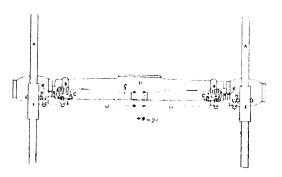
on said projection, a bail with inwardly turned ends adapted to extend through the bail-ears, and one of its ends extend over the hinge-bar, and a prong extending from the cover in position to come in contact with the bail for the purpose described and substantially as shown and set forth. 4th. The combination of a dish with a ledge protruding from its upper edge, a bail-ear and studs with grooved ends rising from said ledge, and a diametrically opposite bail-ear with vertical groove extending from its bail-hole to the top of the ear, with a cover with hinge-attachment consisting of parallel prongs extending upward and outward secured to its edge, with a transverse or hinge-bar connecting the base of said prongs and projecting from the outer sides of the latter, and a bail adapted to enter the bail-ears and have one extremity extend over the hinge-bar for the purpose described, and all substantially as shown and set forth. 5th. The combination of a pan with vent-flue extending through its bottom, of a rim protruding below the latter outside on said flue, bail-ears near the upper edge of said pan with vertical groove extending upward from the bail hole in one ear, upwardly protuding studs having cross-grooves for the purpose described, a cover with one or more prongs protruding from its edge, a hinge-bar connecting the base of said prongs, and grooves upon the upper sides of the latter, and a locking-bail having its extremities enter the bail-ears and one end extending over the hinge-bar, substantially as shown and

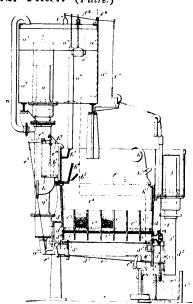
No. 59,471. Waggon Brake (Frein de wagon.)



John T. Hillman, Bay View, Prince Edward Island, Canada, 1st April, 1898; 6 years. (Filed 5th February, 1898.)

Claim.—1st. The combination of the ends of the shafts or a tongue E, E, and the cranks of the cranked rod C, substantially as and for the purpose hereinbefore set forth. 2nd. The combination with the ends of the shafts, or a tongue E, E, and the cranks of the cranked rod C, of the crank rods H, H, and stops K, K, substantially as and for the purpose hereinbefore set forth.

No. 59,472. Filter. (Filtre.)



James Wilson, Wandsworth, Surrey, England, 1st April, 1898; 6 years. (Filed 1st March, 1898.)

Claim.—1st. The combination of a series of cells, a filter bed occupying the top portion of the cells, means for supplying liquid to be bed into the tank, a screen above the filter bed and between it and

filtered to the upper side thereof, means for withdrawing the filtered liquid from its underside, and means for supplying washing liquid beneath the cells. 2nd. The combination of a series of cells, a filter bed occupying the top portion of the cells, means for supplying liquid to be filtered to the upper side thereof, means for withdrawing inquid to be interest to the upper side thereof, means for supplying washing the filtered liquid from its underside, means for supplying washing liquid beneath the cells, perforated pipes traversing the cells beneath the filter bed, and means for supplying washing liquid to the pipes. 3rd. The combination of a filter-bed, means for supplying liquid to be filtered to the upper side thereof, means for withdrawing the filtered to the upper side thereof, means for withdrawing the filtered to the upper side thereof, means for withdrawing the filtered to the upper side thereof, means for withdrawing the filtered to the upper side thereof, means for which washing leading to the complete the c tered liquid from its underside, means for supplying washing liquid beneath its underside and a screen above it allowing the washing liquid to pass but retaining the filtering material. 4th The combination of a filter bed, means for supplying liquid to be filtered to the upper side thereof, means for withdrawing the filtered liquid from its underside, a tank beneath the filter bed, an automatic syphon which displayer liquid whose its result that the filter bed. which discharges liquid when it accumulates above the filter bed into off the supply of unfiltered liquid, a second tank beneath the filter bed, an overflow from the first tank leading into the second, a float in the second tank, means operated by this float for supplying washing liquid to the underside of the filter bed, and means for emptying the tanks. 5th. The combination of a series of cells, a filter bed occupying the top portion of the cells, means for supplying liquid to be filtered to the upper side thereof, means for withdrawing the filtered liquid from its underside, a tank beneath the filter bed, an automatic syphon the tank, a float in the tank, means operated by the float for cuting off the supply of unfiltered liquid, a second tank beneath the filter bed, an overflow from the first tank leading into the second, a float in the supply of unfiltered liquid, a second tank beneath the filter bed, an overflow from the first tank leading into the second, a float in the second tank, means operated by this float for supplying washing liquid to the underside of the filter bed, and means for emptying the tanks. 6th. The combination of a series of cells, a filter bed occupying the top portion of the cells, means for supplying liquid to be filtered to the upper side thereof, means for withdrawing the filtered liquid from its underside means for supplying reading the filtered liquid from its underside, means for supplying washing liquid beneath its underside and a screen above it allowing the washing liquid to pass, but retaining the filtering material. 7th. The combination of a filter bed, means for supplying liquid to be filtered to the upper side thereof, means for withdrawing the filtered liquid from its underside, a tank beneath the filter bed, an automatic symphon which discharges liquid when it accumulates above the filter bed into the tank, screen above the filter bed and between it and the syphon, a float in the tank, means operated by the float for cutting off the supply of unfiltered liquid, a second tank beneath the filter bed, an overflow from the first tank leading into the second, a float in the second tank, means operated by this float for supplying washing liquid to the underside of the filter bed, and means for washing liquid to the underside of the filter bed, and means for emptying the tanks. 8th. The combination of a series of cells, a filter bed occupying the top portion of the cells, means for supplying liquid to be filtered to the upper side thereof, means for withdrawing the filtered liquid from its underside, a tank beneath the filter bed, an automatic syphon which discharges liquid when it accumulates above the filter bed into the tank, a screen above the filter and between it and the syphon, a float in the tank, means operated by the float for cutting off the supply of unfiltered liquid, a second tank beneath the filter bed, an overflow from the first tank leading into the second, a float in the second tank, means operated by this float for supplying washing liquid to the underside of the filter bed, and means for emptying the tanks. 9th. The combination of a filter bed, means for supplying liquid to be filtered to the upper side thereof, means for withdrawing the filtered liquid from its underside, a tank hannest, the filter bed an automatic analysis which discharge liquid means for windrawing the interest inquit from its undersite, a same beneath the filter bed, an automatic syphon which discharges liquid when it accumulates above the filter bed into the tank, a float in the tank, means operated by the float for cutting off the supply of unfiltered liquid, a second tank beneath the filter bed, an overflow from the first tank leading into the second, a float in the second tank, means operated by this float for supplying washing liquid to the underside of the filter bed, means for emptying the tanks, a secfrom above the filter level than the first discharging liquid from above the filter bed into the second tank, an overflow from the second tank, and syphons in the tanks at such a height relatively to the overflow that they come into operation only when the second syphon discharges. 10th. The combination of a series of cells, a syphon discharges. Total the combination of a series of cells, a filter bed occupying the top portion of the cells, means for supplying liquid to be filtered to the upper side thereof, means for withdrawing the filtered liquid from its underside, a tank beneath the filter bed, an automatic syphon which discharges liquid when it accumulates above the filter bed into the tank, a float in the tank, means operated by the float for cutting off the supply of unfiltered liquid, a second tank beneath the filter bed, an overflow from the first tank leading into the second, a float in the second tank, means operated by this float for supplying washing liquid to the underside of the filter bed, means for emptying the tanks, a second syphon at a higher level than the first discharging liquid from above the filter bed into the second tank, an overflow from the second tank, and syphons in the tanks at such a height relatively to the overflow that they come into operation only when the second syphon discharges. 11th. The combination of a filter bed, means for supplying liquid to be filtered to the upper side thereof, means for withdrawing the filtered liquid from its underside, a tank beneath the filter bed, an automatic