

No. 3206. JOHN C. WANDS, Nashville, Ten., U. S., 18th March, 1874, for 10 years: "Improvements on Car Roofs." (Perfectionnements aux toits de wagons.)

*Claim.*—1st. The car-roof described having the wooden frame consisting of the parts A, B, C, W, the bands E, and K, the zinc sheets D, and grooved roof boards G, the several parts being constructed and arranged as specified; 2nd. A car roof, the central T-shaped pultruse F, having a depressed body and covering flanges; 3rd. The combination of the pultruse F, roof board G, and frieze boards C, constructed and arranged in a car roof as described; 4th. In a car roof, the boards C, G, having grooves f, on their under sides to form drains for leakage as specified.

No. 3207. JOHN Y. SMITH, Pittsburg, Penn., U. S., 18th March, 1874, for 5 years: "Improvements on Car Brakes." (Perfectionnements aux freins de wagons.)

*Claim.*—1st. In combination with the moveable heads and flexible tubes connecting the heads, the chains which connect the heads to sustain the strain from the retracting springs or hand wheel; 2nd. In combination with the moveable heads of the vacuum chamber guides or ways, for sustaining the chamber and preserving the parallelism of the head; 3rd. In combination with the connecting rods, the vacuum chamber forming part of the connection when the brakes are operated by hand, and acting in opposite directions on the brake mechanism when atmospheric pressure is employed; 4th. In combination with the moveable heads of the vacuum chamber and connecting rods, the adjustable lever F, capable of adjustment at both ends; 5th. Double vacuum chambers connected with the exhaust pipe and both attached to the connecting rods so as to equalize the action of the wheels upon both systems of trucks and brakes; 6th. In combination with a flexible tubular connecting piece, heads in form of tubes closed at one end and of different diameters so that one will shut into the other forming a vacuum chamber for an atmospheric car brake; 7th. In combination with the brakes of a railway car, flexible vacuum chambers with moveable heads for actuating the brakes, and an ejector for creating a partial vacuum in the chamber by the direct action of a jet of steam.

No. 3208. GEORGE S. TIFFANY, London, Ont., 18th March, 1874, for 5 years: "Brick Machine." (Machine à brique.)

*Claim.*—1st. A brick making machine having a tubular mill shaft F, the combination of the die C, and moulding N, on shaft K; 2nd. The use for the purpose set forth of the endless belt P passing around rollers n, n, and roller Q, when said rollers are arranged as represented; 3rd. The rise of the rockers V, V, V, for supporting the rack n, allowing it to have a reciprocating motion; 4th. The arrangement of the shaft or axis O, of the cutter frame E, when said cutter frame moves with the clay in the operation of cutting, beneath the rollers S, S, &c., of the rack or parts used instead of rollers.

No. 3209. JOHN W. POST, New York, U. S., 18th March, 1874, for 5 years: "Improvements in Carbureting Apparatus or Lamp." (Perfectionnements dans les appareils ou lampes à carburer.)

*Claim.*—1st. A carbureting apparatus or lamp, consisting of reservoir A, stem b, carbureting chamber B, and the escape pipe c; 2nd. The combination with the service pipe a, of the argand burner D, constructed as set forth; 3rd. In combination with said lamp a bell J, and stop cock S; 4th. In combination with the lamp the drum or stove G fitting on burner D.

No. 3210. WILLIAM BRYAN, Whitby, Ont., (Assignee of A. Rusland,) 18th March 1874, for 5 years: "Improvement in making eave troughs." (Perfectionnement dans la fabrication des dalles de toitures.)

*Claim.*—1st. The base A, iron strip or bar B, the iron rod G, with the hooks H, H; 2nd. The curved face C, screw D, D, and moveable strip a and b; 3rd. The combination of the curved face c, screws D, D, iron rod A, hooks H, H, and iron strip B, with the base A; 4th. The combination of the strips a and b, with the curved face c.

No. 3211. JOSEPH A. SMITH, Jersey City, N. J., U. S., 18th March, 1874, for 5 years: "Improvements on Journal Boxes for Railway Carriages" (Perfectionnements aux boîtes d'essieux pour les voitures de chemins de fer.)

*Claim.*—1st. In combination with the box frame D, in which the bearings are secured the ball and socket joint described; 2nd. In combination with the box frame D, and journal A, the lining B, constructed as set forth; 3rd. In combination with the box frame D, journal A, and lining B, the moveable seat C; 4th. In combination with the box frame D, carrying the bearing B, the stopping bar F, secured in the said box frame; 5th. The combination of the bolt

H, roller K, tumbler I, web J, and oil well e, for oiling the journal; 6th. The combination with the recess in the bearing face of the stopping bar extending beyond the centre of the axle of the web N, tumbler M, roller L, and bolt II; 7th. In combination with the box frame D, well e, bearings B, and e, and oiling devices, the oil tank E, in which the oil is retained by atmospheric pressure and fed out automatically as required; 8th. The combination with the oil tank E and box frame D, of the valve h, and springs; 9th. The combination with the oil tank E, and box frame D, of the packing K, and hinge f; 10th. The combination of the stops or bolts T, with the box frame D, and stopping bar F; 11th. In combination with the box frame D, connected to the truck by the ball and socket joint described, the sliding cover O, as specified.

No. 3212. WILLIAM H. BOYD, Montreal, Que., 18th March, 1874, for 5 years: "Improvements on Creepers." (Perfectionnements aux crampons.)

*Claim.*—1st. The plate a, with spikes b; 2nd. The plate a, spikes b, with outer and inner covering for the foot.

No. 3213. JOHN J. FITZPATRICK, Philadelphia, Penn., U. S., 18th March, 1874, for 5 years: "Improvements in Drawers." (Perfectionnement dans les caissons.)

*Claim.*—The shaping of the crotch of drawers in accordance with the patterns A and B, as set forth.

No. 3214. MILFORD HARMON & EVANS A. WATSON, Shibly, N. Y., U. S., 18th March, 1874, for 5 years: "Improvements on Middlings Separators." (Perfectionnements aux séparateurs des gruaux.)

*Claim.*—1st. The combination in a middlings purifier of a series of shaking screens with means for inducing a current of air, and adjustable valves for controlling and directing the blast through the chest between and in the line of the length of the screens; 2nd. In such a machine a series of screens composed of close and open portions, the relative portion of the former increasing and of the latter decreasing in each screen in the successive series from top to bottom; 3rd. In combination with screens, the ends of which are arranged in relation to the air induction and eduction openings as set forth, a reel and hopper I, for separating the heavier and coarser material not perfectly separated by the air blast in manner as set forth.

No. 3215. ISRAEL P. MAGOON, St. Johnsbury, Vt., and CHARLES A. SHAW, Boston, Mass., U. S., 18th March, 1874, for 5 years: "Means for preventing Cinders from entering the exhaust pipes of Locomotive Steam Engines." (Dispositions pour empêcher les escarbilles de s'introduire dans les tuyaux d'épuisement des locomotives.)

*Claim.*—1st. In combination with the exhaust pipe nozzle of a locomotive steam engine the pipe D, arranged to discharge live steam in such a manner as to cover or fill the nozzle and prevent the entrance of cinders into the same; 2nd. The cap A, pipe D, and nozzle B, combined to operate as specified; 3rd. In combination with the throttle valve lever of a locomotive steam engine, a mechanism so arranged and operating that when said lever is moved to shut off steam from the cylinders, live steam will be discharged in such a manner as to prevent cinders and carbonaceous particles from entering the nozzle of the exhaust pipe, and when said lever is moved to let steam into the cylinders, the live steam being so discharged will be shut off as specified; 4th. In combination with the lever K, a mechanism so arranged as to let live steam pass to the nozzle B, in advance of shutting off steam from the cylinders as specified.

No. 3216. ROBERT BUSTIN, Saint John, N. B., 18th March, 1874, for 5 years: "Fire Escape." (Sauveteur d'incendie.)

*Claim.*—The combination of the several parts of the apparatus, viz: hook a, hand b, pulley c, pin d, rope e, hook f, ring g, bolt h, bolt i, as set forth.

No. 3217. HENRY GASKELL, Hamilton, Ont., 18th March, 1874, for 5 years: "Improvements in Fire Boxes and Coal Grates for Stoves and Furnaces." (Perfectionnements aux boîtes à feu et aux grilles pour les poêles et les fourneaux.)

*Claim.*—1st. The circular ended fire box in which the combined grates B, are fitted; 2nd. The conical shaped dumping bar C, on which the grates work on their centres; 3rd. The conical shaped shaking bar D, on which the grates work for sifting the ashes; 4th. The stop off plate K, for lessening the size of the fire.