No. 38,429. Derrick. (*Grue.*)

Foster Milliken, New York, State of New York, U. S. A., 7th March, 1892; 5 years.

Claim.—1st. In a derrick, the combination with the mast constructed of a series of spaced and connected longitudinal metal sections, of a boom of like construction pivoted to the mast, substantially as shown and described. 2nd. In a derrick, the combination, with the mast constructed of a series of spaced and connected metal sections provided at its lower end or heel with a tubular pivot pin communicating with the interior of a base provided with a socket adapted to receive the pivot pin of the mast, a friction wheel pivoted in the base, a portion of the peripheral surface of which wheel is beneath the pivot of the base, a pulley journaled in an opening of the mast near its upper end, a boom of like construction to the mast and pivoted thereto, means for elevating the boom, and a hoist cable passing over the pulley in the base through the pivot of the mast and the mast, and over the upper mast pully, the said cable being carried at one end by the boom, as and for the purpose specified. 3rd. In a derrick, the combination, with a base provided with a socket and a pulley, of a tubular mast, and a tubular pivot pin at the heel of the mast, adapted to enter the socket of the base, whereby the hoist cable may be passed from the base pulley through the pivot pin and into the mast, as and for the purpose set forth. 4th. In a derrick, the combination, with a base provided with a socket, and a pulley journaled in the base, a portion of the periphery of which pulley is adjacent to the socket, of a tubular mast, a tubular pivot pin secured to the mast, communicating with its interior and adapted to enter the base socket, a pulley journaled in an opening near the top of the mast, a hoist cable passed under the pulley of the base through the mast pivot and the mast, and over the upper pulley of the mast, a counterpoise block adapted to receive the hoist cable, said block being free of the mast, a boom pivoted to the mast, a cable attached to the counterpoise block and passed over a pulley in the mast, over the boom, and a pulley journaled therein, and a means for elevating and lowering the boom, substantially as specified. 5th. In a derrick, a mast constructed of a series of spaced and connected longitudinal metal sections, said sections being provided with opposed flanges, whereby bearings are provided in the sections for the pivot pins of pulleys and similar devices, as specified.

No. 38,430. Coupler for Railway and Other Vehicles.

(Attelage pour chars et autres voitures.)

American Mechanical Construction Company, assignees of Otto Flohr, all of Buffalo, New York, U.S.A., 8th March, 1892; 5 years.

Claim—1st. In an improved coupler for railway coaches, trucks, wagons and like vehicles, the combination of a draw head, having a swinging coupling jaw and a swinging pawl for locking the jaw, together with means for minimizing the friction on the chain used for operating the pawl by the use of an elongated slot through which said chain passes, a cover for said slot to prevent the entrance of dust, etc., into the draw head, also an inclined axis carrying the locking jaw, causing said jaw to have a tendency to swing outwardly, an inclined axis carrying the pawl, giving said pawl a tendency to swing to the locked position, means for re-inforcing the guiding horn of the coupler and the improved construction of the fastening portion of the coupling, all substantially as and for the purposes hereinbefore described, set forth and illustrated in the drawings annexed. 2nd. In an improved coupler for railway coaches, trucks, wagons and like vehicles, the combination, with an enclosing draw head, a horizontally swinging coupling jaw and a horizontally swinging pawl for locking the latter in the coupled position, of a chain or equivalent flexible connection attached to said pawl, said draw head constructed with an elongated slot in its upper wall through which said chain passes out, said slot formed to uncover the path traversed by the point of attachment of said chain during the swinging of the pawl, whereby when said chain is pulled in order to unlock said pawl, the tension exerted is transmitted directly to the pawl throughout its swinging movement, substantially as described and shown. 3rd. In an improved coupler for railway coaches, trucks, wagons and like vehicles, the combination, with an enclosing draw head, a horizontally swinging coupling jaw and a horizontally swinging pawl for locking the latter in the coupled position, of a chain or equivalent flexible connection attached to said pawl, said draw head constructed with an elongated slot in its upper wall through which said chain passes out, said slot formed to uncover the path traversed by the point of attachment of said chain during the swinging of the pawl, together with a cover or stopper secured to said connection and constructed when said pawl is in the locked position to cover the slot in said draw head, whereby when the coupling is in the locked position the entrance of dust within said draw head through said slot is prevented by said cover, substantially as described and shown. 4th. An improved coupler for railway coaches, trucks, wagons and like vehicles, comprising a bifurcated head and a swinging coupling jaw pivoted to one of the horns of said head on an axis inclined from the vertical, and said head constructed with its horn to which said jaw is pivoted terminating in vertical exterior faces, eccentric to the pivotal axis, whereby said horn is adapted to engage the vertical meeting faces on the head of another coupler with which it is intercoupled, substantially as described and shown. 5th. An improved coupler for railway coaches, trucks, wagons and like vehicles, comprising a bifurcated head and swinging coupling jaw pivoted to one arm thereof on an axis inclined from the vertical, said jaw formed with the axis so as to be vertical when in the coupled position, and said head formed with its arm to which said jaw is pivoted terminating in vertical exterior faces eccentric to the pivotal axis, and coincident with the exterior faces of the jaw when it is in the coupled position, substantially as described and shown. 6th. An improved coupler for railway coaches, trucks, wagons and like vehicles, comprising a head, a swinging coupling jaw and a swinging locking pawl, said pawl pivoted to the head on an inclined axis, whereby it tends normally to swing to the locked position, substantially as described and shown. 7th. An improved coupler for railway coaches, trucks, wagons and like vehicles, comprising a head, a swinging coupling jaw and a swinging locking pawl, said pawl pivoted to the head on an inclined axis, whereby it tends normally to swing to the locked position, and formed with its engaging faces vertical when in the locked position, substantially as described and shown. 8th. An improved coupler head of the described class having its guiding horn constructed with a curved vertical face wall on its front side extending backwardly, formed with a curved concentric with the pivot of the locking pawl, to constitute a re-inforce bearing therefor, and extended thence back to the supporting base of the head, and strengthening webs behind said wall in horizontal planes joining the top and bottom walls of the head, substantially as described and shown. 9th. In an improved coupler for railway coaches, trucks, wagons and like vehicles, the combination with the buffer-beam, or sill, of a plate for abutting against the front side of said beam, and having projections embracing the latter, a coupling head carried by said plate, and bolts passing the plate and clamping it to the beam, substantially as described and shown. 10th. In an improved coupler for railway coaches, trucks, wagons and like vehicles, the combination with the buffer-beam, or sill, of a plate for abutting against the front side of said beam, having projections embracing the latter, and formed integrally with a coupling head, and bolts passing through the plate for clamping it to the beam, substantially as described and shown. 11th. In an improved coupler for railway coaches, trucks, wagons and like vehicles, a coupling head, formed with a base plate adapted to fit against the front side of a buffer-beam, or sill, and having a projection for embracing the side of the beam, and bolt holes for the passage of bolts for clamping it to said beam, substantially as described and shown. 12th. In an improved coupling for railway coaches, trucks, wagons and like vehicles, a coupling head formed with a base plate adapted to fit against the front side of a buffer-beam, or sill, and having a projection for embracing the side of said beam, and a projection for embracing the rear side of the latter, and bolt holes for the passage of bolts for clamping it to said beam, substantially as described and shown.

No. 38,431. Weighing Apparatus for Vehicles.

(Appareil de pesage pour voitures.)

The Wanamaker International Car Scale Company, assignees of Charles Benjamin Wanamaker, all of Indianapolis, Indiana, U.S.A., 8th March, 1892; 5 years.

Claim.—1st. The combination, with the running gear and the platform or body of a car or vehicle, of a hydraulic jack interposed between said running gear and said platform or body, whereby the load may be raised and supported, and a scale apparatus connected thereto, whereby the weight of the load may be ascertained, said scale apparatus being mounted on said platform or body. 2nd. The combination, in a car or vehicle, of the running gear, the body or platform, interposed cylinders, pipes leading from said cylinders to other cylinders forming part of a scale apparatus, and to a pump, said pump and said scale apparatus, whereby the load mounted on said body or platform can be weighed thereon without the use of any separate scale. 3rd. The combination, with the body or platform of a car or vehicle, and the running, gear of four cylinders mounted on said running gear at or near the four corners of the vehicle, downwardly projecting bearing points or surfaces on said body or platform, with which the pistons in said cylinders will come in contact, four cylinders forming a part of the scale apparatus connected respectively with the four cylinders at the corners of the vehicle by suitable pipes, a pump also connected with said four cylinders at the corners of the vehicle by other pipes, and a scale apparatus adapted to be thrown into operative condition by the force of the liquid coming from the four cylinders at the corners of the vehicle to the four cylinders connected therewith. 4th. The combination, in a weighing apparatus, of a set of cylinders arranged to carry the load, chambers below the piston seats in said cylinders, valves between said chambers and said piston seats, a pump, pipes running from the pump to said chambers, a scale apparatus, and pipes running from said scale apparatus to said piston seats. 5th. The combination, in a weighing apparatus, of a platform, the scale mechanism, vertically moving bearings where said scale mechanism is operated, the scale-beam, and a stiff rod connecting said scale mechanism and said scale-beam, whereby all the parts are pushed into operation, when said points are lifted, substantially as shown and described. 6th. The combination of a hydraulic jack arranged upon