

Claim.—The perforated leg bottom *f, f*, the hollow flue strip *I, I*, the perforated oven bottom *e, e*, and the openings *b, b* into the smoke flue *L*, with the dampers *a, a*, all in combination as a means of introducing and passing warm air through the oven, substantially as described.

No. 27,337. Car-Coupling. (*Attelage de Chars.*)

Richard J. Edwards, Galeva, Ill., U.S., 4th August, 1887; 5 years.

Claim.—1st. The combination, with the draw head of a car coupler, of the upper and lower pins working in the vertical apertures of said heads, the pivoted dog adapted to engage the lower end of the upper pin, and hold it in position for engaging the link when the same strikes the dog and throw it backward, substantially as specified. 2nd. The combination, with the draw head of the upper and lower pins, the lever to which the latter is connected, the crank lever for operating the same, and the engaging and disengaging pawl or dog, whereby the coupling pins are adjusted, substantially as specified. 3rd. The combination, with the draw head and its lower pin, of the lever by which it is actuated, and the chains whereby the said lever and pin are held in proper relation to the draw head in case of sagging, substantially as specified. 4th. In combination with the upper and lower pins, and the draw head, of the dog or lever having a lug on its forward end, the lower pin having its upper end recessed to engage the lug and the upper coupling pin adapted to operate in conjunction with each other, substantially as specified.

No. 27,338. Signal Lantern. (*Lanterne à Signal.*)

Frank P. Copper and Alvin Bair, Tiffin, Ohio, U.S., 4th August, 1887; 5 years.

Claim.—1st. The combination in a signal light of a base and an oil holder, a spring catch centrally arranged on the under side of the base, colored glass slide exterior to the frame, a hinged bail secured to the slide slots in the base for the passage of the bail, and a catch, as *N*, whereby the said bail may be engaged by one of the catches when the colored slide is in an elevated and a depressed position, substantially as specified. 2nd. The combination in a lantern of external fixed tubes having vertical guides, and the oil holder also having guides, the colored glass slide tubes adapted to move in said guides, the hinged bails secured to the said slides, the slots for the passage of the bail, and a catch on the under side of the slide for holding the slide in their extended position, substantially as specified. 3rd. The combination in a lantern of the oil holder, the base having the catches *N, U, V* on its under side as described, the external fixed tube having diametrical vertical guides, the vertical guides in the colored glass slides and the hinged arms secured to the slides and the slots for the passage of the said arms, substantially as specified. 4th. In combination, the lamp, the movable signal glass or glasses, means for moving said glass or glasses, and suitable guides for controlling and directing the vertical movement of the same, substantially as described.

No. 27,339. System of Electrical Distributing. (*Système de Distribution de l'électricité.*)

James F. McElroy, Lansing, Mich., U.S., 4th August, 1887; 5 years.

Claim.—1st. The combination of a local lamp circuit having one of its terminals at the local station, and the other at a more distant station of a positive and a negative service conductor for each terminal of said circuit, and of a manual switch at each terminal of the lamp circuit, arranged to electrically connect said terminal with either the positive or negative service conductor, substantially as described. 2nd. The combination, with a local lamp circuit having its terminals at two different stations, of a positive and a negative service conductor therefor at each station, and of a manual switch at each station, each arranged to connect the lamp circuit either with the positive or with the negative service conductor, substantially as described. 3rd. The combination, with an electric circuit having a translating device in multiple arc with the main conductors, of a positive and a negative service conductor for each terminal of said circuit, and of switches between each terminal of said circuit, and the terminals of its respective conductors, substantially as described. 4th. In an electrical switch having fixed cylindrical contacts, and a movable contact carried by a spindle, a lost motion or play provided between said spindle and its actuating handle or key, substantially as described. 5th. In an electric switch having fixed cylindrical contacts, and a movable contact carried by a spindle, an actuating key or handle secured to said spindle, and having a limited rotary play thereon, and a spring actuated impelling device arranged to cause said spindle to turn ahead of its motion at a desired point in its operation, substantially as described. 6th. In an electric switch having fixed cylindrical contacts, and a movable contact carried by a spindle, an actuating key or handle secured to said spindle, and having a limited rotary play thereon, a ratchet secured to the spindle and provided with cogs and flat faces, and a spring click operating in connection therewith to impel the spindle through the medium of the ratchet, substantially as described. 7th. In an electric switch, the combination, with the fixed cylindrical contacts, of a spindle, a spring carrying the movable contact, a key secured to the spindle and having a limited rotary play thereon, a ratchet having cogs and flat faces, and a spring click operating in connection with said ratchet to form an impelling and locking device for said ratchet to form an impelling and locking device for said spindle, substantially as described. 8th. In an electric switch having fixed cylindrical contacts, a movable contact carried by a spindle, and a spring actuated impelling device on said spindle, a key or handle secured to said spindle and having a limited rotary motion thereon, and a spindle and a spring between said spindle and key arranged to take up such rotary play, substantially as described. 9th. In an electric switch, the combination of the fixed cylindrical contacts *b, b*, *b*, *b*, the spindle *d*, the movable contact *f* carried by said spindle, the key or handle *h* having a limited rotary play on said spindle, the ratchet *p* secured to the spindle and having cogs *p* and flat faces *s* and the spring click *m*, all arranged to operate substantially as described.

cribed. 10th. In an electric switch, the combination of the fixed contacts *b, b*, *b*, *b*, the spindle *d*, the movable spring contact *f*, the key or handle *h* having a limited rotary play on the spindle, the spring *k* arranged to take up said play, the ratchet *p* having cogs *r* and flat faces *s* and the spring click *m*, the parts being constructed arranged and operating substantially in the manner and for the purposes described.

No. 27,340. Road Cart. (*Désobligeante*)

John Anderson, Colon, Mich., U.S., 4th August, 1887; 5 years.

Claim.—In a wheel vehicle, the combination with the shaft *C* and cross-bar *D*, of the seat supports *E* hinged at their forward ends to said shafts, the semi-elliptic springs *G* arranged beneath said seat supports, with their centers on said cross bar, the springs *H* interposed between said springs *G* and seat supports over said cross bar, and the bolts *a* passed through said springs and cross-bar, substantially as shown and described.

No. 27,341. Art of Automatic Telegraphy and Apparatus Therefor. (*Art de télégraphie automatique et appareil pour cet objet.*)

Jackson Rae and James C. Simpson (assignees of William A. Leggo), Montreal, Que., 4th August, 1887; 5 years.

Claim.—1st. In an automatic telegraphic apparatus, the pen in constant and unbroken contact with the cylinder while marking the message line, as and for the purposes set forth. 2nd. The combination, in an automatic telegraphic apparatus, of the pen, electro-magnet and armature moving same in sidewise direction, all as herein described. 3rd. In an automatic telegraph apparatus, the pen slitted vertically and longitudinally along the bottom, as and for the purposes described. 4th. In an automatic telegraph system, insulating ink composed of coloured commercial mucilage or gum arabic. 5th. In an automatic telegraph system, a message marked on the cylinder for transmission, and consisting of a continuous line made up of two interrupted spirals, connected by oblique lines, as herein described. 6th. In an automatic telegraph apparatus, the screw for moving the pen and stylus tablets, arranged to move synchronously with the cylinder. 7th. In an automatic telegraph apparatus, the combination, with the recording and transmitting cylinder connected to earth, of two styluses, each connected to line through a battery of different polarity, all as and for the purposes herein set forth. 8th. In an automatic telegraph system, the preparation of messages for retransmission by means of line batteries of differing polarity, operating the pen mechanism at the intermediate station, all as herein set forth. 9th. In an automatic telegraph system, the transmission through a relay of messages, for re-preparation at an intermediate station. 10th. In automatic telegraphy, the transmission of messages by induced currents derived from an induction or Ruhmkorff coil. 11th. A key-board, composed of keys, each having a disc bearing on its periphery a letter or other sign, and carried in and depressed by the key, so as to bring its surface in contact with a rotating metal roller, and thereby establish a battery current either through local or line circuit, all as herein set forth.

No. 27,342. Telegraphic Alphabet.

(*Alphabet télégraphique.*)

Jackson Rae and James C. Simpson (assignees of William A. Leggo), Montreal, Que., 4th August, 1887; 5 years.

Claim.—1st. A telegraphic alphabet or code, composed of combinations of marks of like significance. 2nd. A telegraphic alphabet or code, in which the letters are divided up into groups, each denoted by a special sign, all as herein set forth. 3rd. A telegraphic alphabet or code, in which the letters are divided up into groups, each group being known by a special sign, and each letter in each group by a special sign used in notation, in combination with the sign of the group, all as herein set forth.

No. 27,343. Electric Arc Lamp.

(*Lampe électrique à arc.*)

The Royal Electric Company (assignee of Frederick Thomson), Montreal, Que., 4th August, 1887; 5 years.

Claim.—1st. The combination, in a duplex electric arc lamp, of a central rod or tube, and carrying arm, on which lower carbon holders are mounted, and globe holder, substantially as herein described. 2nd. In a duplex electric arc lamp, the combination of the central rod, sleeve sliding on same and carried on rod bent at top half round central rod, globe holder, means for securing it to sliding sleeve, and locking device for holding the sleeve and globe-holder in position on the central rod, all substantially as herein described and for the purposes set forth. 3rd. In an electric arc lamp, the combination, with the binding posts, of conical hoods mounted on same, and insulating support under such hoods. 4th. In a duplex electric arc lamp, the combination, with the clutches *F, F*, toes *F*, *F*, springs *f, f*, and stops *G, G*, of arms *S, S* secured to lever-carrying armatures, and operated by electro-magnets, as and for the purposes described. 5th. The combination, with the clutches *F, F* on same plane, toes *F*, *F*, springs *f, f*, of the stops *G, G*, slotted and secured to the frame at different heights, substantially as and for the purposes set forth. 6th. In a duplex electric arc lamp, the combination, with the regulating mechanism, of a resistance coil and a contact piece-making circuit through carbon rod, and cutting-out portion of such resistance, as and for the purpose described. 7th. In combination, with the feed mechanism of an electric arc lamp, the German silver coil *M* connected with negative terminal, and with contact piece *Q* placed in a circuit with contact piece *O*, by key *R*, operated through arm *s* when lamp circuit is open, as and for the purposes described. 8th. In an electric arc lamp, the insulated switch *T*, carrying on insulating disc *n*, conducting band *U* turned in and out of contact with *P* and *N*. 9th. In an electric arc lamp, the combina-