

No. 11,985. Improvements on Cane Shaving Machines. (*Perfectionnements aux machines à doler la canne.*)

George S. Colborn, Garden, Mass., U. S., 15th November, 1880; for 5 years.

Claim.—1st. The cutting disk A, sleeve a, gear a₁, stud a₂ and pin a₃, in combination with the worm shaft c. 2nd. The combination of the cutting disk A, recessed sleeve a, gear a₁, stud a₂ and pin d, in combination with worm shaft c.

No. 11,986. Improvements on Machines for Scraping and Stripping Rattan. (*Perfectionnements aux machines à raser et fendre le rotin.*)

George S. Colborn, Gardner, Mass., U. S., 15th November, 1880; for 5 years.

Claim.—1st. The combination of a feed wheel a₁ provided with the cutters a, with the mouth-piece a₂ provided with a feedway substantially parallel with the main feedway A. 2nd. The combination of the revolving cutters a secured to the under side of the feed wheel a₁ or to the shaft operating it, the horizontal table a₃, the wall a₄ extended around the inner edge of the table, and the mouth-piece a₂ provided with a feedway, all arranged in relation to each other, and in relation to the feedway A of the rattan machine. 3rd. The combination of two guides b₁ supported upon the posts b₂, pivoted as described and provided with the arms b₃, with the spring b₄. 4th. The combination of two guides f supported upon the posts f₁, each of which is provided with the arm f₂ having a projecting bar f₃, which come in contact and are somewhat rounded upon their contacting ends and the springs f₄. 5th. The combination of a centering device consisting of the two guide rolls b₁ adapted to be moved to and from each other, with the scraping knives c adapted to be set or opened before the feeding of the cane, and to be closed automatically upon the outward movement of either of the two guides by connecting mechanism. 6th. The scraping knives c arranged in successive pairs in such a manner as to entirely encircle the cane, and adapted to be separated and held apart before the feeding of the cane, and to be automatically closed upon the extreme end of the cane, by suitable spring, which springs are thrown into operation by the mechanism described and which also provide the knives with a yielding adjustment when closed. 7th. As a means for setting or opening the scraping knives preparatory to the feeding of the cane, the combination of the knives c, their supporting block c₁, each provided with the pins d₁, the cam disk D₂ provided with the arm d₂, with the lever d₃ and the latch e. 8th. The combination of the knives c arranged to be opened by the mechanism described and held open against the stress of the springs c₁ by means of the latch e, with the guides b₁ arranged in front of said knives and adapted to move the latch e upon the contact of the front end of the cane therewith, whereby the knives are closed upon the extreme end of the passing cane. 9th. The combination of the disk D₂ provided with the cams or inclines d and the arm d₂, the knife supporting block c₁ and springs c₁, with the latch e and operating lever d₃. 10th. The combination of the adjustable tripping block e₁, its supporting bar e₂ and post e₃, all arranged to be operated by the movement of one of the guides b₁. 11th. The combination of the latch e adapted to automatically engage with and hold the arm d₂ projecting from the disk carrying the cams or inclines operating the knife supporting blocks, with the wedge-shaped block e₂ adapted to engage with said latch and to be operated by the movement of one of the guides. 12th. The combination of a support fastened to the pivoted post carrying one of the guides b₁ and movable therewith, with the bar e₄, tripping block e₁ and latch e. 13th. The combination of the stripping device for removing the exterior of the cane from the pith, the feeding rolls for advancing the pith to the receiving and transferring chamber, and the said receiving and transferring chamber M, adapted to be revolved as described. 14th. The combination of the roll m, provided with the chambers M, arranged at the end of the machine and adapted to receive the pith in the manner indicated, with the described means for intermittently revolving the roll. 15th. The combination of the roll m provided with the chambers M partially inclosed by the box m₁, with the curved arms or cradle m₂, and means for revolving the roll. 16th. The combination of the roll provided with the pith receiving chambers M adapted to be successively brought in line with the feedway of the rattan machine, with the lever d₃, and the connecting mechanism described. 17th. The combination of feeding rolls for advancing the cane to a centering device and scraping knives arranged to be opened and held open, and to be automatically closed upon the rattan feeding rolls for advancing the cane to a centering device and stripping mechanism, and a roll provided with the chambers for receiving the pith and for delivering it from the machine.

No. 11,987. Improvements on Harness Buckles. (*Perfectionnements aux boucles de harnais.*)

James A. Gavitt and Malcolm S. McQuarrie, Walla Walla, Washington Ty., 15th November, 1880; for 5 years.

Claim.—1st. A harness buckle having a hinged tongue provided with a prong and with a spring catch or device for holding it closed. 2nd. A frame whose front cross bar is provided with a recess i and lateral notches n, and the hinged tongue whose free end is adapted to enter such recess, and having a spring locking device whose free ends enter said notches. 3rd. The recessed buckle tongue of the wire spring catch having lateral bends, and arranged with its free ends projecting beyond the end of said tongue, in combination with the buckle frame whose front cross bar has a recess and notches to receive the ends of the tongue and spring.

No. 11,988. Process for the Manufacture of Iron. (*Procédé pour la fabrication du fer.*)

Thomas J. Deakin, Columbia, Pa., and Willard T. Block, Hannibal, Mo., U. S., 15th November, 1880; for 5 years.

Claim.—The forming of an open pile of steel bars, and heating the same in any suitable furnace to a temperature somewhat short of a proper welding heat, then arresting the heat at this point by the admission of air into the furnace, and covering the pile and more or less of the bed of the furnace with iron turnings, then increasing the heat to a full welding temperature, and rolling the pile upon the bed of iron turnings until the softened surface of

the pile is completely coated with the said turnings, and then removing the coated pile from the furnace, and welding it by hammering or rolling.

No. 11,989. Improvements on Car-Couplers. (*Perfectionnements aux attelages des chars.*)

Archibald Cron, Brantford, Ont., 15th November, 1880; for 5 years.

Claim.—1st. The coupling pin B passing through the slot b, in combination with the plate C, pivoted at or to the drawhead A. 2nd. The pivoted plate C carrying the pin B and provided with a bracket K, supporting the pivoted wing d, in combination with the vertical supporting rod D. 3rd. The vertical rod D, pivoted to the bracket E, and connected to the horizontal bar F, in combination with the link G, eccentric H and spindle I, operated by the crank handle J. 4th. The pivoted plate C for carrying the pin B, in combination with the eccentric H or the spindle I. 5th. The pivoted plate C, supported by the rod D and operated as described, in combination with the pin B and link L. 6th. The slotted plate C, pivoted at a to the drawhead A, and pivoted with a bracket K, for carrying the pivoted wheel wing d, in combination with the rod D pivoted on the bracket E and connected to the link G by the box F, the eccentric H and spindle I provided with a handle J.

No. 11,990. Improvements on Gas Machines. (*Perfectionnements aux machines à gaz.*)

Edward Pincus, (Assignee of Abel Henning,) Philadelphia, Pa., U. S., 15th November, 1880; for 5 years.

Claim.—1st. The generator J, having inlet c, in combination with plunger H, provided with valve f₁, internal cylinder c, having openings f f, and a heating device acting on said generator. 2nd. The generator J in combination with the valve R, and with the cross head T, resting freely on the cap T₁, and having connected to it the arms S₁ U. 3rd. The combination of holder B having stem D₁, with generator J, plunger H, rod G and lever F. 4th. The holder B with air inlet and outlet pipes C D, the holder L with air inlet and outlet pipes M N, the connecting pipes M₁, the chamber E, generator J, plunger A and lever F. 5th. The air holder B and pump connection Y, in combination with the pulley W having a dog W₁, and the dog X, arm X₁, and toggle X₂. 6th. The plunger H and holder B, in combination with the lever F and shaft D₁ having the link connections a. 7th. The holder L in combination with the inlet pipe M and the external spring b₁ on the guiding stem of each holder.

No. 11,991. Improvements on Journal Lubricators. (*Perfectionnements aux graisseurs des tourillons.*)

Frederick Crocker, sr., Olean, N. Y., and Charles D. Robbins, Titusville, Pa., U. S., 15th November, 1880; for 5 years.

Claim.—In a device for lubricating enclosed journals of machinery, the cup F or follower M, the space between the cup or follower and the journal, being filled with raw or unrendered animal fat, the whole being held against or in contact with the journal B by spring H.

No. 11,992. Improvements on Thrashing Machines. (*Perfectionnements aux machines à battre.*)

Thomas Ventling, Warwick, Ont., 15th November, 1880; for 5 years.

Claim.—In combination with the shoe B of a thrashing machine, the board A drilled full of holes a, and operated by pitman C and belt D, from any of the shafts b of the machine.

No. 11,993. Improvements on Mowers and Reapers. (*Perfectionnements aux faucheuses-moissonneuses.*)

Ephraim Smith, Pittsburg, Pa., U. S., 15th November, 1880; for 5 years.

Claim.—1st. A frame made of a single piece of L-angle steel or iron, formed and strengthened at the corners. 2nd. A spring sheave H in combination with the finger bar D, hinge bar E, chain band or cord G, and supporting and adjusting part K. 3rd. A lever M pivoted to the hinge bar E, in combination with the finger bar D and supporting and lifting chain G. 4th. The combination of the finger bar D, hinge bar E, chain band or cord G, spring sheave H supporting and adjusting part K and lever M.

No. 11,994. Improvements on Mowers and Reapers. (*Perfectionnements aux faucheuses-moissonneuses.*)

Frederick J. Hayard and Thomas Fuller, Belleville, Ont., 15th November, 1880; for 5 years.

Claim.—The combination of the shaft G, pitman crank H, and the pitman J, with the rollers E, and corrugated groove d of the driving wheel D.

No. 11,995. Improvements in Marking Pens. (*Perfectionnements aux plumes à marquer.*)

James W. Stokes, Milan, Ohio, U. S., 15th November, 1880; for 5 years.

Claim.—1st. The two broad pointed flexible blades a b of equal length and operating from either side. 2nd. The two broad flexible blades a b, each differently grooved at the inner face of the point, whereby different shadings can be given by turning the pen over.

No. 11,996. Improvements on Feed Water Injectors. (*Perfectionnements aux injecteurs de l'eau d'alimentation.*)

James Jenks, Detroit, Mich., U. S., 15th November, 1880; for 15 years.

Claim.—1st. The combination of the steam chest K with the suction and force nipples a c, such nipples being at right angles to each other and with their axes in direct line with the inflowing and outflowing water. 2nd. The chamber M communicating with the lifting injecting and forcing injecting tubes, in combination with the valve O and a passage to the open air for a discharge of water. 3rd. The suction nipple having direct communica-