

the ring *b* secured to the side of said door, near the lower edge, wire *c* engaging said ring and connected to a lever, the lever *D* connected with said wire and adapted to engage and lock upon a ratchet, so as to hold down the door, the ratchet *E* secured in the side of the car and adapted to engage and hold the lever *D*, substantially as set forth. 2nd. The combination, in the escape of a safety car, of an opening in the roof closed by a door *B* provided with a ring *b*, wire *c*, lever *D* and ratchet *E* for holding down and locking the same, and rails *F* placed under said opening and serving as a ladder to and from said door, substantially as set forth. 3rd. The combination, with a railroad car, having an opening in the roof and closed by the door *B*, with the projecting plate *b* held at the top by the moulding *d*, and near its lower edge by the ring *b*, and wire *c* connected to the lever *D* engaging the ratchet *E*, substantially as set forth. 4th. The combination in a railroad car, having one or more openings in the floor of sufficient size to allow of the passage of a person, the edges of said opening bevelled, and said opening covered with a bevelled door *G*, provided with flush ring, and having its purpose indicated thereon, substantially as set forth.

### No. 29,875. Machine for Forming Paper Vessels. (*Machine à façonner les ustensiles de papier.*)

Alburt G. Grinnell, Oswego, N. Y., U. S., 17th September, 1888: 5 years.

**Claim.**—1st. The combination, with the feed spout *C*, of a perforated annular pulp carrier *B*, a coucher *I* bearing against the carrier *B*, and a forming roller *J* running in contact with the coucher, substantially as set forth. 2nd. In a machine for forming paper vessels from pulp, a pulp carrier composed of a circular frame, provided with an annular series of supporting bars, a perforated annular plate resting on said bars, and a wire gauze covering resting on the perforated plate, substantially as set forth. 3rd. In a machine for forming vessels from pulp, a forming roller *J* made in two sections *a*, *m*, between which the bottom of the vessel is arranged, substantially as set forth. 4th. In a machine for forming vessels from pulp, the combination with the pulp carrier and coucher, of a forming roller provided with a clamping device, whereby the bottom of the vessel to be formed is actuated to the forming roller, preparatory to winding the pulp upon the same, substantially as set forth. 5th. In a machine for forming vessels from pulp, the combination, with the annular pulp carrier, the coucher, and the forming roller, of a frame in which the forming roller is journaled, arms projecting from said frame on opposite sides of the forming roller, bearings and springs mounted on said arms, and pressure rollers journaled in said bearings, substantially as set forth.

### No. 29,876. Tubular Lantern.

(*Lanterne tubulaire.*)

Frederick Dietz, New York, N. Y., U. S., 17th September, 1888: 5 years.

**Claim.**—1st. The combination, with a tubular lantern, of a detachable globe-supporting plate, having its margin provided with an upwardly projecting frame, and a lens secured in said frame, substantially as set forth. 2nd. The combination, with a tubular lantern, of a detachable globe-supporting plate, having its margin provided with an upwardly projecting frame, and a lens secured in said frame and fastenings secured to the base of the lantern and engaging with the detachable plate, whereby the latter and its lens are held against displacement in the frame, substantially as set forth. 3rd. The combination, with the globe supporting plate, of a lens frame secured to said plate, a lens seated in said frame, and guard wires secured to the lens frame and to the globe supporting plate, substantially as set forth.

### No. 29,877. Machine for Stretching, Scraping and Finishing Hides or Skins. (*Machine à tendre, débarrasser et finir les peaux.*)

Nicholas Weber, Lynn, Mass., U. S., 17th September, 1888: 5 years.

**Claim.**—1st. The combination of the carrier, means for reciprocating it, the upper and lower jaw holders pivotally connected to the carrier, a rock shaft journaled in bearings on the carrier, and engaged, substantially as described, with said jaw holders, whereby the jaws are closed by a movement of said shaft in one direction, and opened by a movement of the shaft in the opposite direction, and means for holding said shaft in its jaw closing position during the forward movement of the carrier, and in its jaw opening position during the return movement of the carrier, as set forth. 2nd. The combination of the carrier, the scraper or lower jaw pivoted to said carrier, means for reciprocating the carrier, the beam or lever pivoted to the carrier, and provided with the yielding roll or upper jaw adapted to co-operate with the scraping jaw, the vertically movable guide rod, means for holding said rod in a raised position during the forward movement of the carrier, and in a depressed position during the return movement of the carrier, a slide which moves vertically with said rod, and mechanism controlled by the position of said rod and slide, whereby the upper and lower jaws are separated when the rod is depressed and brought together when the rod is raised, as set forth. 3rd. The combination of the carrier adapted to reciprocate on guides on a supporting frame, means for reciprocating the carrier, the jaw holder pivoted to an arm on the carrier, the beam or lever pivoted to the carrier and provided with the yielding roll or jaw at its outer end arranged over the scraping jaw, a spring which normally raises the lever and roll, the rock shaft journaled in the carrier and having a cam *q* bearing on the rear end of the lever *l*, and an arm or lever *d* connecting with the lower jaw carrier, the arrangement being such that a partial rotation of said rock shaft will either close or open the jaws, according to the direction of such rotation, and means whereby the rock shaft is held in position to close the jaws during the forward movement of the carrier, and to open the jaws during the return movement, as set forth. 4th. The combination of the carrier, means for reciprocating it, the upper and lower jaw holders, each pivoted to the carrier, the spring *e* for raising the

upper jaw holder, the rock shaft journaled in bearings on the carrier and provided with the cam *q* and arm *d*, the adjustable shoe *r* interposed between the cam *q* and the upper jaw holder *l*, the adjustable rod *e* connecting the lower jaw holder with the arm *d*, a cam *k* rotated by the driving shaft of the machine, and intermediate mechanism controlled by said cam, whereby the rock shaft *p* is held in position to close the jaws during the forward movement of the carrier, and in position to open the jaws during the return movement of the carrier, as set forth. 5th. The carrier, the upper and lower jaw holders pivoted thereto, the rock shaft journaled in bearings on the carrier and having the cam *q* and arm *d*, the rod *e* connecting the arm *d* with the lower jaw holder, and the spring *e* for raising the upper jaw holder, combined with the slide *a* connected with the arm *d*, the guide rod *f* mounted on links *h*, *i*, the cam *k* on the driving shaft, the lever *l* adapted to be oscillated by the rotation of the cam, and the rod *m* connecting the lever *l* with the guide rod *f*, all arranged and operating substantially as described. 6th. The combination of the carrier or cross-head, the upper and lower jaws carried thereby, a connecting rod pivotally secured to the cross-head, and a driving shaft adapted to reciprocate the cross-head and its jaws through the connecting rod, and arranged so that the force imparted through the connecting rod will be approximately in the line of movement of the cross-head, as set forth. 7th. The beam or lever carrying the roll or upper jaw, and provided with the adjustable bearing piece *u*, combined with the cross-head or carrier, the rock shaft journaled therein, and the cam on said rock shaft arranged to bear on the bearing piece *u*, as set forth. 8th. The beam or lever carrying the roll or upper jaw, and provided with the adjustable casting or holder *av*, whereby said roll may be adjusted, as set forth. 9th. The combination of the cross-head or carrier, a holder *f* having the lower jaw and pivoted to the carrier, the beam or lever having the upper jaw and also pivoted to the carrier, the rock shaft journaled in bearings in the carrier, and provided with the cam *q* and arm *d*, a rod connecting the arm *d* with the lower jaw holder, a driving shaft connected by a rod *d* with the cross-head, and arranged, substantially as described, relatively to the point of connection of said rod with the cross-head, and mechanism, substantially as described, operated by the driving shaft, whereby the rock shaft is held with its cam in a vertical position during the forward movement of the cross-head, and in a depressed position during the return movement of the cross-head, as set forth. 10th. The combination in a leather scraping and stretching machine, of the reciprocating jaws adapted to open and close, as described, and the finishing or polishing blade secured to the holder of one of the jaws, and arranged to bear on the grain side of the skin, while said jaws are closed upon the same, as set forth.

### No. 29,878. Bottle Funnel. (*Entonnoir.*)

Christian Xander and William Thomas, Washington, D. C., U. S., 17th September, 1888: 3 years.

**Claim.**—The combination in a funnel for filling vessels, provided at its shank with a vent-tube formed by indenting the shank longitudinally, and covering said indentation with a piece of metal provided with air-induction apertures, the top of the tube forming the exit for the air, substantially as set forth.

### No. 29,879. Car Replacer and Portable Switch. (*Dé-char et aiguille portative.*)

Thomas Holliday, Sault Ste. Marie, Dak., U. S., 17th September, 1888: 5 years.

**Claim.**—1st. In a car replacer, the combination, with an upper plate, of inclined plates leading downward therefrom, flanges or ridges mounted at the sides of the inclined plates, and deflecting plates mounted above the upper plate, and each adapted to be moved towards or from the longitudinal centre of the upper plate, and held at its point of adjustment, substantially as described. 2nd. In a car replacer, the combination, with an upper plate, of two downwardly inclined plates arranged in connection therewith, ridges or flanges connected to the inclined plates, deflecting plates arranged above the upper plates, and adjustable screws arranged in connection with the deflecting plate, substantially as described. 3rd. In a car replacer and portable switch, the combination, with supporting plates 11 and 12, of a plate 10 mounted thereon, downwardly inclined plates 14 between which there is a space 2 that are also mounted upon the plates 11 and 12, spurs 3, flanges 15 extending upward from the plates 14, deflecting plates 16 mounted above the plate 10, and adjustable screws 17 arranged in connection with the plates 16, substantially as described.

### No. 29,880. Stuffing Box for Steam Cylinders, etc. (*Boîte d'étoupe pour cylindres de vapeur, etc.*)

Erastus G. Medrick, Middletown, N. Y., U. S., 17th September, 1888: 5 years.

**Claim.**—1st. In a stuffing box, the combination, with a gland, of a piston fitting steam-tight in the said gland, and operated on by steam from the steam compartment, wedge-shaped packing rings held in the said gland, and operated on by the said piston, and a ring surrounding the said wedge-shaped packing rings, substantially as shown and described. 2nd. In a stuffing box, the combination, with the gland having a cylinder, of a piston fitting steam-tight adapted to slide in said cylinder, metallic wedge-shaped split packing rings against which presses the said piston, and an internally cone-shaped ring enclosing the said wedge-shaped packing rings, substantially as shown and described.

### No. 29,881. Fire-Escape and Lowering Apparatus. (*Sauveteur d'incendie et appareil de descente.*)

Oscar F. Washburne, Goshen, Mass., U. S., 17th September, 1888: 5 years.

**Claim.**—1st. The improved fire-escape comprising the following