

**No. 35,982. Car Coupler.** (*Attelage de chars.*)

James F. Powell, Chestnut, Virginia, U.S.A., 14th February, 1891; 5 years.

*Claim.*—In a car coupler, the combination of the bottom and top portions of the draw-head, with a regulating device, consisting of the bow-spring and the U-shaped rod, secured and attached to said spring, so as to control and regulate the up-and-down movement of the coupling link, substantially as described.

**No. 35,983. Spreader for Manure.**

(*Distributeur d'engrais.*)

Daniel Boliver Merrell, Canandaigua, New York, U.S.A., 14th February, 1891; 5 years.

*Claim.*—1st. In a manure spreader, the manure box having an inflexible longitudinally-reciprocating floor, divided lengthwise and sustained in a uniform plane by stationary supports under the floor, and anti-friction rollers interposed between the floor and its supports, substantially as set forth and shown. 2nd. In a manure spreader, the manure box having an inflexible floor divided lengthwise at the centre of its width, and each section reciprocating longitudinally, and sustained in a uniform plane by stationary supports under the floor, anti-friction rollers interposed between the floor and its supports, the end board arranged movably lengthwise of the body, a stationary ratchet extending lengthwise of the body, a ratchet attached lengthwise of the reciprocating floor, and two pawls connected to the aforesaid end board, one of said pawls engaging the ratchet of the floor to move the end-board with the same, and the other pawl engaging the stationary ratchet to prevent retrograde movement of the end-board, substantially as described and shown. 3rd. In combination with the body and driving-shaft, the floor of said body composed of two reciprocating longitudinal inflexible sections sustained in uniform planes during their movement by supports secured to the stationary portion of the body, a strip between said floor sections, secured stationary to the body, two cranks on the driving shaft and pitmen connecting said cranks respectively with the two movable floor sections, as set forth and shown. 4th. In combination, with the body and driving shaft, the floor of said body composed of two reciprocating longitudinal inflexible sections, and a strip between said floor sections secured stationary to the body, two cranks on the driving shaft, pitmen connecting said cranks with the movable floor sections, a longitudinally movable end-board, longitudinal ratchets, respectively on the aforesaid stationary strip, and on the adjacent portion of the movable floor, and pawls connected to the movable end board and adapted to engage alternately the said ratchets, substantially as described and shown. 5th. In combination, with the body and longitudinally-reciprocating inflexible floor, bars rigidly secured to the stationary portion of the body and extending across the same beneath the said floor and rollers interposed between said bars and floor, substantially as set forth. 6th. In combination, with the body, a longitudinally-reciprocating inflexible floor bars secured to the body and extending across the same beneath the floor, rollers interposed between said bars and floor, and stops on the cross bars at opposite sides of the rollers to limit the motion of the latter, substantially as described and shown. 7th. In combination, with the driving-shaft, movable floor and beater, mechanism for transmitting motion from said driving shaft to the floor and beater, and a clutch adapted to throw the beater out of gear independently of the actuating mechanisms of the floor, substantially as described and shown. 8th. In combination, with the driving axle, movable floor and beater, a gear wheel mounted loosely on the axle, a clutch for connecting and releasing said gear wheel to and from the axle, a pinion mounted movably longitudinally on the shaft of the beater, and having an enlarged face meshing with a narrower face of the aforesaid gear wheel, and provided with a circumferentially grooved hub on one side, and with a clutch face on the opposite side, a clutch part secured stationary on the aforesaid shaft, a spring arm secured at one end to the body of the machine, and having its free end engaging the groove of the pinion hub, a flexible coupling connected at opposite ends respectively with the free end of the spring arm and with the aforesaid body, a rod connected to the central portion of the aforesaid coupling, and extended to the front of the machine, and a lever on the latter, connected with the said rod, substantially as described and shown.

**No. 35,984. Staple Driving Machine for Blinds.** (*Chasse-crampe pour jalousies*)

Philibert Morin, Montreal, Quebec, Canada, 14th February, 1891; 5 years.

*Claim.*—1st. In a staple driving machine for blinds, the main driving pulley B, clutch D, gear wheels G, F, H and I, bevel gear wheels  $j^1$  and J, blank bevel wheel  $j^2$ , connecting rods  $j^3$  and  $j^4$ , bell cranks  $j^5$  and  $j^6$ , pieces  $j^{11}$ , L, O,  $\alpha^1$ ,  $\alpha^2$ ,  $\alpha^3$ , having the slanting shoulder  $\alpha^4$ , Z,  $j^{12}$ , springs  $\alpha^5$ ,  $\alpha^6$ ,  $\alpha^7$ , and  $\alpha^8$ , levers  $z^1$  and  $z^2$ , substantially as described and for the purposes set forth. 2nd. In a staple driving machine for blinds, the piece S, gear wheel G, wheel  $n^2$ , provided with the projecting pieces  $n^3$ , shaft  $n$  and holder N, composed of the pieces  $k^1$ ,  $k^2$ , having the springs K, shaft  $p$ , wheel  $\alpha^1$ , pieces  $\alpha^2$  and  $\alpha^3$ , spring  $\alpha^4$ , substantially as described and for the purposes set forth. 3rd. In a staple driving machine for blinds, the gear wheels G, shaft  $p$ , wheel  $\alpha^1$ , pieces  $\alpha^2$  and  $\alpha^3$ , spring  $\alpha^4$ , substantially as described and for the purposes set forth. 4th. In a staple driving machine for blinds, the gear wheel G, shaft  $p$ , pieces  $\alpha^2$  and  $\alpha^3$ , the latter having the projection V, spring  $\alpha^4$  and pieces R, R, substantially as described and for the purposes set forth. 5th. In a staple driving machine for blinds, the gear wheel G, shaft  $p$ , belt  $\alpha^4$ , pulleys  $\alpha^{10}$  and  $\alpha^{11}$ , shaft  $\alpha^{12}$ , gear wheels  $\alpha^6$  and  $\alpha^5$ , cranks  $\alpha^7$  and  $\alpha^8$ , movable pieces  $\alpha^1$  and  $\alpha^2$ , chutes  $z^1$  and  $z^2$ , and box  $\alpha$ , substantially as described and for the purposes set forth. 6th. In a staple driving machine for blinds, the combination of pulley B, clutch D, gear wheels G, F, H and I, bevel gear wheels  $j^1$  and J, blank bevel wheel  $j^2$ , connecting rods  $j^3$  and  $j^4$ , bell cranks  $j^5$  and  $j^6$ , pieces  $j^{11}$ , L, O,  $\alpha^1$ ,  $\alpha^2$ ,  $\alpha^3$ , having the slanting shoulder  $\alpha^4$ , Z,  $j^{12}$ , springs  $\alpha^5$ ,  $\alpha^6$ ,  $\alpha^7$  and

$\alpha^8$ , levers  $z^1$  and  $z^2$ , with piece S, wheel  $n^2$ , provided with the projecting pieces  $n^3$ , shaft  $n$  and holder N, composed of the pieces  $k^1$ ,  $k^2$ , having the springs K, shaft  $p$ , wheel  $\alpha^1$ , pieces  $\alpha^2$  and  $\alpha^3$ , spring  $\alpha^4$ , pieces  $\alpha^2$  and  $\alpha^3$ , spring  $\alpha^4$ , pieces R, R, belts  $\alpha^{10}$  and  $\alpha^{11}$ , shaft  $\alpha^{12}$ , gear wheels  $\alpha^6$  and  $\alpha^5$ , cranks  $\alpha^7$  and  $\alpha^8$ , pieces  $\alpha^1$  and  $\alpha^2$ , chutes  $z^1$  and  $z^2$  and box  $\alpha$ , substantially as described and for the purposes set forth.

**No 35,985. Snap Hook.** (*Crochet à ressort.*)

Charles George Lundborg, City of New York, New York, U.S.A., 14th February, 1891; 5 years.

*Claim.*—1st. In a snap hook, the hook proper, in combination with the tongue, one end of which is formed with an elastic convolute and attached rigidly to the hook. 2nd. The snap-hook, having a recess therein, in combination with the pin, of angular section fixed in said recess, and the spring tongue having the convolute end and angular eye closely fitted to the pin, whereby the pin is caused to serve the double purpose of connecting the tongue to the hook and of maintaining the coiled end of the tongue under tension.

**No. 35,986. Scales.** (*Balance.*)

Charles George Lundborg, city of New York, New York, U.S.A., 14th February, 1891; 5 years.

*Claim.*—1st. In a spring scale, the combination of two concentric reversely wound helical springs, a suspending device attached to the upper end of the two springs, a suspending device attached to the lower end of the two springs, an arm or pointer attached to the one suspending device, and a scale attached to the other suspending device. 2nd. In a spring scale, the combination of two co-operating links to limit the extension of the springs, two reversely wound concentric helical springs, each connected firmly to the two links, a scale or indicator attached to one of said links, and an arm or pointer attached to the other. 3rd. In a spring scale, the link A, provided with a suspending device, the link C, the concentric helical springs E and F, both attached rigidly at their upper ends to link A, and at their lower ends to link C, the jacket G attached to the upper link and provided with graduations, and the arm H attached to the lower link, said elements combined, as described and shown. 4th. In a spring scale, the combination of two reversely-wound helical springs, mounted one within the other, and firmly united at their two ends, the one spring of lighter or smaller metal than the other.

**No. 35,987. Potato Digger.**

(*Sacrificateur à patates.*)

Albert Lauritzen and John Frederic Nielson, Gowen, Michigan, U.S.A., 14th February, 1891; 5 years.

*Claim.*—1st. In a potato digger, the combination, with a U-shaped bail, the opposite arms of which are pivoted in a draft-beam and provided with rearwardly curved depending spring teeth, of a hand lever and a rod connecting the hand lever with the lower end of a U-shaped bail, substantially as specified. 2nd. The combination, with the pivotal top rake herein described, and its connecting rod 30, of the hand lever 22 mounted in the opposite bell cranks 21, pivoted to the frame and provided with the bar 23, connected with the connecting bar of the rake, and of opposite pivotally connected adjustable supporting wheels and chains connecting said wheels and bell cranks, whereby by a movement of the lever 22 the wheels and rake are uniformly adjusted, substantially as specified. 3rd. In a potato digger, the combination with the endless chains, each consisting of a series of links, the inner side bars of which are provided with inwardly disposed loops, of a series of transverse connecting bars, the ends of which are bent to form hooks and engage the loops of opposite links, substantially as specified. 4th. The combination, with herein described endless chains, each comprising a series of detachable links, each of which consists of opposite end bars 77 and 77a, the latter reduced, as at 77c, and provided with end shoulders 77d, projecting hook 79, and the end bar connecting side bars 77b, the rear ends of which are cut away, as at 77e, to enable the locking shoulders 77d to pass in the act of connecting the end bar 77a, with the hook 79 of the next adjacent link, the inner side bar of each link being provided with the loop 80 of the connecting bars 81, connected with the loops, substantially as specified. 5th. The combination, with the traction shaft having opposite forwardly disposed hounds, of foot-supports, as 48, mounted on each of the hounds, and adjustable thereon by means of nuts 49, substantially as specified. 6th. The combination, with the beams 1, of opposite plates provided with bearings, arms pivoted in the bearings and terminating in slotted plates and of opposite wheels, the spindles of which are mounted in the slots, substantially as specified. 7th. The combination, with the beams 1, of opposite plates provided with bearings, arms pivoted in the bearings and terminating in slotted plates and on opposite wheels, the spindles of which are mounted in the slots, and of guards, as 45, arranged in front of the bolts, 33, substantially as specified. 8th. In a potato digger, the combination, with a sliding bearing block, provided with a counter-shaft operated by the main driving wheel, of a screen pivotally connected with the sliding block, and of a hand lever connected with the block and adapted to slide the same, substantially as specified. 9th. The combination, with a sliding bearing block, of a counter shaft mounted in the same and adapted to mesh with the master gear of the digger, a shaking screen connected to the block, a lever pivoted in rear of the same, and an adjustable rod connecting the block and lever, substantially as specified. 10th. The combination, with a counter-shaft adapted to be rotated by the ground wheels and provided with a cam of a pivoted arm arranged above the cam and adapted to be thrown thereby, and of a potato screen pivoted at its rear end, and loosely connected near its opposite end with the vibratory arm, substantially as specified. 11th. The combination, with the shaking screen 71, pivoted, as at 70, and its opposite arms having the perforations 84, of the arm 66, pivoted, as at 67, and having the depending arm 63, taking in the perfora-