the horizontal rod F, the combination of a spring J arranged to act against the horizontal rod F, at or near