

ing having straps joined together and to the straps *e* by the curved or arched plate *f*, substantially as and for the purpose described. 6th. The back-strap *E*, divided to form the straps *e*, *e*, in combination with the hip-strap *f* made in two parts, and attached to the straps *e*, *e*, substantially as and for the purposes set forth. 7th. The back-strap, divided to form the straps *e*, *e*, in combination with the hip-strap made in two parts joined together, and to the straps *e*, *e*, by the arch piece *g*, substantially as described. 8th. The back-strap *E*, divided to form the straps *e*, *e*, in combination with the back pad *C*, provided with the tree *F* having loops *t* to act as guides and supports to the straps *e*, substantially as described.

No. 24,420. Window Screen.

(*Store de Fenetre.*)

George L. Reynolds, Pine Hill, N.Y., and Benjamin F. Van Amringe, Oakland, Cal., U.S., 5th July, 1886; 5 years.

Claim.—1st. In a window-screen, in which the screen cloth is wound upon a spring roller, the bracket *D* in which the roller is mounted, said bracket consisting of a cross-piece *E*, upper end arms *e*, and hinged lower end arms *e*, substantially as and for the purpose herein described. 2nd. In a window-screen, in which the screen cloth is wound upon a spring roller, the bracket *D* in which the roller is mounted, said bracket consisting of a cross-piece *E*, having an angular strengthening flange *e* on one edge, upper end arms *e*, and hinged lower end arms *e*, substantially as and for the purpose herein described. 3rd. A roller for screens or curtains, having a series of slots *W* or perforations, with flexible tongues *X*, whereby the screen or curtain may be secured thereto, substantially as herein described. 4th. The roller *H*, to which the screen-cloth is attached, and upon which it is wound, consisting of a tube *K* and a telescoping extension or bar *L*, by which the roller is adjusted in length, substantially as herein described. 5th. The roller *H* upon which the screen-cloth is wound, said roller consisting of a tube *K* having slots *W*, with flexible tongues *X*, by which the screen is secured, and the sliding extension or bar *L* fitting the end of the cylinder and having a groove *I* and a spring-rod *P* therein, by which the screen is secured, substantially as herein described. 6th. The roller *H*, pivoted at one end to a frame or bracket, and consisting of the tube *K* and telescoping extension bar *L*, and the fixed bearing *Q* in the tube, in combination with the spindle *R* in the tube journaled in the bearing *Q*, its other end having a slotted cap *U* by which it is fixed on a flat lug *I* on the frame or bracket, and the spring *T* around the spindle, one end being fixed to the spindle and the other to the bearing *Q*, substantially as herein described. 7th. The bar *L* at the lower end of the screen, consisting of the angle-bar *z* having a rounding upper edge, and the straight bar *x* having rounding edges, substantially as and for the purpose herein described. 8th. The triangular blocks *N*, fitting the top of a segmental sash and forming a straight top, as described, whereby screen-cloth may be secured, substantially as herein described. 9th. The triangular blocks *N*, fitting the top of a segmental sash and forming a straight top, in combination with a straight bar secured to the lower end of the screen and to the top of the block, substantially as and for the purpose herein described. 10th. The rubber-strip *M* for guarding the aperture between the meeting-rails of two sashes, in combination with the bent or folded metal strip *n* between the folds of which the rubber strip is secured, substantially as and for the purpose herein described.

No. 24,421. Trunk. (*Coffre.*)

Gudfrey S. Eggeman, Toledo, Ohio, U.S., 5th July, 1886; 5 years.

Claim.—1st. The combination, with a trunk body having its back carried up to or nearly to the plane of the top, and the projections *b* of the ends connected by the rail *c* of the brackets *C*, having a portion *d* to embrace the ends of the trunk, a portion *a* to embrace the rear wall and a portion *k* to embrace said rail *c*, and forming a part of the pivotal connection between said body and a swinging top, substantially as described. 2nd. The combination, in a trunk, of the top *B*, the body *A* having end projections, the rail *c* connecting said projections and forming a stop for said top, and the corner iron brackets *C* carrying trunnions *h* which form the pivot point on which said top turns, substantially as described.

No. 24,422. Quilting Attachment for Sewing Machines. (*Métier à Piquer pour Machines à Coudre.*)

David R. Fraley, Lexington, N.C., U.S., 5th July 1886; 5 years.

Claim.—1st. The combination of the long rail *D*, provided with the rib *E*, the short rail *F*, the cross-bars *G*, joining the two rails, and the movable frame consisting of end beams *J*, longitudinal beams *K*, *K*, firmly secured thereto, the cloth roll-snares *N*, *R*, and *e* journaled in the end beams *J*, the two grooved rollers *M*, journaled in the end beams *J* to engage the rib *E*, and the roller *L* journaled to the beam *K*, *K*, substantially as shown and described. 2nd. The combination of the long rail *D*, provided with the rib *E*, the short rail *F* secured parallel therewith, the movable quilt frame comprising the end pieces *J*, provided with raised arms *S*, the shaft *R* journaled therein above the plane of the frame, the shafts *N* and *e* journaled in opposite ends of the said frame, the roller *L* journaled in the frame to engage the rib *E*, the rollers *M* journaled in the frame to engage the rib *E*, and the presser-bar *K*, directly in line with the rollers *M* above the rib *E*, substantially as shown and described, whereby the upper and lower cloths of the quilt when first brought together upon the working surface are held between parallel bars and the work of laying and guiding the quilt accurately is facilitated. 3rd. The combination of the end beams *J*, provided with the turned up slanting notched ends *y*, the longitudinal beams *K*, and *K*, fixed to beams *J*, the shafts *N* and *R* journaled in the end beams, as described, and the shaft *e* removably journaled in the slanting ends *y* of the beams *J*, substantially as shown and described. 4th. The combination of the end beams *J*, provided with the turned up notched ends *y*, the longitudinal beams *K*, *K*, the shafts *N*, *R*, and *e* journaled in the end beams, the block *g* gained in at one side to fit the raised end *y* and notched in its lower side to fit the shaft *e*, the detent *f* pivoted to the

block *g* and the ratchet wheel *d* on the shaft *e*, substantially as shown and described.

No. 24,423. Dumping Scow.

(*Allège-Tombereau.*)

George E. Robertson, Dickinson's Landing, Ont., 5th July, 1886; 5 years.

Claim.—1st. A dumping scow formed of decks *A* and *A'* and sides, each deck alternately serving to carry the load and as the bottom of the scow. 2nd. A dumping scow, having a side water compartment, divided up horizontally, as and for the purposes set forth. 3rd. In a dumping scow, the combination, with the hold and double water compartment, of bilge troughs and drain pipes, as and for the purposes set forth.

No. 24,424. Production of Aluminium and Aluminium Bronze. (*Production de l'Aluminium et du Bronze d'Aluminium.*)

The Aluminium and Magnesium Fabrik Patent Grätzel Company, (Assignee of Richard Grätzel,) Bremen, Germany, 5th July, 1886; 5 years.

Claim.—1st. The process of producing aluminium from the compound fluoride of aluminium and of an alkali-metal, by melting the same, and by causing magnesium to act thereon for the purpose of decomposing the aluminium fluoride, substantially as herein before described. 2nd. The process of producing aluminium from the compound fluoride of aluminium and of an alkali-metal, by melting the same, and by causing magnesium or one of its described equivalents (calcium, barium, strontium) produced in the melted fluoride by electrolysis of chloride of magnesium, or of one of the said equivalents to act in nascent state on the said fluoride for the purpose of decomposing the aluminium fluoride, substantially as hereinbefore specified. 3rd. In the process of producing aluminium from the compound fluoride of aluminium, and of an alkali-metal, by melting the same, and causing magnesium to act thereon, the introduction of copper into the melted fluoride for the purpose of obtaining aluminium bronze, substantially as described. 4th. In the process of producing aluminium from the compound fluoride of aluminium, and of an alkali-metal by melting the same, and causing magnesium or one of its described equivalents (calcium, barium or strontium) produced in the melted fluoride by electrolysis of chloride of magnesium, or of one of the said equivalents, to act in nascent state on the said fluoride, the introduction of copper into the melted fluoride for the purpose of obtaining aluminium bronze, substantially as hereinbefore set forth.

No. 24,425. Road Cart. (*Désobligeante.*)

Thomas O'Brien, William H. Schmedden and Murdock, D Campbell, Coldwater, Mich., U.S., 5th July, 1886; 5 years.

Claim.—1st. The combination of the shafts having seat bars pivotally supported thereon at a point between their ends, and having the forward ends of such bars terminating directly above the shafts, springs secured to the underside of the shafts and shackles, each composed of two outwardly and oppositely flared plates extending, one on each side of and embracing the poles of the shafts, and connecting the front ends of the seat bars with the springs, whereby the shafts are free to have a lateral play independently of the seat bars, as described. 2nd. The combination of the shafts, seat bars having their front ends directly above the poles of the shafts, pivoted thereto between the front and rear ends, springs secured to the underside of the shafts, shackles comprising two plates each oppositely flared near the middle, and embracing the poles of the shafts, and connecting the front ends of the bars with the springs, and a foot-rest consisting of the curved bars secured at each end to and suspended directly from opposite ends of the seat bars, substantially as shown and described.

No. 24,426. Dial for Time Pieces.

(*Cadrans d'Horlogerie.*)

Martin Van B. Ethridge, Boston, Mass., Henry E. White, Newton, Mass., and John Swann, New York, N.Y., U.S., 5th July, 1886; 5 years.

Claim.—1st. In a time piece, the combination, with a perforated dial-plate, of a series of radial spindles intermittently rotated in a forward direction, each of said spindles carrying a block, plate or disk, on the faces of which are delineated numerals designating the twenty four hours in each day, substantially as described. 2nd. In a time piece, the combination of a perforated dial plate, a radial series of intermittently-rotary spindles, each carrying a numeral block, and provided with a bearing, as *f*, having pins *g*, *g*, and a carrying disk or collar, mounted on the hour hand thimble and having a pin *h* thereon, substantially as described. 3rd. In a time piece, the combination of a dial-plate having slots or openings *b*, *b*, and supporting springs *k*, *k*, a radial series of intermittently-rotary spindles *C* carrying numeral blocks or plates *D* and having bearings *f*, provided with pins *g*, *g*, and a disk or collar, mounted on the hour hand thimble and carrying a pin *h* substantially as described.

No. 24,427. Fence Post. (*Pieu de Clôture.*)

Rowland Bentley, (assignee of John E. Donaldson, Montezuma, Ind., U.S., 5th July, 1886; 5 years.

Claim.—1st. The combination, with a post, of a foundation block detachably secured to said post, and having a plane portion, and downwardly sloping surfaces and projecting tongues *C* arranged at each end thereof, substantially as described. 2nd. The combination, with a fence post, of a foundation or base block composed of vitrified earth and detachably secured to said post, said block having a plane portion *B* for the post, downwardly sloping upper surfaces from said plane portion to the sides and ends thereof, and projecting tongues *C* at each sloping end wall thereof, substantially as described. 3rd. The combination of a fence post having a bore and a transverso