

Claim.—1st. The combination of the feed wheel, the presser mounted on an oblique shaft, and drawn up toward the feed wheel by a spring, and the knife and means for revolving the feed wheel and the presser. 2nd. The combination of the feed wheel, the presser mounted on an oblique shaft, the spring which acts on the frame or arm supporting this oblique shaft, the platform extending from said arm, and the knife secured to said platform. 3rd. The combination of the feed wheel, the presser made in the form of a hollow truncated cone, mechanism for drawing the presser up against the feed wheel, the knife M and the projection *n* extending from said knife, into the hollow part of the presser. 4th. The combination of the feed wheel, the presser mechanism for drawing the presser up toward the feed wheel, the trimming knife M and the secondary knife L. 5th. The feed wheel N constructed of a metallic section *i*, and a soft and elastic section *j*.

No. 13,513. Improvements on Window Blinds. (*Perfectionnements aux jalousies*)

William H. Payzant, Canning, N.S., 1st October, 1881; for 5 years.

Claim.—1st. The connecting and securing of the slats A together with rings B B, thereby holding each slat in its proper position, which rings also serve as hinges in raising and lowering, folding and unfolding the blind. 2nd. The combination of slats A, rings B B, cord C, ring D, pulleys E E, fastener F and ring G. 3rd. The combination of slats A, rings B B, cord C, ring D, pulleys E E, fastener F and header H.

No. 13,514. Improvements on Seat Locks.

(*Perfectionnements aux ferrures des sièges.*)

Samuel F. Roop, Middleton, N.S., 1st October, 1881; for 5 years.

Claim.—The bolt and hook with projecting arm, also cap and application of cam.

No. 13,515. Improvements on Lathes for Turning Irregular Forms. (*Perfectionnements aux tours à tourner les objets de forme irrégulière.*)

Alexander Fleck, Ottawa, Ont., 4th October, 1881; (Extension of Patent No. 6,644.)

No. 13,516. Method of Heating and Refrigerating Liquids and Apparatus Therefor. (*Méthode pour réchauffer et refroidir les liquides, et appareil pour cet objet.*)

William Lawrence, London, Eng., 5th October, 1881; (Extension of Patent No. 6,749.)

No. 13,517. Improvements on Spittoons.

(*Perfectionnements aux crachoirs.*)

Jane S. Ste. Marie, (heir of the late P. C. Ste. Marie), Montreal, Que., 11th October, 1881; (Extension of Patent No. 6,640.)

No. 13,518. Improvements on Hay Presses.

(*Perfectionnements aux presses à foin.*)

Greenleaf W. Butchelder, Boston, Mass., U. S., 12th October, 1881; for 15 years.

Claim.—1st. The tower structure *a*, the lower part boxed to receive the material intermittently fed, a descending weight *c* suspended from the top of the tower to beat said material while being fed, pressure levers *b* acting in conjunction with said weight to bale the beaten material, and a capstan to intermittently lift and drop said weight and work the levers by means of ropes and pulleys. 2nd. The combination with the tower *a*, of the beating weight *c* and pressure levers *b*, whereby engagement is effected for independent or combined action. 3rd. The weight *c*, having its bottom cut with channels and holes 10, and bed plate *d* provided with corresponding channels and holes. 4th. The outer doors *e* provided with bevelled projections *e*³. 5th. The capstan *f*, and compressing weight or beater *e*, and its lifting rope *d* loosely connected with the said capstan, and *e* means to automatically engage and disengage the said rope and capstan. 6th. The capstan *f* and shoe *e* mounted loosely in circumferential guides therein, combined with the weight or beater *e*, and its lifting rope *d* attached to said shoe, the engaging device to positively connect said capstan and shoe, and the disengaging device to release the shoe. 7th. The capstan shaft *m* and capstan drum *f* mounted loosely thereon, combined with a second winding drum *l*, also loose on the said shaft, the two drums being provided with clutch projections.

No. 13,519. Improvement in Railway Crossing Gates. (*Perfectionnements aux barrières des traverses de rivières.*)

Pierre Mayrand, Trois-Rivières, Que., 12th October, 1881; for 5 years.

Claim.—1st. In railway crossing gates, the gate posts A B C D formed in two parts, said parts being held to each other by the holding or pivot pins *a* and the stop pins *b*. 2nd. The combination of the posts A B C D with the arches which are composed of the segments *c* *d*, which are for guiding the loose ends of the bars F, and also for steadying the posts of the gates. 3rd. The arrangement and combination of the gate posts A B C D, the holding or pivot pins *a* and stop pins *b*, with the ropes or chains *e*, pulley *g*, shaft *h*, gears *i* *j* and *k*, journalled in the hinge post A and outside post G, and the winch *m*.

No. 13,520. Improvements in Valve Gears.

(*Perfectionnements aux garnitures des soupapes.*)

James Bain and William C. Wallace, Hamilton, Ont., 12th October, 1881; for 5 years.

Claim.—1st. The use of two or three cranks or eccentrics F F carried by the eccentric rod G for the purpose of expanding or contracting the cut off plates A A. 2nd. The combination of the one spindle working

inside the other with the eccentrics F F, as the best means of communicating the motion from the fore mentioned eccentrics F F to the cut off plates A A.

No. 13,521. Improvements in Chandeliers.

(*Perfectionnements aux chandeliers.*)

James Chase, Rochester, N. Y., U. S., 12th October, 1881; for 5 years.

Claim.—1st. The combination of the external tube, the sliding internal tube provided with the downwardly and inwardly inclined plane, the wedge bearing against both, the inclined plane and the outer tube, and the spring seated and carried upon the inner tube and connected with the wedge. 2nd. An extension chandelier which unlocks automatically when urged upward, the same embracing the combination of an outer tube, an inner sliding tube with a seat or bearing inclined downward and inward, a wedge seated on said bearing and a spring connection between the inner tube and the wedge, whereby the latter is forced upward as the inner tube is drawn downward, but released as the tube is pushed upward. 3rd. The combination of fixed tube B, inner sliding tube D with the inclined face on one side, wedge *a*, washer *d*, spring S and unlocking device C *à* *à*. 4th. A chandelier provided with an external tube B within which is sliding tube D, the former being made to support a portion of the lamps or burners, and the latter supporting one or more burners required for lowering. 5th. A sectional hub H H, a portion of which is attached to the external tube B, the latter being made to support the fixed arms K and the other portion of said hub being attached to, and made movable with the inner sliding tube D, and also made to support such parts of the chandelier as are required for lowering. 6th. The method of suspending the outer tube B of drop lights, by means of a socket A' fixed to or in the timber or floor above the ceiling, when it is desirable to extend the said tube as high as possible in low rooms, or when the point of suspension is located between joists.

No. 13,522. Improvement on Cheese Vats.

(*Perfectionnements aux éclisses à fromage.*)

Theodore B. Wire, Lenox, Ohio, U. S., 12th October, 1881; for 5 years.

Claim.—1st. In a cheese vat, the combination, with a vertical rotary shaft located at the central portion of the vat, and an agitator, one end of whose shaft is journalled in a bearing secured to said central shaft, of an independent rotary shaft geared to the agitator shaft, said parts being adapted to cause the agitator to revolve about the centre of the vat, and to rotate about its own axis. 2nd. The combination, with a vertical rotary tubular shaft located at the central portion of the vat and an agitator having one end of its shaft journalled in a bearing secured to the upper extremity of said tubular shaft, of an independent rotary shaft inclosed in the tubular shaft and gearing with the agitator shaft, said parts being adapted to cause the agitator to rotate on its axis in the same direction in which it revolves about the centre of the vat. 3rd. The combination, with a driving shaft gearing with a counter shaft, and with the lower extremity of the vertical rotary shaft, and an agitator whose shaft gears with the upper extremity of said vertical shaft, of a tubular shaft inclosing the latter shaft and provided at its upper extremity with a bearing, in which one end of the agitator shaft is journalled. 4th. The combination, with a driving shaft located beneath a vat, and having level gearing with the lower extremity of a vertical rotary shaft, and an agitator, one end of whose shaft gears with the upper extremity of said vertical shaft, of a counter shaft having spur gearing with the driving shaft and having worm gearing with the lower extremity of a tubular shaft inclosing the previously mentioned vertical shaft, and an agitator, one end of whose shaft is journalled in a bearing secured to the upper extremity of said tubular shaft. 5th. The combination, with a vat and an agitator, of a support to which one end of the agitator shaft is pivoted, said agitator being thereby adapted to be raised from the vat in vertical tilting movement. 6th. The combination, with a vat provided with a central opening, and a vertical rotary shaft fitted in the latter, of an agitator having one end of its shaft journalled in a bearing secured to the vertical shaft at a point within the vat opening and a frame supporting said vertical shaft in position in the centre of the opening.

No. 13,523. Improvements on Feed Water Heaters. (*Perfectionnements aux chauffeurs de l'eau d'alimentation.*)

Israel E. Myrick, Cleveland, Ohio, U. S., 12th October, 1881; for 5 years.

Claim.—1st. In a feed water heater, the combination of the pipe E F, disk G, chamber A, filtering chamber C and pump M, with their connections. 2nd. In combination with the exhaust steam pipe B, the water supply pipe E perforated at its inner and entering such exhaust pipe, and the diaphragm G, encircling such water pipe below its perforated end. 3rd. In combination, with the chambers A A, the filter C constructed as described, tank D arranged below the same, and the siphon H H.

No. 13,524. Improvements in Hose Couplings. (*Perfectionnements aux manchons des tuyaux élastiques*)

David B. Kendall, Howland Flat, Cal., U. S., 12th October 1881; for 5 years.

Claim.—1st. The inner pipe A, and the outer fastening device formed of the ring C, strips *a* riveted thereto with their curved heads *b*, grooved on their under surfaces, and the band D for slipping over the fastening device, whereby its heads *b* are made to take firm hold upon the hose and secure the joint over which they fit. 2nd. The elastic strips or arms *a* secured to the rings C, and having its segmental heads *b* and adapted to clasp the meeting ends of two sections of hose, and compress them upon an inner pipe A, by means of the exterior compressing ring D.

No. 13,525. Improvements on Machines for Marking Scale beams. (*Perfectionnements aux machines à graduer les fleaux des balances.*)