

shell contracted by the former is turned in by the latter, substantially as shown and described. 39th. In a cartridge-loader, the combination, with a fixed table and a movable table, for substantially the purposes explained, of a brush or sweep secured to the fixed table and projecting over the movable one, substantially as and for the purpose set forth. 40th. In a cartridge-loader, the combination, with a fixed table and a movable table, of an arm on the fixed table overhanging the movable table in close proximity thereto, said fixed table having an outlet at or near the arm for allowing the material gathered by said arm to pass off, all substantially as shown and described.

No. 32,450. Compound to Restrain the Setting of Plaster and the like.
(Composition pour retarder le séchage des enduits de mortier et autres choses semblables.)

George R. King, New Brighton, N.Y., U.S., 5th October, 1889; 5 years.

Claim.—The above described composition of matter comprising a restraining material, composed essentially of animal gelatinous or vegetable glutinous matter, and hydrated lime, combined substantially as described and in the proportions specified.

No. 32,451. Bridle. (Bride.)

The Gowan Mfg. Company, (assignee of Benjamin L. E. Gowan), Boston, Mass., U.S., 5th October, 1889; 5 years.

Claim.—A crown-piece for a bridle having a straight body, as *a*, a curved portion, as *z*, connected with each end of said body, and adapted to pass partially around the ear of the horse, and billets *b*, *c* connected with the outer end of each of said curved portions, substantially as set forth.

No. 32,452. Water Closet, etc., Flush.

(Appareil de lavage des sièges d'aisance, etc.)

Miller Brothers and Toms and David L. Dwinnell, (assignees of Charles G. C. Simpson), Montreal, Que., 5th October, 1889; 5 years.

Claim.—In a flush for water closets, etc, the combination of a tank supplied with water to a constant standard, or normal level, a syphon provided on its longer leg with an injector by which a quantity of water can be injected into the long leg of the syphon, the whole substantially as described for the purposes set forth.

No. 32,453. Mechanism for Operating Railway Semaphores. (Mécanisme pour actionner les sémaphores de chemins de fer.)

Robert Thompson, James Wright, John Wilson, Harry Cortland and Henry Eldridge, Toronto, Ont., 5th October, 1889; 5 years.

Claim.—1st. A rope or chain *A*, connected at one end to the operating mechanism of the semaphore *B*, and at its other end to a head *E* connected to a bar *F* on which is hinged a bar *I*, having a projection *J* to fit onto a frame *K*, in combination with a box *L*, links *M*, and lever *N*, arranged substantially as and for the purpose specified. 2nd. In a semaphore mechanism, the combination of the lever *T*, pawl *S*, ratchet wheel *P*, drum *O*, chain *R* connected to the bar *F*, all arranged as and for the purpose hereinbefore specified.

No. 32,454. Churn. (Baratte.)

Asher Holmes, Hamilton, Ont., 5th October, 1889; 5 years.

Claim.—1st. In a churn, the combination, with the box *A*, of the double horizontally acting dashers *G*, *G*, slotted spindle *H*, lever *I*, cover *C*, all arranged and constructed substantially as and for the purpose specified. 2nd. In a churn, the combination, with the churn box *A*, of the double horizontally acting dashers *G*, *G*, slotted spindle *H*, lever *I*, rabbeted and slotted cover *C*, lugs *E*, *E*, all arranged and constructed substantially as and for the purpose specified.

No. 32,455. Barrel Stand. (Chantier de baril.)

Thomas McKay, Pilot Mound, Man., 5th October, 1889; 5 years.

Claim.—In a counter barrel swing, the combination of shaft *B* having turntable *C*, grips *C*, and shoulder *C*² at its lower end, supporting pivot *H*, plate *G*, eye screw belt *I* and sliding grip *D*, the whole as shown and described and for the purpose hereinbefore set forth.

No. 32,456. Spoke Socket. (Mortaise de jante.)

Melvin L. Smith, Batavia, N.Y., U.S., 7th October, 1889; 5 years.

Claim.—The combination of the felly having a circular recess *E* on its inner side, and provided with notches *H* in the base of said recess, the spoke having its tenon entering the felly, and the casting fitting in the recess *E* having lugs *G* engaging the notches *H*, the lugs *L* adapted to be pressed into the sides of the felly, and the upward projecting lips *J* having concave inner faces and bearing against the opposite sides of the spoke, as specified.

No. 32,457. Means of Preventing the Formation or Development of injurious Germs of Animal or Vegetable Life Applicable to the Treatment of Hides or Skins and to the Manufacture, Preparation and Preservation of other Materials and Substances liable to be affected by those Germs. (Moyens d'empêcher la formation ou le développement des germes nuisibles de la vie animale ou végétale applicables au traitement des peaux et à la fabrication, préparation et conservation des autres corps et substances susceptibles d'être affectés par tels germes.)

Thomas Palmer, Ashbrooke, Eng., Lucien Benoist and Emile Collin, administrator of the estate of Charles Collin, Paris, France, and Benjamin Nicholson, South Norwood, Eng., 7th October, 1889; 5 years.

Claim.—1st. The employment of mercuric iodide or bi-iodide of mercury for preventing the formation or development of injurious germs of animal or vegetable life in substances, or matters liable to be affected thereby. 2nd. In the manufacture or treatment of hides, skins and other materials or substances, liable to be affected by injurious germs of animal or vegetable life, the employment of a solution of mercuric iodide or bi-iodide of mercury in water prepared by the use of a solvent for the mercuric iodide or bi-iodide of mercury, such as an alkaline iodide for example, the iodide of potassium with or without the addition of a salt of potash or of soda or in conjunction with an acid, all substantially as and for the purposes hereinbefore described. 3rd. The employment of mercuric iodide or bi-iodide of mercury, in combination with other antiseptic compounds or materials, such as for example, sanitas enclyptus, carbolic acid, camphoric acid, thymol, peroxide of hydrogen, as well as preparations of creosote, turpentine, camphoraceous, and other bodies possessing antiseptic properties, either with or without other salts or compounds, substantially as and for the purposes hereinbefore described.

No. 32,458. Steam Engine. (Machine à vapeur.)

Flora Williams, (assignee of John H. Williams), Urbana, Ohio, U.S., 7th October, 1889; 5 years.

Claim.—1st. The combination, with a circular valve chest *C*, of a valve *K* and its adjustable central arbor *G*, means to adjust said arbor inward, and preserve contact between the valve and the face of the chamber, and suitable packing *L*, *P*¹ and *Q*¹ between the ends of the valve and the upper side of the valve casing. 2nd. The combination, with a steam cylinder *A* and its circular valve chest *C*, a bearing *E* in the cylinder, and a central opening in the chamber cap *D*, of a valve *K* fitted to oscillate within the said chamber, and having spring-actuated packing strips *L*, *P*¹ and *Q*¹ between its ends and its upper edge and the valve chamber, the valve arbor *G* mounted in said bearing *E* and opening and having a shoulder *H*, a plate *I* fitted upon the arbor *G* against the said shoulder *H*, and adjusting screws *J*, *J*, connecting the plate with the cap. 3rd. The combination, with a circular valve chamber *C*, a flanged cap *D*, *F*, and a central opening in the cap, and a recess within the flange, of a valve *K* mounted in the chamber, and its arbor *G* fitted to the central opening in the cap, and having a shoulder *H* which fits said recess, an adjusting plate *I* embracing the shaft and fitted against the shoulder *H*, and screws *J*, *J* which connect said plate with said flange. 4th. The combination, with a circular valve chest *C*, of a valve *K* mounted therein and recessed on its upper side and at its ends, and extensible packing strips *L* mounted in said recesses, and spring between said strips and said valve to project the strips upward and outward. 5th. The combination, with the valve consisting of an oscillating bar *K* grooved at its upper side and at its ends, of packing strips *L* fitted in said grooves and composed of overlapping sections, the outer section of which having a vertical part *P* which fits the end recesses, and springs which press the sections upward and other springs which respectively press the outer sections upward and the vertical part of such sections outward. 6th. The combination, with the valve chest composed of an annular body *C*, a cap-plate *D* of two steam pipes *C*¹ and *D*¹ which connect with the steam chest at diametrical points and communicate therewith, an oscillating valve *K* whose shaft *G* is mounted in said chest, and cylindrical ports within said chest. 7th. The combination, with a steam cylinder *A*, and a steam chest *C*, of steam pipes *B* opening into said chest in the form of elongated tapering mouths, the annular ends of said mouths being nearest the centre of said steam chest, whence the mouths widen toward the end of the cylinder, the said ports extending through the walls of the cylinder, and widening from said mouths to their termini at or near the ends of the cylinder, at which points they occupy a portion of the circumference of the cylinder.

No. 32,459. Battery for the Storage of Electricity. (Accumulateur d'électricité.)

Charles Norsworthy and John C. Lyndop, (assignees of William Morrison), St. Thomas, Ont., 7th October, 1889; 5 years.

Claim.—1st. The method in which the plates *M* are wound, substantially as and for the purpose hereinbefore set forth. 2nd. The method of regulating the plates *M* by means of the lever *D*, substantially as and for the purpose hereinbefore set forth.