

er to the platen during the first portion of the forward stroke of the presser, for the purpose of producing a sliding movement of this part on the platen, by which the stamp is drawn off and separated from the strip, substantially as described for operation as set forth.

No. 34,851. Sectional Water Boiler.

(*Chaudière en section.*)

James Keith, London, England, 12th August, 1890; 5 years.

Claim.—1st. A hot water boiler, composed of a series of vertical water tube sections enclosing a furnace, and a series of vertical or inclined water tube sections placed in rear thereof, the boiler being extensible lengthwise by adding to the number of sections, substantially as described. 2nd. In a sectional boiler, the combination, with the fire box, of the bridge wall section A², having the upper and lower cross tubes a¹, a², respectively, and said tubes being connected together by a series of inclined tubes a³, substantially as set forth. 3rd. In a sectional boiler, the combination, with the fire box, of a number of water sections A³, arranged on edge in a horizontal series and communicating with each other, and the tapering tubes a⁴, connecting the upper and lower sides of each section together, substantially as set forth. 4th. In a sectional boiler, the combination, with the fire box, of a number of water sections A³, arranged on edge in a horizontal series and communicating with each other, and the hollow base G, serving as a support for said sections, and as a soot and dust collector, substantially as set forth. 5th. In a sectional boiler, the combination, with the fire box, of a number of water sections A³, communicating with each other and arranged diagonally in a horizontal series, and the downwardly tapering inclined tubes a⁴, connecting the sides of each section together, substantially as set forth. 6th. In a sectional boiler, the combination, with the fire box, of a series of water sections A³, each having an upper horizontal tube, and a lower horizontal tube of smaller diameter than said upper tube, and a number of downwardly tapering cross tubes connecting said upper and lower tubes together, substantially as set forth. 7th. In a sectional boiler, the combination, with the sections A¹, forming the fire box, of the tubes a², extending across said sections and inclined alternately in opposite directions, the bridge wall section, and the water sections A³, arranged beyond said bridge wall and having communications with each other, and with said other sections, substantially as set forth.

No. 34,852. Bed Pan. (*Vase-de-lit.*)

John Henry Worsell, Clinton, Ont., 12th August, 1890; 5 years.

Claim.—1st. The combination of an opening on the side of a pan, metallic or other substance, with a solid and perforated cork having tubing attachment, substantially as and for the purposes hereinbefore set forth. 2nd. The combination of a bed pan with the opening on the top extending to the front A. 3rd. The combination of a bed pan, metallic or other substance, with opening on the top having a lid with splasher and notches and handle attached, substantially as and for the purposes hereinbefore set forth. 4th. The combination of a metallic bed pan with rounded edges C, C, and rings O, O, and P, substantially as and for the purposes hereinbefore set forth.

No. 34,853. Ventilator for Carriages, etc.

(*Ventilateur de voitures, etc.*)

Arnold William James Swindells, William S. Peel, and George Frederick Freeman, all of Manchester, Eng., 12th August, 1890; 5 years.

Claim.—1st. An exhaust ventilator for vehicles, composed of an inlet compartment, opening in two directions, an exhaust compartment opening in two directions, and a bent or curved contracted injection tube or passage leading from the inlet and opening in the direction of the outlet chamber, substantially as described. 2nd. In a ventilator, the combination, with the trumpet mouth inlet B, of the contracted injection tube bent to U-shape, with both orifices opening in the same direction. 3rd. The combination, with the air inlet B, and bent or curved contracted injection tube C, of the chamber E, with outlets E¹, substantially as described. 4th. The combination, with the air inlet, and bent or curved contracted injection tube C, of the outlet chamber E, with outlet openings E¹ and flaps F, substantially as described. 5th. The combination of the inlet passage B, the curved or bent tube C, with flap valve D, and contracted orifice c, through which a current of air is impelled or injected by the movement of the vehicle, the outlet chamber E, (below which the contracted orifice of the tube C opens) with outlets E¹, and the flap doors F, through which the injected air escapes, again inducing a current which carries away the foul or vitiated air.

No. 34,854. Fifth Wheel. (*Rond d'avant-train.*)

John Scandlan, Jr., and George A. Gross, both of Broken Straw, State of New York, U.S., 12th August, 1890; 5 years.

Claim.—1st. The combination, with the axle and the head block recessed near their centres, the two-part fifth-wheel, whose members are mounted upon the head block and beneath the axle, and bolts passing through said members, and through the head block and axle at each side of the recess, of a reach pivoted upon the king bolt within said recess, and adapted to move between the two members of the fifth wheel, substantially as described. 2nd. The combination, with the axle and head block, the two-part fifth-wheel, its upper member comprising a ring 5, mounted upon the head block, bolts passing through the upper and lower members of the fifth wheel, and through the head block and axle, other bolts 8, connecting said members in rear of the axle, and a king bolt and reach, of a bolster pivoted on the king bolt above the head block, and friction rollers on the lower side of the bolster traveling upon the upper member of the fifth wheel, substantially as described. 3rd. The combination, with the axle and head block recessed at their centres, and the two-

part fifth-wheel, comprising a ring shaped upper member 5, and a half-ring lower member 6, projecting rearwardly from the axle and head block and secured thereto, of the vertical king bolt passing through said recess, the reach pivoted thereon, and friction rollers 7, journaled in bearings on the upper and lower side of the reach, and bearing against the inner faces of the two members of the fifth wheel, substantially as described. 4th. The combination, with the axle and the king bolt, of the half-ring 6, secured to the lower side of the axle, the diametric strap 9, parallel with the axle, the diametric strap 10, at right angles to the axle and provided with an eye 11, at its front end, the king bolt passing through said straps at their point of intersection, and the tongue pivoted in said eye, substantially as described. 5th. The combination, with the axle A, the clips C, near the ends thereof, the half-ring 6, on the lower side thereof around the king bolt, the strap 9, connecting the sides of the half-ring, the strap 10, at right angles to the strap 9, and the eye 11, in the front end of said strap and in alignment with the eyes in the clips, of the tongue T, having ears 1, embracing said eye 11, a pivot bolt through them, and the rearwardly-diverging hounds connected with the tongue and pivoted at their rear ends in the clips, substantially as described.

No. 34,855. Hay Carrier. (*Monte-foin.*)

Jerome A. Cross, Fultonville, N.Y., U.S., 12th August, 1890; 5 years.

Claim.—1st. In a hay carrier, the combination of the carriage consisting of the frame C, supported by trolley-wheels resting on the track A, the pulley wheels D, D, and the latch E having legs e, e, extending above the rest of the carriage, and also having the lower parts f, f, the catch F, with inclined edges k, k, throat l, and shoulders m, m, supported above the track, the rope G, and the travelling pulley H, as and for the purpose described. 2nd. In a hay carrier, the combination of the carriage consisting of the frame C, supported by trolley-wheels resting on the track A, the pulley wheels D, D, and the latch E composed of the two jaws, the spring and the pivot bar b, whereby the jaws are united and secured to the frame C, said jaws having the legs e, e, extending above the rest of the carriage, and the lower parts f, f, of the catch F, with inclined edges k, k, throat l, and shoulders m, m, located above the track, the rope G, and the travelling pulley H, as and for the purpose described. 3rd. In a hay carrier, the combination of the carriage, consisting of the frame C, trolley-wheels, pulley wheels D, D, the latch E, having the legs e, e, extending above the rest of the carriage, and the lower parts f, f, the rope G, the travelling pulley H, and the catch F, with inclined edges k, k, throat l, and shoulders m, m, pivoted to a support above the track, and in one position engaging with the latch E, and in another position allowing the carriage to pass freely by it, substantially as and for the purpose described. 4th. In a hay carrier, the combination of the carriage having the frame C, pulley wheels D, D, and pawls p, p, and the rope G having the enlargements v, v, constructed and operated substantially as described. 5th. In a hay carrier, the combination of the carriage, consisting of the frame C, having the pawls p, p, with stops r, r, and springs s, s, the trolley-wheels, the pulley wheels D, D, and the latch E having the legs e, e, extending above the rest of the carriage, and the lower parts f, f, the catch F, with inclined edges k, k, throat l, and shoulders m, m, located above the track, the rope G, having the enlargements v, v, and the travelling pulley H, constructing and operating substantially as shown and described. 6th. In a hay carrier, the combination of the carriage provided with pulley wheels D, D, the rope G having the enlargements v, v, the travelling pulley H, and the catch F, above the track, the frame C of the carriage being constructed with lugs a, a, to which are pivoted the pawls p, p, having stops r, r, and springs s, s, and which also form bearings for the pivot bar b, of the latch E, the legs e, e, of which extend above the rest of the carriage and engage with the catch F, substantially as and for the purpose described.

No. 34,856. Ventilated Shoe.

(*Chaussure ventilée.*)

Henry Falkner, Cambridge, Mass., U.S., 12th August, 1890; 5 years.

Claim.—1st. A ventilated boot or shoe, having, in combination, a perforated inner sole, and air-admitting and air-expelling tubes between the outer material and the lining of the upper, a separate and independent system of longitudinal passage-ways between the inner and the outer sole communicating with each of said tubes, and an operating bulb in the heel, all arranged and operating, substantially as and for the purposes described. 2nd. A ventilated boot or shoe, provided between the inner and the outer soles with a central longitudinal air-admitting passage way b¹, and independent air-expelling passage-ways b², on either side thereof, in combination with a bulb C, and an air-admitting tube G, communicating with said central passage way b¹, and provided with suitable valves, a perforated inner sole, and air-expelling tubes H, communicating with the passage ways b², all arranged and operating, substantially as and for the purposes described.

No. 34,857. Feed Water Heater.

(*Réchauffeur de l'eau d'alimentation.*)

Charles Cochran and William McMonagle, both of Hantsport, Nova Scotia, Can., 12th August, 1890; 5 years.

Claim.—1st. A feed water heater, consisting of vertical tubes having their terminations in tube plates A, concavo-convex expansion plate or head F, secured to the upper tube plate around its edge, a shell surrounding or enclosing the tubes, and the lower portion of said shell divided diametrically by a partition J, and the valve box or covering M, enclosing the outlet to the boiler, having a double valved stem N, as set forth, for the purpose described. 2nd. A feed water heater, having a steam space and a feed water chamber at top, separated by an expansion head or plate F, said feed water