

No. 3660. DANIEL ZEIGLER, Lewiston, Penn., U. S., 16th July, 1874, for 5 years: "Improvement in Mechanical Movements." (Perfectionnements aux mouvements mécaniques.)

Claim.—The shaft B, with eccentric B, with sleeve F, and cogs *f*, in combination with the wheel C, with cogs *a*, shaft H, and cylinder I, as set forth.

No. 3661. WILLIAM G. DUNN, Greensburgh, Ind., U. S., 16th July, 1874, for 5 years: "Improvements on Joint of Railway Rails." (Perfectionnements aux joints des rails de railroutes.)

Claim.—1st. The combination in a railway chair of the wedge E, key *e*, and bolt G; 2nd. The combination with the rails A, of the flanged and slotted chair B, the key *e*, one or more short-rails D, wedge E, and bolts G, all constructed as set forth.

No. 3662. EDWIN E. BEAN, Boston, Mass., U. S., 16th July, 1874, for 5 years: "Electric Gas-lighting Apparatus." (Appareil électrique pour allumer le gaz.)

Claim.—1st. On an apparatus by lighting lamps by electricity, a mechanism for making and breaking the current of electricity in the jet thereby lighting the gas as described; 2nd. The combination with an apparatus in which compressed and rarefied air is used for the turning of the gas cocks, of an electric apparatus so arranged that it will automatically transmit the current of electricity to the next lamps in succession for the purpose set forth; 3rd. In combination with the diaphragm *p* and rod *f* of the rocking lever *v*, spring wire *z*, the metallic snapping wire *g* and the metallic pole *n*, as described; 4th. The electro-magnets *o*, *p*, and the arm *t* of the catch or reccers *2*, lever *v*, insulated wedge *z*, spring *r*, *t*, and their insulated posts *q*, *s*, and the wires *k*, *k*¹, *k*², *k*³, *k*⁴, *l*, *l*¹, as described.

No. 3663. JOHN C. TODD, Toronto Ont., 16th July, 1874, for 5 years: "Toy Gun." (Fusil-Jouet.)

Claim.—The "Toy Gun" or catapult produced of a disc-shaped body with grooved circumference, diametrical guide perforation and segmental recess, having an elastic band attached edge-wise for throwing the dart placed in the guide perforation as specified.

No. 3664. WILLIAM BRIGGS, Montreal, and LEWIS SENECA, Côteau St. Augustin, Que., 20th July, 1874, for 5 years: "Improvements on Manure and Hay Forks." (Perfectionnement des fourches à fumier et à foin.)

Claim.—1st. The combination of a socket A, united to the arms B, B, bored to receive the prongs C, D, E, fig 1; 2nd. The prong C riveted to the arm B; 3rd. The prong D, secured to the arm B, by the screwed nut K; 4th. The prongs E, secured to the arm B, by means of a screwed split nut F; 5th. The arms H, H, having screwed sockets *c*, fig. 3; 6th. The combination of the screwed sockets *c*, forming part of the arm H, with the flat headed prongs J, J, secured to the socket *c*, by means of the screwed couplings I.

No. 3665. EDWARD A. C. PEW, Welland, Ont., 20th July, 1874, for 5 years: "Improvements on Peat Machine." (Perfectionnements aux machines à tourbe.)

Claim.—1st. The barrels B, and C, having peripheral spiral grooves Q, and arranged laterally within a shell or casing A; 2nd. The barrels B, and C, each having peripheral spiral cutting edges H, intercepting each other parallel to and centrally in the spiral grooves Q; 3rd. The casing or shell A, receiving the rotating barrels B, and C, having internally formed ribs I, and fixed longitudinal cutter K, as set forth.

No. 3666. GEORGE STACY, Montreal, Que., 20th July, 1874 for 5 years: "Improvements on Chisel Pointed Cut Nails and Machine for Making the Same." (Perfectionnements au clou coupé biseauté et aux machines pour le fabriquer.)

Claim.—1st. An upset headed chisel pointed cut nail; 2nd. A cutting head *d*, header *k*, gripping lever *m*, and nipper *o*, in combination with dies *p* and *q*, as set forth.

No. 3667. IRA W. SHALER, Brooklyn, N. Y., U. S., 20th July, 1874, for 5 years: "Signal Lantern." (Lampe de signaux.)

Claim.—1st. The combination of the reservoir provided with pump barrel *h* and piston *i*, and a suction and delivery tubes with a lamp set forth *a*), arranged and operating for the purpose of forcing a vacuum *a*, gas into contact with the flame of the lamp by applying a blast at the outer end of *a*), a hollow piston; 2nd. The combination with the lamp burner of one or more tubes arranged in such relation to the lamp burner that when volatile oil or gas is forced through said tube or tubes from an independent reservoir it will be ignited by the flame as set forth; 3rd. The combination of the lamp of a signal lantern with the apparatus as described, for forcing gas or volatile oil from a source independent of the lamp reservoir into the immediate proximity of the flame, for the purpose of producing a flash-light signal.

No. 3668. WILLIAM BAXTER, Jr., Newark, N. J., U. S., 20th July, 1874, for 5 years: "Improvements on Compound Engines." (Perfectionnements aux machines mixtes.)

Claim.—1st. A triple cylinder compound engine having its several pistons C, C¹, D, controlled by a single valve L, and organized for operation as specified; 2nd. The combination of the air pump J, and feed pump I, with the rods *a* and *b* of the high pressure pistons C, C¹, the intermediate low pressure piston D, with its rod *b*, the cross-head E, and the cylinders A, A¹, B, as described.

No. 3669. WILLIAM E. KELLY, New Brunswick, N. J., U. S., 20th July, 1874, for 5 years: "Improvements on Steam Generators." (Perfectionnements aux générateurs à vapeur.)

Claim.—1st. The combination of the pockets E, extending across the chamber A, the partition plates B, and the tubes D; 2nd. The partition plates B, having turned up forward ends *e* in combination with the shouldered clamps, bars or plates F, the pockets E, and the tubes D, as described.

No. 3670. GEORGE FORSYTH, Seaford, Ont., 20th July, 1874, for 5 years: "Wire Fence." (Palissade en fil métallique.)

Claim.—The arrangement of the posts A, the pickets B, C, and the wires connecting them, and the mode of setting up the fence, as set forth.

No. 3671. ROBERT DUNLOP, St. Thomas, Ont., 20th July, 1874, for 5 years: "Steam and Gas-fitting Wrench." (Clé pour l'ajustage des tuyaux de gaz et de vapeur.)

Claim.—The combination of upper jaw B, lower jaw C, lever A and bolt D, as set forth.

No. 3672. JESSE E. HARRIMAN, Bangor, Me., U. S., (Assignee of M. L. NORTON,) 20th July, 1874, for 15 years: "Lath Machine." (Machine à latte.)

Claim.—1st. The shaft or arbour Z, attached by the screw *a* or pin *l* to the shaft or arbour Q, of the saw D, thereby extending the arbour Q so as to carry the saws C and D on the same line of shelling; 2nd. A machine for sawing small dimensions, the two bolting saws C, D, running on the same line of shelling and arranged in the relative positions described; 3rd. The rolls H and I, arranged in connection with a circular saw to carry back the bolts or slabs; 4th. In a circular sawing machine, the gang of saws E, running on the upright adjustable arbour S, and at right angle to the bolting saw D, and so arranged in connection with D that as the bolt passes through the machine it shall be sawed to one dimension by the saw D and to the opposite dimension by the saws E, thus sawing either laths, pickets, spool stuff, or any short lumber complete from the bolt, at one operation; 5th. The double adjustable bar T, consisting of the two boxes *w* and *p*, connected together by the spine V, so hung on the rod U as to allow of sliding and swinging upon V, and held in position by the set-screw *k* and adjustable at *p* by the stable *h* and set-screws *j*; 6th. The combination of the bolting saws C, D, with the gang saws E, double adjustable box T, rolls H, I, and gauges F and Y, to form a machine for sawing short dimension lumber complete to the desired dimensions at one operation.

No. 3673. HENRY PALMER, Westminster, Ont., 20th July, 1874, for 5 years: "Machine for destroying potato bugs." (Machine à détruire les pucerons à patates.)

Claim.—1st. The arrangement of the rollers FF, with the endless canvases GG, in combination with the face HHH; 2nd. The arrangement of the outer rollers F¹ F², in combination with the adjustable holders K, the cords LLL and pulley M.