

No. 18,395. Underground Conduit for Electric Wires. (*Conduit souterrains pour les fils électriques.*)

Josiah S. DuBois, Camden, N. J., U. S., 10th January, 1884; 5 years.

Claim.—1st. In an underground conduit for electric wires, sheathing E, support J and the coating of cement enveloping them, in combination with the outer wall K and foundation G of masonry, and the shelves and their standards or supports within said sheathing, substantially as and for the purpose specified. 2nd. An underground conduit for electric wires, provided with a vault or station formed of inner and outer walls with foundations, a cap or lid, and a coating enveloping said inner wall and its foundation, and said cap or lid, substantially as and for the purpose set forth. 3rd. An underground conduit for electric wires formed with a cap or cover having hinges at each end, substantially as and for the purpose set forth. 4th. An underground conduit for electric wires, provided with a pipe formed in sections, with a hinge on each side, whereby the sections may be swung to the right or left and provide means for ventilating the pipe and access to the interior thereof, substantially as and for the purpose set forth.

No. 18,396. Ball Governor for Steam Engines. (*Gouverneur à boulet pour les machines à vapeur.*)

William E. Badger, Quincy, Mass., U. S., 13th January, 1884; 5 years.

Claim.—1st. In a ball governor, a bent spring Q, in combination with two levers, each having three arms C, D and E, the balls P on the lower arms E of said levers, the pulley R which engages with the inner arms d, f, said levers and the valve rod movable up and down with said pulley, substantially as set forth. 2nd. In combination with an adjustable governor-ball and its actuating devices, a suspensory for said ball having a scale of numerals marked upon it, to indicate the number of revolutions of the engine, substantially as set forth. 3rd. The valve-stem B and the disk J, which it terminates, in combination with the plate h, which bears against said disk, the rod i rising from said plate, the hub R held against the under side of said disk, the arm j rigid with said hub and having upper end sleeved on said rod i and the screw k, which holds said arm and pin together, substantially as set forth.

No. 18,397. Drying Kiln. (*Touraille.*)

Garret F. Speer, Philadelphia, Pa., U. S., 13th January, 1884; 5 years.

Claim.—1st. A drying kiln provided on its end with vertical air condensers, in combination with a fan, a main or nozzle to admit fresh air into the kiln chamber and condensers, and exits from said condenser, whereby all of the air is drawn from the atmosphere outside the kiln, and part forced through the condensers back into the air, substantially as set forth. 2nd. A drying kiln provided on its end with vertical air condensers having inlets and exits, in combination with a fan, an oblique blast nozzle and heating apparatus, substantially as and for the purpose specified. 3rd. In a drying kiln, a broad or flattened blast nozzle, in combination with an escape flue and valve mechanism, for directing the current of air into the chamber, or into the flue, or part into each, substantially as and for the purposes specified. 4th. In a drying kiln, a broad or flattened blast nozzle set at an inclination, in combination with a trough at its bottom, an air escape tube and valve mechanism for directing the current of air into the chamber, or into the flue, substantially as and for the purpose specified. 5th. In a drying kiln, a broad or flattened air or blast nozzle set at an inclination, in combination with vertical air condenser mechanism for controlling the air and causing it to pass into the chamber or into the flue, substantially as set forth. 6th. In a drying kiln, a broad or flattened air or blast nozzle set at an inclination, in combination with vertical air condensers, a trough at the bottom of the nozzle, an air escape flue, valve mechanism for causing the air to pass into the chamber or flue, and heating apparatus, substantially as and for the purpose specified. 7th. In a drying kiln, doors provided on their inner sides with condensing surfaces, in combination with means for directing air currents up between said condensing surfaces and doors, substantially as set forth. 8th. The combination of flattened nozzle G, trough g, valve plate O, valve K, an air escape tube P, substantially as and for the purpose specified. 9th. In a drying kiln, the combination, with the drying chamber, of an air escape rotary fan, a fan to continually force fresh air therein, means to cause rotary currents of air in said chamber, and refrigerating apparatus to cool the air fed to the fan, substantially as set forth. 10th. In a drying kiln, the combination, with the drying chamber, of a fan to force air therein, means to cause rotary currents of air in said chamber, and apparatus for impregnating the air fed to the fan with preserving gases or vapors, substantially as and for the purpose specified.

No. 18,398. Cut-Off Valve for Steam Engines. (*Soupape de détente pour les machines à vapeur.*)

George V. Conway, Milwaukee, Wis., U. S., 13th January, 1884; 5 years.

Claim.—1st. The beam H pivoted between the upper ends of the valve rods, in combination with trips, one on each valve rod adapted each to engage with one end of the beam, and other trips connected with the governor stem and engaging with the first named trips, as set forth. 2nd. The combination of trips d, d' and M, M' connected by chains or cords, and a winding device with rods E, E', connecting therewith the governors stem, as set forth. 3rd. The valve rods having enlargements b₁ for receiving the returning impact of the steam, and having caps g on their lower ends, in combination with the stationary heads, each head having a

central cylinder h₂ apertured to permit the escape of air through it, from between the cap and head, into an annulus about it (the said cylinder), as set forth. 4th. Cap g, the wall of which is grooved on its inside vertically, in combination with the head having its wall reduced on its outside, and having a packing ring about it, just above its reduced portion, as set forth. 5th. The cap g, in combination with the head g₁, having a central cylinder h with apertures leading from between the head and its cap into an annular chamber, between the cylinder and the outer wall of the head, for deadening the sound occasioned by the expulsion of the air, as set forth.

No. 18,399. Railroad Car. (*Voiture de railroute.*)

Thomas L. Wilson, Port Hope, and Eugene H. Davis, Toronto, Ont. 13th January, 1884; 5 years.

Claim.—1st. In a railroad box car having the end studs removed, the posts A mortised into the roof rail B and head stock C, in combination with the truss strap D and bolts F and G, substantially as and for the purpose specified. 2nd. In a railroad box car having the end studs removed, and doors hinged to the posts A, the combination of the bolts L connected to, and operated by the lever M, substantially as and for the purpose specified. 3rd. In a railroad box car having the end studs removed, and doors hinged to the posts A, as described, a pivoted cross-bar N, in combination with a clasp O having a projecting piece Q welded on its back, and a bolt P for locking the bar to the clasp, as specified.

No. 18,400. Combined Thill Coupler, Detacher and Brake. (*Armon de limonière et frein combinés.*)

Duby Green, Cincinnati, Ohio, U. S., 13th January 1884; 5 years.

Claim.—1st. In a thill-coupling, the clip A having on its forward side the chamber E, in combination with the elastic cushion C, having the curved socket L and seat O, substantially as herein set forth. 2nd. In a thill-coupling, the clip A having the chamber E and the elastic cushion, as shown, with the yoke P provided with the upturned end Q and scroll R, substantially as herein set forth. 3rd. In a thill-coupling, an elastic cushion C cast or moulded with a circular or curved socket, to receive a curved hook, as described, thereby preventing said hook from coming in contact with metal in the housing or chamber, substantially as shown. 4th. The elastic cushion C having the curved socket L and seat O, in combination with the curved thill iron and the upturned yoke, substantially as herein shown and described. 5th. In thill-couplings and detachers, the clip A having the transverse aperture F, in combination with the shaft bar or rod G extending from clip to clip, having the arm I provided with the right angled side projection J at the forward end, and the rearwardly projecting arm J' with the standard K attached thereto, substantially as herein set forth. 6th. In thill-couplings and detachers, the detaching arm I having, at the forward end, the side projection J extending under the thill iron N and in combination therewith, substantially as and for the purpose herein shown. 7th. The clip A having the housing B on the forward side lid H, elastic cushion C provided with the curved socket L and seat O, in combination with the yoke P having the upturned extension Q and scroll R, and with the curved thill iron M, substantially as herein set forth. 8th. The rod G having the forwardly projecting detaching arm J, provided at each end with an arm or cam S designed to give lateral pressure to the hubs, when the rod G is turned, substantially as herein set forth. 9th. The cushion C provided with the curved slot L and having, on the forward underside, the recess O to receive the upturned end of the yoke, to thoroughly encase it, substantially as herein set forth.

No. 18,401. Jacketed Vessel. (*Vaisseau enveloppé.*)

Louis Fritz, Memphis, Tenn., U. S., 13th January 1884; 5 years.

Claim.—1st. The combination, with a metallic bilged barrel, of a sectional or two-part bilged jacket removably secured around the same, as set forth. 2nd. The combination, with a metallic bilged barrel, of a sectional or two part jacket made up of staves of irregular lengths and secured around the barrel, as set forth. 3rd. The combination, with a crimped metallic barrel, of a jacket A composed of the sections a, b and the hoops D, D', as set forth. 4th. The combination, with a vessel provided with the thr added standard E and the screw-cap B, of the pump of less length than the vessel, and having a lower threaded end and a spout adapted to be drawn up above the opening, as set forth.

No. 18,402. Spring Bed Bottom. (*Sommier élastique.*)

Hiram Benedict, Detroit, Mich., U. S., 13th January 1884; 5 years.

Claim.—1st. A section of a spring bed-bottom consisting of the slat A, springs B, cross-riders C and the elastic bands D, combined and operating substantially as and for the purposes set forth. 2nd. A spring bed-bottom composed of a series of independent slats, each of said slats supporting a series of springs and riders, and all the riders on each slat being secured together by means of the elastic woven-wire straps, substantially as described.

No. 18,403. Stove Truck and Carrier.

Mark K. Leavenworth, Bridgeport, Ct., U. S., 13th January 1884; 10 years.

Claim.—1st. The socket C, case D, arm E having the socket H cast in one piece, as and for the purpose specified. 2nd. The combination, substantially as described, of the handles A, A', tie B, socket C, case D and arm E, bar G having the handles R, R', axle F, wheels I, L, as and for the purpose specified. 3rd. As an article of manufacture, a combined truck and carrier having the wheels encased and small, to bring the tulerum low down, and provided with a secondary lifting bar, as and for the purpose specified.