

No. 5542. Bucket for Chain Pumps.*(Godel de chapelet.)*

Adon D. Crosby, Cuba, N. Y., U. S., 3rd January, 1876, for 5 years.

Claim.—A bucket for chain pumps composed of india rubber or other elastic material and provided in its upper side with a concave recess *d*, for relieving the sides of the bucket from excessive pressure.**No. 5543. Elastic Rubber Bucket for Chain Pumps.** *(Godel en caoutchouc élastique pour les chapelets.)*

Solomon C. Hamlin, Ypsilanti, Mich., U. S., 3rd January, 1876, for 5 years.

Claim.—1st. The combination of the cone A, collar B, and washers D, D'; 2nd. In combination with a bucket constructed as set forth, the groove and vent-hole in tubing arranged in the manner stated.**No. 5544. Process of Flocking Cloth.***(Procédé pour velouter les étoffes.)*

Horatio A. Slater, Webster, Mass., U. S., 3rd January, 1876, for 5 years.

Claim.—The art of flocking cloth by means of a fulling mill, such consisting in employing the flock within a bag or tube composed in whole or in part of the cloth and subjecting such bag or tube and the flock therein to the action of such fulling mill.**No. 5545. Improvements on Sash-holders.***(Perfectionnements aux arrêtes-croisés.)*

Harmon Gilmore, Simcoe, Ont., 5th January, 1876, for 5 years.

Claim.—1st. A sash-holder A, having longitudinally a V-cam slot B, the flange C, projecting from the outer edge of its frictional-side; 2nd. The bar D, provided with a screw-hole E, and prong F, for securing the holder to the sash; 3rd. The bar D, provided with a screw-hole E, and prong F, in combination with the holder A, having a V-cam slot B.**No. 5546. Revolving Drag-harrow.***(Herse à dents tournantes.)*

Henry Wells, Ottawa, Ont., 8th January, 1876, for 5 years.

Claim.—1st. The combination of the hubs I, furnished with diagonally and laterally curved long harrow teeth *g*; the shafts G, bearing the hubs I, and borne by the bearings or hangers H; the two frames A, hinged or pivoted together and journaled with the cross beam B, and the lock bars F, F', with the cross beam B, to which are secured the pole C, and the driver's seat D, to form a revolving drag harrow.**No. 5547. Improvements on Weather Strips.***(Perfectionnements aux bourrelets de portes.)*

Watson P. Widdifield, Siloam, Ont., 8th January, 1876, for 5 years.

Claim.—1st. The weather strip C, finished with a bevelled inner face to which face a narrow riband D, of rubber or other suitable material is fastened in such manner that a portion of it projects beyond the face of, and in advance of the edge of the wooden cleat; 2nd. The curtain or apron E, constructed of sheet rubber or other suitable material, and fastened at its upper edge to the lower part of the door bar F, and slotted spring G, in combination with the side strips C.**No. 5548. Improvement on Manner of Constructing Dead Pulleys.***(Perfectionnement dans la fabrication des poulies fixes.)*

Augustus Newell Chicago, Ill., and Asa B. Cook, Erie, Pa., U. S., 10th January, 1876, for 5 years.

Claim.—1st. The two armed double hanger having angled serrations K, combined with side serrated box J; 2nd. The combination with box J, of a loose pulley E, having hub extended through and beyond same box; 3rd. The pulley hub having groove M, combined with shifter N, lever P, having double cam O, shifter R, and belt B.**No. 5549. Improvements on Barrels.***(Perfectionnements dans les barils.)*

David S. Cornell, Warwick, and William Aldridge, Brussels, Ont., 10th January, 1876, for 5 years.

Claim.—1st. A barrel constructed of a sheet of wood A, having notches B, wound upon a mandrel and held by binding hoops C; 2nd. In combination with the barrel A, the hoops D, D, heads E, E, and hoops G, G.**No. 5550. Improvements on Barrels and Cylindrical Boxes.***(Perfectionnements aux barils et aux boîtes rondes.)*

David S. Cornell, Warwick, and William Aldridge, Brussels, Ont., 10th January, 1876, for 5 years.

Claim.—1st. A barrel or cylindrical box made by concentrically or eccentrically winding a sheet or sheets of wood A, B, in one or more pieces on a mandrel; 2nd. In combination with a barrel or box so formed, the hoop D, nailed above and below the chime to retain the head E; 3rd. In combination with a barrel, &c., the outside hoops C, for retaining the barrel in form.**No. 5551. Improvements on Boilers for Steam Engines and Heating Purposes.***(Perfectionnements aux chaudières à vapeur et de buanderie.)*

George J. Tandy, Kingston, Ont., 10th January, 1876, for 5 years.

Claim.—1st. The adjustment of water tubes in the outer shell of a steam boiler for engines or for heating purposes, with the openings in the tube to permit the circulation of the water; 2nd. The caps *a*, *a*, at the ends of the tubes with the bolt *b*, and the recess or groove *c*, in the caps; 3rd. The combination of the parts of the boiler in such manner as to enclose the steam chest E, within the smoke box F.**No. 5552. Improvements in Egg-Beaters.***(Perfectionnements aux batteurs d'œufs.)*

John Howes, Worcester, Mass., U. S., 10th January, 1876, for 5 years.

Claim.—1st. The oblique openings E, *n*, giving a tangential discharge, in combination with the tube A, and piston B; 2nd. The tube A, piston B, and head D, having a series of "zig zag" openings; 3rd. A centrally supported head D, in combination with the tube A, and piston B; 4th. The tube A, and piston B, having an elastic packing compressible by the rod and nut I, without being removed from the tube A; 5th. The oblique openings E, in combination with the protecting flange K.**No. 5553. Improvements on Hand Corn-Planters.***(Perfectionnements aux semoirs à blé-d'inde à bras.)*

George W. Robinson, Bennington Centre, Vt., U. S., 10th January, 1876, for 5 years.

Claim.—The combination of a hopper *a*, having the contracted end *b*, and outlet *c*, with the oscillating-tumbler *e*, situated in front of the contracted end of the hopper, and provided with a pocket *h*, and plain surface *g*, all adapted for use upon an ordinary hoe.**No. 5554. Process for Heating Metals and Smelting Ores.***(Procédé pour chauffer les métaux et fondre les minerais.)*

Ananias Smith, Clifton, Ont., 10th January, 1876, for 5 years.

Claim.—1st. The mode and process of applying liquid fuel to blast furnaces; 2nd. The mode and process of applying liquid fuel to cupola furnaces; 3rd. The mode and process of applying liquid fuel to puddling furnaces; 4th. The mode and process of applying liquid fuel to heating furnaces; 5th. The mode and process of applying liquid fuel to lime and brick kilns; 6th. The combination of a reservoir constructed and operated with a blast furnace, with a cupola furnace, with a puddling furnace, with a heating furnace, with lime and brick kilns and a combustion chamber; 7th. A combustion chamber; 8th. The combination of a combustion chamber with a reservoir; 9th. The combination of a combustion chamber with a blast furnace, with a cupola furnace, with a puddling furnace, with a heating furnace, with a lime kiln, and with a brick kiln; 10th. The combination of a reservoir, a combustion chamber, and a glass cupola; 11th. The combination of a steam boiler with a combustion chamber, with an oil tank or reservoir and blast cupola heating or puddling furnace, lime and brick kiln.**No. 5555. Hydraulic Cement.** *(Ciment hydraulique.)*

Angus W. Shaw, Saccarappa, Me., U. S., 10th January, 1876, for 5 years.

Claim.—The hydraulic-cement, composed of clay and rocky or coprolitic lime.**No. 5556. Improvements on Fanning-Mills.***(Perfectionnements aux tarares.)*

William D. Edy and James N. Edy, Brantford, Ont., 10th January, 1876, for 5 years.

Claim.—1st. The application of an elevator to fanning mills and attached to it, in the position shown, constructed with sides M, spindle F, upper and lower elevator-rollers G and H, elevator-belts I, elevator-cups K, close-bottom L, driven sheave E, supporting-braces Q, and bracket R, which supports spindle F; 2nd. The mode of fastening the elevator to the bottom-board of the fanning-mill below the grain delivery O, by thumb screws and driving it by chain or belt D, from the sheave C, on fan-shaft B; 3rd. The combination of the grain guides with the elevator-sides M.**No. 5557. Improvements in the "Eureka Pump."** *(Perfectionnements à la pompe dite "Eureka.")*

George W. Johnson, Yarmouth, N. S., 10th January, 1876, for 5 years.

Claim.—1st. The air chamber A, placed directly over the suction pipe J, made with an open top and provided with a detachable cover B, in combination with pump D; 2nd. The branch pipe C, connecting the pipe J, and the air chamber A, with the pump D; 3rd. The curved or bent lever G, in combination with the buckets E, the pump D, and the connecting rod H, pivoted to the crank of the shaft in the usual manner.**No. 5558. Process for Converting Cast Iron into Steel.***(Procédé pour convertir la fonte de fer en acier.)*

Charles L. Jeffords, Jamestown, N. Y., U. S., 10th January, 1876, for 5 years.

Claim.—1st. The process of converting malleabilized cast iron into steel by heating the iron to a bright red colour and then immersing it in the described compound or preparation composed of animal charcoal, lamp black, sal soda, muriate of soda, black oxide of manganese, pulverized limestone, and prussiate of potash, and allowing the iron to remain therein until cold.**No. 5559. Improvements in Kneading Troughs and Yeast Mills.***(Perfectionnements aux pétrins et aux moulins à levain.)*

Fulgence Beauchemin, Roxton Falls, Que., 10th January, 1876, for 5 years.

Résumé.—1o. La combinaison du tambour du pétrin avec les lames intérieures B, B, B, B, et avec les dents ou pointes en bois D, D, D, D, D, D, D, D; 2o. La combinaison du tambour du moulin à faire le levain avec le ratier.*Claim.*—1st. The combination of the trough drum with the internal blades, B, B, B, B, and with the wooden teeth or points D, D, D, D, D, D, D, D; 2nd. The combination of the mill drum for making yeast with the rack.