

clamp H, stop I, and lug J. 8th. The combination of the hinge, tube D, arm E, plate F, burner B, and clamp H. 9th. The combination of a tube C, hinge barrel D, bracket E, plate F, clamp H, stop I, and cover K. 10th. The combination of the tube D, slot d, lug J, and tube C. 11th. A tubular lantern having its globe supported upon a perforated plate, secured flexibly to a tube adapted to rotate upon one of the upright air tubes, the globe held at the top by a flexible bracket or clamp, and the tube held down by a sliding globe cover engaging a projection. 12th. In a tubular lantern, a hinge joint formed upon one of the upright tubes by a tube or connected portion of tubes, adapted to move upon the air tube and having attached thereto the globe plate and clamp. 13th. In a tubular lantern, a sliding globe cover controlled by a thumb spring, and adapted to engage a projection on a movable tube centered upon one of the air tubes. 14th. A tubular lantern having upon one of its air tubes a tube or barrel in one or more pieces, adapted to move freely thereon as upon a pin or center, and provided with the means of carrying a globe, all substantially as shown and described and as for the purpose set forth.

No. 24,220. Railway Frog.

(*Rail de Raccordement.*)

Isaac A. Perry, Wilmington, Del., U.S., 2nd June, 1886; 5 years.

Claim.—1st. The combination of the base, the point made in two parts, each having a portion adapted to an undercut recess in the base, and a transverse key, whereby movement of the parts in order to release them from said recesses is prevented, all substantially as specified. 2nd. The combination of the wing-rails, and transverse clamp bars connecting said rails at the centre and near each end, all substantially as set forth. 3rd. The combination of the base having a pivot opening with the wing-rails, and a clamp therefor having a projection adapted to said pivot opening, all substantially as specified. 4th. The combination of the base having a pivot opening, the wing-rails, the clamp having a pivotal projection, the confining bolt and the retaining key, all substantially as specified. 5th. The combination of the wing-rails, with a clamp bar comprising opposite recessed shoes adapted to the rails, and a hooked tie-bar passing through the recesses of the shoes, and engaging with said shoes, all substantially as set forth.

No. 24,221. Velocipede Wagon.

(*Wagon Velocipede.*)

Henry Lacasse, Auburn, N.Y., U.S., Atphonse Limoges and Joseph D. Couture, Montreal, Que., 2nd June, 1886; 5 years.

Claim.—1st. The combination of the drive-wheel frame, the bars for connecting the same extending backwardly therefrom, the saddle supporting bar pivotally supported by said bars, the rearwardly diverging bars connected to each side of the saddle-bar, and vehicle body supported by said rearwardly diverging bars, substantially as and for the purpose set forth. 2nd. The combination of the drive-wheel frame, the saddle-bar connected with said frame and having an upwardly-extending pin formed upon its rear end, the saddle hinged to said bar and having a socket formed therein to receive the pin, and elastic cushion interposed between the pin and saddle, substantially as and for the purpose set forth. 3rd. The combination of the drive-wheel axle, carrying the pedals having a sprocket-wheel connected therewith by means of a tight and loose connection, a shaft carrying hand-crank having a sprocket-wheel keyed thereto, and a drive-chain connecting the two sprocket-wheels, whereby the chains are held stationary when the sprocket-wheel is disconnected from the axle, substantially as described. 4th. The combination, with the drive wheel and its frame, of the sprocket-wheel supported on a crank shaft at the upper part of the drive-wheel frame, the sprocket-wheel fitted loosely on the drive-wheel shaft, the spline to pass through the hub of the drive-wheel into the sprocket-wheel, the drive-chain connecting the sprocket-wheel and the pedals to the drive-wheel, substantially as described. 5th. The combination, with the drive-wheel and its frame, of the rod having its opposite ends secured at opposite sides of the said frame and extended forward of the drive-wheel, and the draft-rod hinged to said rod, substantially as described. 6th. The combination, with the drive-wheel and its frame, of the disk secured to the shaft of the drive-wheel, the bifurcated pedals secured to the same shaft and provided with an angular pawl to engage with said disks, and the springs to retract said pedals after they have been depressed, substantially as described.

No. 24,222. Heating Attachment for Stoves.

(*Poêle-Sourd.*)

Lester L. Bond, (assignee of Michael G. McGuire,) Chicago, Ill., U.S., 4th June, 1886; 5 years.

Claim.—1st. The suspension pipe-section A having the lateral tubular neck F and upward tubular shank or extension F₂, in combination with a register H at the bottom on the pipe-section, the partition B extending past the neck and into the tubular shank or extension, and the damper E pivoted to the upper end of the partition, substantially as described. 2nd. The tapering pipe-section A having its largest diameter at the bottom, and provided with the bottom register H and tubular neck F, in combination with the partition B extending above the neck, and a damper E also above the neck, substantially as described. 3rd. The suspended pipe-section A having one or more driving flues, and one or more ascending flues, in combination with the bottom register H and the register I in the upper portion of the pipe-section, substantially as described.

No. 24,223. Roller Mill.

(*Moulin à Moudre.*)

Richard K. Noye, (assignee of Charles H. Morgan,) Buffalo, N.Y., U.S., 4th June, 1886; 5 years.

Claim.—1st. The combination, with the bearings, of the adjustable roller, and the levers E connected with said bearings, of a movable

yoke or frame H connected with the adjacent ends of said levers, a stop I against which the yoke rests, a pivoted spreading lever J, and a rod L connecting the lever J, with the yoke of frame H, substantially as set forth. 2nd. The combination, with the bearings of the adjustable roller, and the levers E connected with said bearings, of a screw threaded stud G, a yoke H mounted on said stud, a pivoted spreading lever J, a rod L connecting the lever J with the yoke or frame H, and a screw-nut I applied to the stud G, substantially as set forth. 3rd. The combination, with the levers E and stud G, of the yoke H pivoted, spreading lever J provided with an edge K connecting rod L, and a screw nut having a notched edge adapted to interlock with the edge of the spreading lever, substantially as set forth.

No. 24,224. Wagon. (*Wagon.*)

Solomon E. Gyiatt, O. F. Barnes and James J. Baird, Lansing, Mich., U.S., 7th June, 1886; 5 years.

Claim.—1st. The combination with a bolster and reach, of a T-plate engaged therewith, an axle engaged with a recessed plate K, and an eye-plate M, a bolt engaging the T-plate and the recessed plate together, and a brace-rod connecting the reach with said eye-plate, the construction being such that the line of oscillation will be in the rear of the bolster and axle, substantially as described. 2nd. A stake constructed with a fixed lower section adapted to be secured to the bolster, and provided with a hook and ring, and side flanges, and a removable section provided with a socket to receive said fixed section, substantially as described.

No. 24,225. Ore Concentrator.

(*Concentrateur de Minéral.*)

Ellis W. Sinclair, Tombstone, Ariz., U.S., 7th June, 1886; 5 years.

Claim.—1st. In an ore-concentrator, the combination with the end-wise and laterally vibratory box B, having a double inclined bottom c, d, and discharge openings a, b, of plate Q provided with the thin inclined agitator fingers R, R having an endwise movement contrary to that of the concentrator-box, substantially as described. 2nd. The concentrator box B having openings a, b, and a bottom composed of two inclines c, d, one of which is wider and higher than the other and is provided with a longitudinal rib or flange e on its upper edge, substantially as described. 3rd. The concentrator-box B, having discharge openings a, b, extending nearly or quite the whole length on each side, a bottom composed of the inclines c, d, a bar B₁, and a longitudinal division, plate S, suspended vertically from said bar B₁, substantially as described. 4th. The combination, with the concentrator box B, having an ore discharging opening a extending along one side of the rod L, having eccentrics L₁, L₂, the eccentric straps M, M₁, the gate Q attached to said straps, and the bolts N₁, N₂, and hand-wheels N, N₁, substantially as described. 5th. The combination, with the concentrator box B and adjustable gate U, of the trough or spout V attached to and movable with said gate, substantially as described. 6th. An ore concentrator comprising the frame A, vibratory concentrator box B having discharge openings a, b, double inclined bottom c, d, division plate S and adjustable gate U, the movable plate Q carrying fingers R, R, the shaft C having pinion G and eccentrics D, D₁, the rods N, N₁, the castings on the box B, the shaft I carrying a gear H and cams K, K, and the adjustable spring L, substantially as described.

No. 24,226. Stool for Pianos, etc.

(*Banc pour Pianos, etc.*)

Archibald C. Haynes, Philadelphia, Penn., U.S., 7th June, 1886; 5 years.

Claim.—1st. A stool having a seat with an adjustable back, the frame of said seat having grooved sides and bottom, and said back having side pieces which are formed with tongues and provided with set screws, substantially as described. 2nd. A stool having a seat which is adjustably connected with the base of the stool by means of a ratchet on the stem of the seat, and a pawl on the base, said pawl having a handle or button, operating substantially as described. 3rd. A stool having a seat provided with a depending stem and a base receiving said stem, said stem having a ratchet, said base being provided with a pawl and lips on which the handle or head of the pawl may be rested, substantially as described. 4th. A stool having a vertically adjustable seat, a base receiving the depending stem of said seat, a holding ratchet and pawl, and a laterally tightening screw, substantially as described. 5th. A stool having a foot-rest whose supporting arm is connected with the base of the stool, substantially as described. 6th. A stool having a base provided with a boss T and screw T₁, and a foot-rest supported on an arm which is fitted to said boss, substantially as described. 7th. The foot-rest D provided with a pawl V, in combination with an arm S having a ratchet U, substantially as described. 8th. The support for the foot-rest of a stool, having a foot Y at the bottom, substantially as described.

No. 24,227. Fire-Escape Tower.

(*Tour de Sauvetage en cas d'Incendie.*)

Christopher Clarke, Northampton, Mass., U.S., 7th June, 1886; 5 years.

Claim.—1st. The within-described improvement in fire-escape towers, consisting of the arrangement within a tower and around a common axis of two or more spiral passageways having separate entrances and exits, and each constructed to have no intermediate passageway leading thereto from beginning to end, and each to have no possibility of exit therefrom from end to end, for the purpose as set forth. 2nd. In a fire-escape tower, the combination and arrangement within a tower and around a common axis of two or more spiral passageways adapted to be each inaccessible from the others, and to be each smoke-tight and isolated from the others, for the purpose as set forth.