

more openings F, with the primary combustion chamber, and through openings E, with the interior of the ash pit, a chamber I, below the ash pit, communicating through one or more openings H with the rear chamber G, steam coils L within the chambers G, G¹ and L, and a draft flue K, leading from the chamber I to the place of ignition, substantially as described.

No. 34,879. Mattress. (*Matelas*.)

Harriette Jeannette Webb, Lockport, N.Y., U.S., 15th August, 1890; 5 years.

Claim.—1st. As an improved article of manufacture, a mattress provided with a recess in its edge, and a removable section, and a hinged section fitted to the said recess, substantially as and for the purpose specified. 2nd. The combination, with a mattress having a recess produced in one edge, of a removable section contacting with the inner wall of said recess, and a hinged section attached to one side wall of the recess, the said sections essentially filling the said recess when in place, substantially as and for the purpose specified. 3rd. The combination, with a mattress provided with a recess in one edge, of a section hinged to one side wall of the recess near its outer end, a detachable section contacting with the inner wall of the hinged section and the rear or inner wall of the recess, loops attached to one side wall of the recess and the opposed free end of the hinged section, and a strap passed through said loops and through an aperture produced in one of its ends, said strap being adapted for attachment to the hinged section and the mattress, substantially as shown and described.

No. 34,880. Mineral Separator. (*Séparateur de minerais*.)

George Hutton Patterson, Montreal, P.Q., Can., 15th August, 1890; 5 years.

Claim.—1st. In a mineral separator, the combination of the casing *a*, having duct *c*, provided with a blast of air as described, also having a duct *d*, adapted to receive the said blast of air, with a hopper as described adapted to present the material to the said blast in a thin sheet of falling material, or extended form, substantially as and for the purposes set forth. 2nd. In a mineral separator, the combination of the casing *a*, having duct *c*, provided with a blast of air, also having duct *d*, adapted to receive said blast of air, with hoppers *h*, and *f*, constructed and arranged as described to present the material to be separated in a thin sheet or extended form of falling material, the whole substantially as described for the purposes set forth. 3rd. In a mineral separator, the combination of the casing *a*, having duct *c*, provided with a blast as described, with duct *d*, adapted to receive the said blast, said duct *d*, being further provided with the obstructions *s*, and with a hopper adapted to present the material to be separated in the form of a thin falling sheet of material, the whole substantially as described.

No. 34,881. Stock Car. (*Char à bestiaux*.)

John Milton Burton and Duncan Alexander McNicol, Wichita, Kansas, U.S., 22nd August, 1890; 5 years.

Claim.—1st. The combination, in a stock car provided with the side posts P, and the sheathing N, extending down at the car sides a distance from the top and forming the outer wall of the hay-receptacle, and the slats G, secured to the inner sides of said posts, extending up a distance from the car floor and forming the lower portion of the side walls of the car, of the troughs C, pivotally secured to the inner sides of said posts above said slatting G, by means of their connected bearings adapting them to turn between said posts, the folding racks R, hinged to said posts at their lower part and forming the inner wall of said hay-receptacle, the side sections B, having the arms *a*, *a*¹, hinged to the side of said posts at the base of said sheathing, wherein arms *a* are arranged extending into the car adjacent said racks, the links L, connecting the lower portion of section B, with troughs C, and the mechanism consisting of rods J, J¹, crank arms *z*¹, *z*², shaft S, and lever *z*, connected with arms *a*, of said side sections through the medium of said rods, whereby the said side sections and troughs can be turned, and the racks unfolded into position for use, substantially as specified. 2nd. The combination, in a stock car provided with the side posts P, and the sheathing N, secured to the outer upper part of said posts and forming the outer wall of the hay-receptacle, and the slats G, secured to the lower inner portions of said posts and forming the lower portion of the side walls of the car, of the troughs C, pivotally secured to the inner bearings adapting them to turn between said posts, sections B having arms *a*, *a*¹, hinged to the sides of said posts at the base of said sheathing, wherein arms *a* are arranged extending into the car within section B, with said troughs, and the mechanism consisting of rods J, J¹, crank arms *z*¹, *z*², shaft S, and lever *z*, connected with arms *a* of said sections through the medium of said rods, whereby the said side sections and troughs can be turned into or out of position for use, substantially as set forth. 3rd. The combination, in the stock car described, provided with the side posts P, and the sheathing N, secured to the outer upper part of said posts and forming the outer wall of the hay-receptacle, of the racks R, hinged to the upper inner part of said posts at their lower portion and forming the inner wall of the hay-receptacle, the side wall sections B, having arms *a*, hinged to the upward into the said receptacle adjacent said racks, and the mechanism consisting of the rods J, J¹, crank arms *z*¹, *z*², shaft S, and lever *z*, connected with arms *a*, of said sections, through the medium of said rods, whereby the said sections are turned and the said racks are unfolded into position for use, substantially as specified. 4th. The combination, in the stock car described, provided with the side posts P, and the sheathing N, secured to the outer upper part of said posts and forming the outer wall of the hay-receptacle, of the fold-

ing racks R, hinged at their lower portion to the inner upper part of said posts and forming the inner wall of the hay-receptacle, the spring arms F, or their equivalent, arranged to bear against said racks to yieldingly hold them folded, the side wall sections B, having arms *a* hinged to the side of said posts at the base of said hay-receptacle, and extending upward into said receptacle adjacent said racks, and the mechanism consisting of the rods J, J¹, crank arms *z*¹, *z*², shaft S, lever *z*, connecting said arms *a*, by means of said rods, whereby the said wall sections are turned and the racks unfolded into position for use, and the racks automatically folded when hay in the receptacle is consumed or removed, substantially as specified. 5th. The combination, in a stock car provided with hay receptacles in the upper part of its side walls, of the racks R, hinged at their lower part and forming the inner wall of said receptacle, the spring-arms F, or their equivalent arranged to bear against said racks to yieldingly hold them folded, and the mechanism consisting of arms *a*, of the side wall sections B, shaft S, boxed longitudinally in the upper part of the car lever *z*, and crank arms *z*¹, *z*², secured on said shaft and rods J, J¹, connecting said crank with said arms, whereby said arms are operated to unfold said racks into position for use, substantially as specified. 6th. The combination, in a stock car provided with the side posts P, and the sheathing N, secured to the outer upper part of said posts and forming the outer wall of the hay-receptacle, of the folding racks R, hinged at their lower part to the inner upper part of said posts and forming the inner wall of the hay-receptacle, the side wall sections B, having the arm *a*, hinged to said posts at the base of said receptacle and extending into said receptacle adjacent said racks, the canvas ends or folds *e*, arranged to protect said arms from contact with hay in the receptacle, and the mechanism consisting of shaft S, crank arms *z*¹, *z*², and lever *z*, secured thereon, and rods J, J¹, connecting said cranks with said arms, whereby the said sections and arms are turned, and said racks unfolded into position for use, substantially as specified. 7th. The combination, in a stock car, provided with the side posts P, of the troughs C, arranged between and pivotally secured to the inner side of said posts by means of their connected bearings *g*, the side wall sections B, having arms *a*, hinged to the side of said posts and extending into the car links L, connecting the lower portion of said sections with said troughs, and the shaft S, longitudinally arranged in the upper part of the car, the lever *z*, secured on said shaft and arranged extending through a slot in the car roof, catches *v*, *v*¹, for holding said lever, the crank arms *z*¹, *z*², secured on said shaft, and the rods J, J¹, connecting said cranks with said arms *a*, whereby the said side wall sections and troughs are turned into or out of position for use by means of said lever from the car roof, substantially as specified. 8th. The combination, in a stock car, of the pivoted side sections B, having arms *a*, *a*¹, rods B¹, connecting rods J, J¹, crank arms *z*¹, *z*², shaft S, and lever *z*, substantially as and for the purpose set forth. 9th. The combination, in a stock car, of the pivoted side sections B, having arms *a*, *a*¹, rods B¹, pivoting said sections, links L, pivoted watering troughs C, folding hay racks R, connecting rods J, J¹, crank arms *z*¹, *z*², shaft S, and lever *z*, substantially as and for the purpose set forth. 10th. The combination, in a stock car, of the pivoted side sections B, having arms *a*, *a*¹, rods B¹, pivoting said sections, watering troughs C, pivotally arranged below said sections, links L, for connecting said sections and troughs, connecting rods J, J¹, crank arms *z*¹, *z*², shaft S, and lever *z*, and catches for holding said lever, substantially as and for the purpose specified. 11th. The combination, with the side posts of the car, of the pivoted side sections adapted to lie turned on their pivots to open the car sides to increase the head space adjacent the watering troughs, substantially as set forth. 12th. The combination, with the side wall posts of the car, of the pivoted trough sections provided with their bearings to one side from their center, and adapted to be turned up into position for use centrally between the posts, and turned down out of position for use flush between said posts, substantially as set forth. 13th. The combination, with the pivoted folding hay racks, of the car, of the springs for yieldingly holding the racks folded, substantially as and for the purpose set forth. 14th. The combination, in the car described, of the shaft S, longitudinally arranged in the roof frame work of the car, of the crank arms and lever secured thereon, and of the side extending connecting rods, pivotally connected side extending connecting rods, pivotally connected with said arms for operating the pivoted side sections and watering troughs, substantially as set forth.

No. 34,882. Stock Car. (*Char à Bestiaux*.)

John Milton Burton and Duncan Alexander McNicol, Wichita, Kan., U.S., 22nd August, 1890, 5 years.

Claim.—1st. A stock car, provided with receivers fixed in the roof frame work, accessible through doors in the car roof, with main pipes seated in pockets in the car lines adjacent to the car roof, arranged along each side of the car in communication with the receivers, and with side lead pipes in communication with said mains for independently supplying water to each trough section through the car, substantially as set forth. 2nd. A stock car, provided with supply pipes seated in pockets in the car line, adjacent the car roof, along either sides of the car, in communication with a receiver or receivers into which the water is introduced into the car, and with side lead pipes communicating with said supply pipes arranged within the walls of the car, for independently and simultaneously supplying the several trough sections through the car with water, substantially as set forth. 3rd. In a stock car, the combination with pivoted watering troughs adapted to being turned into or out of position for use, of the shaft S seated in bearings in the car lines to one side from the car centre, of the lever L, fixed to and adapted to rock the shaft of the crank arms C¹ and C², the former of which is shorter than the latter, of the connecting rods *g* and *g*¹ and *e*, and the bell cranks J and J¹, substantially as and for the purpose specified. 4th. In the stock car, described, the combination with the pivoted cross-sections C and the rock shaft S and the lever L thereof, of the crank arms C¹ and C², fixed on the shaft, the former of which is shorter than the latter, of the connecting rods *g* and *g*¹, the former of which is proportionately longer than the latter, and the bell cranks and connecting rods *e*, substantially as and for the purpose specified. 5th. In a stock car, provided with side wings extending either way from