

No. 17,173. Artificial Horizon for Sextants, Octants, etc. (*Horizon artificiel des sextants, quartiers de réflexion, etc.*)

Solon Pattee, (assignee of Thomas Tennent,) San Francisco, Cal., U. S., 4th July, 1883; 15 years.

Claim.—1st. The improved horizon attachment for sextants, octants or quadrants, consisting of the pendulum suspended in vertical position and free to swing within an enclosing case having apertures in top and bottom for the transmission of light through the case, the reflector mounted beneath the end of the case and in line with the aperture, and at an angle of 45° with the face thereof, and a means for attaching said case in vertical position to the frame of the instrument in front of the eye piece in position, as described. 2nd. In a sextant, octant or quadrant, the combination of a suspended pendulum enclosed within a case having openings for the transmission of light, an inclined reflector arranged with relation to the openings and the line of sight in the instrument, whereby the reflected image of the end of the pendulum is visible to the observer through the eye piece, and the portion of the pendulum is determined therefor. 3rd. The case having openings and adapted to hold a body of liquid, and the suspended pendulum held from points of suspension in line with the opening, and the brace for seeing it to the frame of an instrument. 4th. The combination, with the case having openings and containing a suspended pendulum in line with said openings, of the inclined reflector arranged in relation to the openings substantially as described. 5th. The combination, with the case having openings and containing transparent liquid, of the suspended pendulum having the flanges, substantially as described and for the purpose set forth. 6th. The combination with the case having openings and containing the suspended pendulum of the upper reflector, movable and adjustable as described. 7th. In a sextant, octant or quadrant, the combination of the enclosed suspended pendulum, the inclined reflector in line with the sight of the instrument, the horizon glass, and the telescope having a half lense secured over a portion of its object glass, whereby a reflected image of the pendulum can be seen through one portion of the object glass, and the reflection of the sun or a star on the horizon glass can be seen through the other portion of the object glass of the same telescope.

No. 17,174. Hay Fork. (*Fourche à foin.*)

The Ney Manufacturing Company, (assignee of Jacob Ney,) Canton, Ohio, U. S., 4th July, 1883; 15 years.

Claim.—1st. The hay-fork A having pivoted to the extremities of its tines, the levers B, with spear-pointed ends and connected to the bars C, in combination with the vertically sliding frame D, which embraces the tines of the fork at its ends to form guides, the bifurcated extension E, connection G and the hooked lever H, pivoted to the frame F and adapted to embrace the connection G upon its under side, substantially as and for the purpose set forth. 2nd. The levers B fulcrumed to the extremities of the tines, said levers having cutting edges, in combination with the frame D, substantially as and for the purpose specified.

No. 17,175. Improvements in Barbed Wire. (*Perfectionnements au fil de fer barbelé.*)

Davidson H. Donovan, (assignee of Orlando P. Briggs,) Chicago, Ill., U. S., 4th July, 1883; 5 years.

Claim.—1st. In combination with the cable wires A and B, the barb wire D having a central spiral coil arranged parallel with the cable-wires, as shown, and the wire E passing through both the cable loop and the coincident eye of the barb D and having its ends bent to cross the ends of the wire D outside the cable-wires, substantially as described. 2nd. In combination with the twisted cable-wires A and B, the two barb wires D and E arranged to intersect each other between the cable-wires and having their ends bent so that the ends of one barb intersect the ends of the other, barb in the form and arrangement of a four-strand braid exterior to the cable-wires, substantially as described.

No. 17,176. Barbed Wire For Fences. (*Fil de fer barbelé pour les clôtures.*)

Alanson Cary and Edward A. Moen, New York, N.Y., U.S., 4th July, 1883; 15 years.

Claim.—1st. In the construction of barbed fence wires, a wire or wire blank, or rod constructed with arched bosses or enlargements on either or both of its edges at suitable distances apart, substantially as and for the purpose set forth. 2nd. In the construction of barbed fence wires, a wire or metal blank constructed with opposite arched bosses or enlargements on opposite edges of the wire or metal blank, essentially as and for the purpose described. 3rd. In barbed fence wire in which the barbs form integral portion of the wire, a barbed wire made either twisted or straight having its barbs formed of, or from partly longitudinally severed bosses or enlargements in the edge or edges of the wire, essentially as and for the purpose specified. 4th. A barbed fence wire A constructed with longitudinally arched bosses or enlargements b on the same or opposite edges of it, cut at a c for a portion of their length parallel with the body of the wire, and having their partially reversed portions bent to form barbs d, essentially as shown and described. 5th. In barbed fences, the edgewise enlargements of the wire and the longitudinal incision of such enlarged edge to form the barb, as shown and described.

No. 17,177. Improvements in Churns. (*Perfectionnements dans les barattes.*)

Gilbert L. Potter and John M. Scribner, Sunderland, Ont., 4th July, 1883; 5 years.

Claim.—1st. A churn made into two compartments A and C with a double bottom D, vertical tube C and loose valve R, as described and for the purposes set forth. 2nd. In a churn, the combination of tempered air pump E F G H with the perforated disk I, water spout N and articulated lever K, as described and for the purposes set forth.

No. 17,178. Combined Header, Thrasher and Separator. (*Étêtuse, batteuse et séparateur combinés.*)

William H. Parrish, Salem, and George E. Aiken, Silverton, Oregon, U. S., 4th July, 1883; 5 years.

Claim.—1st. In a header and thrasher having a conveyor A and straw carrier D arranged at right angles to each other, a platform L located at the angle of the conveyor trough and supporting frame of straw-carrier D, whereby the attendant may be within reach and view of the operating parts of the machine, as set forth. 2nd. The combination, with section A and a rim T attached to the reel-stay thereof, of section B having a sickle and draper and a laterally adjustable reel O, the section A and B bring hinged together so that, when section B is raised, its reel will come in contact with rim T of section A, and be thereby adjusted as set forth. 3rd. The combination of sections A and B provided with draperies S, feeder C and cylinder D located at the junction of the section, so as to receive the cut grain from both draperies, substantially as set forth. 4th. The laterally adjustable reel O having slats R and arms S provided with friction rollers a, in combination with circular rim T attached to the reel stay F of section A, substantially as set forth. 5th. The combination of draper S, of section A, self-feeder C and cylinder D attached to the back timber frame of section A, so as to receive the grain straw from said feeder C, substantially as described and shown. 6th. The combination of the grain board W with discharge end of section A, when used for the purpose substantially as described and set forth.

No. 17,179. Machine for Crushing Withes. (*Machine à écraser l'osier.*)

William Lesslie, jr., Kingston, Ont., 9th July, 1883; (Re-issue of patent No. 8992.)

Claim.—1st. The crushing rollers A A₁ provided for a portion of their length with a tapering spiral groove B B₁ and with small longitudinal grooves a, said rollers geared together direct by spur wheels A₂ A₃ producing an equal surface velocity, said rollers journaled in bearings mounted in slots in suitable frames D D₁ and provided with set screws F, or other means for adjusting the distance between their centres and arranged with suitable gearing for driving by manual or other power, as described. 2nd. In a machine for crushing withes, two tapered crushing rollers longitudinally grooved and having a spiral groove tapering out flat after traversing a portion of their length, as shown and described. 3rd. The process for preparing withes by crushing between two rollers, as specified.

No. 17,180. Improvements in Ventilators. (*Perfectionnements dans les ventilateurs.*)

Lucius G. Fisher, jr., (assignee of James M. Blackman,) Chicago, Ill., U. S., 9th July, 1883; 5 years.

Claim.—1st. A ventilating fan in which radial blades revolve with a peripheral rim composed of triangular sections, substantially as set forth. 2nd. A ventilating fan provided with blades having peripheral triangular sections d, substantially as set forth. 3rd. The combination in a ventilating fan, of blades having curved radial sections and peripheral sections, substantially as specified. 4th. A ventilating fan provided with blades, each set upon the hub at an angle to the axis of the shaft, the outside edges of the blades being straight and the inside edges curved, the curve increasing at the periphery and having peripheral sections extending from the bodies to the plane of the outside edges, substantially as set forth. 5th. A ventilating fan provided with blades, with the outside straight edges on one plane, and inside curved edges on a parallel plane, the body of each blade being curved to meet a peripheral section d and the curve widening or extending from the outer edge to the inside, substantially as set forth. 6th. A ventilating fan provided with blades curved as set forth and set on the hub to have a forward pitch, substantially as specified. 7th. A ventilating fan in an opening, in a case W arranged opposite an opening in a wall or a frame, as set forth.

No. 17,181. Improvements in Nut Locks. (*Perfectionnements aux arrête écrous.*)

William S. F. Dillon, Madeira, and Rudolph Brenner, Cincinnati, Ohio, U. S., 9th July, 1883; 5 years.

Claim.—1st. The combination, substantially as set forth, of the bolt A with a two-part nut the parts of which have a continuous thread to engage the thread upon the bolt, one part of the nut being also capable of a limited movement independent of the other, to disarrange the female thread with relation to the male thread. 2nd. The combination, substantially as specified, of bolt A with the nut composed of two parts B C secured by screw-threaded connection for the purpose of locking the parts upon the bolts having the parts C independent of part B.

No. 17,182. Improvements in Nut Locks. (*Perfectionnements aux arrête-écrous.*)

David Stewart, Walter R. Holden, Wiaraton, and George Robinson, Stratford, Ont., 9th July, 1883; 5 years.

Claim.—The combination, with the rails A A, fish plates B B, bolts C, nuts D and tie E, of the straight bar F centrally notched, and spike H driven through said notch downward into tie E, whereby the bar is prevented from moving endwise and held in position between the flange of the rails and the nuts, to offer resistance to prevent the nuts from turning loose, as set forth.

No. 17,183. Improvements in Washing Machines. (*Perfectionnements dans les laveuses mécaniques.*)

Melancthon A. O'Dell and Barnard Mitchel (assignees of Abiel O'Dell,) Bowmanville, Ont., 9th July, 1883; 5 years.