

Claim.—1st. The process of preparing hygienic food by desiccating, hulling and crushing the grains of cereals. 2nd. A hygienic food prepared from cereal grains by torrefaction, hulling and crushing.

No. 16,662. Improvements in Screw Cutting Machines. (*Perfectionnements aux machines à fileter les vis.*)

Harrison H. Taylor, Detroit, Mich., U.S., 12th April 1883; for 5 years.

Claim.—1st. The combination, with the milling tool and the threading die of a screw cutting machine, of the longitudinally reciprocating bed, the transversely reciprocating carriage mounted in ways on said bed, the rotatable head mounted on, and moving with said carriage and provided with blank holding jaws and mechanism for rotating the head and holding the jaws closed, when they face the dies, and momentarily opening said jaws, when they are moved in a direction away from said dies. 2nd. The combination of the longitudinally reciprocating bed, the transversely adjustable carriage, the rotatable head carried by a shaft mounted in bearings on the carriage and provided with pairs of blank holding jaws normally held closed by springs, a lever connected with the said shaft for rotating it and the head, and devices for holding one pair of jaws in a closed position, when they face the dies, and momentarily opening such pair of jaws, when moved away from the die. 3rd. The combination of the rotatable head having two or more pairs of jaws L, with springs E E having cam projections *r*. 4th. The combination of the rotatable head, the pairs of jaws L pivoted to said head and each provided with a projection *b*, with the springs E E provided with the cam projection *r*. 5th. The combination of the following devices, to wit: a milling or shanking tool and a screw cutting die, both arranged in the same horizontal plane, a rotatable head provided with opening and closing jaws and journaled in a carriage which is capable of transverse reciprocations on a longitudinally reciprocating bed, said head moving in the same horizontal plane as the milling tool and screw cutting die. 6th. The rotatable head having jaws LL with projections *b* thereon, and pivots O combined with springs E E having cam projections *r* and the set screws *c*. 7th. The combination of a longitudinal screw-threaded shaft F, sliding bed K and a shear nut T, with a connection rod H, transverse rock shaft I, connecting with rod M, sliding bed *x* and carriage *z* carrying a blank holding head. 8th. The combination of the screw shaft F, sliding bed K carrying a nut adapted to engage and disengage the shaft, connecting rod H, rock shaft I, connecting rod M and sliding bed X. 9th. The combination, with a rotating milling tool, a sliding bed X and a transversely moving carriage *z*, carrying devices for holding a blank and presenting it to the milling tool, of rod M, rock shaft I having the attached arm *v* pivoted to rod M, arm *n*, rod H and reciprocating bed K, all arranged in the relative positions and operating to move the sliding bed X towards the milling tool at a decreasing rate of speed.

No. 16,663. Improvements on Horse Rakes. (*Perfectionnements aux râteliers à cheval.*)

Hiram Myers, Springfield, Ohio, U. S., 12th April 1883; for 15 years.

Claim.—1st. The combination, with the rake head or axle F, of the teeth L formed with loops N, and the strip *o* passing through said loops and bolted to the rake head. 2nd. The combination of the rake heads or axle F with pawls *a* pivoted in the flanges *c*, the spiral springs *n n*, the oscillating rod H having on its ends the pawls or levers *ee*, the lever *g* and the spring pressing plate *j*.

No. 16,664. Improvements in Milking Pails. (*Perfectionnements aux seaux à lait.*)

Arza C. Tracy, Mitchellville, Iowa, U.S., 12th April 1883; for 5 years.

Claim.—A combination wire and cloth strainer arranged with the flanges *b c* of a milk pail cover.

No. 16,665. Improvements on Thrashing Machines. (*Perfectionnements aux machines à battre.*)

Nathaniel Burkholder, Cherrywood, Ont., 12th April, 1883; for 5 years.

Claim.—1st. In a thrashing machine in which the shoe has a longitudinal shaking movement imparted to it, the combination of a tailing spout situated in the usual position, at right angles to the shoe and arranged to vibrate longitudinally. 2nd. In a thrashing machine provided with a bottomless shoe having an ordinary screen or sieve, the combination of a stationary slanting board held in the body of the machine independent of the shoe, and extending from a point near the bottom of the screen over the tailing spout to the grain spout.

No. 16,666. Improvements on Shower Baths. (*Perfectionnements aux appareils à douches.*)

John H. Crocker, Brussels, Ont., 12th April, 1883; for 5 years.

Claim.—1st. The combination of the guards B B, guard supports C C, screws D D provided with enlarged heads, wire loops E E and bath pan A provided with flange A'. 2nd. The combination, with a portable force pump I, of a curved outlet tube *g*, sprinkler H and stirrup J.

No. 16,667. Improvements on Life Boats. (*Perfectionnements aux bateaux de sauvetage.*)

Benjamin F. Chapman, Warton, Ont., 13th April, 1883; for 5 years.

Claim.—1st. A life-boat having flat forward deck B, rear deck C and an intermediate semi-tubular deck E with closed ends provided with doors G, lights H and ventilating tubes I. 2nd. A life-boat having a hold or cabin D covered by a semi-tubular deck E with entrance from the ends. 3rd. A life-boat having a cabin amidships covered by a semi-tubular deck E, with end doors G entered from flat decks B

and C fore and aft. 4th. A life-boat provided with a screw propelling hand-power in a cabin, covered by a semi-tubular deck E having doors, lights and ventilators at the ends.

No. 16,668. Improvement in Sleigh Shafts. (*Perfectionnement des limonnières de traîneaux.*)

Frank Jones and Warren Woolsey, Ypsilanti, Mich., U.S., 13th April, 1883; for 5 years.

Claim.—1st. The combination of the outer tube A with or without slitted ends and provided with the holes *a b* secured to a sleigh or in any suitable manner, with the tube E adapted to slide within the tube A and having a hole *d* near its outer end, and the thill-couplings C F adapted to be fastened in said holes *a b d*. 2nd. The combination, with the telescopic tubes A E, provided with the holes *a d* and secured to a sleigh in any suitable manner, the additional tube H secured to the tube A by the split pin *g* and having a hole *h* similar to hole *d*, at or near its outer end, and the pole couplings adapted to fit and fasten in said holes *h d*.

No. 16,669. Register for Wood Working Machines. (*Compteur des machines à travailler le bois.*)

Albert A. Palmer, Owosso, Mich., U.S., 13th April, 1883; for 5 years.

Claim.—1st. A registering attachment for wood working machines, consisting of a suitable box or casing having a hinged top provided with means for locking it, a transparent front and a series of rotating disks having numerical characters thereon, and traversing wheel connected with pawls, for operating the ratchet teeth upon the sides of the disks. 2nd. The box or casing A provided with a transparent front *a* and hinged lock engaging top *c*, said box or casings containing a series of rotating disks having numerical characters upon their periphery operated by a rubber-tired traversing wheel D and a pawl and ratchet mechanism, and adapted to be adjustably attached to the frame of a wood working machine by means of a clamp C having right angular extensions *d* hinged or pivoted to said box or casing. 3rd. The oscillating shaft F provided with ears *h* and depending extension *g* in which works a crank shaft E having connected thereto a traversing wheel D, in combination with the pawls G and disks H I K L having numerical characters upon their periphery and provided with ratchet wheels *i k*, all rotating upon shaft L, and inclosed within the adjustable box or casing A. 4th. The traversing wheel D keyed to a crank shaft E provided with a rubber-tire *e*, said wheel with its tire being of a particular circumference, in combination with the oscillating shaft F, pawls G and rotating disks H I K L provided with ratchet-wheels *i k* placed upon their respective sides, said disks and their operative mechanism being inclosed in a box or casing A capable of being adjustably connected to the frame of a wood working machine. 5th. The box or casing A having a hinged cover and transparent front, said front having set therein a plate *b* provided with a series of openings, in combination with the rubber-tired traversing wheel D, crank shaft E provided with a slotted extension *d* and ears *h*, the pawls G, rotating numerical disks H I K L, each having ratchet-wheels *i k* upon their respective sides, and the clamps having right angular extensions *d*.

No. 16,670. Improvements on Vehicle Springs. (*Perfectionnements aux ressorts des voitures.*)

Alpheus O. Wilbur, Davis, Mich., U.S., 13th April, 1883; for 5 years.

Claim.—1st. The bottom plate which forms the bed of the spring having flanges to embrace the bolster, and perforated ears to embrace the wagon stake and be secured thereto, combined with the top plate having flanges to embrace the said stake near its upper extremity, the springs and bolts. 2nd. In combination with a bolster, its stake and the body of a wagon, the bed plate C having lugs *c* and ears *a* perforated at *b*, the top plate B having ears *d*, the bolts D and the springs A.

No. 16,671. Method of Producing Photographic Images and Apparatus therefor. (*Méthode de produire des images photographiques et appareil pour cet objet.*)

William Kurtz, New York, N. Y., U.S., 13th April, 1883; for 5 years.

Claim.—1st. The improvement in the art of portrait photography by moving the camera and sitter, while practically fixed relatively to each other, through arcs of circles in a uniform horizontal plane during exposure, whereby a half light may be changed to a full light during exposure and a more artistic distribution of light and shade obtained. 2nd. A photographic apparatus composed of a main platform adapted to rotate on a centre pivot in a socket of the floor, a rotary platform mounted on one end of the main platform and a camera at the other end.

No. 16,672. Improvements in Memorandum Books. (*Perfectionnements aux agendas.*)

Alexander Gardner, Hamilton, Ont., 13th April, 1883; (Extension of Patent No. 10,804.)

No. 16,673. Improvements on Water Traps. (*Perfectionnements aux soupapes hydrauliques.*)

William J. English and William Wood, Cohoes, N. Y., U. S., 13th April, 1883; (Extension of Patent No. 15,777.)

No. 16,674. Improvements on Waters Traps. (*Perfectionnements aux soupapes hydrauliques.*)

William J. English and William Wood, Cohoes, N. Y., U. S., 14th April, 1883; (Extension of Patent No. 15,777.)