

pawls *g g* and racks *A A*; 2nd. The standard *A*, pulley *B*, vertical bar *C*, circular saws *D D*, collars *a a*, rods *b b d d*, head blocks *E E*, cog wheels *f f*, pawls *g g* and racks *A A* in combination with the circular saw *G*; 3rd. In sawing lumber, the combination of circular saws *D D G*, the former being vertically adjustable and cutting at right angles to the latter, for the purpose of producing joists, boards, &c., of any required width and thickness at one operation.

No. 10,518. Process of Cleansing Millstones. (*Procédé pour nettoyer les meules.*)

Harvey B. Varns and James P. Willett, Washington, D. C., U. S., 7th October, 1879, for 15 years.

Claim.—1st. The mode of cleansing millstones with hydrofluoric acid; 2nd. In cleaning millstones, hydrofluoric acid in any of its compounds.

No. 10,519. Improvements on Wheel Hubs. (*Perfectionnements aux moyeux des roues.*)

Apollon Merriek, Fulton, N. Y., U. S., 7th October, 1879, for 5 years.

Claim.—The arrangement and combination of the body or barrel *A*, flange *B* and fillets *C* with the removable flange *E* and bolts *F*.

No. 10,520. Grain Separator. (*Séparateur des grains.*)

Lyman Morgan, Port Washington, Wis., U. S., 7th October, 1879, for 5 years.

Claim.—1st. In a cookie separator, a table set horizontally and arranged to be shaken and horizontally revolved at the same time; 2nd. A horizontally placed concave or conical table constructed in sections, each formed with cavities and arranged to tilt separately for emptying the impurities; 3rd. The combination of the table formed in sections, shaft *D* and cam *H*; 4th. A series of trays formed with indented floors and pivoted between the hub *O* and rim *P*; 5th. The combination of the frame *A*, vibrating frame *B* and revolving table.

No. 10,521. Improvements on Horse Rakes. (*Perfectionnements aux râteliers à cheval.*)

Dennis P. Sharp, Ithaca, N. Y., U. S., 7th October, 1879, for 5 years.

Claim.—1st. The combination, with the rims *J J* attached to the driving wheels, of the shafts *I I*, mounted upon or connected with the rider bar, and connecting directly with said rims for the forked heads *g g* of said shafts; 2nd. The combination of the rims *J J*, attached to the driving wheels, the rock shafts *I I*, mounted upon or connected with the rider bar and provided with forked heads embracing said rims, the crank *h*, connection *i* and foot lever *k*; 3rd. The combination, with the rock shafts *I I* and rider bar *F*, of the swinging links *K K* pivoted to the rider bar and supporting the rock shafts; 4th. The combination, with the clearer bar *L* and thills *E E*, of the links *n n* and *o* connecting said clearer bar, respectively, with the thills and the rake head, and so arranged as to cause said clearer bar to move inward and downward as the rake teeth are raised.

No. 10,522. Improvements on Shingle Machines. (*Perfectionnements aux machines à barder.*)

William Goldie, Fentonville, Mich., U. S., 7th October, 1879, for 5 years.

Claim.—1st. In a shingle or veneer cutting machine, the combination, with the cutting knife, of a pressure-bar in rear of the same having a movement away from the knife when the cut is completed; 2nd. In combination with a vertically reciprocating cross-head, the cutting blade or knife, recessed upon its outer face and in the upper half thereof, and provided with bearers; 3rd. The compression roller consisting of a shaft upon which are alternately sleeved larger and smaller rings; 4th. In combination with a vertically reciprocating cross-head, carrying a cutting knife, and with a compression roller, a series of fingers; 5th. A wood cutting machine provided with an automatic locking intermittent feed and, in combination therewith, a cutting knife and a compressing device; 6th. A wood cutting machine with an intermittent feed and adapted to alternately cut the tip and butt of a shingle from a bolt and, in combination therewith, a knife and compressing device; 7th. In a shingle cutting machine, the laterally reciprocating slide *P*, provided with a T shaped slot *m* and actuated by cams *O* upon the shaft *N*, for giving motion to the head block, when desired, and to discontinue such motion, when necessary; 8th. A cross-head *E* having a vertically reciprocating motion and carrying a cutting knife, compression roller or bar and a slotted shield; 9th. In a shingle machine wherein the shingles are cut with a knife, a compression roller or bar, the axis of which will be in rear of and below the plane of the cutting edge of the knife; 10th. In combination with a vertically reciprocating knife and a series of fingers, the throat for the discharge of debris; 11th. The combination, with the main driving shaft, of the bevel wheels *f g*, pinion *h* and shaft *M*, for the purpose of communicating motion from said driving shaft to the feed mechanism.

No. 10,523. Improvements on Churn Powers. (*Perfectionnements aux moteurs des barattes.*)

Albert Switzer, Nepean, Ont., 7th October, 1879, for 5 years.

Claim.—1st. The combination, with the frame *A*, of the shafts *B C* geared to the wheels *H I*, power wheel *E*, having anti-friction roller or stud *J*, horizontal bar *K* with longitudinal groove, receiving said roller secured to block *L* sliding in vertical guides *M M* and connected to working beam *O* by rods *N N*; 2nd. The combination, with the shaft *B* and crank handle *D*, of the arm *R*, curved rods *S T* and radial arm *u*; 3rd. The working beam *O*, composed of bars *a b* endwise connected by intermediate block *d*, the bar *a* receiving the fulcrum bolt and the bar *b*, the eye to which the operating rods *N N* are connected, the ends of the bar *a b* projecting over the said rods; 4th. The bent slotted casting *c*, secured to the working beam *O* for suspending the dasher shaft *Q* by a bolt; 5th. The dasher *W*, on shaft *Q*, constructed of a central hub *g*, rectangular spokes *A*, set anglewise, and a circumferential flat ring *i*, said spokes being beveled to produce spaces *k* with parallel sides.

No. 10,524. Cast Iron Skylight. (*Lunette de toiture en fonte.*)

Emil Vogelsang, Berlin, Ont., 7th October, 1879, for 5 years.

Claim.—1st. The flange *B B*, rim *E E* forming water channels *F F* by raising channel rims *N N*; 2nd. The sash *H*, hinged to posts *J J* and supported by supporter *G* and fastened by pin *M*.

No. 10,525. Improvements in Paper Files. (*Perfectionnements aux serre-papier.*)

John J. Christie, Henderson, Tenn., U. S., 7th October, 1879, for 5 years.

Claim.—1st. The clip composed of the concave head *A*, the oval springs *B*, secured to said head, and the clamps *C* extending the length of the clip head and secured each to a leg of the spring; 2nd. The combination, in a paper file, with the head *A*, oval springs *B* and clamp jaws *C*, of the plates *D D*, pivoted to the said jaws, the former having the eye *b* and slot *c*, and the latter, the pin *i* working in said slot.

No. 10,526. Improvements on Axle and Journal Boxes. (*Perfectionnements aux boîtes d'essieux et de tourillons.*)

William L. Eveland, Fingal, Ont., 7th October, 1879, for 5 years.

Claim.—An axle, or journal box, having interior annular grooves *E*, intervening recessed space *F* and an inserted rotary frame constructed of rings *C* with projecting edges travelling in the guide grooves *E*, and rollers *D* running on the plain cylindrical surfaces *F* and journalled in the rings.

No. 10,527. Improvements in Reaping Machines. (*Perfectionnements dans les moissonneuses.*)

Jeptha Garrard, Cincinnati, O., U. S., 7th October, 1879, for 5 years.

Claim.—1st. The combination of a hinged rake, rake stale, moving lever, spring and a lug on the rake cam frame; 2nd. In a sweep rake, a rake head hinged to and vibrating on its stale, so as to impart an accelerated movement to the heel or inner end of the rake, while moving the grain from the platform; 3rd. The combination, with a grain platform and a sweep rake, of a gaveling platform, consisting of one or more vibrating sections, an inclined slotted guard and a seat, or support for the binder, located facing and in close proximity to the slotted guard, so as to bring the binders laps in position to receive the grain; 4th. The combination of a supplemental platform, composed entirely of vibrating fingers, with a sweep rake and a main platform upon which the grain accumulates in the intervals of motion of the supplemental platform, and from which it is delivered upon and transversely to said vibrating fingers in their intervals of rest; 5th. In combination with the grain platform of a harvesting machine and a sweep rake, a gaveling platform, having two or more vibrating consecutively acting parts working in an open frame; 6th. In the combination of a grain platform, a sweep rake, a vibrating gaveling platform and a slotted shield; 7th. The combination of a main platform and sweep rake delivering the grain, in a horizontal path, to one side of a supplemental platform, transverse thereto, delivering the grain in the direction of motion of the machine, and a seat, or support for the binders, located behind the main frame or delivering wheels of the machine.

No. 10,528. Manufacture of Albumen. (*Fabrication de l'albumine.*)

Tolf O. Alsing, Koping, Sweden, 7th October, 1879, for 5 years.

Claim.—1st. A commercial albumen made from fish spawn; 2nd. The process for manufacturing commercial albumen, viz.: by the washing, crushing, extraction, separation and evaporation of fish spawn.

No. 10,529. Improvements on Feed Cutters. (*Perfectionnements aux coupe-paille.*)

William A. Rife, Valley Mills, Va., U. S., 7th October, 1879, for 5 years.

Claim.—1st. The frame of the straw cutter composed essentially of the legs *a*, casting *b i*, spider *c* and connecting bolts, the box for the shaft *f* being made in the two castings; 2nd. The combination of the shaft *f*, box *j* and the feed mechanism, the feed being connected to the end of the shaft; 3rd. The combination of the shaft *f*, disk *h*, plate *r*, connecting rod and the feeding device; 4th. The feed device *t* having the pronged extensions *v*, fixed prongs *x* and operating mechanism, the parts being combined as specified; 5th. The curved knife *l* in combination with the supports *o d*.

No. 10,530. Improvements in Washing Machines. (*Perfectionnements aux machines à laver.*)

Leslie A. Porter, St. Catharines, Ont., and Charles F. Farlin, Toledo, O., U. S., 8th October, 1879, for 5 years.

Claim.—The rollers *D* (with 11 corrugations) and *E* with the endless ropes *F* and loops *G*, attached thereto, with the mode of working them in the box or frame, also the movable apron *B*, with the spiral springs *H* and also the movable gudgeons *T*.

No. 10,531. Improvements in Wire Rope Splicing. (*Perfectionnements dans l'épissure des câbles métalliques.*)

William P. Healey, New Orleans, La., U. S., 8th October, 1879, for 5 years.

Claim.—1st. One or more portions of the hempen core being removed and fusible meal cast into, between and around the strands and into the space of spaces from which the core was taken; 2nd. The improved mode of making a wire rope splice with fusible metal, such consisting in removing, from the part or parts to be encompassed by the fusible metal, the heart piece or core of the rope and employing a mould and casting fusible metal into, and between and about the strands; 3rd. The improved mode or process of making a wire rope splice with fusible metal, such consisting in removing, from the part or parts to be encompassed by the fusible metal, the hempen heart or core of the rope and compressing and welding such parts, and sub-