electro-magnetism, when said mechanism is so arranged that a signal of either colour may be displayed when the circuit of the controlling electro-magnet is closed, while the breaking or interruption of said circuit will cause an intermediate or parti-coloured signal to be displayed as specified: 2nd The moveable signal disc D, and shaft D_2, in combination with the arms n, n^1, n_2, n_3, n_4, n_5, n_6, n_7, electro-magnet M, and lever m, provided with suitable detents, for the purpose specified; 3rd. The ratchet wheel K, and pawl k in combination with the shaft D_2, and signal disc D, as specified. 4th. The combination of the rollers upon the arms n, n_1, &c., with the detent lever m, as specified, 5th. The arrangement of the insulated sections T, and T_2, of a railway track each forming a portion of an electric circuit, in such a manner that a section of said track of suitable length which does not form a portion of the said circuit shall intervene between them for the purpose specified; 6th The four insulated sections or rails of a railway track T, T_1, T_2, T_3, in combination with the battery B, and electro-magnet R, as specified. 7th. A primary circuit which is arranged to be closed by a locomotive or train, and a relay included in such circuit in combination with a normally closed secondary electric circuit controlled by such relay, which circuit includes one or more signal operating electro-magnets as specified.

No. 3735. PATRICK S. DEVLAN, Jersey City, N. Y., U. S., 3rd August, 1874, for 5 years: "Process of Treating Sponge." (Procédé des traitements des éponges.)

Claim—1st. Prepared sponge for upholstering purposes treated as described; 2nd Process of treating sponge by first cutting it into small pieces, then treating it with a suitable bleaching agent, and finally with a solution of borax and glycerine, or its equivalent, as set forth; 3rd A packing for rail-road journal boxes, axles or other machinery, made from an elastic sponge treated as described, with or without a fibrous material as set forth; 4th. A packing for journal boxes composed of a sponge and a mineral substance, such as asbestos, steatite, or graphite, mixed together about in the proportion set forth. 5th A packing for journal boxes, composed of sponge, hair or other fibrous material and a mineral substance, such as asbestos, steatite or graphite mixed together about in the proportion specified; 6th. A packing for journal boxes composed of sponge saturated with a solution of aoutchouc or equivalent gum and mixed with a mineral substance such as asbestos, steatite or graphite as specified.

No. 3736. HENRY BOLTON, Elizabethtown, Ont., 3rd August, 1874, for 5 years: "Washing Machine." (Machine à laver.)

Claim.—The frame C, in combination with the rubber B, and tube A, as set forth.

No. 3737. CYRUS KINNEY, Dereham, Ont., 3rd August, 1874, for 5 years: "Sash Holder and Fastener." (Arrête-croisée.)

Claim.—The holder A, in combination with the catches E, and F for the purpose set forth.

No. 3738. HENRY WOODWARD and MATHEW EVANS, Toronto, Ont., 3rd August, 1874, for 5 years: "Electric Light." (Lumière électrique.)

Claim.—The placing of carbons B, in lamps or other suitable vessels A, filled with rarified gas possessing the property of not chemically combining with the carbon when in a state of incandescence in connection with the arrangement of the electrodes E, E, fixing or connecting the carbon B, as set forth.

No. 3739. WALLACE LOCKWOOD, Ekfrid, Ont., 3rd August, 1874, for 5 years: "Rising Platform and Hoisting Machine." (Elevateur.)

Claim—1st. A frame constructed of four upright standards A, and eight slanting supports B, braced together by the tie rods and nuts B^1, in combination with a rising platform constructed for the purpose set forth, 2nd. The rising platform C, and chains D, in combination with the lever E, cross-head F and iron bow H, for the purpose set forth. 3rd The drum I, in combination with the crank shaft K, crank K^1, and small wheel M, for the purpose set forth.

No. 3740. SAMUEL H. DAVIS, and DAVID W. DAVIS, Détroit, Mich., U. S, 3rd August, 1874; (Extension of Patent No. 252 N. B.) "Freezing and Preserving Apparatus for Meat, Fish, &c." (Appareil de congélation et de conservation de la viande, du poisson, etc.)

Claim.—The preserving chamber room or box, as a whole, when constructed with the walls A, posts B, space F, filled with a bad conducting material, partition C, posts D, chamber H, metallic lining E, and cover G, opening a, and hatches b, arranged relativel each other and to operate as set forth; also the freezing pan when constructed and employed in the manner described.

No 3741. BYRON SLOPER, New York, U. S., 4th August, 1874, for 5 years: "Improvements in Gas Machine." (Perfectionnements aux machines à gaz.)

Claim.—1st. The combination with a hydrogen gas generator A, of a carburettor G, containing a helical diaphragm H, as described; 2nd. The arrangement in a hydrogen gas generator A, of the flange or diaphragm C, dividing A, into upper and lower reservoirs A_1, and A_2, in combination with pipe F, and cock F_1, as described; 3rd In combination with the generator A, and carburettor G, the compression cock I, in the connecting pipe, I, for regulating the pressure of gas as described: 4th In combination with the generator A, and carburettor G, the surplus reservoir P, connected with the generator A, by pipe Q, as described. 5th The use of steal hemp intermingled with raw cotton as a packing for gas carburettors.

No. 3742. DAVID S. CORNELL, Warwick, Ont., 13th August, 1874, (Extension of Patent No. 64,) for 5 years: "Improvements on Gate Hanging." (Perfectionnements aux pentures de barrières.)

Claim.—The gate hanging as shown, viz the rod a, the eyes b, b, and c, c, the cap e, the rod f, the post d, bevelled on the front side, and the scantling k, in the gate bevelled on the backside.

No. 3743. JOSIAH B. BROWN, Philadelphia, Pa., U. S., (A signee of R. N. Wetherill,) 13th August, 1874, for 5 years: "Portable Burglar Alarm." (Alarme de voleur portatif.)

Claim—In combination with suitable alarm mechanism, the triangular or wedge shaped box A, having yielding bottom A^1, whereby it is adapted to be operated in the manner specified.

No. 3744. DENNIS C. GRANT, Houghton, Mich., U. S., 13th August, 1874, for 5 years: "Ice-Plough and Ram Attachment for Vessels." (Ajustage des brise-glace et béliers de vaisseaux.)

Claim.—1st. The detachable and adjustable ice-plough attachment consisting of an inclined prow with bifurcated rear part applied to the vessel by means of cable a, and crank screw bolts c; 2nd The plough ram B, having recess B^1, in combination with adjustable grooved cam D, and the ratch on stem-post for producing any suitable inclination of the plough or ram attachment; 3rd. The improved plough or ram composed of solid front part or prow with recess C, at outer most point for charge or torpedo, and bifurcated rear extending part, fitting the stem of the vessel.

No. 3745. DANIEL E. COOKE, Brantford, Ont., 13th August, 1874, for 5 years: "Refrigerator for Preserving Meat, &c." (Refrigérant pour conserver la viande, etc.)

Claim.—1st. The application truss E, having the upper and lower edges formed and soldered to bars A, and stays C, substantially as set forth: 2nd. The application of stays C, attached to bars A, by truss E, and soldered at D, as set forth.

No. 3746. H. VAN DE WATER, Phelps., N. Y., U. S., 13th August, 1874, for 5 years: "Turbine Water Wheel." (Turbine hydraulique.)

Claim.—1st. The gate P, closing upward, arranged between the guides B, and buckets C, and so constructed and applied in relation to grooves of the water wheel casing, that said grooves are entered and tight joint formed at top and bottom of the gate when the gate is shut, as described, 2nd. The ring b, with its bottom surface forming regular or uninterrupted inclined continuations of the curved portions of the buckets of the hub, thus forming smooth flaring or funnel shaped sluice-ways for the inflowing water as set forth; 3rd. The crowning or arched cap E, in combination with the inclined or flaring ring b, the same being applied as described and shown, whereby the ring is made to serve as an abutment for the cap E, as described; 4th. The cutting device p, applied to the bucket so as to precede it in its path of motion and cut away any obstruction between it and the casing as described.

No. 3747. WILLIAM MILLER, Boston, Mass., U. S., 13th August, 1874, for 5 years: "Method for Equalizing or Distributing Pressure." (Méthode d'équilibrer ou distribuer la pression.)

Claim.—The levers I, J, K, L, rods D, E, and levers C, F, G, H, combined to operate with the platform A, spring B, and bed-piece A_1, as specified.

No. 3748. GEORGE W. MILNER, Charlottetown, P. E. I., 13th August, 1874, for 5 years: "Improvements on Pipe-Vices." (Perfectionnements aux mordaches à tuyaux.)

Claim.—1st. The combination of the leg C, having bifurcated jaws D, and leg B, having jaws D_1, arranged intermediately in the jaws D, and provided with a series of holes F, to receive an interchangeable fulcrum pin E, as set forth; 2nd. The application of the screw H, fitted to the end of the leg C, and passing through an elongated hole in the leg B^1, for closing the legs together by the hand nut I, as set forth.