

drops to a lower level, thus exposing said words or figures which correspond with the bell-push or button in the case of each, a hinged shelf which acts to ring a bell when any one of these slides are moved, a roller to raise these slides up again to their normal level, and an operating mechanism, as set forth. 2nd. In a mechanical annunciator, the combination, with the box A having the slides and apertures 15, the latches 13 held down by springs 6, the roller X having the crank W, and stop V, the hinged or pivoted shelf D, and the signalling mechanism of the wire 16 having the bulbs 10, the spiral springs 12 and the bell-push C in the case of each, substantially as herein shown and described, whereby the slide 15 is caused to drop to such a level as exposes its lettered or numbered half at its proper aperture in the face-plate, as set forth. 3rd. In a mechanical annunciator, the combination, with the box A, the roller X and an operating mechanism, of the wire 14 having the plate 3, the slide 15 having the ways 1, the bracket 4, the tube 5, and notch 7, whereby the said slide is raised to position after being released and allowed to drop, as set forth. 4th. In a mechanical annunciator, the combination, with the box A provided with the face-plate or dial B, the roller X, and shelf D, substantially as herein shown and described, having the bell-cord 2, of the latch 13 having the pivot 9, the hook 8 and the hole 11 through which passes the wire 16, whereby, by its bulb 10 the free end of the latch 13 is raised to release the hook and allow the slide to drop, and an operating mechanism, as set forth. 5th. In a mechanical annunciator, the combination, with the face-plate B, and the box A, of the slide 15 having the upper part of its face side lettered or numbered, and its lower part blank or painted, whereby through the aperture in the said face-plate which it continually covers may be read the words or figures upon the upper half of the slide when operated upon by the mechanism, as set forth. 6th. In a mechanical annunciator, the combination, with the box A having the dial B, the roller X, and shelf D, substantially as herein shown and described, of the bell-push C having the chain 19, the sheaves 18 and 17, whereby the motion imparted to the said bell-push C will be continued through the wire 16 to the latch 13, the slide 15, the shelf D, and the bell U through the cord 2 and an operating mechanism, as set forth. 7th. In a mechanical annunciator, the combination, with the box A having the dial or face-plate B, and roller X, substantially as herein shown and described, of the wire 14 having the plate 3 to engage with the piece 5 attached to the slide 15, whereby said slide is raised to place when desired by the rotation of the crank W, as set forth.

No. 32,180. Sling Lock. (*Loquet.*)

Samuel G. Emerson, Belleville, (assignee of William Garrett, Tweed), Ont., 2nd September, 1889; 5 years.

Claim.—1st. The combination of the spring *b* and the latch *a*, with the piece *d*, substantially and for the purpose hereinbefore set forth. 2nd. The staple K attached to the part *d*, substantially and for the purpose hereinbefore set forth. 3rd. The manner in which the ledge *p* comes under the piece *e*. 4th. The slot in the latch *a*, substantially and for the purpose hereinbefore set forth.

No. 32,181. Generating Wood Gas.

(*Production du gaz de bois.*)

Jose F. Toraya, Havana, Cuba, (assignee of John D. Averell, Brooklyn, N.Y., U.S.), 2nd September, 1889; 5 years.

Claim.—1st. In a wood gas generating apparatus, the combination, with a closed retort, of an imperforate wood carriage case having an open inner end, and adapted to removably rest in said retort, and leave heating spaces between the cartridge and inner wall of the retort, and a steam supply pipe extending into said retort between its inner wall, and the cartridge to discharge steam at or near the inner open end of the cartridge, for the purpose set forth. 2nd. The process for manufacturing wood gas which consists first in charging an imperforated cartridge with wood, then inserting said cartridge in a closed horizontal retort, then highly heating said retort, then admitting steam into said cartridge for disintegrating and softening the wood for more readily extracting the gases, then superheating and fixing the gases by passing them to the rear open end of the cartridge and back between the cartridge and the retort, and then admitting oil with the wood gas in a separate retort, substantially as described. 3rd. The process for manufacturing wood gas and its residuum, which consists, first, in charging an imperforated cartridge with wood, then inserting said cartridge in a closed horizontal retort which is highly heated, then admitting steam into said retort, and cartridge for disintegrating and softening the wood for more effectually extracting the gases therefrom, then superheating and fixing the gases by passing them to and through the rear open end of the cartridge, and from there forward between said cartridge and the wall of the retort, and finally, after the gases are extracted from the charge to open the retort and extracting the cartridge quickly, sealing its open end and smothering the residuum while closed from the air, substantially as and for the purpose set forth.

No. 32,182. Grain Drill. (*Semoir en ligne.*)

Charles Fockler, Dubuque, Iowa, U.S., 2nd September, 1889; 5 years.

Claim.—1st. In a seeder, a series of independent levers B pivoted on a transverse bar of the frame, each provided with a toothed segment and a pawl, and connected severally to the runners by rods and springs, substantially as described. 2nd. In combination with the main lifting bar A, a series of levers B pivoted thereon, and connected severally to the runners, toothed segments on the bar A to hold the pawls of the levers B, and a lever and pawl on the bar A, with toothed segments on a frame, where all of the runners may be moved separately or all together, substantially as described. 3rd. In combination with the runners or shoes of a seeder, the presses, wheels, and the spring-rods connecting the wheels and runners, all substantially as described. 4th. In combination with the presses, wheel and runner of a seeder, a spring connecting rod, said spring rod having its end connected adjustably to the runners or fluke whereby the pressure

may be regulated, all substantially as described. 5th. In combination with the presses, wheels and runners, the spring connecting rod C, coiled about the stud F, and having its end projecting beyond said stud, and bearing on a fastening device, all substantially as described. 6th. In combination with the wheels and runners of a seeder, of the spring rod C, one upon each side of the wheel, the spring rods having a spring coil between the wheels and runners, substantially as described. 7th. The series of levers B mounted upon the main adjusting bar, and rods H, having spring 4, and lugs upon the fluke to receive lower ends of the rods H, whereby the runners *m*, in whatever position, are always the same pressure, substantially as described.

No. 32,183. Electric Drill. (*Foret électrique.*)

Imle E. Storey, Boulder, Col., U.S., 2nd September, 1889; 5 years.

Claim.—1st. In an electric drill, a main frame provided with tracks or ways and having an upwardly-extending water reservoir, a supplemental frame mounted within the main frame, adapted to slide back and forth the full length of the main frame, an electric motor and its main shaft mounted in said supplemental frame, the said shaft of the motor being hollow and extending through both ends of the main and supplemental frames and entering the water chamber, and a drill tool attached to the end of the shaft opposite the water chamber, substantially as described. 2nd. A main frame, provided with a water chamber, in combination with supplemental frame adapted to slide within said main frame, and an electric motor mounted within said supplemental frame, the shaft of the frame being hollow and extending beyond said supplemental frame, and entering the water chamber in said main frame. 3rd. The combination, with the sliding frame carrying the rotating tool, of a pair of friction discs and suitable worm gearing geared to the rotary shaft and to the sliding frame, in such a manner that the rotation of such shaft will cause the sliding movement of said frame, as set forth.

No. 32,184. Ratchet Drill. (*Foret à rochet.*)

Peter R. Erickson, Ishpeming, Mich., U.S., 2nd September, 1889; 5 years.

Claim.—1st. The combination, with a spindle, a chuck secured at one end, having an inner toothed surface, a detachable cap at the other end, provided with an inner toothed surface, a supporting device carried by the cap and collars loosely mounted upon the spindle, of a housing toothed rings interiorly secured to the same, a shifting lever pivoted in the housing, and means, substantially as described, for actuating said lever, as and for the purposes set forth. 2nd. The combination, with a spindle, a chuck secured at one end having an inner toothed surface, a detachable cap at the opposite end, provided with an inner toothed surface, a supporting device carried by the cap and collars loosely mounted upon the spindle of a housing, toothed rings interiorly secured to the same, a bifurcated shifting lever pivoted in the housing, an actuating dog engaging said lever, and means, substantially as described, for manipulating and controlling the dog, as and for the purposes herein set forth. 3rd. The combination, with a spindle, a chuck secured at one end of the spindle, having an inner toothed surface, a detachable cap held upon the opposite end of said spindle, provided with an inner toothed surface, a supporting device carried by the cap and collars loosely mounted upon the spindle of a housing, toothed rings interiorly secured to the same, a bifurcated and recessed shifting lever pivoted in the housing, an actuating dog engaging said lever, a handle secured to the housing, containing a spring, and a shouldered pin bearing upon said spring and against said dog, substantially as and for the purposes herein set forth. 4th. The combination, with a hollow interiorly-threaded spindle, a chuck secured at one end of said spindle, having an inner toothed surface, a detachable cap secured at the other end of said spindle, having also an inner toothed surface, a supporting device sustained by said cap and collars loosely mounted upon the spindle of a housing, provided with a slot in one face, toothed rings interiorly secured to the same, a bifurcated shifting lever pivoted in the housing, an actuating dog engaging said lever, a headed pin attached to said lever and projecting through the slot in the housing, a handle attached to the housing, a spring coiled in said handle, and a shouldered pin resting upon said spring and bearing against the dog, substantially as shown and described.

No 32,185. Churn. (*Baratte.*)

William A. Martin, Milltown Lot, P.E.I., 2nd September, 1889; 5 years.

Claim.—1st. The combination of the multiplying gear A, crank B and pitman C, with the churn staff and dash, substantially as and for the purposes hereinbefore set forth. 2nd. The combination, with the churn, churn-staff, multiplying gear, crank and pitman, of a removable frame D, substantially as and for the purposes hereinbefore set forth. 3rd. The combination, with the main fixed dash G, of one or more other movable dashes G', G'', etc., on the same staff, substantially as and for the purposes hereinbefore set forth.

No. 32,186. Electric Drinking Vessel.

(*Vaisseau électrique pour boire.*)

Frederick W. Flint, Mount Airy, Ga., U.S., 2nd September, 1889; 5 years.

Claim.—1st. A drinking vessel, constructed partly of a non-conducting and partly of a conducting material, and provided with a suitable battery connection, the said vessel being adapted to contain a beverage or liquid, which will serve in connection with the said vessel as an electrode for establishing a circuit through the body or system of the drinker when imbibed, substantially as specified. 2nd. A drinking vessel, constructed partly of non-conducting material, and partly of conducting material, the latter having a suitable battery connection, in combination with an electrode applied to the handle thereof, whereby an electric current may be established