

each side door way, the bracket for holding the wing sheathing and slating adjacent to door posts, where the doors slide back, consisting of the bars  $a$  and  $a'$ , holding the said sheathing and slating between them, and provided with horizontal extensions at their upper portion for securing them to the car plates, and with a hole at their lower portion for the reception of one end of a swiveled crank bolt, and the crank bolt  $a''$  for connecting said bracket bars with the door posts, substantially as and for the purposes set forth. 6th. The combination, in a stock car, provided with side extending wings, of the bracket for securing the wings sheathing and slating adjacent to the door posts where the side doors slide back, consisting of the bars  $a$  and  $a'$ , and bracketed to the car at their upper portions, of the crank bolt  $a''$ , swiveled in holes in the lower end portion of said bracket and the door post, and of the doors  $B$ , provided with the slot or recess  $B'$ , across their body between their styles for the reception of the crank portion of said bolt, substantially as and for the purpose set forth. 7th. In a stock car, provided with sliding side doors and depending hasps secured to the doors, as a means of fastening the doors when closed, the combination with the hasp  $V$ , of greater length than the fellow hasp, and of the guide block  $V'$ , secured to the car sill adapted to be engaged by the hasp when the door is opened, substantially as and for the purpose set forth. 8th. In the stock car described, the combination with the rock shaft  $S$ , of the lever  $L$ , provided with the square socketed hub  $S'$ , and curved in body, substantially as and for the purpose set forth. 9th. In a stock car, provided with side extending wings, the combination with the wing frame or ribs of the plates  $K$  thereof, substantially as and for the purpose set forth. 10th. A stock car, provided with hay racks, consisting of a lower rail seated in offsets of the side posts of the car, and of bars secured at their lower end to said rails, and at their upper ends at the lower inner side of the roofs hay doors, and curved in body to reduce the width of the lower portion and increase the width of the upper portion of the hay receptacle, substantially as and for the purpose specified. 11th. In a stock car, the combination, with pivoted watering troughs adapted to be turned into and out of position for use of the shaft, of two sections seated in bearings in the car lines to one side from the centre of the lever  $L$ , provided with the square socket hub, into which the shaft sections are socketed, of the crank arms  $C$  and  $C'$ , the former of which is shorter than the latter, and of the connecting rod and bell crank mechanism for connecting the troughs, substantially as and for the purpose specified.

#### No. 34,883. Grain Harvester. (*Moissonneuse.*)

The Milwaukee Harvester Company (assignees of James A. Graham)  
Milwaukee, Wis., U.S., 22nd August, 1890; 5 years.

*Claim.*—1st. The combination in a grain harvester, of a tilting lever of tubular form, having a rearward projecting arm, terminating with an operating handle, the transverse axis of which is placed at about a right angle with the plane of movement of the lever, the locking plunger and the operating handle connecting rod formed into a single piece, the connecting rod constituting a pivot for the operating handle and the locking plunger, a spring for holding the locking plunger in engagement with the notches upon the lever sector, and a sector secured to the harvester frame upon which the lever is pivoted, substantially as set forth. 2nd. The combination, in a grain harvester, of a tilting lever of tubular form, having a rearward projecting arm, terminating in an operating handle, connected with the locking plunger by means of a connecting rod, the connecting rod constituting a pivot for the operating handle and the locking plunger, and located within and enclosed by the rearward projecting arm of the lever, a coiled spring encircling the connecting rod operating to hold the locking plunger in its engagement with the lever sector, and the sector secured to the harvester frame, substantially as set forth. 3rd. In a harvester tilting lever, having a pivot piece  $A$ , cast in one piece, and having lugs upon its lower side for connecting it with its sector, its rearward projection constituting a clasp in connection with the pipe  $C$ , terminating in a pivoted handle, the locking plunger  $a$ , and its handle connecting rod  $c$ , in combination with the lever sector secured to the harvester frame, the oblique brace  $e$ , and the harvester seat plank  $E$ , substantially as set forth. 4th. In a harvester tilting lever, having a pivot piece  $A$ , cast in one piece, and having lugs upon its lower side for connecting it with its sector, its forward projection provided with an eye for connecting the lever to the harvester pole by means of the rod  $f$ , the elongated slot for the reception and passage of its sector, the rearward projecting arm of the lever terminating with an operating handle, the operating handle connected with the locking plunger by rod  $c$ , which also serves as their pivot for locking or unlocking the lever, with the notches formed upon its sector, and the lever sector secured to the upright  $b$ , in combination with the harvester frame and the harvester pole, substantially as set forth. 5th. In a harvester, the combination with the frame and pole having a hinged connection therewith, of a tilting lever fulcrumed to the frame and connected with the pole, a locking device by which the lever is secured in the desired position, and a handle connected with the locking device by a rod capable of turning axially, said handle serving to operate both the lever and the locking device, substantially as and for the purpose set forth.

#### No. 34,884. Lawn Rake and Sweeper.

(*Balai et rateau à gazon.*)

Marshall E. Pontious and Fried Volk, Cleveland Ohio, U.S., 22nd August, 1890; 5 years.

*Claim.*—1st. The main frame, having side plates with master wheels at the front, and a roller at the rear to support the frame, in combination with a box or receptacle attached to said frame at its front and having wheels at the rear, and a rake and rotary sweep, substantially as described. 2nd. A lawn rake and sweep, having a rake with teeth to slide over the lawn, and a rotary sweep over the said rake, in combination with a receptacle for the rakings, and a shield above the rake and behind the sweep to prevent the sweepings from working out at the front of the receptacle, substantially

as described. 3rd. The side plates, provided with adjustable bearings at their rear, and a roller in said bearings, and master wheels with gear on the outside of said plates at their front, in combination with a rotary sweep driven from said master wheels, a rake, and a receptacle for the sweepings, substantially as described. 4th. The rake, having a flat platform or plate back of the teeth, the side plates of the main frame, having flanges on their inner sides, between which said rake plate passes, and set screws in said flanges to set the elevation or depression of the points of the rake, substantially as described. 5th. The main frame, having supporting wheels, in combination with a detachable receptacle, having supporting wheels at the sides of the main frame, a rake, and a revolving sweep, substantially as described. 6th. The main frame, provided with master wheels at the front, and at the rear an adjustable roller and side flanges for supporting the rake, in combination with a receptacle to carry the rakings, having a bent-up portion at its front, and the rake attached thereto, and screws in the said flanges to determine the pitch of the rake, substantially as described.

#### No. 34,885. Friction Clutch.

(*Embrayage à friction.*)

Hans P. Claussen, Milwaukee, Wis., U. S., 22nd August, 1890; 5 years.

*Claim.*—1st. In a friction clutch, the combination of friction rings or jaws, one of which is provided with a hub, a collar connected with and adjustable lengthwise of said hub, bell crank levers fulcrumed to said collar and pivoted by one set of arms to and carrying the other ring or jaw, and means for forcing the other set of arms outwardly from the axis of the clutch, so as to bring the friction surfaces into engagement, substantially as and for the purposes set forth. 2nd. In a friction clutch, the combination, with clamping rings or jaws movable towards or from each other, and an interposed disk or ring arranged to be engaged on opposite sides by said clamping rings or jaws, of angular levers connected with said clamping rings or jaws and provided with inclines, and a collar fixed on the clutch shaft, with which said inclines engage to move said clamping rings or jaws out of engagement with the interposed disk or ring, substantially as and for the purposes set forth. 3rd. In a friction clutch, the combination, with a pair of clamping rings movable towards and from each other lengthwise of the shaft upon which they are mounted, an interposed ring arranged to be engaged on opposite sides by said clamping rings, levers fulcrumed to one of said clamping rings and connected with the other, and having projections which engage with a fixed collar on said shaft, and a sleeve movable lengthwise of said shaft and linked to said levers, substantially as and for the purposes set forth. 4th. In a friction clutch, the combination of a pair of clamping rings, one of which is provided with a hub movable lengthwise of the shaft upon which it is mounted, angular levers fulcrumed to said hub and having their shorter arms pivoted to the other clamping ring, an interposed ring arranged to be engaged on opposite sides by said clamping rings, and a sleeve movable lengthwise upon said shaft and linked to the longer arms of said levers, substantially as and for the purposes set forth. 5th. In a friction clutch, the combination of a pair of clamping rings movable towards and from each other lengthwise of the shaft upon which they are mounted, an interposed ring arranged to be engaged on opposite sides by said clamping rings, levers fulcrumed to one of said clamping rings and having their shorter arms pivoted to the other, a sleeve movable lengthwise of said shaft and linked to the longer arms of said levers, and means of adjusting the connections between said levers and one of said clamping rings, whereby wear on the working faces of the clutch is taken up, substantially as and for the purposes set forth. 6th. In a friction clutch, the combination of a pair of clamping rings or jaws, one of which is provided with a hub movable lengthwise of the shaft upon which it is mounted, a collar connected with and adjustable lengthwise of said hub, angular levers fulcrumed at their angles to said collar, and having one set of arms pivoted to and carrying the other clamping ring or jaw, an interposed ring arranged to be engaged on opposite sides by said clamping rings or jaws, and means for forcing the other set of arms of said levers outwardly from the axis of the clutch, so as to move said rings or jaws into engagement with the interposed ring, substantially as and for the purposes set forth. 7th. In a friction clutch, the combination, with a pair of clamping rings movable towards and from each other (lengthwise of the shaft upon which they are mounted), an interposed ring arranged to be engaged on opposite sides by said clamping rings, and angular levers fulcrumed to one of said rings and connected with the other and having projections adapted to engage with a collar fixed on said shaft, whereby said clamping rings are moved out of contact with said interposed ring, substantially as and for the purposes set forth.

#### No. 34,886. Car-Coupling.

(*Atelage de chars.*)

Alfred Howard Renshaw and Howard Hart Burden, Troy, N. Y., U.S., 22nd August, 1890; 5 years.

*Claim.*—1st. The combination, with a knuckle form coupler-part, which is constructed and arranged to swing into the draw-head when connecting, and out of the same when disconnecting, of a push block arranged within said draw-head to bear against the inner end of the coupler part, and a rod extending through the sides of said draw-head and engaging with said push block, said rod being adapted to be moved laterally, and to move said push block against the inner end of, and so open the coupler part, and to be restored to position by the inner end of the coupler part, substantially in the manner and for the purposes set forth. 2nd. The combination, with a knuckle form coupler part, constructed to swing within the draw-head of a lock block hinged on a rod on which it rises to allow the inward movement of the coupler part, and arranged to automatically swing down to lock the coupler part, and a push block arranged to engage with said rod, and to be moved inwardly by it to push open said coupler part, substantially in the manner and for the purpose set forth. 3rd. The combination, with the knuckle form coupler