

described, the body having the air intakes 8, and constituting above said intake a mixing chamber, a flattened and flaring end formed upon the body as shown and described, said flattened portion being pierced with holes 15, as and for the purpose set forth. 7th. The combination, with the wick tube, of a hydro-carbon torch having the wick 13, and the nipple 5, the burner 7 adapted to fit over said wick tube, and provided with the flattened flaring and pierced outer extremity, and with the opening 8, for the admission of air, substantially as shown and described. 8th. In a device of the character described, the combination, with a suitable gas supply, of a burner, having the body of generally cylindrical shape, and provided with a nozzle broader and flatter than the body, whereby a broad and relatively thin flame is produced, substantially as set forth. 9th. In a device of the character described, a burner having an approximately cylindrical body, and provided with a nose or nozzle widened and flattened, and having its end opening narrower at its centre than at its sides, substantially as and for the purpose specified.

No. 42,551. Ice Velocipede. (*Velocipède-traineau*.)

François Xavier Nadon, River Desert, and Dr. Joseph Comeau, Maniak, all of Quebec, Canada, 11th April, 1893; 6 years.

Claim.—1st. In an ice velocipede, the combination with a frame having a runner pivoted at its rear end and a steering bar journaled in the front thereof, having a runner pivoted to its lower end and a handle bar secured to its upper end, of auxiliary runners carried one on either side of the front runner, substantially as set forth. 2nd. In an ice velocipede, the combination with the main frame carrying a runner at its rear end and a steering runner at its front, of a frame pivoted to the said main frame, a propelling wheel having a spiked periphery journaled at the rear of the said frame, a sprocket wheel secured on the axle of the said wheel, a sprocket wheel secured on the axle of the treadles, a driving chain connecting the said sprocket wheels, a guide roller carried in the front end of the said frame bearing on the upper part of the driving chain, and a guide roller secured by a spring arm to the said frame bearing on the under side of the said chain, substantially as set forth. 3rd. In an ice velocipede, the combination with a main frame carrying runners, suitable propelling gear, of the arms L, pivoted to the steering bar G, the clips I, the rods K, springs k, the upper ends of said rods passing through perforations in the handle bar and secured by set screws m, and the runners M, pivoted to the lower ends of the said rods K, substantially as set forth.

No. 42,552. Time Lock. (*Serrure à mouvement horaire*.)

Napoleon B. Rees, Eli L. Dale and Henry Zink, all of Lincoln, Kansas, U.S.A., 11th April, 1893; 6 years.

Claim.—1st. The combination in a time lock, of a locking bolt fitted to slide in a frame, a latch to engage and stop the bolt, a clock upon the said frame, a rod fitted to lift the said latch, a lever communicating between the clock and lifting rod, and a spring rod fixed at one end to the frame and projecting at the other end into the path of the clock hand, and projecting midway into the path of the said lever, substantially as set forth.

No. 42,553. Process of Amalgamating Gold and Silver by Means of Mercury. (*Procédé pour amalgamer l'or et l'argent au moyen de mercure*.)

The Noble Mining and Milling Company, assignees of Louis S. Noble, all of New York, State of New York, U.S.A., 11th April, 1893; 6 years.

Claim.—1st. The herein described process of treating ores containing gold or silver, which consists in passing the pulp successively through a body or mass of atomized mercury to form an amalgam and adding hyposulphite of soda, substantially as and for the purpose set forth. 2nd. The herein described method of treating gold and silver amalgamated with atomized mercury, which consists in applying thereto hyposulphite of soda, substantially as described whereby the atomized amalgam will be coalesced and localized.

No. 42,554. Rotary Harrow. (*Herse rotative*.)

The I. C. Wyman Company, of Boston, Massachusetts, assignees of Halsey H. Monroe, Thomaston, Maine, all in the U.S.A., 11th April, 1893; 6 years.

Claim.—1st. A rotary harrow consisting of two side harrows c, the intermediate harrow t rearwardly arranged, and wheels z arranged on the opposite sides of the latter harrow, as set forth. 2nd. In a rotary harrow the furrow openers and seed dropping mechanism, combined with the side harrows c adapted to travel in the path of the furrow openers, and the intermediate harrow t adapted to operate in a path lying on a line between the harrows c, as set forth. 3rd. In a rotary harrow the side harrow c, combined with the rearward harrow s¹ arranged to operate in a path lying on a line between the side harrows, the said rearward harrow being vertically adjustable to regulate the depth of the working in the forward, as set forth. 4th. In a rotary harrow, the combination with the harrow t, of the cross beam s, the bolt w, nuts r on said bolt above and below said cross beam, and the roller or wheel x journaled in the lower end of the said bolt and bearing on the rim of the said harrow, as set forth. 5th. In a rotary harrow the side or forward harrows c, combined with the rear harrow constructed and arranged to carry a

portion of the weight of the forward harrows, and to regulate the depth of working of the latter, as set forth. 6th. A rotary harrow consisting of the two side harrows c, the intermediate harrow, and the vertically adjustable rollers e¹, as set forth. 7th. A rotary harrow having a plough secured to the king bolt or hub upon which the harrow turns, as set forth. 8th. A rotary harrow having a vertically adjustable plough secured to the king bolt or hub upon which the harrow turns, as set forth.

No. 42,555. Grain Car. (*Char à grain*.)

Alonzo L. Whitcomb, Charles E. Castle and Harvey E. Dean, all of Great Bend, Kansas, U.S.A., 11th April, 1893; 6 years.

Claim.—The combination with a car provided at its end with an opening at the bottom, and having uprights and braces 7 and 8, and provided with an inner lining and having the outer siding, the vertical ways arranged at the side of the car, and vertically sliding door arranged to close the opening, and having its ends sliding in the ways and designed to be located between the siding and the lining, gearing for raising and lowering the door, and a pawl and ratchet for securing the door in its adjustment, substantially as described.

No. 42,556. Woven Pile Fabric. (*Tissu à poil*.)

Joseph Coley and William J. Hogg, both of Worcester, Massachusetts, U.S.A., 11th April, 1893; 6 years.

Claim.—A double faced pile fabric woven from an even number of frames of worsted warp, and having the same pattern on both sides, but each side having a different colouring, and consisting of two binding warps passing entirely through the floating worsted warps from top to bottom, and from bottom to top, and two sets of filling wefts, and worsted warps when selected appearing on coincident portions of both side of the fabric to form the loop or pile surface on each side of the fabric, and when unselected carried in the body of the fabric between the filling wefts, substantially as set forth.

No. 42,557. Sawing Machine. (*Scierie*.)

John H. Gateley, Janesville, Wisconsin, U.S.A., 11th April, 1893; 6 years.

Claim.—1st. In a circular sawing machine, the combination with a frame or table, of a shaft B, at the feed end of the table, extending nearly across the same and provided with a saw, a shaft B¹, shorter than the shaft B, provided with a saw out of line with the first saw, and a third shaft B², shorter than the shaft B¹, and provided with a saw out of line with the second saw, conveying chains working between the saws and between the sides of the table and the saws, means for imparting motion to the shaft B, and independent means for imparting motion from said shaft directly to the remaining shafts, substantially as shown and described. 2nd. In a circular sawing machine having a series of saws arranged out of line with one another, belting imparting motion to the first saw shaft, and means independent of such belting extending from said first shaft to the remaining saw shafts for imparting motion to the latter, substantially as shown and described. 3rd. In a circular sawing machine, the combination with a main frame, of a series of shafts of different lengths mounted therein, and a saw carried at the inner end of each of said shafts, the said shafts and their saws being located wholly at one side of the frame whereby an unobstructed passage is left between the inner ends of said shafts and the opposite side of the frame, substantially as shown and described. 4th. In a circular sawing machine, the combination with the table, of the series of saws arranged to act successively upon the stock, and the boarding or housing G, set up above the saws and extending from side to side and end to end of the table, substantially as shown and described.

No. 42,558. Elevator. (*Ascenseur*.)

Henry H. Day, Newton Centre, Massachusetts, U.S.A., 11th April, 1893; 6 years.

Claim.—1st. In an elevator, a car, operating cables, frames attached to shafts, doorways and to the car, mechanism in the elevator shaft and on the car, in combination with guide ways, guide rods, and cords connecting the mechanism with the guide rods to operate the cables, and stop the ascent or descent of the car, substantially as described and set forth. 2nd. The combination, in an elevator, of a car, suspended frames, vertically movable in guide ways, operating cables, vertical guide rods, spring actuated devices in the elevator, shaft and on the elevator car, supports to retain the spring devices in a compressed condition, slides, and cords connecting the slides with the guide rods to release the slides and supports to allow the spring devices to operate the cables to arrest the travel of the car when obstruction is met, as and for the purposes set forth.

No. 42,559. Reversing Gear for Steam Engines.

(*Mécanisme de renversement du mouvement*.)

David Pitceathly, Fenelon Falls, Ontario, Canada, 11th April, 1893; 6 years.

Claim.—1st. A reversing gear for steam engines, consisting of the combination of a steam chest, steam ports from said steam chest