

No. 12,849. Fork and Band Cutter. (*Fourche coupe-lien.*)

Arthur J. Bowslaugh, Grimsby, Ont., 21st May, 1881; for 5 years.

Claim.—The combination of the knife C C and fork A A A.**No. 12,850. Improvements on Permutation Padlocks.** (*Perfectionnements aux cadenas à combinaisons.*)

Chapin C. Cook and Jasper N. Green, Santa Cruz, Cal., U. S., 21st May, 1881; for 5 years.

Claim.—1st. In a padlock, the combination of the removable plate L provided with lip M, and hasp P provided with projections N O, with lock case A. 2nd. A permutation padlock consisting of the slotted disks D E F, dials B operated by the knob, and spindle C, lever G provided with dog I and projection G I, spring J for operating lever G, hasp P provided with projections N O, removable plate L having lip M, and case A.**No. 12,851. Improvements on Air Brakes.** (*Perfectionnements aux freins à air.*)

Lawrence Glenn, Ottumwa, Iowa, U. S., 21st May, 1881; for 5 years.

Claim.—The lever d pivoted in the centre, in the hanger b and provided, near one end, with the slot z, and rod l, with forked end m pivoted near one end of said lever, the spring k surrounding the rod l, guide o, through which said rod passes, the air cylinder f, piston and piston rod g, and forked head r pivoted near the other end of the lever in the slot z.**No. 12,852. Improvements in Automatic Telegraphy.** (*Perfectionnements dans la télégraphie automatique.*)

William A. Leggo, New York, U.S., 21st May, 1881; for 5 years.

Claim.—Telegraphy wherein the receiving message is recorded by electro-chemical decomposition, at the point of a stylus, the receiving medium for the electro-chemical record prepared with silver.**No. 12,853. Improvements in Harrows.** (*Perfectionnements dans les herses.*)

Abraham C. Scarr, Maryborough, Ont., 21st May, 1881; for 5 years.

Claim.—1st. The horizontally oscillating motion of the harrows about a central point fixed in the carriage of the implement. 2nd. The arrangement of the bevel gear wheels C G, slip clutch D, foot lever E, cross shaft F, crank H and connecting rod I with the vibrating lever J and harrow K. 3rd. The harrow K, made in four parts or sections, these sections being united in pairs by the hinges h.**No. 12,854. Improvements on Compositions for Roofs of Buildings, Ships' Bottoms, &c.** (*Perfectionnements aux composés à toitures, fonds de navires, &c.*)

Dorwin D. Pennoyer and Caleb F. Whitcher, Dover, N. H., U.S., 21st May, 1881; for 5 years.

Claim.—The composition for roofs, etc., consisting of coal tar, india rubber dissolved in naphtha, asphaltum or black varnish, bright varnish and muriatic acid mixed together and used with or without sand or gravel.**No. 12,855. Improvements in Waggon Tongue (Pole) Supports.** (*Perfectionnements aux tuteurs des timons des voitures.*)

William S. Haggard, La Fayette, Ind., U. S., 21st May, 1881; for 5 years.

Claim.—The combination, with the front portion of a waggon running gear, of the two part tongue support H H I, said part H being provided with staples, whereby it is connected with the part H I, and said part H I being provided with notches as shown, whereby the support is rendered detachable and adjustable.**No. 12,856. Improvements in the Manufacture of Boots and Shoes.** (*Perfectionnements dans la fabrication des chaussures.*)

Guillaume Boivin, Montreal, Que., 31st May, 1881; for 5 years.

Claim.—1st. Forming the uppers of shoes or boots, by cramping upon shoe lasts, a flat piece of leather without previously cutting in it any opening, so that no seam on the top, sides or back of the shoe is required. 2nd. Cutting in the upper the span a necessary for the opening of the shoe, so as to obtain the strengthening around the opening a: by turning it down, inside or outside.**No. 12,857. Improvements in Machines for Sharpening Mower Knives.** (*Perfectionnements aux machines à remouler les couteaux des faucheuses.*)

Alexander Cameron, London, Ont., 21st May, 1881; for 5 years.

Claim.—1st. The three cog wheels D D I D₂. 2nd. The knife holder H provided with eccentric lever J and clamp K. 3rd. The combination of the slotted standard G, pitman F, and cog wheels D D I D₂. 4th. The combination of the slotted standard G, rod d and knife holder H. 5th. The combination of the frame A, stone C, cog wheels D D I D₂, pitman F, slotted standard G and knife holder H.**No. 12,858. Improvements on Skates.** (*Perfectionnements aux patins.*)

Robert H. Bishop and Henry F. Hailes, London, Eng., 21st May, 1881; for 5 years.

Claim.—1st. A skate constructed with a fixed sole plate provided with a toe piece or strap and an adjustable gripping piece D, in combina-

tion with a sliding heel plate E, constructed and mounted as described, the said heel plate E being operated by a cam headed locking lever F, or its equivalent, whereby the front of the boot of the skater may be forcibly thrust into the grip of the toe strap, or its equivalent, the heel of the boot being at the same moment securely held between the gripping pieces c et d. 2nd. In a skate constructed and fixed to the boot in the manner specified, the lever arms G G to which the edges of the toe piece or strap are attached, the said lever arms being drawn together by the forward movement of the sliding heel plate E, whereby additional tension is imparted to the said toe piece or strap in the act of applying the skate, and the said toe piece or strap is tightened up or contracted in proportion to the varying breadth of the boot. 3rd. In a skate, a lever arm or arms for the purpose of imparting to a strap or straps for holding the skate firmly in place, a differential tension proportioned to the varying breadth of the boot to which the said skate is applied.

No. 12,859. Improvements on Brush Grain Cleaners. (*Perfectionnements aux nettoyeurs à brosse de grains.*)

Louis Gathmann, Chicago, Ill., U.S., 21st June, 1881; for 5 years.

Claim.—1st. A brush and an opposing face, the said brush having its filaments set inclined backward with reference to the direction of its relative motion. 2nd. The combination of two opposing brushes having the filaments in both brushes inclined backward, with reference to the several directions of their relative movement. 3rd. A grain cleaner provided with two opposing brushes, having vertical faces and both brushes having their filaments set at a backward incline as described, the filaments of the stationary brush constructed to have or to assume a greater incline than those of the runner, in the operation of the machine. 4th. A brush grain cleaner provided with a brush consisting essentially of a broad compact mass of filaments clamped together by a surrounding band, so as to be substantially close and compact in the face thereof. 5th. In disc brushes which receive the grain centrally between them, the furrows or depressions f in the working face of one or both brushes and extending outward from the central part of the brush to or towards the periphery. 6th. The brush or brushes constructed to have or to assume in operation an uneven surface, whereby the outward movement of the grain under centrifugal impulse is made indirect or irregular. 7th. In a double brush grain cleaner, the brush faces provided with alternate grooves and ridges, ridge of one brush corresponding with, and being arranged opposite the grooves of the opposing brush. 8th. The scouring or brush chamber G into which the grain and impurities pass from the brushes, and the fan chamber I, from which the grain is to be excluded, the aperture diaphragm E arranged as specified.**No. 12,860. Improvements on Steam Boilers.** (*Perfectionnements aux chaudières à vapeur.*)

Henry F. King, Corry, Pa., U.S., 23rd May, 1881; (Extension of Patent No. 6,097.)

No. 12,861. Ditch Shovel. (*Pelle à fossayer.*)

Joseph Monastesse and Lévy Boisseau (Assignee of Louis Gnyon) Verchères, Que., 23rd May, 1881; (Extension of Patent No. 6,151.)

No. 12,862. Improvements in Electric Telegraphs. (*Perfectionnements dans les télégraphes électriques.*)

George Allen and James W. Brown, London, Eng., 23rd May, 1881; (Extension of Patent No. 6,156.)

No. 12,863. Improvements in Electric Telegraphs. (*Perfectionnements dans les télégraphes électriques.*)

George Allan and James W. Brown, London, Eng., 23rd May, 1881; (Extension of Patent No. 6,156.)

No. 12,864. Improvements on Car Brakes. (*Perfectionnements aux freins des chars.*)

Adélar F. Martel, Montreal, Que., 28th May, 1881; for 5 years.

Claim.—1st. The combination, in a car brake, of the chain J rove through the tension pulleys I, pulley carriers E pivoted under the centre of the car rods H, from the lever D to the pulley carriers E, and attached by chain J to the winch barrel P provided with a friction pulley or wheel K, lever L and sector M. 2nd. In combination with a continuous chain brake W, the bolt O provided with head P₂ having holes O₁ and eye S, the corresponding stationary nut P₁ and lock nut R, the chain S₁ provided with several joints and links S₂ and hook T, in combination with the top u.**No. 12,865. Improvements on Tack-Drawers and Tack-Drivers.** (*Perfectionnements aux machines à tirer et chasser les broquettes.*)

George J. Capewell, Cheshire, Ct., U.S., 30th May, 1881; for 5 years.

Claim.—1st. The combination of main tube B formed in sections held together by elastic pressure, with plunger A operating in said tube. 2nd. The combination of sectional main tube B, and a sectional feed tube or tubes formed with the same, with elastic bands D D and plunger A. 3rd. The combination, with the plunger A, of main tube B, formed in longitudinal sections, which have overlapping pieces E and elastic bands D. 4th. A pair of plates forming a bifurcated jaw a and a second jaw pivoted between said plates and acting in the opposite direction, the said pivoted jaw being provided with a curved extension or tail to serve as a fulcrum. 5th. The combination of a handle A I with pivoted jaw F and fixed jaw G attached to one end of said handle, the plunger A atached to the other end of said handle, and sectional guide tube B in which said guide tube works.**No. 12,866. Improvements on Carriage Wheel Hubs.** (*Perfectionnements aux moyeux des roues des voitures.*)

Louis Bredannaz, Montreal, Que., 30th May, 1881; for 5 years.