

No. 11,811. Improvements on Saw-Mills.*(Perfectionnements aux scieries.)*

Daniel Cilley, Grand Rapids, Mich., U. S., 23rd September, 1880; for 5 years.

Claim.—1st. A reciprocating saw or gang, the swinging upper guides, in combination with mechanism for imparting a swinging movement in one direction to the saw and supporting it in rake, leaving the saw and its frame free to be returned or thrown out of rake in its ascent by the movement of the log. 2nd. The swinging upper guides, in combination with eccentrics terminating in concentric cams, and steps or shoulders adapted to act directly upon such guides to push them forward, hold them and leave them. 3rd. The rake producing, holding and releasing device of a saw, consisting of the cross shaft B carrying at or near each end of a double eccentric *b b*, a double cam *b₁ b₂* and dividing steps or shoulders in one and the same device, in combination with the upper saw guide A, pivoted as described, and provided with an arm or downward projection *e* against which the said eccentrics, cams and projections act. 4th. The combination of the upper pivoted guides, adapted by devices for free forward and backward movements, at their lower ends, with stops arranged to limit the forward movements of said guides. 5th. The combination of the upper pivoted guides adapted for free forward and backward movements, at their lower ends, with adjustable plates *c* over which the free ends of the guides lap, and which carry the cross shaft B, of the cam eccentrics and the front stops G G for co-operation with said free ends of the guides. 6th. The adjustable side plates *c* supported as described, and provided with the front stops G G, in combination with the cross shaft B carrying the cam eccentrics *b b₁*, the cross shaft D having the rake adjusting eccentrics *f f*, and the upper saw guides A adapted for co-operate in relation to each other, whereby the adjustment of said plates by the eccentrics *f f* to regulate the rake of the saw carries with said plates the rake producing, holding and releasing devices independent of the frame, with which the rake adjusting devices D *f f* has a fixed relation. 7th. The combination, with the upper saw guides pivoted as described, and the rake producing, holding and releasing cam eccentrics *b b₁* adapted to operate directly upon the free lower ends of said guides, of suitable gearing connecting the shaft B, of said cam eccentrics with the main driving shaft of the saw in a manner to allow the said cam eccentric shaft to be adjusted with the slides *c c* which carry it without interrupting said gearing connection.

No. 11,812. Improvements on Cigarette Machines.
(Perfectionnements aux machines à cigarettes.)

James A. Bonaack, Bonaacks, Va., U. S., 23rd September, 1880; for 5 years.

Claim.—1st. A feed device for a cigarette machine consisting of an endless travelling belt spaced into aliquot parts, a roller distending one end of the belt, and a curved table placed beneath the upper section of the belt and having a curved end for distending the other end of the belt. 2nd. A device for transferring and distributing the tobacco in a cigarette machine consisting of a roughened surface feed roller, a roller covered with card cloth, a concave fitting down into the space above the tangential point of these rollers, and a stripping roller. 3rd. The combination with two endless feeding belts, of a reciprocating carrier placed between the two belts and adapted to transfer the stock with a spreading or scattering action. 4th. The combination, with two endless feeding belts A D, of a reciprocating carriage or frame carrying an endless transferring belt C. 5th. The method of forming cigarettes in a continuous roll, which consists in rolling the tobacco in a continuous roll, then rolling this in a paper envelope and finally cutting this roll into definite lengths. 6th. The mechanism for forming the tobacco in a continuous roll, consisting of a travelling belt and a tapering compressing tube adapted to encompass the belt and roll up the same with its contents while it is passing through. 7th. The combination with the endless belt and the tapering rolling tube, of a feed wheel arranged to impart positive movement to the roll as it passes through and prevent choking. 8th. An endless belt and a tapering rolling tube enclosing a portion of said belt for rolling the tobacco in a continuous roll, in combination with a second endless wrapping belt adapted to receive and carry both the paper strips, and the tobacco roll, and a second rolling and wrapping tube. 9th. The tapering wrapping tube formed with a spiral guide for one edge of the belt, opening into a slit having a flanged lip *b₁* and then closed again, in combination with a belt carrying the paper and passing through said tube, a pasting device located at the slit in the tube and applying paste to the edges of the paper. 10th. The combination, with the belt and paper wrapping tube having slit with flange *b₁*, of a pasting wheel or brush I, a right angular paste delivering wheel *l*, a paste reservoir *l₁* located above the same and having a screw plunger, and the worm gears I₁ B actuating the plunger to force out the paste. 11th. The cutting devices consisting of the holding tube J and the circular knife J₄ having a rotary movement about its own axis, and also a rotary movement about a secondary axis. 12th. The combination with the revolving cutting knife, of a set of differential gears for actuating the same with a more rapid movement while in action than during the rest of its stroke. 13th. The combination, with the holding tube J, of the shaft J₇ having arm J₁, tubular bearing J₂, shaft J₃, cutting disc J₄, driving wheel J₅ and segmental track J₅. 14th. The combination, with the knife of a cigarette machine, of an endless belt for receiving the cigarettes spaced into divisions and a mechanism connecting the knife with the belt, so that a number of movements of the knife effects a definite movement of the belt for counting cigarettes placed therein.

No. 11,813. Improvements on Washboards.*(Perfectionnements aux planches à savon.)*

Frank B. Howard, Etchemin, Que., 27th September, 1880; for 5 years.

Claim.—The alternate depressions D and elevations C, with intermediate space E forming zig-zig grooves X X.

No. 11,814. Improvements on Nut Locks.*(Perfectionnements aux arrête-noix.)*

Dosthé Duprat, Ste. Scholastique, Que., 27th September, 1880; for 5 years.

Claim. 1st. The combination with bolts and nuts for fish plates and nut locks, the nut lock plate D having nut locks E raised by the key F circumferentially and radially around the bolt and nut. 2nd. In combination with

the nut lock plates D having nut locks E, circumferentially and radially raised around the nut C, the key F.

No. 11,815. Improvements on Lifting Jacks.*(Perfectionnements aux crics.)*

Hiram R. Ferris, Cleveland, Ohio, U. S., 27th September, 1880; for 5 years.

Claim. 1st. A lifting shaft having a mutilated screw thread in combination with a nut also having a mutilated screw thread, whereby the nut can be made to engage with and disengage from the lifting shaft. 2nd. The combination of the lifting shaft B provided with a mutilated screw thread, nut C also provided with a mutilated screw thread, and the nut F adapted to turn upon the shaft B and support the weight thereon by resting upon the standard A. 3rd. A lifting shaft having a mutilated screw thread.

No. 11,816. Improvements in Explosive Compounds.
(Perfectionnements aux composés explosibles.)

Alfred Monnier, San Francisco, Cal., U. S., 27th September, 1880; for 5 years.

Claim.—1st. The improvement, in explosive compounds containing chlorate of potassa, consisting in the addition of coal tar or other tarry matter, and its incorporation with the explosive mixture, so as to surround the particles of chlorate and provide an elastic and permanently soft cushion, and thus segregate the particles of chlorate from one another. 2nd. The described process or method of making explosive compounds containing chlorate of potassa as a base consisting first, in dissolving in water the chlorate of potassa and soluble substances, and adding thereto the other insoluble ingredients, which absorb more or less of the soluble substances and form the body of the compound; secondly, in crystallizing the dissolved salts and simultaneously incorporating the crystals with the insoluble particles by evaporation and agitation, then grinding the mass and thereby reducing the insoluble substances; and, lastly, in incorporating coal tar or other tarry matter, by heating and kneading the entire mass as specified.

No. 11,817. Improvements on Neck Yokes.*(Perfectionnements aux jouguets.)*

Charles C. Keeue, Marengo, Iowa, U. S., 27th September, 1880; for 5 years.

Claim.—The recess pole A, provided with the ferrule a having a shoulder or abutment *a₁* and opening *a₂*, and the spring top or button C, in combination with the neck yoke B having a tapering collar or sleeve D connected thereto by a double swivel joint.

No. 11,818. Improvements on Glass Bottles.*(Perfectionnements aux bouteilles de verre.)*

Leslie E. Keeley, Dwight, Ill., U. S., 27th September, 1880; for 5 years.

Claim.—The nearly semi-circular body A having the broad rectangular back C, neck portion D and mouth E provided with the tip F.

No. 11,819. Improvements on Perspective Drawing Apparatus.
(Perfectionnements aux appareils à dessiner en perspective.)

George Rosquist, Brooklyn, N. Y., U. S., 27th September, 1880; for 5 years.

Claim.—1st. The combination, with a sight piece F and a drawing surface A, of a pantograph G arranged to present its tracing point *g₂*, for use as the arm piece between the sighter and the object, to trace the latter while the drawing point *g₁* reproduces the fac-simile visible upon the drawing surface A. 2nd. The combination of the drawing board A and transparent tracing board B, adjustable as to inclination, with the sight piece F and with the pantograph G, adjustably connected to the board A. 3rd. The transparent tracing board B provided with the adjustable sight F, to facilitate the sketching of objects on the said board B by a pencil or other point *g₂*.

No. 11,820. Improvement on Horseshoe Nails.*(Perfectionnement au clou à cheval.)*

Caleb M. Talcott, Hartford, Aaron W. C. Williams, Brookfield, and George J. Capewell, Cheshire, Ct., U. S., 27th September, 1880; for 5 years.

Claim.—1st. An ordinary horseshoe nail provided with bars, or serrations which resist its withdrawal from the hoof. 2nd. A horseshoe nail having its edges provided with bars, or serrations which have transverse ridges or grooves in their inclined faces, said ridges or grooves being adapted to resist a loosening movement either forward or backward. 3rd. A half length horseshoe nail having its edges provided with bars, or serrations which have transverse ridges or grooves in their inclined faces, said ridges or grooves being adapted to resist a loosening movement, either forward or backward.

No. 11,821. Improvements in Wind-Mills.*(Perfectionnements aux moulins à vent.)*

Henry Helmka and James Clark, Brownsville, Ont., 27th September, 1880; for 5 years.

Claim.—The combination of the bucket B, and counterpoise C, (by means of the float e, tap beam *k*, tap *b*, rope or chain H, lever F, sliding clutch G, and arms *h h h h*) and the regulating springs *f f*, with the sails E.

No. 11,822. Improvements in Street Signs.*(Perfectionnements aux enseignes des rues.)*

Edwin J. Hardy, Buffalo, N. Y., U. S., 27th September, 1880; for 15 years.

Claim.—The combination of two plates B connected together and arranged at an angle to each other, a circular clasp consisting of a body portion *f* and a locking portion *q* connected together by locking devices *h i m*, and rods *h* or arms *d* provided with branches or bars *e*, whereby both plates B are rigidly connected with the body *f* of the clasp.