

threaded turning and rocking adjusting rod, the finger beam supported thereby and provided with the threaded lug in which the rod works, the main frame lug by which the rod is supported at bottom, the main frame lug by which the adjusting rod is supported above its connection with the finger beam and guided in its rocking movements, the crank by which to turn the rod to raise and lower the finger beam, the sleeve on the rod and means for turning the sleeve to rock the rod. 6th. The combination of the rake head and the inclined grain deflecting plate tooth at the inner end thereof. 7th. The inclined tooth V, provided with the loop and shank by which to attach it to the rake head. 8th. The combination of the stud or roller P, its overhanging support and the trip lug R of the oscillating rake head acted upon by said roller to rock the rake teeth downward. 9th. The combination of the rake standard, the roller mounted on the overhanging arm, the series of rake arms and their oscillating brackets rocked by said roller to turn down the rake teeth, preparatory to entering the standing grain. 10th. The combination of the rake head, the hinged rotating rake carrying arm, the oscillating bracket by which the rake head is mounted upon its carrying arm, the spring acting to rock up the rake teeth or hold them up the cam track, the cam track, travelling roller and means by which to rock the rake head against the force of the spring, by which the rake teeth are sustained in their elevated position, and direct the roller outside of, or beneath the cam track. 11th. The combination of the rake head, the oscillating bracket by which it is mounted on its hinged carrying arm, the rotating carrier, the cam track, the cam track travelling roller on the bracket, the overhanging arm provided with the roller, and the roller actuated trip lug on the bracket. 12th. The bracket Q provided with the bearings to fit upon the rake carrying arm and having the roller actuated curved arm or trip lug, and the cam track travelling roller. 13th. The combination of the rake head, the hinged rake carrying arm, the bracket fitted by its bearings to rock on said arm, the spring acting to rock up the rake teeth, and the roller actuated trip lug of the bracket by which the rake teeth are rocked down against the force of the spring. 14th. The combination of the rotating carrier, the rake carrying arm hinged thereto, the rake head, the oscillating bracket to which it is secured, the bracket bearings fitted to the rake carrying arm, the spring acting upon the bracket to hold up the rake teeth, the cam track travelling roller, the trip lug on the bracket, and the stop lug at the heel of the bracket, abutting against the shoulder of the rake carrying arm to limit the rocking movement of the rake head. 15th. The combination of the rake standard, the rotating carrier, the cam track, the overhanging arm, its roller, the series of rake carrying arms, the rake heads and the oscillating brackets actuated by the roller to rock down the rake teeth. 16th. The combination of the fixed sections of the cam track, the cam switch, its locking arm, the tripping lever, the rake head, the oscillating bracket, its roller, the carrying arm, the spring acting on the bracket, and the stop-lug for limiting the oscillation of the bracket. 17th. The combination of the cam switch, its locking arm, the tripping lever, the foot treadle and the connections between the treadle and tripping lever, by which said lever may be moved in either direction, to engage or release the switch locking arm. 18th. The combination of the cam switch, the locking arm thereof, the tripping lever, the rocking lever provided with the heel projection crossing beneath the tripping lever, and the springs acting upon said levers with a tendency to hold the tripping lever engaged with the switch locking arm. 19th. The combination of the revolving rake heads, the constantly revolving cam or series of cams, and mechanism actuated thereby for controlling the action of the rakes. 20th. The combination of the rake heads, the revolving cam or series of cams, and cam operating mechanism actuated by the rake rotating mechanism, by which the rotary motion is imparted to the cam or series of cams independently of the rakes. 21st. The combination of the rake standard, the series of revolving, rising and falling rake heads, the cam track, its switch, the setting lever by the actuations of which the switch tripping lever is operated to rock and release the switch, the rotating adjustable cam or series of cams for actuating the setting lever, and cam rotating mechanism actuated independently of the rakes. 22nd. The combination of the rake standard, the series of revolving, rising and falling rake heads, the cam track, the cam switch, the cam track travelling rollers of the rake heads, the tripping lever, the vertically rocking setting lever acting upon the tripping lever, a cam acting upon the setting bevel, and in contact with which the lever is held by spring pressure, and the rotating shaft upon which the cam is fixed. 23rd. The combination of the rake standard, the rotating rake carrier, the pinion geared with the rake carrier, the shaft on which the pinion is mounted, the cam or series of cams, and mechanism actuated by the cam or cams for controlling the action of the rakes. 24th. The combination of the rake standard, the rotating rake carrier, the scroll gear, the pinion actuated thereby, the cam or series of cams rotating with said pinion, and the shipping lever. 25th. The combination of the rake standard, the rotating rake carrier, the scroll gear, the pinion actuated thereby, the shaft rotating with said pinion, the cam or series of cams on said shaft, and the shipping lever. 26th. The combination of the rotating rake carrier, the rake carrying arms, the oscillating brackets, the cam track, the cam switch, the cam track travelling rollers, the tripping lever, the switch locking arm, the setting lever springs acting upon said tripping lever and setting lever, the cams acting upon the setting lever, and the rotating shaft upon which said cams are mounted. 27th. The combination of the rake standard, the rotating shaft supported thereby, the cam or series of cams on said shaft, the plain or uncammed disk also on said shaft, the washers between which said cams and disk are secured, the setting lever provided with the curved nose and shoulder, and the shipping lever.

No. 16,338. Improvements on Knife Scourers (*Perfectionnements aux nettoyeurs de coutellerie.*)

Cyrus Kinner, Windsor, Ont., 20th February, 1883; for 5 years.

Claim.—The elastic scouring and polishing cylinders C C C interposed between the plates B B.

No. 16,339. Improvements in Box Piling. (*Perfectionnements dans la mise en paquets.*)

Edward G. Scovil, Coldbrook, N. B., 20th February, 1883; (Extension of Patent No. 8450.)

No. 16,340. Improvements on Wire Fences. (*Perfectionnements aux clôtures en fil de fer.*)

Adéard F. Martel, James McPherson, Montreal, Que., Alexander F. McIntyre and John P. Lewis, Ottawa, Ont., 20th February, 1883; for 5 years.

Claim.—1st. In a wire fence and in combination therewith, the notched posts and fence wires, the binding wires D bent half way around, or passed through the posts and half way around the fence wire, at a distance apart corresponding to the diameter of the post, the ends of the binding wire then returned to the back of the post and twisted together, whereby the binding wire exerts a double tension on the fence wire to bind it to the post, and the ends of the wire are conjoined by twisting to fasten the fence wire to the post. 2nd. A fence post of tubular wrought iron slotted diametrically and longitudinally, and inserted ground plates F F bent to a right angle, the angles arranged to be diametrically opposite, and posts and plates secured together by a rivet E. 3rd. A fence post of tubular wrought iron provided with a conical plug or wedge G inserted in the bore, to spread the foot of the post when driven into a hole bored in a rock for holding the post fixedly.

No. 16,341. Improvement on Whiffletree Hooks. (*Perfectionnement des crochets des palonniers.*)

Nathan Hill, Bravo, and John G. Todd, Bangor, Me., U. S., 20th February, 1883; for 5 years.

Claim.—1st. In combination with the shank of a whiffletree hook, the longitudinal ribs, or bars E. 2nd. The whiffletree hook consisting of the ferrule A, rigid hook B, catch or barb D and the ribs, or bars E, all constructed of a single piece of metal.

No. 16,342. Improvements on Butter Packages. (*Perfectionnements aux boîtes à beurre.*)

James Tomlinson, Chatham, John M. A. Laing, William Laing and James Lozie, Essex Centre, Ont., 20th February, 1883; for 5 years.

Claim.—1st. In combination with a round wooden box, a loose and removable interior cylinder made of a single thickness of veneer. 2nd. As a means of coating the interior of a wooden box, the sealing compound, composed of paraffine wax and resin.

No. 16,343. Improvements in Water Meters. (*Perfectionnements aux hydromètres.*)

Parker Wells, Lynn, Mass., U. S., 20th February, 1883; (extension of patent No. 16,141.)

No. 16,344. Improvements in Water Meters. (*Perfectionnements aux hydromètres.*)

Parker Wells, Lynn, Mass., U. S., 21st February, 1883; (extension of patent No. 16,141.)

No. 16,345. Improvements in Horse Head-lights. (*Perfectionnements des lanternes à la tête des chevaux.*)

Ernest F. Pfluger, Akron, Ohio, U. S., 21st February, 1883; for 5 years.

Claim.—1st. A plate of metal, or other suitable material, provided with devices for attaching it to the bridle or harness of the horse, and coated with a paint composed of sulphide of calcium and a siccatif oil or paint varnish. 2nd. A new article of manufacture, consisting of a plate of metal, or other suitable material, adapted to be attached to the bridle or harness of a horse, and covered with a substance which is luminous in the darkness.

No. 16,346. Improvement on Reciprocating Saw Mills. (*Perfectionnement des scieries alternatives.*)

Theodore S. Wilkin, East Saginaw, Mich., U. S., 21st February, 1883; for 5 years.

Claim.—A reciprocating gate, or sash 20, in combination with a long pendulum 2 hung to the gang frame 1 and carrying the upper gang slider 3, the lower end of the short pendulum gang slides 5 pivoted near the lower end of the long pendulum and attachably connected at upper end to main gang frame 1, by link 7 and pins 8 or other suitable connections, to allow a compensating movement of the upper end of lower gang slides, whereby the swinging of the lower end of pendulum causes slides 5 and 3 to advance the saws toward the log on the downward stroke, and recede them from the log on the upward stroke to clear the saws.

No. 16,347. Improvements on Board Measures. (*Perfectionnements aux mesures de bois.*)

Emanuel Andrews, Williamsport, Penn., U. S., 21st February, 1883; for 5 years.

Claim.—1st. A board-rule measure of spring metal made of increasing flexibility toward the head. 2nd. A board-rule measure of spring metal having a head with cutting edges secured to the same by a clamp, which locks the head on both sides, and also serves to secure it to the outer end of the board.

No. 16,348. Improvements on Bottle Stoppers. (*Perfectionnements aux bouchons des bouteilles.*)

John M. Lewin, Lockport, N. Y., U. S., 21st February, 1883; for 5 years.