

together and separated laterally by bars C. 2nd. The bent frame sections A F, carrying one or more teeth and connected by bars C, loose at their joints. 3rd. The hinged bent sections A F having teeth B G integrally united to the sections.

No. 12,837. Improvements on the Preparation of Liniments. (*Perfectionnements dans la préparation des liniments.*)

Josiah C. Gilman, Messina, N. Y., U. S., 19th May, 1881; for 5 years.

Claim.—1st. Dissolving the yolk of hard boiled eggs to an oily consistency by heat. 2nd. A liniment prepared by dissolving the yolk of cooked eggs by heat.

No. 12,838. Improvements in Grates for Steam Boilers and other Furnaces. (*Perfectionnements dans les grilles de foyers des chaudières à vapeur et autres.*)

Antoine Desgouttes, Paris, France, 19th May, 1881; for 15 years.

Résumé.—Un système de grille bombée à barreaux cintrés, ou droite, pour foyers de chaudières à vapeur fixes locomotives, locomobiles, etc., et également applicable à tous genres de foyers industriels et autres, que tous moyens convenables pour obtenir la convexité de la partie supérieure de la grille dans le but indiqué, aussi l'adaptation au dessous de la partie centrale de la grille d'un obturateur plein destiné à empêcher le passage de l'air dans cette partie de l'appareil sur laquelle s'effectue le chargement du combustible.

No. 12,839. Improvements on Coal Oil Stoves and Lamps. (*Perfectionnements aux poêles et aux lampes à pétrole.*)

James Iredale, Toronto, Ont., 19th May, 1881; for 5 years.

Claim.—The cold air passages which run through the tank and between the wicks, as causing an increased draught for the flame and complete combustion of the oil, and also as keeping the oil and wicks, frame work, &c., from becoming heated.

No. 12,840. Machine, for Jointing Tight Barrels. (*Machine à monter les barils étanches.*)

Robert O. Dobbin, Berlin, Ont., 19th May, 1881; for 5 years.

Claim.—1st. The carriage consisting of the frame M E J, the movable shoe N, the eccentrics or cams G, the collars under bearing blocks q and screws r, and the tubes K, with spiral springs and screws L, whereby the staves are bent into shape, and held while being jointed. 2nd. The combination, with the shaft F, the carriage frame M E J, and the movable shoe N, of the eccentrics G connected with the said shaft by keys and grooves, whereby the said shoe is forced down to bind and hold the stave by the revolution of the said shaft. 3rd. The combination, with the carriage frame M E J, the shaft F and the eccentrics G, of the collars, the bearing blocks q and the screws r, whereby the reaction of the cams G, is transmitted to the carriage frame to relieve the shaft from pressure. 4th. The combination, with the carriage frame M E J and the movable shoe N, of the tubes K with springs and the screws L, whereby the movable shoe is raised when the cams G are withdrawn. 5th. The combination, with the shoe J attached to E, and the frame a, of the projection s and the two parallel guides H H, placed upon the opposite sides of, and equally distant from the saw, whereby the proper bevel will be given to the edges of the staves. 6th. The combination, with the parallel guides H H, of the right and left nuts or right and left screws R, and the bevel gearing, whereby the guides can be adjusted and, at the same time, kept equally distant from the saw. 7th. The combination, with the adjustable guides H H, of gauge rings I and pins T, whereby the said pins can serve as stops in adjusting the said guides.

No. 12,841. Improvements on Machines for Excavating Snow or Earth. (*Perfectionnements aux machines à enlever la neige et la terre.*)

William H. Knight, Quebec, Que., 19th May, 1881; for 5 years.

Claim.—1st. The combination, with the carriage A, of the pivoted frame J, the chain wheels K M, the endless chain of buckets P having dropbacks Q, and the inclined plates T, whereby snow or earth can be broken up at the front and discharged at the sides of the carriage. 2nd. The buckets P constructed with hinged backs Q, whereby the contents of the buckets can be readily discharged. 3rd. The combination, with the buckets P and drop back Q, of the spring latches R and the trip plates V, whereby the drop back Q will be released automatically to discharge the contents of the buckets. 4th. The combination, with the elevator frame J, of the inclined plates T, the swivelled screw C and the nut bar d, whereby the inclined plates can be adjusted to any requisite height. 5th. The combination, with the inclined discharge plates T, of the adjustable plates Z, whereby the contents of the buckets can be discharged at either or both sides of the carriage. 6th. The combination, with the driver wheel shaft C, of the hinged frame m and the rotary brushes q, whereby the rails of the track upon which it runs may be kept clean in front of the drive wheels. 7th. The combination, with the carriage A, having flanges r s of the adjustable hinged plates W X having flanges V W, whereby the said hinged plates can be adjusted for use as a snow plough.

No. 12,842. Improvements on Pulleys. (*Perfectionnements aux poulies.*)

Jerome B. Stockham, Jackson, Mich., U. S., 19th May, 1881; for 5 years.

Claim.—1st. A pulley made in a single piece and having a hole through its centre much larger than the shaft to which the pulley is to be attached, in combination with a box or bearing made in halves, and which box or bearing is made adjustable. 2nd. The combination of a shaft having an opening B through its centre, with a box or bearing made in two parts, and slotted so that either one or both can be moved inward, toward or outward from the shaft, and the set screws for holding each part in position. 3rd.

The combination of a pulley having an opening through its centre larger than the shaft, to which it is to be attached, an adjustable box or bearing made in two parts, and provided with set screws for holding the parts to the side of the pulleys and the set screws for moving the parts of the box or bearing inward.

No. 12,843. Improvements on Cot Bedsteads. (*Perfectionnements aux lits d'enfants.*)

David R. Nichols, Brookville, Ont., 19th May, 1881; for 5 years.

Claim.—1st. The bedstead frame A consisting of the side rails C C, hing'd legs E, pins e and latches h, end rails D D, hinged at d and pivoted to the end of the side rails C C, whereby said end rails can be folded and turned within the side rails C C. 2nd. The pillow B consisting of flexible material b, arms n n, legs p p pivoted thereto, curved downward and outward and having catches t t.

No. 12,844. Improvements on Force Pumps. (*Perfectionnements aux pompes foulantes.*)

William S. Hickson and Moses A. Payne, St. Thomas, Ont., 19th May, 1881; for 5 years.

Claim.—1st. The combination of the tube B, flap valve H, valve seats a a, and rod r. 2nd. The combination and arrangement of the cylinders A A, tube B, check valves H H, flap valve H, valve seats a a, rod r piston heads C C, rods E E, lever D and upright F.

No. 12,845. Improvements on Machines for Separating Precious Metals from their Ores. (*Perfectionnements aux machines à séparer les métaux précieux de leurs minerais.*)

Giles Hall and George W. Dauch, East St. Louis, Ill., U. S., 19th May, 1881; for 5 years.

Claim.—1st. The combination, in a machine for separating precious metals from ores by means of a forced blast, of a series of pans provided with pockets for containing chemicals and irritating plates, whereby the ores are intimately mixed with the chemicals by means of a forced blast or pressure of air. 2nd. In combination with the oscillating casing provided with a series of pockets and inclined plates the hopper and agitating shaft and arms, with mechanism for operating the same by the movement of the casing. 3rd. In combination with the feed hopper and casing, the throttle valve and its tension adjusting mechanism. 4th. In combination with the removable pan, the supporting cleats and the reeded pins and nuts for securing the pans alternately to opposite ends of the casing. 5th. In combination with the casing and the pans located therein, the doors arranged alternately at opposite ends of the casing, whereby provision is made for the insertion of the pans, and for closing the casing to make the same air tight. 6th. In combination with the casing, the pans provided with pockets and irritating plates, and the mechanism for oscillating the casing, the bumpers for relieving the casing of excessive shock. 7th. In combination with the casing and the pans, the drawer located below the ejection passage of the casing, and apertures in said casing, whereby chemicals accidentally dislodged from the pockets may be collected and saved. 8th. The combination of the hopper and its adjustable feed shaft and actuating mechanism, the casing provided with a series of pans provided with pockets and irritating plates, and the mechanism for oscillating the casing, the alternating doors and their air-tight covers, and the bumpers against which the casing abuts as it oscillate.

No. 12,846. Improvements on Window Cleaning Chairs. (*Perfectionnements aux chaises pour laver les fenêtres.*)

Anna Dormitzer, wife of Henry Dormitzer, New York, U. S., 21st May, 1881; for 5 years.

Claim.—1st. A window cleaning chair with platform A, swinging step frame D supporting fixed step E and adjustable auxiliary step F, screw actuated clamping device G and pivoted rear supports P. 2nd. The combination, with the platform A and step frame D, of the clamping device G consisting of clamping bar G, swinging on rods h, thumb screw H, journalled in hanger m, and carrying traveling nut H, provided with bars n n and connected with block G, whereby said chair may be secured in position. 3rd. The clamping device G consisting of the bar G, with attached serrated angle rods h having caps h₂, springs m, and screw H provided with nut H having bars n n. 4th. The combination, with the platform A and clamping device G, of the slotted plates K, whereby the said device may be adjusted. 5th. The combination, with the platform A, of the pivoted toothed bars P and dogs S, whereby additional security and stability is given to the chair when in use. 6th. The combination, with the platform A and swinging steps D, of the studded springs T and socketed plates t, whereby the chair is held open or closed, as may be desired.

No. 12,847. Fire Escape. (*Sauveteur d'incendie.*)

William Irwin, Scagoo, Ont., 21st May, 1881; for 5 years.

Claim.—1st. The turntable B in combination with the derrick C. 2nd. The ladder hinged on turntable B, in combination with winch H and hoisting chain G, for elevating or lowering the ladder I. 3rd. The combination of the elevator buckets or boxes X attached to endless chains K running over sprocket wheels, at head and foot of ladder I, worked by brake winch L.

No. 12,848. Improvements on Fifth Wheels for Vehicles. (*Perfectionnements aux rouls d'avant train des voitures.*)

Albert S. Weaver, Aylmer, Ont., 21st May, 1881; for 5 years.

Claim.—1st. The coring out of the lugs D in such a way as to receive the adjustable dips C from the inside, as to the flanges K raised on each side of the adjustable clips C, running down each side of the bed piece E, thereby making the whole combination more easily taken apart and adjusted, and more substantial than when inserted through the cored lugs and bed piece as formerly done.