

elevating pipe, the latter being connected to the former by grain inlet tubes with a grain supply controlling device, substantially as described. 19th. The combination, in a grain elevator, of the air tube D₁, the grain inlet tubes *a*, the mouth *d*, the grain supply controlling device, a suction feed, a flexible tube and a non-flexible contracted portion for increasing the velocity of the substance passing through the tube, substantially as set forth. 20th. The combination, with a vacuum-chamber or a receiver, of a separating trap or device interposed between the vacuum-chamber or receiver and the blower or exhausting machine, as set forth. 21st. The combination, with a vacuum-chamber or a receiver, of a separating trap or device interposed between the vacuum-chamber or receiver, and the blower or exhausting mechanism, as described. 22nd. The method of separating extraneous matter from grain cereals while being elevated by pneumatic process, the same consisting in conducting the foreign matter from a compartment into which the grain has been received into a trap or device, thence separating the air from the foreign matter and preventing the latter from entering the blower or exhauster, in the manner shown and described. 23rd. In combination with the vacuum-chamber A, a safety valve for preventing the collapse of the vacuum valve, and a vacuum gage for indicating the pressure within the vacuum chamber, as described. 24th. In combination with the grain induction *f*, the eyes or pup-holes *R* by means of which the operation within the tubes may be observed.

No. 17,248. Improvements in Boots. (*Perfectionnements dans les bottes.*)

Edward Roos, Galt, Ont., 12th July, 1883; 5 years.

Claim.—1st. In a felt boot having an outer leather foot, the combination of a leather covering extending from the leather foot up the felt leg and quilted by stitches passing through the leather and felt, substantially and for the purpose specified. 2nd. In a felt boot having an outer leather foot, the combination of a covering extending from the leather foot upwardly for about five inches on the leg and composed of pieces of leather joined together by stitches passing through the leather and felt, for the purpose of quilting them together.

No. 17,249. Improvements in Felt Boots and Shoes. (*Perfectionnements dans les chaussures en feutre.*)

William M. Weeks, Woonsocket, R. I., U. S., 12th July, 1883; 5 years.

Claim.—A boot, shoe, or removable lining made from a single blank, cut from a sheet of felt stretched upon a last and stitched together, and having a separate sole attached thereto, all as set forth.

No. 17,250. Improvements in Match Machines. (*Perfectionnements aux machines à allumettes.*)

Charles F. Bonhack, New York, N. Y., U. S., 12th July, 1883; 5 years.

Claim.—1st. In a match-splint setting machine, the combination of a reciprocating setter having a series of fixed equidistant push-pins, a fixed perforated guide-plate, a removable trough for the bunch of match-splints, a reciprocating splint-guiding frame having vertical strips, and a removable splint-clamping frame having horizontal strips, all substantially as and for the purpose set forth. 2nd. In a match-splint setting machine, the combination of a reciprocating setter having a series of fixed equidistant push-pins, a fixed perforated guide-plate, a removable trough containing the match-splints in front of the guide-plate, means for clamping the splints in the trough, and a compound splint-holding frame formed of a reciprocating guide-frame having vertical strips, and a detachable clamping frame having horizontal strips, and means for locking the compound frame rigidly in front of the trough, substantially as and for the purpose specified. 3rd. In a match splint setting machine, a compound frame for receiving the splints consisting of a fixed frame having vertical serrated strips, and of a removable splint-clamping frame having horizontal strips bevelled at the edges and fitting closely to the vertical strips, and means for locking the frame together, substantially as set forth. 4th. In a match-splint-setting machine, a splint-clamping frame consisting of horizontal clamping-strips bevelled at their inner edges and separated at the ends by intermediate layers of elastic fabric, and of means for clamping the strips or releasing the same, substantially as described.

No. 17,251. Improvements in Hay Elevators. (*Perfectionnements aux élévateurs à foin.*)

Peter F. Chambard, Fayette, Ohio, U. S., 12th July, 1883; 5 years.

Claim.—1st. The track composed of two outer and an inner or centre section having the space H and end-piece D₃, as and for the purpose set forth. 2nd. The described car having pivoted latch-arms curved at their outer ends, in combination with the vertically sliding trip-bar, as and for the purpose set forth. 3rd. The described car having hangers provided with rollers at their upper ends, grooved pulleys at its lower corners, and pivoted latch-arms connected to and operated by a vertically sliding trip-bar, as set forth. 4th. The combination, with the track composed of two outer and an inner section having the space H and end-piece D₃, of the car having hangers provided with rollers at their upper ends, grooved pulleys at its lower corners, and pivoted latch-arms operated by a vertically sliding trip-bar, as set forth. 5th. The blocks consisting of the cheeks, the straps at the outer sides of the same, the connecting bolts and the pulleys, as set forth. 6th. The combination of the cheeks, the connecting bolts and tubular braces arranged upon the said bolts so as to space the cheeks, substantially as set forth. 7th. The combination of the cheeks, the connecting bolts, the tubular spacing braces and the pulley journalled upon one of the said braces, as set forth. 8th. The combination of the cheeks having bevelled flanges provided with notches near their upper ends, the connecting bolts, tubular braces and pulley, and a bail secured upon the upper connecting bolt and

resting in the notches, near the upper ends of the flanged cheeks, as and for the purpose set forth. 9th. The trip-mechanism consisting essentially of a frame, a hook pivoted at the lower end of the same, a vertical rod secured in said frame, a latch-bail sliding vertically upon the said rod and having a bevelled and perforated lower end to engage the trip-hook, a spring forcing the said latch-bail downwardly and a trip-rope, all arranged and operating substantially as set forth. 10th. The combination, with a pulley-block constructed, as described, with straps secured to the sides of its cheeks, of the trip-mechanism constructed as described, the frame of said trip mechanism being pivoted upon the lower connecting bolt of the straps, as set forth. 11th. A hay sling consisting of several ropes or strands connected together at one end, having a loop at the connected end, and provided with a loop at the free end of each strand, as set forth. 12th. In a hay sling, the combination, with several strands connected at one end and having loops at the connected and free ends, of rigid space bars connecting the several strands at any desired distance from the connected end, as set forth. 13th. In a hay sling, the combination of a heart-shaped loop, having a shank provided with an eye at its outer end, a rope or cord passed thorough said heart-shaped loop and around said shank, so as to form two separate strands having loops at their free ends, a central strand secured to the heart-shaped loop and having a loop at its free end, and rigid spacing bars connecting the several strands at any desired distance from the connected end, substantially as set forth. 14th. The combination, with the pulley-blocks provided respectively with a pivoted hook and with trip-mechanism as described, of the hay sling consisting of strands connected at one end and having a loop for attachment to the pivoted hook, said strands having also loops at their free ends for attachment to the trip-hook, as set forth. 15th. As an improvement in hay elevators, the combination of the track consisting of two outer and a central section having space H and end-piece D₃, the car having hangers provided with rollers, grooved pulleys at its lower corners, and pivoted latch-bars operated by a vertically sliding trip-bar, the pulley blocks constructed as described and provided respectively with a pivoted hook and with trip-mechanism as described, the hoisting rope, the sling and the trip ropes, the whole constructed and arranged to operate substantially as and for the purpose set forth.

No. 17,252. Improvements in the Manufacture of Flour. (*Perfectionnements dans la fabrication de la farine.*)

Louis Gathmann, Chicago, Ill., U. S., 12th July, 1883; 5 years.

Claim.—The process described of reducing tobed grain to middlings and flour, which consists in first splitting the grain through the crease, next scouring the fragments produced by splitting, then removing the impurities detached by such scouring, and finally subjecting the cleaned fragments to the grinding action of millstones, substantially as described.

No. 17,253. Improvements in Kerosine-Oil Lamps. (*Perfectionnements aux lampes à kerosine.*)

Thomas P. Thompson, Franklin Grove, Ill., U. S., 12th July, 1883; 5 years.

Claim.—1st. The combination of a series of fonts connected horizontally by gas pipe suspended in rods and swivels, as and for the purpose set forth. 2nd. The font B having a recess, and above said recess with threaded inlet and outlets and with threaded opening for a burner, as set forth. 3rd. A font provided with a threaded inlet on its side to adapt it for connection with a horizontal pipe, a recess extending below such inlet and a threaded opening for a burner, as set forth. 4th. In a set of lamps, the combination of the fonts with threaded inlets and outlets, threaded tops and recesses, a pipe, adjustable swivel, a rod and a tank or reservoir, as and for the purpose set forth.

No. 17,254. Improvements in Spinning Wheels. (*Perfectionnements aux rouets.*)

Arthur S. Beauchemin, St. Hyacinthe, Que., 12th July, 1883; 5 years.

Reclame.—La combinaison de la périphérie d'une roue de machine à filer avec un bandage métallique, laminée et plié en rainures concentriques pour retenir la courroie, et muni de bordages pour l'attacher à la périphérie de la roue, tel que décrit pour les fins désignées.

No. 17,255. Improvements in Cots.

(*Perfectionnements dans les lits pliants.*)

Melvin R. Church, Grand Rapids, Mich., U. S., 13th July, 1883; 5 years.

Claim.—1st. A frame for cot-beds and the like consisting of spring side pieces formed of elastic board set on edge, and pieces adapted to hold said side-pieces in vertical position, and a cloth or flexible covering attached to the upper edge of said side-pieces, as set forth. 2nd. The side frames A, A formed of elastic boards set on edge, hinged end pieces *a* and covering of cloth or other flexible material attached to the edge of the side-frames, substantially as set forth. 3rd. The combination of the side-pieces A, A formed of boards set on edge, end-pieces adapted to extend said side-pieces, flexible covering attached to the upper edge of said side-pieces, and the removable legs adapted to the cleats on the outside, as set forth.

No. 17,256. Ventilator and Draft Regulator.

(*Ventilateur-régulateur du tirage.*)

Melvin R. Church, Grand Rapids, Mich., U. S., 13th July, 1883; 5 years.

Claim.—A ventilator-pipe connected to the draft-pipe of the stove at the outside thereof, extending downward toward the floor and opening into the apartment only, in combination with the horizontal valves adapted to be opened upward by the draft, and to close by gravity, substantially as described.