

### No. 16,945. Improvements in Harvesters. (*Perfectionnements aux moissonneuses.*)

John Keys, Beloit, Ks., U.S., 16th June, 1883; 5 years.

*Claim.*—1st. In combination with the platform having an upward inclination to the rear, the endless belts or chains having the rake head hinged thereto, substantially as shown. 2nd. The combined rake and reel consisting of the endless belts or chains provided with the fixed reel blades, and the rake-bar attached thereto by hinged arms, substantially as shown. 3rd. In combination with the platform having an upward inclination to the rear, the endless reel belts or chains provided with the fixed and the hinged blades or bars, and arranged to approach the surface of the platform as they travel from its front to its rear, whereby the slats are caused to assist in retaining the moving grain in position. 4th. The combination of the inclined platform, the endless belts or chains, the rake head connected to the belts by hinged arms the tripping arm attached to the hinged arms, and the stud to act upon the tripping arm and elevate the rake head at the completion of its action, substantially as shown. 5th. In combination with the travelling rake head, the hinged presser bar arranged to travel in advance thereof, the sustaining arms upon said presser bar, and the stationary tracks or cams to carry the sustaining arms while the compressor bar is pressing upon the grain. 6th. The combination of the endless chains, the rake head attached thereto by hinged arms, the presser bar hinged to and in advance of the rake head, and means, substantially as described, to sustain the presser-bar until it has passed over the butts of the grain. 7th. In combination with the reel, the fixed posts, the notched hinge post and means, substantially as described, for securing the hinged posts in position.

### No. 16,946. Improvements in Thrashing Machines. (*Perfectionnements dans les machines à battre.*)

George W. Sharp, Crawfordsville, Ind., U.S., 16th June, 1883; 5 years.

*Claim.*—1st. A band-cutting and feeding attachment for thrashing-machines, the side tables G having carriers which operate to move the grain toward the central carrier between them, in combination with the oscillating band-cutters K, which operate transversely of the direction in which said carriers operate (their forward paths being nearer the paths of the centres of the sheaves than their backward paths) and located between said carriers, substantially as and for the purpose set forth. 2nd. The combination, with the cylinder and grain-carriers of a thrashing-machine, of a rotary feeder F, consisting essentially of two-toothed bars  $f_1 f_2$ , parallel to, but on opposite sides of its axis, connected together and adapted to revolve round their axis, and also to move longitudinally, the operating bars  $f_3$  and the strikes  $f_4$  on the frame-work, with which the said operating bars come in contact as F is revolved, whereby the toothed bars are caused to make sudden longitudinal movements for the purpose of distributing the grain, substantially as and for the purpose set forth. 3rd. The combination, with the cylinder of a thrashing-machine and the side-tables of a band-cutter and feeder for the same, of the rotary shaft F<sub>1</sub>, parallel to the shaft of the cylinder, and the shafts G<sub>1</sub> arranged at right angles therewith and located so as to drive the mechanism of the side-tables, and the gear wheels F<sub>2</sub>  $\rho$ , whereby the shafts G<sub>1</sub> G<sub>2</sub> are driven by F<sub>1</sub>, substantially as and for the purpose set forth. 4th. In a band-cutter and feeder for a thrashing-machine, the combination of the adjustable side-table G, band cutting mechanism and carriers therein, the shaft G<sub>1</sub> for driving said mechanism, and the combined journal and pivot boxings L, in which said shafts run and whereon said tables are pivoted, whereby the axis of rotation of the shaft and of the swing of the table is rendered coincident, substantially as and for the purpose set forth. 5th. The combination, with the side-tables G, of the extensions O, the lever P and the cam Q, on the shaft G<sub>1</sub> for operating it, substantially as and for the purpose set forth. 6th. The combination of the side-table G, the carriers  $\rho_2$ , band-cutter K and the spring bars H, to hold the sheaves in position, the several parts being constructed and arranged and operating substantially as and for the purpose set forth. 7th. The combination, with the side-table G, of the table-leg M, the rack-bar  $m$ , the pinion  $n_2$ , the clevis  $m_2$ , the shaft N, and the ratchet  $n_2$ , arranged and operating substantially as and for the purpose set forth. 8th. The combination, with the grain carriers  $\rho_2$ , of the fingers G<sub>3</sub>, revolving simultaneously, arranged parallel with each other and moving faster above the table than said carriers, substantially as and for the purpose set forth. 9th. The combination, with a thrashing-machine and an automatic band-cutter and feeder thereof, of the counter-shafts C D, the cone pulleys C<sub>1</sub> D<sub>1</sub>, the belt  $c_1$  and the belt shipper E, combined, arranged and operating, substantially as and for the purpose set forth. 10th. In a self band-cutter for a thrashing-machine, the combination of the two parallel shafts J<sub>1</sub> J<sub>2</sub>, the transverse cutter-bar K with its blades  $k_1 k_2$ , the shaft G<sub>1</sub>, the gear-wheel  $\rho_1$  and the gear-wheels of half its size  $\rho_2$ , the oscillating toothed bars  $\rho_2 \rho_3$ , and the belt  $\rho_2$  located within the table and arranged so that the bands are cut by the upward stroke of  $k_2$ , and yet the path of the sheaves is unobstructed during the greater portion of their forward movement, substantially as and for the purpose set forth.

### No. 16,947. Improvements in Car Axle Boxes. (*Perfectionnements aux boîtes à graisse.*)

Eleanor Whiting, Brooklyn, N. Y., U.S., 16th June, 1883; 5 years.

*Claim.*—1st. An axle box comprising a shell or housing provided with a cap to close its outer end, and an abutting flange at its inner end, a thimble which fits over the axle and is secured thereto, and which is provided with a flange, at its inner end, arranged to abut against the flange on the housing, a boxing provided with internal grooves mounted on the axle-thimble and arranged to abut against the flange thereon at its inner end, means, substantially as described, for preventing the boxing from turning with the axle, and an intermediary part arranged between the outer end of the boxing and the cap proper, which closes the outer end of the housing, all arranged

substantially as set forth. 2nd. The combination with the housing and boxing of an axle box, and the axle spindle of a thimble D, arranged to fit snugly on the said spindle, but so as to be readily removable therefrom, said thimble being provided with a flange  $c$ , adapted to be clamped between the boxing and the housing, and with means for securing said thimble removably to the spindle, substantially as set forth. 3rd. The combination, with the shell or housing constructed cylindrical interiorly, of the boxing E, arranged to be turned half way around in the said housing when worn on one side, all constructed and arranged to operate substantially as set forth. 4th. The combination, with the housing, of the screw cap F with a tubular part  $k$ , the boxing E and the flanged thimble D, all constructed and arranged to operate substantially as set forth. 5th. The combination, with the housing, the flanged thimble and the boxing, of the cap F provided with a packing  $j$ , and said cap arranged to screw into the housing, and all arranged to operate substantially as set forth. 6th. The combination, with the housing provided with a flange  $a$  and recess  $q$ , of the washer or plate C, constructed and shaped as shown, the boxing E provided with flutes or grooves for the passage of the oil, and the thimble D provided with a flange  $c$  having apertures  $e$ , all constructed and arranged to operate substantially as set forth. 7th. A boxing E, for an axle box, constructed cylindrical exteriorly and nearly cylindrical interiorly, and provided with flutes or grooves  $f$ , and plane vertical interior faces  $g$ , substantially as and for the purpose set forth. 8th. The combination, with the housing having a plane surface on its top, and convex-faced abutments  $x$  on its bottom, of the saddle I provided with a bearing-plate to rest upon the top of the housing, and a latch-bar J hinged in the saddle and arranged to engage the space between the abutments  $x$  on the housing, substantially as and for the purposes set forth. 9th. The combination, with the saddle I provided with the latch-bar, and the bearing-plate  $x$ , of the housing provided with a plane top surface, with abutments  $x$  on its bottom, and with projecting faces  $w$  on its sides, substantially as and for the purposes set forth. 10th. As a means for securing an axle-box in its saddle, whereby the saddle is prevented from lifting off the box and the latter is limited in its longitudinal movement in the saddle, a latch-bar hinged in one pendent cheek of the saddle, and provided with a sliding bolt or latch arranged to engage a latch socket in the other cheek of the saddle, and said latch-bar arranged to engage a cross recess in the bottom of the housing, substantially as herein set forth.

### No. 16,948. Improvements in Car-Couplings.

(*Perfectionnements aux accouplages des chars.*)

François Thérien, St. Eustache, Que., 16th June, 1883; 5 years.

*Claim.*—1st. In combination with the draw-head H, link L and the platform of a car, the double lifting bar B, pivoted to the coupling pin P and held down by spring S, connected by rods R passing through guide brackets M N, the lifting bar B, fulcrumed at the ends upon brackets F and having chains attached to the ends which pass through eyes  $b_3 b_4 b_5$ , having a narrow elongation which serves as a catch to the chain, said eyes formed on brackets secured to the car at suitable heights, the link lifters I, pivoted brackets  $U$ , secured to the platform. 2nd. The combination of the lifting bar B, with the coupling-pin P, the spring S connected by rods R, and the chains  $b_1 b_2$ . 3rd. The combination with the draw-head H, and the link L, of the link-lifter I, pivoted to brackets secured to the platform of cars, all substantially as described and for the purpose set forth.

### No. 16,949. Improvements in Harness Pads.

(*Perfectionnements aux sellettes des harnais.*)

Philip H. Case, Alexandria, Maine, U.S., 16th June, 1883; 5 years.

*Claim.*—The burr or nut plate composed of the upper leather section  $d$ , provided with the burrs or nuts  $i$ , and the metal plate  $e$  rivetted, or otherwise secured to the under surface of the leather section, as set forth.

### No. 16,950. Improvements in Testing Roller Mills. (*Perfectionnements dans l'épreuve des moulins à cylindres.*)

William D. Gray, Milwaukee, Wis., U.S., 16th June 1883; 5 years.

*Claim.*—1st. The described method of adjusting the rolls of grinding mills to bring their axes to a common plane, consisting in placing the rolls in position side by side, placing upon them a plane surface of sufficient extent to bear upon both ends of the rolls or upon their journals, and finally adjusting the rolls until each is in contact with said surface at both ends, as described. 2nd. The test plate for roller mills constructed with depending edges, flanges or feet in one and the same plane, said plate being adapted for application to two rolls, substantially as described. 3rd. The test plate for roller mills provided with a central opening and with depending surfaces at its two ends, said surface having their faces in one and the same plane. 4th. The test plate for roller mills having the depending surfaces or feet as described, and the handles  $e$  at its ends.

### No. 16,951. Improvements in Riding Saddles. (*Perfectionnements aux selles pour monter à cheval.*)

Joseph Bassler, San Jose, Cal., U.S., 16th June 1883; 5 years.

*Claim.*—1st. The combination, with the saddle-tree of a riding-saddle, of the coil springs  $a$ , having their upper spirals tied together, by the wire bands  $f$ , a short distance from their upper ends, connecting wires  $b$  and removable cushion A provided with the straps  $s$ , substantially as and for the purpose shown and set forth. 2nd. The combination of the bottom frame  $d_1$ , spiral springs  $a$  fastened rigidly to the bottom frame and having their upper coils connected by short strands of wire  $b$ , and removable cushion A provided with the fastening straps  $s$ , substantially as and for the purpose shown and set forth. 3rd. In a cushion for a riding-saddle, the combination of the springs  $a$  secured by metallic base supports  $e$ , and bottom  $d_1$ , cushion A and cover  $d$ , substantially as shown and for the purpose set forth.