

No. 30,695. Manufacture of Horse Shoes.*(Fabrication des fers à cheval.)*

Richard E. R. James and Charles W. James, Enfield, Eng., 4th February, 1889; 5 years.

Claim.—The construction, of shoes for horses, and like animals, having slots formed therein in which are fitted blocks or pads of rubber, or resilient material, such shoes having a crevice or groove formed therein, so that a wires or wires may pass through the said rubber, or resilient pads, and through the crevice or groove in the shoe and bind all together, substantially as described.

No. 30,696. Vehicle Wheel. *(Roue de voiture.)*

John E. Fisher, Boston, Mass., U.S., 4th February, 1889; 5 years.

Claim.—In a vehicle wheel, the metal rings or washers interspersed between the interior of the felloe, and the shouldered outer end of the spokes, substantially as and for the purpose set forth.

No. 30,697. Cattle Guard. *(Garde-bétail.)*

James T. Hall, St. Louis, Mo., U.S., 4th February, 1889; 5 years.

Claim.—1st. A metallic surface cattle guard composed of longitudinal bars or guide rails supported upon the ties, and assembled in the form of gratings by means of cross-bars connecting them on the under side between the ties substantially as described. 2nd. A metallic surface cattle guard composed of T-bars supported upon the ties in the longitudinal direction of the rails, and assembled in the form of grating by means of cross-bars upon their under side, and of rail-clips securing them to the cross-bars, substantially as described.

No. 30,698. Adjustable Bag - Holder attached to Fan Mills. *(Acroche-sac mobile pour tarares-cribleurs.)*

Henry T. Lepage, Charlottetown, P.E.I., 4th February, 1889; 5 years.

Claim.—The bag-holder, as described above, and as applied and adjusted to fan-mills, substantially as and for the purpose hereinbefore set forth.

No. 30,699. Machine for Constructing Fences. *(Machine à faire les clôtures.)*

Robert E. Morton, (assignee of Perry Allen), Flint, Mich., U.S., 4th February, 1889; 5 years.

Claim.—1st. The combination, with the uprights A and the twisting wheels journalled therein, of the straps secured to said uprights, the cogged driving wheel journalled in said straps and meshing with the two uppermost of said wheels, and a crank handle on the shaft of said driving wheel, as set forth. 2nd. The combination, with the upright 1 and the winding spool suitably journalled thereon, of a friction wheel on said spool, and the substantially U-shaped band 5 passed over said friction wheel, and adjustably secured in said upright, and the adjusting nuts 6 on one leg of said band, substantially as and for the purpose specified. 3rd. The combination, with the uprights A, of the beaters L, each formed of two parts l, n, the former formed with holes b, and rib m, adapted to engage a groove in the part n, said rib and part l being provided with holes p, and the removable bolt o, substantially as shown and described and for the purpose specified.

No. 30,700. Steam and Hot Water Radiator.*(Calorifère à vapeur et à eau)*

Edward Baines and Arthur J. Johnson, Toronto, Ont., 4th February, 1889; 5 years.

Claim.—1st. In a radiator, the combination, with the metal casing A, having opening B and flanges a, of the thin metal sheet C, the perforated guard D secured to flanges a, through holes formed in said thin metal sheet C, the inlet pipe E and outlet pipe F, and vacuum valve G, substantially as described and for the purpose specified. 2nd. A radiator having apertures d in it, and said apertures being covered on their inner sides with sheet metal C.

No. 30,701. Manufacture of Woven Glove.*(Fabrication des gants tissés.)*

George G. Pomphrey, Glasgow, Scotland, 4th February, 1889; 5 years.

Claim.—1st. The manufacture of gloves made substantially as described, on a hosiery frame wherein those portions of the fabric constituting the outer portions or tips of the thumbs and fingers thereof, to such extent as may be necessary, are made thicker by the introduction of "splicing" at such parts of gloves. 2nd. In the manufacture of gloves woven on looms, the thickening of those portions of the fabric constituting the outer portions or tips of the thumbs and fingers thereof, to such extent as may be necessary, this being effected by weaving those parts according to either of the modes above set forth, or any of them, substantially as hereinbefore described.

No. 30,702. Apparatus for Holding Horse Shoes while their Caulks are being Forged. *(Appareil pour saisir les fers à cheval pendant que l'on forge les crampons.)*

John M. Morgan and Jacob I. Morgan, Ottawa, Ont., 4th February, 1889; 5 years.

Claim.—1st. A hold-fast for sharpening toe-caulks, constructed substantially as hereinbefore shown and described, consisting of a spring fastened at one end so as to bring the disengaged end against the side of the anvil, and for the purpose set forth. 2nd. In a hold-fast for sharpening toe-caulks, the combination of the spring S with the socket C, D, and the anvil A, substantially as and for the purpose hereinbefore set forth.

No. 30,703. Chill. *(Coquille de fonderie.)*

William Fawcett, Jersey, N.J., U.S., 4th February, 1889; 5 years.

Claim.—1st. A chill consisting of a corrugated band, substantially as and for the purpose set forth. 2nd. A chill consisting of a corrugated annulus, substantially as set forth. 3rd. A corrugated chill, provided with slits extending across its interior and exterior faces from top to bottom, substantially as set forth. 4th. A chill consisting of a corrugated annulus, and a solid exterior clamping-ring, substantially as set forth.

No. 30,704. Railway Track Cleaner or Snow Plough. *(Charrue à neige de voie de fer.)*

Lewis J. Bergendahl, Pendleton, Oregon, U.S., 5th February, 1889; 5 years.

Claim.—1st. In a wheel-casting with an open-top delivery, the combination therewith of a double tilting shutter automatically moved to either side of said opening, as herein set forth. 2nd. A snow-plough consisting of a revolving drum provided with front automatic cutters mounted on a spider or open front end, and a solid rear end plate connected to said spider by radial plates, said radial plates surmounted by automatic scrapers, all mounted on a driving shaft and enclosed in a casing provided with a front hopper-shaped mouth and an alternating top delivery-opening governed by an automatically operating shutter, as herein set forth.

No. 30,705. Car Door Fastener.*(Fermeture de porte de char)*

William E. Heffner, Huntingdon, Penn., U.S., 5th February, 1889; 5 years.

Claim.—The combination, with the car and its door, of a casting secured to the side of said car and adapted to form a stop for the door, and a bar pivoted at one end within said casting on a pivot at right angles to the length of the car, provided at a point near its free end, with a staple to receive the eye of a hasp secured to said door, substantially as described.

No. 30,706. Skate. *(Patin.)*

John Forbes, Halifax, N.S., 5th February, 1889; 5 years.

Claim.—1st. In a skate, the combination, with the heel-plate, of a heel-clamp 2 so arranged that an automatic clamping of said heel-clamp, in a suitable position for clamping upon the boot-heel, is obtained at the time of application of the skate to the boot without the aid of serrations, pawls, pinching-screws, adjustment holes and pins, or other devices requiring a previous special setting. 2nd. In a skate, the combination, with a sole plate and clamps, of the locking-bars 4 and 5, substantially as described, whereby the sole-clamps are automatically adjustable to, and capable of being clamped upon, the boot-sole at the time and in the act of attaching the skate to the boot, without the necessity of a previous adaptation of said clamps, by means of pinching or binding screws, or graduated holes and pins, or equivalent devices. 3rd. In a skate, a runner having its forward part from about its middle straight on its sides, the bottom surface curved upward to its front or toe end, and having on the rear portion curved or tapered sides and a bottom surface in a straight line to the heel end, substantially as described for the purpose of giving support under the centre of gravity of the body of the skater and affording curved edges for curving movements. 4th. In a skate, the heel-clamp 2, slotted so as to embrace the heel-plate 1, or an extension from same, and to clamp thereon in the act of applying the skate to the boot, substantially as described. 5th. In a skate, the spring-bar 4, in combination with the serrated bar 5, and the knife-edges 9, 9, and bent-down inner ends of the clamps 7, 7, substantially as described. 6th. In a skate, the sole-clamps 7, 7, the same clamping the boot-sole by a mechanism acting so as to press their inner ends outward from the boot-sole, such ends being held in position relatively by being locked upon an intermediate connecting-bar 5, substantially as described.

No. 30,707. Manufacture of Explosives.*(Fabrication des explosifs.)*

Alfred Nobel, Paris, France, 5th February 1889; 5 years.

Claim.—1st. The manufacture, from nitroglycerine and soluble nitro cellulose, of a horny or semi-horny explosive compound susceptible of granulation, substantially as and for the purposes herein described. 2nd. In the manufacture of a compound having the explosive character above indicated, the use of nitrated starch and nitro dextrine, either or both, or their equivalent in partial substitution for the nitro cellulose employed, as and for the purpose above described. 3rd. The combination of powdered nitrates, chlorates or picrates, as above set forth, with the new explosive compounds above described, composed of nitro-glycerine and nitro-cellulose with or without the addition of nitro-starch or nitro-dextrine.

No. 30,708. Sulky Plough. *(Charrue à siège.)*

James Marr, Brantford, Ont., 5th February, 1889; 5 years.

Claim.—1st. In a sulky plough, the combination of gauze wheel D, crank shaft J, and lever K, as and for the purpose hereinbefore set forth. 2nd. In a sulky plough, the combination of the wheel B and circular lever C, as and for the purposes hereinbefore set forth. 3rd. In a sulky plough, the combination of the land wheel G, frame F and box o, as and for the purpose hereinbefore set forth.

No. 30,709. Car-Coupling. *(Attelage de chars.)*

George W. Smillie, Newark, N.J., U.S., 5th February, 1889; 15 years.

Claim.—A car-coupling consisting of a draw-head A, coupling-pin B, coupling-link D, spring-actuated plunger C, actuating lever C, all formed, arranged and adapted to be operated substantially as described and shown and for the purpose set forth.