nearly inclose a narrow space *e*, and said plates being formed at the opposite edge with the bead J and flange E, adapted respectively to overlap the bead C and enter the space *e* of the adjoining plate, substantially as shown and described. 2nd. A sheet metal roofing plate, having one of its edges formed with a nailing flange B, a bead C and a lip D overhanging toward said bead and nearly inclosing a space *e* below the lip, and having its opposite edge formed with a bead J and lock-flange E, substantially as shown and described. 3rd. A sheet metal roofing plate formed with a central bead G, having an enlargement at H near the bottom of the plate, and formed also with segmental raised surfaces K, K at each side of the bead G, and arranged with their curved edges *k*, *k* facing the bead, substantially as shown and described. 4th. A sheet metal roofing plate formed with a nailing flange B, bead C, lip D, space *e* and incline F along one edge and a bead J, flange E and incline J along the opposite edge, and formed also with a bead G having an enlargement H, and with segmental raised surfaces K, K, arranged with their rounded edges *k*,*k*, facing each other, substantially as shown and described. 5th. A sheet metal roofing plate formed with *a*, nailing flange B, bead C, lip D, space *e* and incline F along one edge, and a bead J, locking flange E and incline I along the opposite edge, also with a central bead G having an enlargement H, segmental raised surfaces K, K arranged with their curved edges *k*, *k*, facing the bead G, a raised surface L along the top of the plate, and a depression M at the lower edge of the plate, substantially as shown and described.

No. 20,848. Electric Lamp. (*Lampe Electrique.*)

Addison G. Waterhouse and Barton B, Ward, Kingston, Ont., 8th January, 1885; 5 years.

Claim.—1st. In an electric arc lamp, an electro-magnet composed of an iron core provided with a coiled conductor M, placed at or near its centre for carrying the main current in a given direction, also coiled conductors S, S1 at each end of the core for carrying a shunt current in the same direction as that in coil M, and poles or pole places P, P1 at points on the core located between the main current conductors and the shunt current conductors, and armature or armatures connected to the movable carbon and arranged to be actuated by the varying magnetism of the magnet substantially as and for the purposes as above set forth. 2nd. In an electric lamp, an electro-magnet composed of a coil carrying a current from the main circuit, and a coil or coils carrying a current from the shunt circuit, both currents passing around the magnet in the same direction, the main current coil being located at or near the centre of the magnet core, the poles or pole places at each end of the main circuit coil, and the shunt coil or coils located at or near the ends of the magnet and beyond the poles or pole places, so that the action of the main current will cause the poles or pole places to attract an armature or armatures, and the action of the shunt current will be to move the magnetism of the main beyond the reach of the said armature or armatures, substantially as and for the purposes set forth. 3rd. In an electric lamp, an electro-magnet composed of an iron core C, provided with coils of conductors located as follows: a central coil M for carrying the main current in a certain direction, and the coils S, S1 located so as to leave pole places between the three coils, and at each end of the core C, the coils S, S1 to carry a shunt current in the same direction as the current in M, so that the main current in M will polarize the adjacent parts of the magnet, and the shunt current will tend to polarize the parts of the magnet beyond the shunt coils, substantially as and for the purposes set forth. 4th. In an electric lamp, an electro-magnet composed of a main magnet M, having its poles beyond the main coil, and armature or armatures A and shunt coils arranged beyond the armature, substantially as and for the purposes set forth. 5th. In an electric lamp, an electro-magnet consisting of a tubular core C, through which the carbon rod extends, said core C being provided with projecting poles P, P1 between which the armature swings, in combination with a coil for the main current placed around the core between the poles P and P1, and one or two coils for the shunt current placed around said core between its ends and the poles P, P1, substantially as and for the purposes set forth. 6th. In an electric lamp, an electro-magnet consisting of a core C, with poles P, P1 for acting upon an armature or armatures, said core C being provided with a coil M for the main current, placed between the poles P and P1, and coils S, S1 for the shunt current, placed upon said core between the ends of the core and the poles P, P1, substantially as and for the purposes set forth. 7th. In an electric lamp, an electro-magnet composed of a core C provided with conductors for the main current, and pole pieces or pole places P, P1, between which armatures A swing, fixed upon the yoke *l*, pivoted at the centres B, substantially as and for the purposes set forth. 8th. In an electric lamp, an electro-magnet, in combination with the swinging armatures A and pivoted yoke *l* and rod *r*, provided with a retarding dash pot or air piston, and actuated by the armatures A through the yoke *l*, whereby movement is imparted either directly or indirectly to the carbon rod R, through the clutch N, substantially as and for the purposes set forth. 9th. In an electric lamp, the lever J, spring *c* and clutch N actuated by an electro-magnet, substantially as and for the purposes set forth. 10th. In an electric lamp, a lever J provided with a liberating point or floor J1, by the coming in contact of which the tail of the clutch N is liberated, substantially as and for the purposes set forth. 11th. In an electric lamp, the spring *e* forming an elastic connection between the clutch N, and the mechanism by which the clutch is actuated, substantially as and for the purposes set forth. 12th. In an electric lamp, an electro-magnet formed with a tubular passage through the core of the magnet, through which the carbon rod R passes, and an extension tube K electrically connected to the conductor leading to the lamp through which electrical contact can be made to the carbon rod R, by means of the contact brushes *m*, substantially as and for the purposes set forth. 13th. In an electric lamp, an electro-magnet provided at the lower end, and connected therewith, a frame *f* which provides bearings or guides for the carbon rods, and the regulating mechanism of the lamps, substantially as and for the purposes set forth. 14th. In an electric lamp, the method in which the lower carbon holder L1 is secured to the part of the frame forming the globe holder G by means of non-conducting cement Y, and electrically connected to the negative binding post W1 by means of an insulated wire W11 passing through one of the side rods *d* of the frame, substantially as and for the purposes set forth.

No. 20,849. Sash-Holder. (*Arrête-Croisée.*)

Thomas A. Bereman, Mount Pleasant, Iowa, U.S., 8th January, 1885; 5 years.

Claim.—1st. In a window, the combination, with the side strip or stop, bead A secured at its top and bottom only, of a cam or eccentric disk pivoted to the jam and adapted to act upon the said strip, substantially as hereinbefore shown and described. 2nd. In a window, the combination, with a side strip or stop, bead A secured at its top and bottom to the jamb of the eccentric disk D, pivoted to the jamb, and provided with the flange F and the lever E, substantially as herein shown and described.

No. 20,850. Hame Fastener. (*Attache-Attelle.*)

William W. Sly, Cleveland, Ohio, U.S., 8th January, 1885; 5 years.

Claim.—The combination of the latch D, pivotally attached to case A, and the lever A having hook *b*, substantially as and for the purpose specified.

No. 20,851. Car-Coupling. (*Accouplage de Wagons.*)

Isaac J. Merrick, Conotton, Ohio, U.S., 8th January, 1885; 5 years.

Claim.—1st. The combination, in a car-coupling, of a draw-head having S hooked shoulder and a horizontal slot or recess behind the shoulder, a block or lever pivoten horizontally in the said slot, a chain attached to the outer end of the said lever or block, and means for drawing the said chain to one side, tilting the inner end of the lever into the space behind the shoulder of the draw-head and drawing the draw-head to the side, as and for the purpose shown and set forth. 2nd. The combination, in a car-coupling, of a platform A having the vertical plate A2 and the top horizontal plate A1, the supporting-rods *a*1 having their forward ends swivelled to the platform near the opposite sides of the latter, the tubular sheaths or sleeves surrounding the supporting-rods *a*1 and the coil-springs, substantially as and for the purposes set forth. 3rd. In a car-coupling, the combination, substantially as hereinbefore set forth, of the boxing D having offsets, the plate secured within the boxing D between the said offsets, the plate *d*2 placed over and sliding across the face or front of the boxing D, the casing C having upper and lower openings *c*1, the carrier sliding within the casing and having guides or lugs projected through the openings *c*1 thereof, interposed springs *c*5, the coupling bar and means for operating the same, as specified. 4th. In a car-coupling, the combination of the casing C, the carrier *c*2 placed and operating within the said casing, rods *c*4, *c*4 swivelled to the opposite sides of the carrier, and extended laterally through the casing C, interposed springs *c*5, the coupling-bar B passed through the carrier and having its rear end secured to the car by a pivotal connection, and means for operating the coupling-bar, substantially as and for the purposes set forth.

No. 20,852. Lantern Holder. (*Accroche-Lanterne.*)

Charles J. Higgins, Hallowell, Me., U.S., 8th January, 1885; 5 years.

Claim.—1st. The combination, with a reflector A, of the guard B secured with its ends to the reflector, and provided with springs whereby the guard is made yielding, substantially as set forth. 2nd. The combination, with a reflector A, of a guard B secured to the reflector and adapted to surround the lantern, substantially as set forth. 3rd. The combination, with a reflector A, of a guard B provided with tube-clasping portions, and a hook C and stop D adapted to clasp the lower part of the lantern, substantially as set forth.

No. 20,853. Paper Bag. (*Sac en Papier.*)

Walter E. Laughton, Toronto, Ont., 8th January, 1885; 5 years.

Claim.—As an article of manufacture, a bag of paper or other suitable material made by the aid of a hinged former, as shown, and glued (or parted) folded and furnished in the manner shown, and for the purpose specified.

No. 20,854. Sewing Machine Folder.

(*Plieuse de Machine à Coudre.*)

John E. Lyon, Salem, Mass., U.S., 8th January, 1885; 5 years.

Claim.—1st. In a folder for sewing machines, the folder proper B, constructed and arranged to operate substantially as described. 2nd. In a folder for sewing machines, the presser foot A provided with the arm C, in combination with the folder proper B, constructed and arranged to operate substantially as set forth.

No. 20,855. Car-Coupling.

(*Accouplage de Wagons.*)

William R. Power, Windsor, Ont., Jane R. Campbell, Jane Wilson, and Matilda Wilson, Detroit Mich., U. S., 9th January, 1885; 5 years.

Claim.—1st. In a car-coupling, the weighted pivoted hook C formed on one side, with the true arc of a circle, and with a projection *f* to engage with and be held by a pawl B projecting through the top of a draw-head, substantially as and for the purpose specified. 2nd. In a car-coupling, the front walls of the recess *b* formed, with the corresponding circle of the front part of the hook C, as a bearing for the latter to release the strain from the pivot pin *d*, substantially as specified. 3rd. In a car-coupling, the pawl B formed with an incline or a part of the lower side to correspond with the draw-head, and made to pass down through a slot D in the draw-head to engage with the projection *f* of the hook to lock the same, when the link is coupled, substantially as described. 4th. In combination with the pawl B of a car-coupling, of the cap or cover E, substantially as and for the purpose specified. 5th. The combination of the hook C and pin *g*, substantially as and for the purpose described. 6th. The combination of the pawl B, hook C and draw-head A, substantially as and for the purpose specified. 7th. In a car-coupling, the slots *i* for