

extending pipe, in combination with a tube having globular enlargements connected with elastic pouches, and a pipe leading from one of the pouches and connected with a second pipe leading into a chamber, wherein carbon filaments are placed for final treatment.

**No. 18,473. Apparatus for Treating Incandescents.** (*Appareil de traitement des Incandescents.*)

Charles G. Perkins, New York, N. Y., U. S., 19th January, 1884; 5 years.

*Claim.*—1st. In an apparatus for treating carbon filaments, consisting of the carbonizing box C provided with perforated plates D, metallic tube E, substantially as shown and described. 2nd. In combination with a carbonizing box for treating carbon filaments, the tube F, secondary tube H, bulb I, tubular extensions K and L, gas-jet M and tube N, substantially as shown and described. 3rd. In combination with an apparatus for treating carbon filaments, a carbonizing box provided with a metallic tube at its top, a perforated plate near its base and supporting a number of perforated carbonizing discs. 4th. In a carbonizing box provided with a tube leading to an oil feeding device, and a secondary tube connected with the aforesaid tube and extending therefrom to a bulb having a tubular extension and stop-cock on the base thereof, and a tubular extension on its top, with a gas-jet mounted on the end thereof and connecting with a gas pipe leading therefrom.

**No. 18,474. Sealing Carbon-Holders in Incandescent Lamps.** (*Fermeture Hermétique des Porte-charbons des Lampes Incandescentes.*)

Charles G. Perkins, New York, N. Y., U. S., 19th January, 1884; 5 years.

*Claim.*—1st. In combination with an electric incandescent lamp, a clamping device or holder having its shank provided with a glass bead, which is also provided with an annular glass rim integral therewith, the whole sealed in the base of the vacuum chamber of the lamp, substantially as shown and described. 2nd. The method of preparing the carbon-holders for sealing in the base of the vacuum chamber, in an incandescent lamp, which consists, first, in forming a glass bead on and around the shank of the holders, and then forming an annular or glass rim upon the bead.

**No. 18,475. Carbon-Holder for Incandescent Electric Lamps.** (*Porte-charbon pour Lampes Electriques Incandescentes.*)

Charles G. Perkins, New York, N. Y., U. S., 19th January, 1884; 5 years.

*Claim.*—In combination with an electric incandescent lamp, the carbon filaments having one of their ends held within the central cup *f* by means of carbon paste, the remaining held in a similar manner in separate cups *c*, all having their shanks sealed in the base of the globe, substantially as shown and described.

**No. 18,476. Carbonizing Box.** (*Boîte de Carbonisation.*)

Charles G. Perkins, New York, N. Y., U. S., 16th January, 1884; 5 years.

*Claim.*—1st. In combination with a carbonizing box, a tube made of any suitable material, provided with means for clearing its inlet to the carbonizing box. 2nd. In combination with a carbonizing box, the combination, substantially as shown and described, the tube *e*, rod *f* with spiral formation *g* on the end thereof, and the stuffing box on the outer end of said tube. 3rd. In combination with a carbonizing box and feeding tube, a glass globe provided with two projections, one of which is connected with the aforesaid feeding tube, the other connected with a tube leading to an ordinary device for generating hydro-carbon vapor. 4th. In a carbonizing device, the box *a*, projections *b*, carbonizing box *d*, rabbet *c*, tube *e*, rod *f*, spiral formation *g*, stuffing-box *h*, glass bulb *i* and gas generator or vaporizer, the whole forming a complete device.

**No. 18,477. Incandescent Electric Lamp and Switch.** (*Lampe Electrique Incandescente et Commutateur.*)

Charles G. Perkins, New York, N. Y., U. S., 19th January, 1884; 5 years.

*Claim.*—1st. In an incandescent lamp with the neck of the globe having an aperture in the wall thereof, the conductors therein in held with the circuit connections in the top of the switch box and placed in a suitable position by the plaster of Paris filling in the neck. 2nd. The combination, substantially as shown and described, the conductors 1 and 2, screw nut E, plaster of Paris D, all of which are placed on the interior of the neck B of the globe A, and the opening C in the wall of said neck B through which the plaster of Paris D is poured. 3rd. In an electric incandescent lamp, switch box made of glass and divided into two apartments, the upper apartment provided with annular grooves, in combination with the lower apartment filled with plaster of Paris, for holding suitable means in position therein, which will make a perfect electrical contact with the switch mechanism of the upper apartment when mounted thereon. 4th. In an incandescent lamp, the glass switch box described, consisting of upper apartment F having annular grooves 3 and 4, lower apartment G with plaster of Paris D and enclosed circuit connections, substantially as set forth. 5th. The combination, substantially as shown and described, the plaster of Paris D, spring plates H, H<sub>1</sub>, tap I, apartments F and G, in combination with an electric incandescent lamp. 6th. The metallic plates L, L<sub>1</sub>, springs 5 and 6, glass apartments F and G, in combination with the conductors of an electric incan-

descend lamp, substantially as shown and described. 7th. The cut-out wire M, insulated tube N, metallic tube O, studs 8, in combination with plates L, L<sub>1</sub> and glass apartments F and G of a switch box, for an electrical incandescent lamp, substantially as shown and described. 8th. The combination of the upright screw P, metallic strips 9 and 10, extension 13, insulated plate R, metallic plate S, in combination with metallic plates L, L<sub>1</sub> of a switch box, for an electric incandescent lamp, substantially as shown and described. 9th. The metallic strip 14 with foot on the upper end thereof, in combination with a switch spring V, key T, metallic pin 17, jam nuts 22 and glass partitions F and G of a glass switch box, for an electric incandescent lamp, substantially as shown and described. 10th. In an electric incandescent lamp, the combination of the screw nut E held in position within the walls of the neck B by plaster of Paris D, and the conductors 1 and 2 held therein in the same manner, in combination with the upright screw P, strips 9, 10, extension 13, insulated plate R, metallic plate S, grooves 3 and 4, plates L, L<sub>1</sub>, cut-out wire M, insulated tube N, metallic tube G, switch spring V, upright strip 14, pin 18, jam nuts 22, spring plates H, H<sub>1</sub>, plaster of Paris D<sub>1</sub>, tap I, glass apartments F G and hinge K, substantially as shown and described.

**No. 18,478. Electric Safety Switch.**

(*Commutateur Electrique de Sécurité.*)

Charles G. Perkins, New York, N. Y., U. S., 19th January, 1884; 5 years.

*Claim.*—1st. In an automatic switch and cut-out, a circular spring having a radial extension provided with slits L, L<sub>1</sub>, turned portions or catches M, M<sub>1</sub> engaging with suitable means for operating the same, substantially as shown and described. 2nd. In an automatic electric switch and cut-out, the electro-magnet B having a segmental-shaped end on its core, one end of the segment made thick, the other comparatively thin, in combination with the armature E, arm F, sleeve G, notch H, spindle I and switch spring K, substantially as shown and described. 3rd. In an automatic electric switch and cut-out, the combination, substantially as shown and described, the spring S, indicator shaft I, sleeve G, arm F, armature E and electro-magnet. 4th. In an automatic electric switch and cut-out, the disc P, track Pr, steps R and R<sub>1</sub>, metallic plate Q, in combination with the spring K, handle O and notch Or, substantially as shown and described. 5th. In an automatic electric switch and cut-out, the combination, substantially as shown and described, the switch box B, electro-magnet C, armature E, arm F, sleeve G, notch H, spindle I, switch spring K, slits L and L<sub>1</sub>, catches M and M<sub>1</sub>, switch handle O, notch Or, disc P, track Pr, metallic plate Q, projection R, depression R<sub>1</sub>, spiral spring S, indicator shaft T, indicator U, scale W and opening, substantially as shown and described.

**No. 18,479. Grate for Cellar Windows.**

(*Grillage pour les Soupiraux.*)

Lewis N. Byar, Pottstown, Pa., U. S., 19th January, 1884; 5 years.

*Claim.*—1st. The combination of the outer grating and its frame A, with inner frames D and F, the former carrying a screen and the frame F being glazed, as set forth. 2nd. The combination of the frame A, the frame D and the frame F having pins *h* adapted to openings in the frames A and D, and serving to pivot both frames D and F to said frames A, as set forth.

**No. 18,480. Barn Door Hanger and Rail Bracket.** (*Penture de Panneaux de grange et Porte-Coulisse.*)

William Cronk, Havana, N. Y., U. S., 19th January, 1884; 5 years.

*Claim.*—1st. In a wrought-iron door hanger, the extension *d* of the strap *a*, in combination with the rail *c* and bracket *e*, having the arm *i* and key-hole *o* at its upper end, point *f* and shoulder *a* at its lower end, substantially as and for the purpose set forth. 2nd. In combination, bracket *e* having arm *i*, pointed stud *f* and shoulder *a*, and rail *c*, substantially as and for the purpose specified.

**No. 18,481. Fanning Mill.** (*Tarare-Cribleur.*)

William A. Bickford, Brantford, Ont., 19th January, 1884; 5 years.

*Claim.*—1st. In a fanning mill, the disk wheel F having the driving crank *a* placed at, or near the centre of the machine longitudinally, and communicating motion to the fan by means of the chain or band *t*, substantially as shown and described. 2nd. In a fanning mill, the connecting rod *f* connected with the disk *c* passing through, and guided by the keeper *g*, having one of its ends inwardly inclined and passing through the lug *h*, which is fixed to the shaker D, substantially as shown and described. 3rd. In a fanning mill, the disk wheel F, having the driving crank *a* attached to it, and provided with the curved or cam groove *i*, as shown and described. 4th. In a fanning mill, the pitman G provided with the pin *j* and the slot *k*, substantially as shown and described. 5th. In a fanning mill, the rock shaft H provided with the arms *l*, pivoted to the shaker E, and the hangers M supporting the lower end of the shaker, substantially as shown and described. 6th. In a fanning mill, the roller I provided with the rope *o* for controlling the wind-board *b*, substantially as shown and described. 7th. The wind-board *b* having its edge next to the fan pivoted to the lining or frame work of the machine, and its opposite or rear edge supported by an eccentric wheel, as shown and specified. 8th. In a fanning mill, the combination of the wind-board *b* with the eccentric wheel *p*, the ratchet wheel *q* and wheel *r* and pawl *s*, substantially as shown and described. 9th. In a fanning mill, the combination of the shaker E with the hangers *m* supporting its tail end, the rock shaft H and arms *l*, rigidly secured thereon, supporting its head end, substantially as shown and described. 10th. In a fanning mill, the combination of the upper shaker D and lower shaker E, connecting rod *f* made to work through the lug *h*, the disk wheel F having the cam groove *i*, the pitman G, rock shaft H, arms *l* and hangers *m*, roller I and rope *o*, wind-board *b*, shaft K, with the eccentric wheel *p*, ratchet wheel *q* and hand wheel *r*, substantially as shown and described.