E and cutter head F, the said standards E working in guides E^3, fastened to the frame A, and having adjustable boxes E^2, to which the roller d^2 is attached, the top of the said standards also being hinged and slotted to fit over the ends of the head F, and held in place by screws e^2, all arranged and operating as described; 5th. The cutter head F, with dies N, attached to which a reciprocating up and down motion is given in the manner described but held stationary during the time that the pushers g, are operating as described; 6th. The hollow cutters or dies N, constructed as shown with the base n, side stems n^1, and open at the front and rear above the base attached to the head F, to which a reciprocating up and down motion is given, arranged and operating as described, 7th. The pivoted levers D^1, connected to and worked from the eccentric channel d, in the wheels D, by the friction rollers d^2, the reciprocating sliding frames G, having attached the jitters H^1, with inflected channels h^1, bar H, with end bearings h^2, having connected the rod and spiral spring h, in combination with the cutters F, arranged and operating as described; 8th. The pivoted levers D^1, connected to and worked from the eccentric channels d, in the wheels D, by the friction rollers d^2, the reciprocating sliding frames G, having attached the adjustable pushers g, in combination with the cutters F, arranged and operating as described; 9th. The cams m^1, attached to the outside of the wheels D, in combination with the system of levers M, and bar M^1, arranged and operating as described; 10th. The eccentric c fastened to the revolving shaft C, pivoted lever C^1, with spring haul C^2, in combination with the tooth rack l, sunk in the lower side of the cutting boards L, arranged and operating as described; 11th. The pivoted toothed quadrant D^2, with leg d^3, connected to and operated from the revolving wheel D, by the connecting rod d^3, the toothed wheels D^3, and D^4, in combination with the toothed rack D^5, having the cross-head I, and working on the curved guides J, arranged and operating as described; 12th. The cross head I, attached to the sliding rack D^5, rod i and shelf i^1, in combination with the pushers g, arranged and operating as described; 13th. The independent carriage I, having the hinged guard i^3, attached and operating by the horns i^4, in combination with the shelf i^2, arranged and operating as described; 14th. The hinged latch i^2, attached to I^1, in combination with the shelf i^3, arranged and operating as described; 15th. The pivoted lever R attached to the frame A at r, links Q^2, cross-pieces O^3, cross-bar Q, standards O^3, sliding in boxes A^2, attached to frame A^1, cross-bars O^4, cross-head P^1, attached thereto adjustable moulding pieces P, with holes p, sunk in its under face in combination with the stationary head P^2, having holes p sunk in its upper surface to correspond with the upper moveable head arranged and operating as described; 16th. The endless rubber bands O, and O^1, passing around the rollers O^2, in combination with the holes p, sunk in the adjustable moulding pieces P and P^2, arranged and operating as described; 17th. The frame U^1, sliding on the guides U^2, hinged bar U, with fingers U^3, attached and handles u, in combination with the top W^1, arranged and operating as described. 18th. The starch board S, under board S^1, sliding on the guides s^2, with the toothed rack s, sunk in the under side in combination with the spring haul Q^1, operated by the lever R, arranged as described; 19th The starch box T, having its lower side closed with bolting cloth in combination with the rubber band O, arranged and operating as described.

No. 3621. STEPHEN P. M. TASKER, Philadelphia., Penn., U. S., 8th July, 1874, for 15 years: "Metallurgical Furnace." (Fourneau Métallurgique)

Claim—The central chamber A, in combination with the side flues B, B, which have an open communication therewith at the top of the walls C, C, the said walls being with or without the ports b.

No. 3622. HIRAM STRAIT, Troy, N. Y., U. S., 8th July, 1874, for 5 years: "Potato Digger and Gatherer." (Extracteur-ramasseur à patates.)

Claim—1st. The combination of the triangular frame C, C, inclined teeth T, T, and double mould board plough P; 2nd. The combination with the digger of a gatherer consisting of the frame D, and teeth E, E; 3rd. The combination with the gatherer D, and its teeth E E, of the draw-teeth F, F.

No. 3623. ALEXANDER STRANGE and KENNETH H. CORNISH, London, Eng., 8th July, 1874, for 5 years: "Spinning Apparatus." (Appareil à filer.)

Claim—1st The driving of spindles by frictional contact between the lower surfaces of spindle discs and the peripheries of wheels carried on a shaft or shafts movable longitudinally in such a manner that contact may be made between the discs and wheels at any required distance from the centres of the said lower surfaces; 2nd. The raising of any single spindle separately or any row of spindles simultaneously or all the spindles in a frame simultaneously out of contact with the driving wheel or wheels by levers and inclined and adjustable planes or cams; 3rd. The employment of springs separately or in combination with weights to keep the spindle discs from flying upward out of biting contact with their driving wheels as described: 4th. The combination of discs or wheels on movable shafts with levers and inclined and adjustable planes or cams for biting any of or any row of or all the spindles out of contact with the driving wheel or wheels and with springs with or without weights to keep the spindle discs in biting contact with the said driving wheel or wheels.

No. 3624. THOMAS BARNES and ROBERT A. HUDGIN, Harwich, Ont., 8th July, 1874, for 15 years: "Improvements on Gates." (Perfectionnements aux barrières.

Claim—1st. The combination of the slotted standards M, M, hooks N, N, wires and chains R, R; 2nd. The latch bars E, E, vertical lever strip F; 3rd. The hinge bars H and the pintle bar K, together with the suspension bars C, with dove-tailed shoulders or their equivalent and the bevelled middle uprights S.

No. 3625. JAMES H. WENTWORTH, (Assignee of R Simpson), Boston, Mass, U. S., 8th July, 1874, for 10 years: "Improvements in Stoves" (Perfectionnements aux poeles.)

Claim—1st. The top plate C secured to the body of the stove by the short screws d, d, in combination with the long bolts b b, and the luge a a, for securing the bottom and vertical wall plates together as described; 2nd. The bar or rail D, arranged to be adjusted to different positions as described.

No. 3626. BENJAMIN SCOTT, New Brighton, Penn., U. S., 8th July, 1874, for 5 years: "Rail Joint for Railways." (Joint de rails de railroutes.)

Claim—1st. The truss joint described consisting of the clamp bars B, B^1, B, B^1, constructed and operating as set forth; 2nd. The combination of the clamp bars B B^1, B, B^1, and wooden block E; 3rd. The combination of the locking washers G, with the nuts F, block E, clamp bars B, B^1, and bolts D.

No. 3627. HENRY SWEITZER, (Administrator of the Estate of W. Sweitzer,) St. Stephen, Ont., 9th July, 1874, for 5 years: "Fanning Mill." (Tarare.)

Claim—1st. The moveable trough H, attached to the shaker A, in combination with the rolling screen I; 2nd. The arrangement of the elevator E. in combination with the box B.

No. 3628. JAMES HEDGES, West Wareham, Mass., U. S., 9th July, 1874, for 5 years: "Hose Repairer." (Ravaudeur de boyau.)

Réclame—1o. La combinaison d'un carré A, de cuir ou de caoutchouc ou de gutta-percha ayant des lames B, B^1, de métal rivées à ses rebords; 2o. La combinaison du mantonet K pour arrêter le loquet D, et la combinaison du piton J, pour empêcher la main G, de jouer folle; 3o. La combinaison d'un loquet D, recoude en équerre E, avec la main G, et sa plaine H, trouées et le piton C, fixé à la lame B, pour la fermer, tel que décrit.

No. 3629. HARLOW M. WELCH, Cowansville, Que., 13th July, 1874, for 5 years: "Steam Cooking Apparatus." (Appareil de cuisine à vapeur.)

Claim—The steaming vessel A, furnished with a close fitting concave-convex cover C and having a series of perforated dishes fitting therein; provided with legs E, to stand on the rim of the next lowest dish as set forth.

No. 3630. THOMAS H. PRICE, Lafayette, Ind., U.S., 13th July, 1874, for 5 years: "Heating Apparatus for Sleighs and Carriages." (Chaufferette de voitures d'hiver et d'été.)

Claim—The case A, having a hinged top and perforated sides and the air heating box H, having perforated cover I, and concaved bottom traversed by the bar K, said parts being combined and applied to the sleigh bottom, as described.

No. 3631. GEORGE WALKEY, Toronto, Ont., 13th July, 1874, for 5 years: "Refrigerator." (Retrigérant.)

Claim—An ice chamber A, having an air tight lid or cover B, suspended within a refrigerator in combination with the compartments D, and E, separated by the partition e, as specified.

No. 3632. LEVI SUTTON, Ottawa, Ohio, U. S., 16th July, 1874, for 5 years: "Automatic Car-coupling." (Attelage de wagon automatique.)

Claim—1st. The combination of the bolt C, the swivelled rod D, the tubular keeper E, having an incline e_1, formed upon the upper end, the pin F, the lever G, and the coiled spring H, with the draw-head A, as described; 2nd. The combination of the lever I, with the projection C_1, formed upon the side of the bolt C, as described.

No. 3633. JOHN NOYES, Barnston, Que., (Assignee of H. A. Cooke), 16th July, 1874, for 5 years: "Artificial Stone." (Pierre factice.)

Claim—1st The combination of cement, sand or other suitable mineral substances or material and an aqueous solution of gum copal to form a compound for making artificial stone and concrete or for other purposes; 2nd. In the manufacture of artificial stone, concrete or similar material the use of an aqueous solution of gum copal for the purpose set forth; 3rd. The process described of