

No. 2952. ISAAC S. RUSSELL, New Market, Md., and HENRY R. RUSSELL, Woodbury, N.J., U. S., 29th December, 1873, for 5 years: "Earth Closet." (Latrine à la terre sèche.)

*Claim.*—1st. A discharger consisting of grate or dispenser G, and two alternately and independently moving slides S, and J; 2nd. A table T, either fixed or loose on a vertical shaft F, for swinging or carrying the receptacle W, to its proper positions under the seat openings and under the reservoir; 3rd. The vertical shaft F, and table T, in combination with seat lid; 4th. A loosely hung table T, attached to a vertical shaft F, in combination with the arm H, catch E, wedge K, and stops G, and C, so that the shaft F, may have a limited motion relative to the table T; 5th. The combination of seat lid, vertical shaft F, table T, and dispenser G; 6th. The agitators on slide S, and the scatterers on slide T.

No. 2953. JOSEPH G. dit TOURANGEAU, Que., 29th December, 1873, for 15 years: "A Kneading Trough." (Un pétrin.)

*Réclame.*—1o. La machine à faire la pâte, marquée C, D, E, se composant de deux ou trois bras liés ensemble par des barres de fer et un couteau ou gratto; 2o. Les excéntriques A, placées de chaque côté de la charpente G, et les quatre supports K, à l'intérieur de la dite charpente G; 3o. Une des portes B, comme porte secondaire; 4o. L'adaptation des deux grandes roues N, à dents du diamètre du tonneau A, et de leurs noix O, d'un huitième de leur grandeur.

No. 2954. ISRAEL KINNEY, London, Ont., 29th December, 1873 for 5 years: "Instrument for Designing and Cutting Scrolls and Curved Lines." (Appareil à tracer et couper les enroulements et les lignes courbes.)

*Claim.*—The disc or roller A, supported in the adjustable holder B, in combination with the leg D, of a pair of compasses or their equivalent, constructed to operate as set forth.

No. 2955. PETER ENGLISH, Hamilton, Ont., 29th December, 1873, for 5 years: "Rotary Steam Engine." (Machine à vapeur rotatoire.)

*Claim.*—1st. The arrangement and construction of the steam block E, dovetailed in the drum C; 2nd. The arrangement of the block B, in four pieces b, E, d, and d', operated by the spring c, and e, c; 3rd. The arrangement of the plate H, in combination with the steam chamber B, operated by the cam Q, through the arrangement and combination of the connecting rods a, o, P; 4th. The arrangement of the rings L, L, in combination with the drum c; 5th. The plate I, with groove K, in combination with the drum c; 6th. The arrangement of the steam ports J, J; 7th. The arrangement and combination of the exhaust pipes S, S', in the projecting portion of the cylinder A, with three way taps T.

No. 2956. CHARLES W. JENKS, Somerville, Mass., U. S., 29th December, 1873, for 5 years: "Improvements on Shirts." (Perfectionnements aux chemises.)

*Claim.*—An improved manufacture, in a shirt in which the lower half or portion of the bosom is unattached to the shirt front except by the upper portion or ruff of the said bosom being sewed or connected at its edges to the front.

No. 2957. CHARLES P. LEAVITT, New York, U. S., 29th December, 1873, for 5 years: "Hot Air Engine." (Machine à air chaud.)

*Claim.*—1st. The engine cylinder A, and pump cylinder J, of equal working capacities or thereabouts and with their pistons C, K, combined and arranged for operation in relation with each other as set forth; 2nd. The combination with the engine cylinder A, and its piston C, of the fire pot or heater B, and pump for supplying air to be expanded within the engine cylinder as described; 3rd. The valve o, in combination with the passage f, bifurcated at A, B, the cylinder A, and fire pot B; 4th. An automatic fuel feeder composed of a fuel receptacle P, a discharging device R, a clearer S, passage I, a delivery device T, passage D, and plunger U, or their equivalents for supplying the fire pot or chamber B, as specified.

No. 2958. JOHN F. STAIRS, Halifax, N. S., 29th December, 1873, for 5 years: "Process for Preparing Oakum." (Procédé pour préparer l'étope.)

*Claim.*—The process of preparing oakum for use by twisting the sliver or roving and winding it into skeins or hanks of the character set forth for the purposes specified.

No. 2959. JOHN F. STAIRS, Halifax, N. S., 29th December, 1873, for 5 years: "Tarring Tow and Oakum." (Goudronnage des peignons et de l'étope.)

*Claim.*—The means described for tarring tow or oakum consisting of the rollers a, trough b, concentrating tube h, and squeezing rollers k, l, in combination with the tar kettle c, and a pair of rollers in such tar kettle.

No. 2960. SAMUEL SMYTH, East Bridgewater, Penn., U. S., 29th December, 1873, for 5 years: "Stove and Furnace Grate." (Grille de poêle et de fourneau.)

*Claim.*—1st. The bars d, upon the shaft f, and provided with the segmental end bars e, in combination with the fire pot contracted near the upper ends of the bars e; 2nd. In the two part grates d, with the curved bars e, and each sectional grate mounted on a separate shaft and capable of being rotated.

No. 2961. FLAVIUS J. BOWLES, London, Ont., 29th December, 1873, for 5 years: "Portable Burglar Alarm." (Alarme-voleur portatif.)

*Claim.*—1st. The lever F, and c, as shown in the drawings and the connection of the same with the hammer and block D; 2nd. The pronged lever A, and pronged wedge A, and perforated arm B, and the prongs c, c', c, c, and B, B.

No. 2962. JOHN LANHAM, London, Eng., 29th December, 1873, for 5 years: "Boot and Shoe Heel Press and Last." (Presse à talons et forme de chaussures.)

*Claim.*—1st. Forming the heel of a boot or shoe upon the sole and in one piece therewith by making an extension on the sole leather and shaping and joining the same as set forth; 2nd. Forming the heel upon the sole of a boot or shoe by bending an extension on the sole leather into the proper shape and stitching the same at the corner of the heel and afterwards finishing the same by pressing or moulding; 3rd. Forming the sole and heel of two separate pieces of leather and uniting them by a seam or seams at the front of the heel; 4th. Forming the heel upon the sole of a boot or shoe before uniting the same to the upper; 5th. The apparatus for shaping the said heels consisting of the bar d, and the dies f, and v, combined and operating together and with the other parts of the apparatus or their equivalents as set forth; 6th. A last with a recess or cavity formed in its heel as specified.

No. 2963. JESSE B. PUGH, Champaign, Ill., U. S., 29th December, 1873, for 5 years: "Hay Press." (Presse à foin.)

*Claim.*—1st. The arrangement under a platform A, of two bale boxes e, c, with followers D, D, operated from a single head-block; 2nd. The combination of the followers D, D, levers G, G, head block H, and rope b, arranged under the platform A, and the windlass J; 3rd. The arrangement of the top doors E, E', and bottom door E'', the doors E, and E', being connected by a rope or chain z.

No. 2964. ADON D. CROSSBY, Cuba, N. Y., U. S., 29th December, 1873, for 5 years: "Bucket for Chain Pumps." (Seau de pompe à cha-pelet.)

*Claim.*—1st. A bucket for chain pumps composed of India rubber, provided with an elastic flange e, at the base.

No. 2965. BENJAMIN MORTON & JAMES L. SMITH, Toronto, Ont., 29th December, 1873, for 5 years: "Snow-plough." (Charrue à neige.)

*Claim.*—1st. The shovel D, having a tilting adjustment on the rail truck A; 2nd. The plough E, having a travelling motion on the shovel D, longitudinally; 3rd. The prop support J, arranged to operate in the manner set forth; 4th. The frame work or tubular casing erected on the shovel for preventing displacement of the plough E.

No. 2966. THOMAS R. WAY, Springfield, Ohio, U. S., 29th December, 1873, for 5 years: "Eccentric Mill Stone Pick." (Marteau à piquer les meules, à eccentricque.)

*Claim.*—1st. The head or body A, provided with the stud F, in combination with the blade B, and the cam lever D, or equivalent fastening device; 2nd. The head A, provided with the stud F, and cam lever D, in combination with the blade B, and spring plate E; 3rd. A mill stone pick having its handle attached at, or near the upper end of the head or body in order that the weight may be below the handle; 4th. In combination with the body or holder, constructed as described, the double ended reversible blade, provided with a series of holes or recesses to receive the fastening stud.

No. 2967. FRANCIS H. WHITMAN, Harrison, Me., U. S., (Assignee of Elias H. Woodsum), 5th January, 1874, for 15 years: "Gain Cutting Machine." (Machine à entailler.)

*Claim.*—1st. The cutter-head as described for the purpose of cutting the recess in the improved sleeper and for similar uses; 2nd. The combination of the platform c, stops h, trucks o, guides or tracks m, tracks e, guides d, shaft i, and cutter heads.