

No. 3501. ALSON E. SALISBURY, Martin, Ohio, U. S., 29th May, 1874, for 5 years: "Barrel Heater." (Chaufeur de tonnellerie.)

Claim.—The cylinder A, divided into compartments H, I, by means of the partition J, fire place D, grate C, ash pit E, and shaft K, in the manner described.

No. 3502. JAMES LYDIATT, and EDWARD R. KENT, Hamilton, Ont., 29th May, 1874, for 5 years: "Improvements in Glass Furnaces." (Perfectionnements aux fourneaux de verrerie.)

Claim.—The arrangement of the furnace A and fire outside of the sorge bouches S, 2nd. The horizontal forward, backward and upward flue KK', on one or each side of the furnace A, in the brick-work, as shown, for the purpose of heating the cold air and admitting it heated under the crown C; 3rd. The arrangement of the raised brickwork H, constructed in the centre of the floor S, under the crown C, containing the air flue I, constructed as shown for the air to enter at a, and be ejected into the furnace at a'; 4th. The openings m and c, at the bottom of the brick-work H, communicating with the chamber N; 5th. The arrangement of the chamber M, with opening O, provided with sliding cover Y and trough R; 6th. The openings T T', one on each side of the furnace A, for extra pots Et Et', as specified.

No. 3503. ALFRED B. SMITH and GEORGE H. COOPER, Oakland, Ont., 29th May, 1874, for 5 years: "Hasp Lock." (Serrure à morillon.)

Claim.—The combination of the turning locking and unlocking plate H, having the notches, b thereon with the locking pins c, of the key post I, and the spring d, as described.

No. 3504. JAMES BRADLEY and JAMES NICHOLAS, Gomer, Ohio, U. S., 29th May, 1874, for 5 years: "Improvements on combined Thrashing, Grain Separating, and Clover Hulling Machines." (Perfectionnements aux machines combinées pour battre et vanner les grains et égrener le trèfle.)

Claim.—The combination of the crank K, connecting rod L, and crank M, with the feed board J, and the roller N, of the straw-carrier, as set forth.

No. 3505. LAVINUS R. DREW, Magog, Que., 29th May, 1874, for 5 years: "Improvement on Carriages." (Perfectionnement des voitures.)

Claim.—Securing the dash board, seat and seat back or top removably to their several attaching parts of the carriage by the hooked or notched prongs or pins, C, bent notched ends E, and pivoted clamps D of the connected parts engaging in holes E, in the attaching parts, as set forth.

No. 3506. WILLIAM HUMPHREY, Sharon, Wis., U. S., 29th May, 1874, for 5 years: "Artificial Marble." (Marbre artificiel.)

Claim.—1st. The composition of matter described of the materials and about the proportions named for the purposes set forth; 2nd. An artificial marble composed of sulphate of alumina, chloride of potassa, water and cement, in about the proportions described; 3rd. In artificial marble or stone, the chloride of zinc as described and in about the proportions named.

No. 3507. HERBERT COTTELL, Newark, N. J., 29th May, 1874, for 5 years: "Diamond Stone Cutting Machinery." (Appareil à diamant pour tailler la pierre.)

Claim.—1st. The revolving disc A, having section a, holding diamonds or carbons, in combination with wedge shaped disc U, as shown in figures 1, and 2; 2nd. The band A, working over pulleys C, in combination with sections B, holding carbons, &c., as shown in Figs. 3, 4 and 5, 3rd. The bands A, with sections B, in combination with table E, provided with friction balls or rollers C, as shown in Fig. 3; 4th. The cutting mechanism consisting principally of the carrier B, provided with mandrel a, actuated by pulley b, the said carrier being operated by screwed shafts c, and d, as shown in Fig. 6; 5th. The screwed shafts c, and d, in combination with pulleys E, and F, operated by frogs I, worked off pulleys G, and H, constructed, arranged and operated as described and shown in Fig. 6; 6th. The mechanism described of the pulleys E, and F, constructed of periphery h, having projector rib i, hub j, and clamp plate k, as shown in Fig. 9; 7th. In combination with the cutting mechanism, constructed as described, the feed mechanism consisting of supporting frame J, arranged to be moved, adjusted and secured as described and shown in Fig. 6; 8th. The supporting plate J, arranged to be moved, adjusted and secured as described in combination with dove-tailed grooves J', J', and dogs K, with or without centres r, as described and shown in Figs. 7 and 8; 9th. The disc A, provided with slots a, and arms b, one or more in number, as described, the arms b, having cutting points c, as described the whole constructed, arranged and operated as set forth and shown in Figs. 10 and 11; 10th. The chuck A, provided with sections B, armed with carbons, &c., constructed, arranged and operated as described and shown in Figs. 12 and 13; 11th. The revolving spindle A, attached by balls and socket-joint F, to the carrier G, having chuck H, and

polisher I, as described and shown in Figs. 14 and 15; 12th. The standard M, with table H, attached thereto, in combination with head I, bar F and shaft C, constructed and arranged as described for operation; the spindle A, as specified and shown in Figs. 16, 17 and 18.

No. 3508. SANFORD P. OLNEY, Patroit, Mich., U. S., 29th May, 1874, for 5 years: "Machine for Gumming Saws." (Machine à affuter les scies.)

Claim.—1st. The arm L, of a saw-gumming machine so pivoted to its supports as to have a radial movement in the vertical and horizontal planes, and an inclination or oscillation in an intersecting plane, 2nd. The frame A, table B, driving shaft C, driving pulley D, standard E, boaming F, yoke G, eye-bolt H, counter-shaft I, pulley J, cord K, arm L, arbour c, pulleys G, O, and belt P, combined and arranged as set forth; 3rd. The counter-weight M, constructed as described, in combination with the arm L; 4th. The eye-bolt H, when provided with the eyes a, a'; 5th. The combination of the slotted segment R, and standard S, with the guide-arc T, pivoted thereto, as described.

No. 3509. HENRY A. HOWE, Detroit, Mich., U. S., 29th May, 1874, for 5 years: "Improvements on Harvesters." (Perfectionnements aux moissonneuses.)

Claim.—1st. The casing A, provided with pipes a, a', and hinged cover A', for joining the main frame of harvester, as well as a protection for the enclosed gearing as described; 2nd. The combination with the frame A and slotted pedestal H, of the bent bar G, forming a draught rod and alignment trace for the shoe and cutter-bar, as described; 3rd. The combination with the frame A, and bent rod G, of the latch lever I, 4th. The combination with the frame A, and bent rod G, of the levers J, K, and cam K'. 5th. The arrangement within the frame case A, with relation to the pinion K, of the gears b, c, d, on the axle B, and the gears g, h, on the eccentrically journaled shaft e; 6th. The pipe l, and guard t, arranged in the frame A, to form a bearing for the shaft e; 7th. The ratchet rings o, provided with the ratchet teeth g, and studs s, in combination with the ratchet feed disc N, and wheels M, each provided with the Bangs r; 8th. The foot P, having a polygonal cross-section at the central portion where it is secured to the frame A, by the clamp u; 9th. The seat supporting spring R, secured to the cover A', by inserting its lower end in a lip in the said cover, and a single bolt or set screw v, as set forth.

No. 3510. EDWIN A. STREET, Lynn, Mass., U. S., 29th May, 1874, for 5 years: "Improvements on Hose." (Perfectionnements aux tuyaux élastiques.)

Claim.—1st. The improved hydraulic hose, formed of the strip of woven material, the edges of which being lapped to form the tube, and the strip being coated with rubber, the tube is vulcanized to render it impervious to the steam or junction, or fastenings, or both as described; 2nd. In combination with the hose made of the strip having its edges lapped to form the tube, the welt applied inside or outside of the tube, and to cover the seam or junction, or fastenings, or both as described; 3rd. A tube or hose formed of the strip, having its edges lapped and united, and a welt or welts applied and vulcanized, as described.

No. 3511. EVERETT E. WHEELER, Norwalk, Ct., U. S., 29th May, 1874, for 5 years: "Improvements in Wheels." (Perfectionnements dans les roues.)

Claim.—The clamps J, and M, with screws p, p', in combination with hub A, and the spokes D, as set forth.

No. 3512. GEORGE WILKINSON, Aurora, Ont., 29th May, 1874, for 5 years: "Improvements on Gang Ploughs." (Perfectionnements aux charrues à socs multiples.)

Claim.—1st. The construction of the frame B, of wrought iron bars, combined with a cast iron socket A, said frame being formed and bolted together as set forth; 2nd. The form of the head C with flanges, also the form of the rocking plate F, as set forth.

No. 3513. JAMES H. BLESSING and FREDERICK TOWNSEND, Albany, N. Y., U. S., 29th May, 1874, for 5 years: "Steam Trap." (Trappe à vapeur.)

Claim.—1st. The combination of a steam trap for a heating apparatus of a valve E, with the float of the trap, and with a valve which is operated by the steam admitted to it, for the valve E, is moved out of its seat; 2nd. The trapping vessel A, of a steam trap constructed with an auxiliary steam chamber or chest, in combination with the chest D, arranged within the chest B, and provided with a valve mover F, whose journal is fitted steam-tight within the chest D, by the device W, W', and connected outside of the chest D, to the float of the trap by an arm d, which is within the chest B, as described.

No. 3514. EDWIN EVANS, Lynn, Mass., U. S., 29th May, 1874, for 5 years: "Improvements on Gas Burners." (Perfectionnements aux becs à gaz.)