

bers F F<sup>1</sup> for filtering medium, having tube G, perforated boxes H H, and air tube L. 3rd The tank A having unfiltered water reservoirs E E above and below the filtering medium chambers F F<sup>1</sup> to filter upwards under a pressure. 4th The tank A to filter from the bottom upwards under the influence of a pressure, having filtered water reservoir F<sup>2</sup> above the filtering medium. 5th The tank A having cock K<sup>1</sup> for cleansing the filtering medium.

### No. 7829. Improvements on Snow Shovels.

(*Perfectionnements aux pelles à neige.*)

Charles H. Victory and Alonzo P. Adams, Albany, N.Y., U.S., 29th August, 1877, for 5 years.

**Claim.**—1st. The combination of the shovel blade A with the detachable chisel pointed handle C. 2nd. The detachable handle C of a shovel or other implement provided with a metallic chisel point D.

### No. 7830. Machine for Making Barbed Fence Wire.

(*Machine à faire les clôtures en fil métallique barbelées.*)

Henry W. Putnam, Bennington, Vt., U.S., 29th August, 1877, for 10 years.

**Claim.**—1st. The combination with barbed winding shaft F<sup>1</sup>, of lever R provided with wire holding feet a and b. 2nd. The combination with guide plate z of notched guide-piece x. 3rd. The combination with cog-gear M<sup>1</sup> provided with pins y and z, of blank cog-gear M<sup>2</sup> provided with locking lever u and arm v. 4th. The combination with notched wheel or pulley T and standard 17 of spring lever P provided with tubular guide piece to. 5th. The combination with the feed and guide rolls G G. The latter rolls being provided with barb receptacles f f of the cog-gears Y and Y<sup>1</sup> upon shafts le and 19. 6th. The combination with the feed and guide roll G<sup>1</sup> provided with barb receptacles f f, of grooved table 39 and vertical flange 40. 7th. The combination with the bearings of the upper feed rolls G of the self-adjusting compressing devices 30, consisting of the parts marked and lettered 31, 32, 33, 34, and 35, 37 and 38. 8th. The combination with locking gear V<sup>1</sup> and notched wheel 23 of blank gear wheel V provided with lever 25. 9th. The combination with spring-actuated feed-rolls G<sup>1</sup>, of the inclined arm 63, provided with curved end 68. 10th. The combination with twister-frame 48, of the skeleton-guide arm 49 twisting rolls 49 and 50. 11th. The combination with the twister-frame 48 of combined pulley and ratchet wheels 56 double threaded screw shaft 72, provided with pulleys 76 and sliding table 51. 12th. The combination with the mechanism for barbing the wire B and feeding the barbed wire B and the wire C of mechanism for at once both twisting or cabling the wires to form the finished barbed cable wire or fencing B and winding the same up on its spool or reel in a uniform and even manner.

### No. 7831. Improvements on Harvesters.

(*Perfectionnements aux moissonneuses.*)

George Pye, St John, N.B., 1st September, 1877, (Extension of Patent No. 3893), for 5 years.

### No. 7832. Improvements on Harvesters.

(*Perfectionnements aux moissonneuses.*)

George Pye, St. John, N.B., 1st September, 1877, (Extension of Patent No. 3893), for 5 years.

### No. 7833. Improvements on Hose-Couplings.

(*Perfectionnements aux joints de boyaux.*)

Charles A. Bissett, St. John's, Que., 30th Augt., 1877, for 5 years.

**Claim.**—The coupling members A B and C, D, the former having elastic ring F, and the latter grooved ways E E, metal cylinder H and elastic cushion I whereby coupling is effected by both members sliding together.

### No. 7834. Improvements on Car Axle Boxes.

(*Perfectionnements aux boîtes d'essieux de wagons.*)

Thomas A. Bissell, Detroit, Mich., U.S., 30th August, 1877, for 5 years.

**Claim.**—1st. An axle-box cast with the pocket E and with a slot to receive the forked plate D, adapted to ride the axle collar and return its chips to the oil cellar. 2nd. The shoe G cast with a pendant flange G<sup>1</sup> at its front end adapted to receive and secure the stop-plate H.

### No. 7835. Improvements on Gas and Water Pipes.

(*Perfectionnements aux tuyaux à gaz et à eau.*)

Frederick Jarecki, Erie, Pa., U.S., 3rd September, 1877, for 5 years.

**Claim.**—1st. A casing having two different diameters A<sup>1</sup> A<sup>2</sup>. 2nd. In combination with the casing A<sup>1</sup> A<sup>2</sup>, the upper adjustable section B. 3rd. In combination with the casing A and the upper adjustable section B, the spring f and stop g. 4th. The cut off rod I provided with a guide collar b and flattened upper end. 5th. The key or wrench H having its handle formed at one end in a fork L, and at the other end in a hatchet M. 6th. The cap C having its upper or flat part of iron and its screw bush of brass.

### No. 7836. Improvements in Boiler Cleaners.

(*Perfectionnements dans les nettoyeurs des chaudières.*)

John R. Fordon, Bay, and James E. Thomas, West Bay, Mich., U. S., 3rd September, 1877, for 5 years.

**Claim.**—1st. The combination of the flow-pipe A, funnel mouth B and receiving chamber C. 2nd. The pipe A provided with the cock L, in combination with the pipe H and cock I. 3rd. Forcing a current through the pipe by so locating and arranging said pipe, that part of the steam generated at the bottom of the boiler may pass into and rise through the pipe.

### No. 7837. Improvements on Spring Bed Bottoms.

(*Perfectionnements aux fonds de lits à ressorts.*)

William H. Palmer, Warren, Pa., and Henry F. Roesser, Buffalo, N. Y., U.S., 3rd September, 1877, for 5 years.

**Claim.**—1st. The plates D provided with single or double notched flanges d<sub>1</sub> and made in two parts, with their adjacent ends inclined to cause them to meet at an angle, in combination with the frame A B and with the spring C of the bed bottom. 2nd. The couplings formed of two short rods E rigidly connected by an arm F, in combination with the springs C of a bed bottom.

### No. 7838. Improvement on Churns.

(*Perfectionnement aux barattes.*)

James Pennock, Bastaw, Ont., 3rd September, 1877, for 5 years.

**Claim.**—An improved churn power which may be operated by any person sitting in the seat S, with the feet on the tread bars D D giving motion, by the ordinary crank and axle movement with balance wheels B B and arm F, to the pinion bar G.

### No. 7839. Improvement on Riding and Driving Reins.

(*Perfectionnement des rênes et des quads.*)

David T. Shaw, New York, U.S., 3rd September, 1877, for 5 years.

**Claim.**—1st. The metallic cases or tubes B B enclosing the spring. 2nd. The supplemental rein strap E attached to the loops of bar of bit.

### No. 7840. Improvements on Bread Knives.

(*Perfectionnements aux décomposés pain.*)

Peter Payette and Thomas A. Cook, Toronto, Ont., 3rd September, 1877 for 5 years.

**Claim.**—1st. A steel blade or knife C having a sharpened corrugated edge and pivoted to a bar E, connected to the bar F by the knife joint a, in combination with the pin H fitting into the slotted stud G which is attached to the bed plate A, provided with vertically slotted guides B B. 2nd. The steel blade or knife C having a sharpened corrugated edge and held within the guides B B in combination with the discs I eccentrically pivoted upon the bed plate A. 3rd. A steel blade or knife having saw teeth cut in one edge, the opposite to which is a sharpened corrugated edge.

### No. 7841. Art of Constructing Brick and Stone Buildings.

(*Art de construire des bâtiments en brique et en pierre.*)

Joseph F. Patten, Yarmouth, N.S., 3rd September, 1877, for 5 years.

**Claim.**—1st. The double self supporting walls B B and water tight space L, which in case of fire can be filled with water. 2nd. Supports or rests C C for securing and supporting trimmers, joists, rafters and other timbers necessary for building purposes. 3rd. The F F with fusible coupling D. 4th. The projection of end and middle walls, also extension of said walls above the roof of buildings to prevent fire from spreading.

### No. 7842. Improvement in Treating Hair.

(*Perfectionnement dans le traitement du crin.*)

John F. Greene, Brooklyn, N.Y., U.S., 3rd September, 1877, for 5 years.

**Claim.**—1st. The mode of producing colored fibre from hair that is to say, subjecting animal hair to the action of strong nitric acid solution or the described equivalent, and then drying the same. 2nd. The described colored fibre consisting of animal hair, having a light color indestructible by acid.

### No. 7843. Improvements on Coloring Compositions.

(*Perfectionnements aux composés colorants.*)

George S. Wolff, Philadelphia, Pa., U.S., 3rd September, 1877, for 5 years.

**Claim.**—1st. A black coloring composition, consisting of blue, red and yellow or equivalent aniline colors, combined with alcohol. 2nd. The described black stain, consisting of coloring composition, castor oil, resin and benzine. 3rd. The described black varnish produced by adding shellac to the coloring composition. 4th. The described harness renewing compound, consisting of coloring composition, castor oil, bees-wax, and benzine. 5th. The described dressing for boots and shoes, consisting of coloring composition gum shellac Venice turpentine, gum-camphor, castor oil, bees wax and benzine.

### No. 7844. Improvements in Wind Mills.

(*Perfectionnements aux moulins à vent.*)

Christian Nysewander, John Nysewander, New-Carlisle, and David Nysewander Jr. Springfield, Ohio U.S., (Assignees of Daniel Nysewander), 3rd September 1877, for 5 years.

**Claim.**—1st. A wind wheel E having the points of vanes brought together and attached to a central plate. 2nd. The combination of the segmental gear wheels K L, the two regulating vanes O P and the weight Q, with the turn table A and the main vane N. 3rd. The combination of the flaring flanges e<sub>1</sub> with the edges of the wings of the wheels E. 4th. The combination of the bars e<sub>2</sub> with the flanges e<sub>1</sub> and the wings of the wheel E. 5th. The combination of the upright bar m, the cross-bar W, the hinge-bar Y and the brace bars X Z, with the turn table A and the vane N.

### No. 7845. Wagon Spring Attachment.

(*Ajustage des ressorts de wagons.*)

Reuben Doty and Joseph Doty, Wellsville, N. Y., U. S., 3rd September, 1877, for 5 years.

**Claim.**—An improved device for attaching springs to waggon-body, composed of a top plate, a cross bar, encircling clip or band, and downward extending lugs to form shackles for springs, the whole made in one piece.