

*Claim.*—1st. The rotatory arms C, C, with shafts B, and stringing shelves D, with loops E, E, and studs F, F; 2nd. The standards H, H, with short revolving arms G, G, and cheese holder K, R, with their bearings I, I, and gauge holes S, S; 3rd. The spring L, with catch holder M, catch P, and posts A, A.

No. 3887. ALEXANDER RODGERS, Muskegon, Mich., U. S., 30th September, 1874, for 5 years: "Circular Saw Mill." (Moulin à scies circulaires.)

*Claim.*—1st. The frame composed of the hollow columns B, and B, the pipes C and C, having inlet and outlet pipes a, and a, and the rods a, provided with screw threads and nuts upon their ends; 2nd. The hollow columns E, in combination with the pipes C, caps E, and bearing plate G, provided with the lugs b, and taper screws for changing the position of the column upon the pipe; 3rd. The journal box F, in combination with the column E, and intervening elastic material; 4th. The grooved bed plate I, the journal boxes H, and H, in combination with the pipes C; 5th. The moveable journal box P, in combination with the springs K, collars a, and pipe C; 6th. The moveable journal box P, in combination with the rods h, reciprocated by eccentrics or equivalent devices and operated by the hand lever R; 7th. The friction pulley O, consisting of the side pieces A, and connected in the manner specified; 8th. In combination with the pulley O, constructed as shown, the friction wheels L, and K, their wearing surfaces being formed of paste-board in the manner described; 9th. The hinged column S, carrying the saw-guides in combination with the pipe C, and bar G; 10th. The guide bars o and p, provided with the jaws j, and j, for holding the material which forms the saw-guides; 11th. The bearing roll U, provided with a splitting wheel V, in combination with the hooded journal boxes T, and T; 12th. The bearing roll V, supported in the adjustable frame in combination with the adjusting device V; 13th. The recessed pulley J, arranged with relation to the main driving pulley and belt; 14th. A machine composed of the various mechanisms described, all the parts being constructed, combined and arranged in the manner as set forth.

No. 3888. JOSEPH W. JONES, London, Ont., 30th September, 1874, for 5 years: "Preservation of Eggs." (Conservation des œufs.)

*Claim.* A compound composed of salt, lime, magnesia, alum, salt-petre, gum-arabic and water placed in contact with a bag, containing charcoal, as set forth.

No. 3889. WILLIAM W. CLAY, JOHN KAY & THOMAS MCCOSH, Paris, Ont., 30th September, 1874, for 5 years: "Wool Drying Apparatus." (Appareil à sécher la laine.)

*Claim.*—1st. The shaft A and furnace H for drying wool; 2nd. The lift or elevator D, in combination with the shaft A; 3rd. Providing the furnace H with a covering I.

No. 3890. ANSON O. KITTRIDGE, WILLIAM H. CLARK, and WILLIAM J. CLARK, Salem, Ohio, U. S., 30th September, 1874, for 5 years: "Machine for Marking Lines of Bend of Sheet Metal for Moulding." (Machine à marquer les lignes de courbure des feuilles métalliques pour les moulures.)

*Claim.*—1st. The beam E, having therein a groove b, the lower side whereof is perforated with two or more longitudinal rows of holes, prick of more or less in number, fillet c in combination with the bed or table K. 2nd. The shaft C, and pitman D, in combination with the beam E, for operating the same in the manner described; 3rd. The table K, having its surface directly under the beam E, and longitudinally therewith inlaid with soft metal, hard wood or other equivalent material, as described.

No. 3891. GEORGE SCOTT, Montreal, Que., 30th September, 1874, for 5 years: "Carriage Lifting Jack." (Chevre à élever les voitures.)

*Claim.*—1st. The vertical sliding bar B, with tooth gear and ratchet combined as set forth; 2nd. The combined sectional union and lever C, as set forth; 3rd. The slotted bearings E, E, and E, E, in the bars D, D, for the purpose set forth; 4th. The ratchet pawl F, with spring in combination with the standard A, the sliding bar B, sectional union lever C, lugs D, D, with slotted bearings E, E, and E, E, the whole combined as described.

No. 3892. THEODORE M. FOOTE, and CHARLES A. RANDALL, New York, U. S., 30th September, 1874, for 5 years: "Improvement in Telegraph Instruments." (Perfectionnement des instruments de télégraphie.)

*Claim.*—1st. The fillet of paper or other non-conducting material, for direct recording chemical telegraphs, provided with the extra row of perforations, when the perforations in the extra row come directly after each and every perforation in the row or rows cor-

responding to the message; 2nd. The fillet of paper or other non-conducting material, perforated with an extra row of perforations between each and every perforation in the row or rows corresponding to the message in combination with an extra row of stylers, connected to pole "a" battery opposite to the recording battery for the purpose of discharging or freeing a telegraph line or cable of unavailable and surplus electricity; 3rd. The fillet of paper, or other non-conducting material, perforated with an extra row of perforations between each and every perforation in the row or rows, corresponding to the message, in combination with an extra row of stylers, connected to earth for the purpose of discharging or freeing a telegraph line or cable of unavailable and surplus electricity; 4th. A fillet of paper perforated with an extra row of perforations, in combination with an extra row of stylers connected to earth, in combination with a discharging or extra battery at the receiving end of a line for the purpose of discharging or freeing a telegraph line or cable of unavailable and surplus electricity; 5th. The method of working automatic or chemical telegraphs, consisting in the transmission of alternating currents of opposite polarities, one current effecting the recording, the other acting as a discharging or freeing current; and being thrown upon the line immediately after each break in the circuit of the recording current as described; 6th. In automatic or chemical telegraphs the method of vibrating "tailings" or bars, and of effecting a ready discharge or freeing of the line, the same consisting in throwing upon the line immediately upon each and every break in the circuit of the recording current, a current or impulse of opposite polarity; 7th. The combination with the transmitting drum of a recording and receiving drum and circuits connecting them and the lines, the transmitted current being thereby thrown through the recording drum, and a copy of the message sent taken; 8th. The combination with the motive power driving the receiving and transmitting drums of an automatic telegraph apparatus of an adjustable governor; 9th. In combination with the transmitting drum of an automatic or chemical apparatus, of two or more styluses, insulated from each other, and connected to opposite battery poles; 10th. The combination of the armature a provided with a polarizing helix or helices M, and the electro-magnets M, having electrical circuit connections as described, and arranged to act u. on said armature in the manner set forth; 11th. The combination of the electro-magnets M, provided with the extended cores c, c, the electro-magnets M and helix M, the helix M being arranged transversely to the magnets M, and between the cores c, c, 12th. The method of transmitting electrical signals, the same consisting in sending over the line, regularly alternating currents of opposite polarity, and of equal duration, the dots and dashes being distinguished by the space left after the transmission of any single impulse as described, and 13th. A fillet of paper perforated for telegraphic transmission in two rows each row serving to transmit currents of a polarity opposite to those transmitted by the other row, the perforations in both rows being of equal size, and in each row intervening between those in the other row as set forth.

No. 3893. GEORGE PYE, St. John, N. B., 1st October, 1874, for 5 years: "Improvements on Harvesters." (Perfectionnements aux moissonneuses.)

*Claim.*—1st. The wheel E, having peripheral transverse graduated flutes and rocker F, having anti-friction rollers G, operating in combination for imparting by means of lever mechanism the ordinary motion to the knife; 2nd. The frame A, mounted on the axle B, for attachment of the draught pole, and bearings for the operating parts; 3rd. The frame A, constructed in two sections, hinged together, the moveable section supporting the shoe K, for elevating the knife perpendicularly; 4th. The cam N, applied to the rocker shaft P, to withdraw the rocker arms from engagement with the concaves of the wheel; 5th. The knife bar H hinged to the drag bar M, pivoted to the frame A, the cut of the knife being in line with the axle B, centrally of the wheels, as set forth.

No. 3894. CLARK S. FULLER, ORVILLE M. MORSE and HARVEY J. BURDICK, Oswego, and SIMON HOWES, ALPHEUS BABCOCK, NORMAN BABCOCK and CARLOS EWELL, Silver Creek, N. Y., U. S., 1st October, 1874, for 5 years: "Middlings Purifier." (Épurateur des gruaux.)

*Claim.*—1st. A reel bolt composed of hinged segments which open and close, and thereby form apertures at the top of the reel for the escape of the impurities as the reel revolves; 2nd. The combination with an exhaust chamber communicating at the top with the eye of the fan, of the hinged segmental reel B, B, 3rd. The combination with the tail end of the reel and the outlet formed therein, of the shield and deflector B, as set forth.

No. 3895. ORVILLE M. MORSE, CLARK S. FULLER and HARVEY J. BURDICK, Oswego, and SIMON HOWES, ALPHEUS BABCOCK, NORMAN BABCOCK and CARLOS EWELL, Silver-Creek, N. Y., U. S., 1st October, 1874, for 5 years: "Middling's Purifier." (Épurateur des gruaux.)

*Claim.*—1st. The combination with the exhaust case A, of an elevating wheel provided with buckets d, arranged so as to scoop up and elevate the material from the bottom of the case and discharge it at or near the top thereof, so as to be subjected to action of an air current in its descent for separating and removing the impurities therefrom; 2nd. The combination of the elevating