

Claim.—La combinaison dans les moyens des roues à disques, de l'application d'une clef pour remplacer l'écrin de fixation des disques et, pour cette fin, particulièrement une clef C conique et rivée et telle que placée sur le disque B et d'en mettre autant que le disque le permettra pour en assurer la solidité.

No. 12,867. Improvements on Electric Lamps.

(*Perfectionnements aux lampes électriques.*)

Hiram S. Maxim, Brooklyn, N. Y., U. S., 3rd May, 1881; for 15 years.

Claim.—1st. A gravitating carrier for the upper carbon and a train of gearing controlling its descent, in combination with an electro-magnet and armature lever operating a detent engaging with said gearing and a carrier for the lower carbon suspended from said lever. 2nd. An electro-magnet and mechanism for controlling the feeding of the upper carbon located above the focus, in combination with a carrier for the lower carbon, movable vertically and connected with the armature lever of said electro-magnet. 3rd. An electro-magnet controlling the feeding mechanism in combination with a dash pot or controlling chamber fixed to the armature or core of the electro-magnet and surrounding its head. 4th. The combination upon a lower carbon carrier and a globe surrounding the focus with their flat supports for said carrier and globe, placed edge to edge upon the same side of the focus and in the same vertical plane with it. 5th. The carbon carrier E in combination with the bar G, the link H and the flexible strip I. 6th. The carbon carrier E in combination with the adjustable spring R, the spring V, rod T and forked head W. 7th. The side pieces d d, in combination with the screw b, pin Q and jaws c. 8th. The combination of the globe B with the support C and the dog c.

No. 12,868. Improvements on Commutators of Dynamo-Magneto-Electric Machines.

(*Perfectionnements aux commutateurs des machines magneto-electro-dynamiques.*)

Hiram S. Maxim, Brooklyn, N. Y., U. S., 30th May, 1881; for 5 years.

Claim.—1st. A commutator in dynamo magneto-electric machine having its conducting plates so constructed and arranged as to form a double spiral upon the outside and to be parallel to the axis of the commutator upon the inside. 2nd. A commutator for a dynamo magneto-electric machine having its conducting plates arranged in the form of a double spiral.

No. 12,869. Improvements on Lifting Jacks.

(*Perfectionnements aux crics.*)

Alvin N. Woodard, Hadley, Mich., U. S., 30th May, 1881; for 5 years.

Claim.—1st. Two sets of ratchet faced dogs, one set actuated by an oscillating lever and adapted to raise the ratchet bar, and the other set acting as a pawl upon the ratchet bar to retain it in its elevated position. 2nd. A set of ratchet faced dogs B susceptible of lateral play in the body of the device, in combination with cam bolts f, springs c and bell crank lever D by means of which both dogs may be simultaneously operated. 3rd. A set of ratchet faced dogs B susceptible of a lateral and a vertical reciprocating movement in the body of device, in combination with the bolts K by means of which the dogs may be retracted at any point of their vertical movement. 4th. A set of ratchet faced dogs B susceptible of a lateral and a vertical reciprocating movement, in combination with the frame h, links l and lever F. 5th. The ratchet bar A provided with a continuous sunken ratchet upon the two opposite faces with a plain margin at each edge, in combination with friction rollers which bear upon the four faces of the ratchet bar. 6th. The lever E pivotally secured in the frame and having two links i stepped in its upper portion and abutting against the frames which carry the dogs, exerting a pushing force upon said dogs, whereby the ratchet bar is raised.

No. 12,870. Improvements in Metal Posts for Wire Fencing.

(*Perfectionnements aux pieux métalliques pour les clôtures en fil de fer.*)

Jonathan Hugill, Hamilton, Ont., 30th May, 1881; for 5 years.

Claim.—1st. In a metal fence post, the spiral ribs B. 2nd. A metal fence post constructing the pointed portion of the auger part of the same, of serpentine form with cutting edges b b. 3rd. One or more shoulders d d. 4th. One or more lugs C C. 5th. One or more projections C C. 6th. The combination of one or more pins D with one or more flanges e. 7th. The combination of a metal post A, flanges e, ribs B, shoulders d, cutting edges b b, lugs C, recess F, projections C, tapering pin D to form a post for wire fencing.

No. 12,871. Improvements in the Manufacture of Paper Pulp.

(*Perfectionnements dans la fabrication de la pâte à papier.*)

Charles O. Chapin and Henry A. Chapin, Springfield, Mass., U. S., 30th May, 1881; for 5 years.

Claim.—1st. The improvement in the art of making paper pulp from straw, grasses and other stalky or weedy fibrous material, which consists in baking or roasting said materials without moisture, previous to boiling them in chemical solutions or otherwise, for the purpose of disintegrating them. 2nd. The method of destroying the silicious glaze existing upon the surface of straw, grasses and the like stalky or weedy fibrous materials, viz., by roasting or baking the same, without moisture, to prepare them for easy disintegration and manufacture into pulp.

No. 12,872. Improvements on Stock Cars.

(*Perfectionnements aux chars à bestiaux.*)

Marquis F. Seely, Fremont, Neb., U. S., 30th May, 1881; for 5 years.

Claim.—1st. The combination of the cross bar D removably secured in position to form rigid lateral supports to the several cattle, the aprons or slings E, each extended from one cross-bar to the next adjacent, and mechanism applied to the cross-bars, whereby the slings may be severally raised or lowered. 2nd. The combination of the cross-bars D capable of adjustment, vertically and longitudinally as to the car, with adjusting me-

chanism attached to one of said bars and aprons or slings connected to the cross-bars, whereby the variable extension of the aprons is regulated and controlled. 3rd. The combination of the adjustable supporting cleats or rails C provided with adjusting means, the adjustable cross-bars D with elevating mechanism and the aprons or slings E. 4th. In combination with the cleats C, the adjustable cross bars D provided with bolts B adapted to enter holes in the cleats, to secure the bars in position. 5th. The bars D provided with the metal suspending part D so applied as to permit variation in the length of the bars, in combination with the cleats C or other supports of said bars. 6th. The combination, with the supporting bars D and aprons E suspended therefrom, of the breast and breech straps E, one or both. 7th. The centre strap or straps E, in combination with the main bands E and breast and breech straps E. 8th. The combination, with the cross-bars D and bands E, of stanchions K adjustably supported in position. 9th. The stanchion K having at its base or lower end two projections or pins o, and at the upper end the projections or pin N, in combination with cleat I having notches n and loop P. 10th. In combination with the car, the sliding troughs S. 11th. In combination with the sliding troughs S adapted to be connected as shown, the pulley w and rope r.

No. 12,873. Improvements on Nut Locks.

(*Perfectionnements aux arrêts-écrous.*)

Hugh S. Joines and David J. Miller, Santa Fé, N. M., U. S., 30th May, 1881; for 5 years.

Claim.—1st. A nut B having its sides bevelled, or recessed, for the reception of the ends of a locking strip or plate C bearing against the nut. 2nd. The nut B having recessed or bevelled sides, and the locking plate or piece C slotted at c and having intumed flanges or ends d. 3rd. The combination of the nut B, locking piece C and irregularly shaped bolt A.

No. 12,874. Improvements on Machines for Crushing and Pulverizing Ores.

(*Perfectionnements aux machines à broyer et pulvériser les minerais.*)

William H. Howland, Oakland, Cal., U. S., 30th May, 1881; for 5 years.

Claim.—1st. The pan A having the annular die T placed on its bottom inside of its rim, said die being rectangular in cross-section, in combination with the muller G with its plane bottom, and one or more circles of rollers or short cylinders K K K. 2nd. The pan A with its sloping cover C in which screens L are arranged, in combination with a series of crushing and grinding rollers or cylinders K which are driven by a muller G inside of said pan. 3rd. The pan A having the water supply pipe l of an approximate Y-shape with one arm extending above the pan, and the other arm passing up through the bottom of the pan.

No. 12,875. Improvements in Damper Grates for Stoves or Furnaces.

(*Perfectionnements aux grilles à registres pour les poêles ou les foyers.*)

William J. Copp, Hamilton, Ont., 30th May, 1881; for 5 years.

Claim.—1st. The combination of the bars C fixed stationary in the bottom of the grate F in a standing position parallel to the ports or ducts B in the damper plate K, so that said ducts B will be closed when moved against the bars C with the damper K, which is divided into sections in which the level parts d and the slanting parts of same a form the ducts B between them, in connection with the handle G for shifting the top plate K on its centre E to open or close the ducts B. 2nd. The damper plate K, ducts B and slanting bars C arranged to operate in any other form or shape of grate besides a circular one. 3rd. In grates closing against bars movable, or stationary of any form, round, square or of any shape, also grates with ducts without bars.

No. 12,876. Improvements in Machines for Cutting Cylindrical Forms from Stones, in the Preparation of Stones for Building and other Similar Purposes.

(*Perfectionnements aux machines à tailler les formes cylindriques dans la pierre dans la préparation de la pierre à construire et pour autres fins.*)

James Gazely, Watervliet, N. Y., U. S., 30th May, 1881; for 5 years.

Claim.—1st. The combination, with the vertical shaft B, of the cutter head C having a sliding motion on and rotated with said shaft, said cutter head being provided with either segmental or tubular cutters having a vertical adjustment in respect to said cutter head. 2nd. The combination, with the shaft B cutter head C and cutters D, of the adjustable bearers G. 3rd. The combination, with the cutter head C, of segmental cutters provided with curved spring portions at or near the cutting ends of said cutters. 4th. As an improved article of manufacture, a block of natural stone for building, or other purposes, having its outer surfaces wrought into any required shape, and having a cylindrical opening, formed therein by the removal (as an entirety) of a cylindrical core therefrom. 5th. The cylindrical core J removed as an entirety from the interior portion of a solid natural stone and without injury to the surrounding body of the stone.

No. 12,877. Improvement in Automatic Telegraphy.

(*Perfectionnement dans la télégraphie automatique.*)

William A. Leggo, New York, U. S., 30th May, 1881; for 5 years.

Claim.—The method of preventing the clogging of the stylus and of keeping the stylus bright and clean, consisting in charging the body or the surface of the blank with a lubricant.

No. 12,878. Improvements in Telegraph Keys.

(*Perfectionnements aux manipulateurs télégraphiques.*)

William A. Leggo, New York, U. S., 30th May, 1881; for 5 years.