

laying soldered strip c; 4th. The loop p, of the strip c, fastened at its overlapping extremity and arranged with reference to the cover B, and body A; 5th. The loop p, tapered as described, in combination with the strip c, arranged with reference to the cover B, and body A; 6th. The combination with the body A, of the rigid transverse brace d, the said brace arranged nearly or quite in line with the points of attachment of the ball B, whereby inward strain upon the body A, when suspended by or from the bale is counteracted; 7th. The combination with a tubular transverse brace, arranged in the upper part of the body A, of the inwardly turned ends of the bale B; 8th. The combination with the cover C, attached to the body A, by the soldered strip D, of an orifice m, provided either in the cover or the body, and when the can is filled closed by the soldered cap or disc g; 9th. The combination with the body A, of the pocket E.

No. 2540. HENRI THOMAS, Brooklyn, N. Y., U. S., 24th July, 1873, for 5 years: "A Carving Machine." (Une machine à sculpter.)

*Claim.*—1st. The combination of the sliding work and pattern carrying centers and the vertically adjustable and horizontally swinging tool carrying arms arranged and operating as specified; 2nd. The center holder plates D, F, radices bars H, links J, toggle joints bars K, sliding nut L, and screw M, combined and arranged as specified; 3rd. The arms O, P, block Q, bar A, slide W, bars V, and link U, combined and arranged as specified; 4th. The sliding block Q, standard Y, arms O, P, and their actuating devices, and the adjusting screw Z, and crank shaft Z', combined with the work and pattern centers as specified.

No. 2541. WILLIAM N. WHITELEY, Springfield, Ohio, U. S., 24th July, 1873, for 15 years: "A Harvester." (Une moissonneuse.)

*Claim.*—1st. A rear cut hinged bar machine, a cutting apparatus the outer end of which is supported by a jointed carrying wheel, having its bearing upon the ground in rear of said cutting apparatus and the inner end of which is supported by a flexible connection with the main frame, in combination with the drag bar the front end of which may be raised or lowered by means of a lever, while the machine is in motion; 2nd. A cylindrical drag bar S, the rear of which is projected through orifices in the upturned ends of the shoe T, and its front end extended through the slot S, and controlled by means of tilting lever; 3rd. The rock shaft 12, one end of which is connected to the front end of the drag bar S, and its opposite end controlled by means of the hand lever 16; 4th. In combination with the rock shaft 12, and the stationary rock 13, and the locking dog 17; 5th. The slotted bracket 8, constructed as shown and connected to the frame A, by means of the arms 9; 6th. The slide bar 1, of the rectangular main frame, projected forward and the tongue c, attached thereto in combination with the brace d, as described; 7th. The combination of the rectangular main frame A, and the slotted bracket 8, for the purpose of connecting and holding the front end of the drag bar S; 8th. The shifting lever 22, constructed as described and combined with the stationary cam 24; 9th. In combination with the plate 2, hinged to the outer shoe Z, and provided with a series of stopholes or notches 1 and wheel arm U, and the latch bolt 5; 10th. The grain wheel arm U, constructed with the stationary stud X, projecting therefrom and fitted to the socket Y, in the plate 2, to impart great strength to the joint between said arm and plate; 11th. The hollow spindle 11, to form a bearing for the grain wheel, in combination with the bolt V, which passed axially through said sleeve and clamps it firmly to the grain wheel arm; 12th. The chain wheel pawl 31, combined with the set lever 34, for lifting said pawl entirely out of connection with its ratchet; 13th. The chain wheel 33, whereby motion is transmitted to the rake connected with the drive wheel and held in position thereon by means of a notched flange 30, fitting over the arms of said drive wheel; 14th. In combination with the chain wheel secured to the drive wheel, the chain picker 15, hung loosely upon the axle of the said drive wheel; 15th. The shield or guard 28, upon the pitman box 27, to prevent the winding of grass around the wrist pin; 16th. The sent spring 38, constructed with the inclined and vertical plates joined in the manner and form described; 17th. The rake cam z, and standard W, constructed of one solid piece from end to end; 18th. The standard w, made hollow and fitted to constitute a box or bearing for the driving shaft f, of the rake; 19th. The cam z, and standard w, provided with feet 26, and slots for the bolts whereby said cam may be adjusted to properly regulate the strokes of the reel and rake; 20th. The double tree plate 42, provided with adjusting bolts and holes whereby the position of said plate may be shifted upon the tongue o, as required to equalize the draft.

No. 2542. JACOB KAISER, York, Ont., 24th July, 1873, for 5 years: "Grain or Corn Crushing Mill." (Moulin à triturer le grain ou le maïs.)

Adapted to steam or horse-power and by removing the pulley and attaching a crank handle to the driving shaft it can be worked by hand.

*Claim.*—1st. The series of inclined grooves b, b, around the inner edge of the annular plate B; 2nd. The horizontal metal plate C, constructed and operated as described.

No. 2543. CHARLES B. CLARK, Buffalo, N. Y., U. S., 24th July, 1873, for 5 years: "Sliding Door Hanger." (Ajutage de porte en coulisse.)

*Claim.*—1st. The bevelled wheel B, in combination with a bevelled track c, and guide f; 2nd. In combination with a rail C, wheel B, and hanger frame A, and lip A, and stop i.

No. 2544. ORIN WEBSTER, Compton, Que., 24th July, 1873, for 5 years: "Cow Milker and Strainer." (Appareil pour traire et couler le lait.)

Consists of a number of tubes running into a main pipe to which a strainer is attached, whereby a number of cows can be milked together and the milk strained at the same time.

*Claim.* The pipe A, strainer B, hinge b, and ring C, as described.

No. 2545. EUGEN COAPMAN, Rochester, N. Y., U. S., 24th July, 1873, for 5 years: "Machine for forming Barrel Hoops." (Machine à former les cercles de futaille.)

*Claim.*—1st. The combination of the pro and roller G, and forming wheel A, when arranged to operate in the manner specified; 2nd. The forming wheel A, constructed in two parts which open and close to enlarge or contract the size of the hoop when combined with the stationary disk B, in the right and left screw C, slides I, L, set screws i, i, and slots K, K, when combined with the forming wheel A, and disk B; 4th. The combination of the dog D, and the depressed part S, of the periphery of the forming wheel whr arranged to operate in the manner specified.

No. 2546. EDWARD SCHIRCK, Rochester, N. Y., U. S., 24th July, 1873, for 5 years: "A Governor Valve." (Une pendule conique.)

Consists in combining in the ordinary casing or shell of the valve, a cylinder in which the piston plays, said cylinder and piston having coincident parts for the passage of the steam, also in a device for swivelling the piston rod and a lever for raising the balls for letting on the steam.

*Claim.*—1st. The combination with the exterior casing A, of the interior cylinder E, and piston G, when provided with coincident parts c, d; 2nd. In combination with the governor valve having the cylinder E, and piston G, the lever K, when arranged to operate the piston to let on steam in starting the engine as described.

No. 2547. JOHN TAYLOR, Whithy, Ont., 24th July, 1873, for 5 years: "A Pot Strainer." (Un couloir à pot.)

*Claim.*—The perforated strainer, made of tin or other material to fit in any pot or other vessel for cooking or boiling vegetables, meats or other articles so that upon lifting said strainer out of the pot or boiler the water or other liquid is strained or drained out into the pot or vessel from which the strainer has been lifted.

No. 2548. JOHN TESSEYMAN, & EDMUND I. HOWARD, Dayton, Ohio, U. S., 24th July, 1873, for 15 years: "Valve Gear for Direct-Acting Steam Engines." (Appareil de soupape pour les machines à effet direct.)

*Claim.*—1st. A direct acting engine, a reciprocating pump provided with two longitudinal grooves, intersecting at their ends and diverging at their centers, and through suitable mechanism connected with and imparting motion to the steam valve; 2nd. In combination with the reciprocating cross head B, provided with the intersecting grooves H, and arm E, and with the valve rod K, and rocker arms L, J, and L', and the rod U, provided with the adjustable collars P, and springs Q; 3rd. The valve gearing as a whole when constructed and arranged to operate as set forth.

No. 2549. JOHN D. LEWIS, Toronto, Ont., 24th July, 1873, for 5 years: "A Child's Spring Crib." (Un hamac d'enfant à ressort.)

*Claim.*—1st. The combination of springs S, S, with cords D, and H, eyes, C, C, C, cross bar F, and suspension chain G; 2nd. The combination of frames A, and B, with flexible bands z, z, z, &c.

No. 2550. GEORGE H. PEDLAR, Oshawa, Ont., 24th July, 1873, for 5 years: "A Drum Heater and Fuel Saver." (Un poêle sourd épargne-combustible.)

*Claim.*—1st. A heater consisting of the outer drum A, inner drum or cylinder B, base piece C, tube D, chamber M, annular flue G, bottom E, angular cap and top exit flue H, arranged as described; 2nd. In combination with the chamber M, concave base C, and air tube D, arranged as described.

No. 2551. WILLIAM HOWELL, Thorold, Ont., 25th July, 1873, for 5 years: "Self-adapting Rake and Pea Harvester." (Rateau et moissonneuse à pois combinés.)

*Claim.*—The combination of the H, hinge P, with the heads d, d, of the rake, and draw-bar K', as specified.