

No. 13,394. Package for Fruit Boxes. (*Colis pour les boîtes à fruits.*)

John Cross, Oakville, Ont., 13th September 1881: for 5 years.

Claim.—As a new article of manufacture, a fruit box package formed by the strips of veneer A, held together by the hoop C and having a handle B with a cover G, and piece of veneer J provided with cross cleats or slats H, arranged to fit over the edges of the fruit boxes I.

No. 13,395. Improvements on Signal Fuseses. (*Perfectionnements aux fusils à signaux.*)

Samuel Jackson, Philadelphia, Penn., U. S., 13th September 1881: for 5 years.

Claim.—The combination of the tube A and caps G made separately from, but attachable to each other, and each provided with materials which will not of themselves ignite or explode by friction, impact or fracture, but which, by their joint action, will effect the ignition of the signal.

No. 13,396. Improvements on Nut Crackers. (*Perfectionnements aux casse noisettes.*)

Mitchell Renz, Bridgeport, Ct., U. S., 13th September 1881: for 5 years.

Claim.—1st. A nut cracker constructed of two movable jaws, joined together at their outer ends, and of fulcrumed jaws which are jointed to the opposite ends of the movable jaws. 2nd. The combination of the movable jaws which are jointed together at their outer ends, with fulcrumed handles, which are pivoted to the opposite inner ends, of the movable jaws and provided with smaller inside jaws below the fulcrum. 3rd. The combination of two movable jaws, which are pointed together at one end, with fulcrumed handles, which are provided with lugs to which the opposite ends of the movable jaws are pivoted, and with a spiral or other spring interposed between the jaws, and handles after the pressure therein is released.

No. 13,397. Apparatus for Expelling Volatile Matter from the Refuse from Rendering Tanks and from other Substances. (*Appareil à rejeter les matières volatiles des rebuts des réservoirs à gobetage en brique et des autres substances.*)

Robert D. Fowler and Robert Neill, Chicago, Ill., U. S., 13th September 1881: for 5 years.

Claim.—1st. The cylinder B, the shaft C, the arms d in combination with an apparatus for expelling volatile matter from refuse, hair or other substances, by forcing the same through pipes containing superheated steam. 2nd. The cylinder B, the shafts C, the arms d, the pulley e, the steam escape pipe h, the feed opening f, the opening g into the superheated steam pipe. 3rd. The cylinder I, the shaft J, the arms K, in combination with an apparatus for expelling volatile matter from refuse hair or other substances, by forcing the same through pipes containing superheated steam. 4th. The cylinder I, the shaft J, the arms K, the pulley o, the opening p into the discharge wheel cylinder, the discharge opening q.

No. 13,398. Improvements on Horse Collars. (*Perfectionnements aux colliers de cheval.*)

William J. Thorn, Ottawa, and Neil McIntyre, West Winchester, Ont., 13th September, 1881: for 5 years.

Claim.—1st. A horse collar composed of wooden sections A B C bent and formed as described. 2nd. The combination, with the collar sections, of the flexible connection D and clamp screws E. 3rd. The combination, with the collar halves composed of sections A B C, of the bolt F, boxing G, spiral spring I and catch H. 4th. The draft loops K attachable to the collar, the lugs attachable thereto, and passing to the rear of the outer end of the loop whereby a counteracting strain is produced to prevent a rolling movement to the collar.

No. 13,399. Improvements in Wire Stretchers. (*Perfectionnements aux tréfiliers.*)

Martin A. Howell, Chicago, Ill., U. S., and Hubert R. Ives, Montreal, Que., 13th September 1881: for 5 years.

Claim.—1st. A wire stretcher consisting of the jaws A B having eyes or ring d, handles at their rear ends, into which a ring E plays freely, said jaws A B being pivoted at their front ends, the movable jaws B having a recess into which is fitted an independent toothed segment or lug D. 2nd. A stationary jaw A provided with a shoulder and a projecting or hooked lip C, and a movable jaw B eccentrically pivoted to said stationary jaw. 3rd. In combination with an eccentric constructed of malleable or soft metal, having a recess as at D an independent or movable segment or lug of hard metal.

No. 13,400. Improvements on Churns. (*Perfectionnements aux barattes.*)

Benjamin B. Prentice, Osgood, Ont., 13th September 1881: for 5 years.

Claim.—The hangers 5 having knife edges bearing in A-grooved steel blocks I, on the bottom of the cream chambers and suspended from a frame 3 by studs 6 having knife edges, said hangers provided with loop terminations bearing on the studs.

No. 13,401. Improvements on Fire Proof Safes and Fire Proof Materials. (*Perfectionnements aux coffres forts et aux matériaux réfractaires.*)

Elizabeth A. Fowler, (Assignee of Nathaniel C. Fowler,) Boston, Mass., U. S., 13th September 1881: for 5 years.

Claim.—1st. An improved fire proof composition of non-combustible fire and magneto calcite, or silicate of soda and silicate of magnesia. 2nd. A fire-proof box or safe, lined with the improved fire-proof composition, either with or without intervening air spaces. 3rd. A fire-proof cement consisting either of silicate of magnesia and silicate of

soda, or of magneto-calcite. 4th. A fire-proof box of asbestos board in which the board is saturated with silicate of soda, and surface finished with silicate of magnesia compressed or rubbed into the asbestos board. 5th. A fire-proof box of asbestos board in which the joints and corners are rendered less susceptible to the influence of high temperatures, by the presence of powdered silicate of magnesia in silicate of soda used as cementing material.

No. 13,402. Improvements in Harvesters. (*Perfectionnements aux moissonneuses.*)

Christopher C. Bradley, (Assignee of Robert D. Warner,) Syracuse, N. Y. U. S., 13th September 1881: (Extension of Patent No. 6,572.)

No. 13,403. Improvements on Steam Engines. (*Perfectionnements aux machines à vapeur.*)

William Monk, Henry Monk, Hadlow Cove, and Charles W. Carrier, Levis, Que., 14th September 1881: (Extension of Patent No. 13,176.)

No. 13,404. Improvements on Steam Engines. (*Perfectionnements aux machines à vapeur.*)

William Monk, Henry Monk, Hadlow Cove, and Charles W. Carrier, Levis, Que., 14th September 1881: (Extension of Patent No. 13,176.)

No. 13,405. Car Wheel. (*Roue de char.*)

Charles W. Carrier, Levis, (Assignee of Adolphus Davis, Montreal, Que., 14th September 1881: (Extension of Patent No. 12,961.)

No. 13,306. Car wheel. (*Roue de char.*)

Charles W. Carrier, Levis, (Assignee of Adolphus Davis, Montreal, Que., 15th September 1881: (Extension of Patent No. 12,961.)

No. 13,407. Safety Electric Railway Signal. (*Signal électrique de sûreté pour chemin de fer.*)

David Rousseau and William C. Smith, New York, N.Y., U. S., 15th September 1881: (Extension of Patent No. 6,537.)

No. 13,408. Improvements in Water Pipes. (*Perfectionnements dans les tuyaux hydrauliques.*)

Joseph Archer, Quebec, Que., 15th September 1881: (Extension of Patent No. 1,153.)

No. 13,409. Improvements on Automatic Cradles. (*Perfectionnements aux berceaux automatiques.*)

Henry I. Hotchkiss, Berlin Falls, N. H., U. S., 1881: for 5 years.

Claim.—1st. The combination of main spring P, winding arbor D, escapement wheel E having each heel F with pawl G, double pawl I J having stubs K engaging with fixed cams L, rock shaft H carrying said pawls, and having arm M rigidly secured to pendulum rod O, connecting rod Q and post C provided with V-slot N applied to the cradle A.

No. 13,410. Improvements in Drilling Machines. (*Perfectionnements aux machines à forer.*)

Henry F. Parsons, San Francisco, Cal., U. S., 17th September, 1881: for 15 years.

Claim.—1st. A machine for drilling in rock or other hard substances having a tool holder, for holding the drilling tool, a hammer operated by a spring for striking the tool holder, a mechanism for drawing back the hammer, and then releasing it to cause the spring to throw it against the end of the tool holder, and a steadying bar by which the machine is held, and guided to its work, and upon which it is fed forward as the drilling progresses. 2nd. A spring hammer operated by mechanism to strike a succession of blows against the rear end of the tool holder and a mechanism for giving to the tool holder an intermittent rotating movement between the blows of the hammer during the operation of drilling. 3rd. In a hand operated machine for drilling in rock and other substances, a steadying bar which also serves as a guide bar and support for the drilling machine. 4th. In combination with the barrel of a rock drilling machine, which is arranged to be guided and fed forward on a steadying bar A, the friction brake for regulating the feed of the machine. 5th. The cam shaft D, having the two cranks E, held in the barrel C, and in the suitable bearings thereon and carrying the long arms V, in combination with the spring hammer K having the arms R, with their studs and friction rollers. 6th. The cam shaft having the two cranks E for operating it and carrying the short arms x, in combination with the cross head Y, the rear end of the tool or drill holder, and the coil spring S arranged and applied on the forward end of the drill holder. 7th. A barrel to hold and present the drilling mechanism, a tool holder to receive in its front end the drilling tool, and working in a bore or socket in the barrel, an operating shaft held in a bearing in the barrel for working the drilling mechanism that operates upon the tool holder, and the steadying bar on which the barrel is supported and fed forward, and the adjustable legs and supports. 8th. The tool holder L having a socket in the forward end, to receive and hold the drilling tool, and provided with spiral grooves in its surface, in combination with the ratchet face nut F having the spiral ribs or splines V in its fore to engage with the grooves in the tool holder, and held in an opening in the barrel of the machine and controlled in its rotation in one direction by a pawl u, but left free to rotate in the other direction. 9th. The spring hammer operated, in one direction or backward, by mechanism from a rotating shaft and, in the other direction or forward, by the reaction of the spring, to deliver a succession of blows against the end of the tool holding bar. 10th. The tool holding bar L having in one end the pocket to receive and hold the drilling tool, and at the other the detachable and removable striking pin p, against which the blows of the hammer K are applied. 11th. In a steadying bar, the extensible supporting log 234 adapted to be attached to the rear end of the steadying bar. 12th. In a steadying bar A, the supplemental point or bar provided with a clamp or socket by which it can be secured to the end of the steadying bar for extending its length to the front.