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INVENTIONS PATENTED.

No. 7673. Improvement in Halter Fastenings.

(Perfectionnement des ferrures de licous.) John C. Dillon Amberst, Mass., U. S., 18th July, 1877, for 5 years.

Claim.—Ist. The crescent-shaped coupler \(\), both with the shank S projecting laterally from its outer perimeter and perpendicularly from its inner perimeter for use with a ring or rings; 2nd. The coupling ring C bent apward on the chord of its arcand adapted for use with the coupler \(\); 2nd. The combination of the straight shanked coupler \(\), the long link B and a plan ring C or the coupling ring C bent upward on the chord of its arc; 3th. The combination of the straight shanked coupler \(\). e coupler A having a shank perpendicular to its periphery and a plain ring C.

No. 7674. Improvements on Shoc Lasts.

(Perfectionaements aux formes de chaussures.)

Samuel J. Parsons, (Assignce of John T. Poole), Benton, N. B., 18th July, 1877, for.5 years.

Claim.—In combination with the last A having locking plate E, the block B baving hooked plate I barbed crank detent L locking with opposite edges of the plate E and a spring N.

No. 7675. System for Regulating the Continual Supply of Purified Water and Continual Discharge of Refuse Water.

(Système de règlement de l'alimentation continue de l'eau pure, et de l'écoulement continu des caux sales,)

Harry R. Newton, London, Eng., 18th July 1877, for 5 years.

Claim .- 1st. The locking apparatus for regulating a constant measured small or large, supply of filtered water to be delivered into existing eisterns of other reservoirs a by a new system, into closed tanks. 2nd. The use and application of the apparatus for the combined sanitary objects, for supplying and regulating water, filtered to unfiltered to houses and in locking or based regulating water, increase of influence to makes and in the construction of drams are avers from houses and lands, and in the construction of drams surface waters from houses and lands, and in the construction of drams structs and connections therefor, parts of all of which methods of construction: Time II Russell and Samuel E. McCully, Windsor Mills, Que., 25th July, and apparatus are applicable to other weight purposes.

No. 7676. Method of Cutting Stone.

(Méthode de tailler la proces,)

Benjamin C. Tilghman, Philadelphia, Pa., U.S., 25th July, 1877. (Rr issue of Patent No. 2020), for 10 years and 6 months.

Claim .- 1st The use of grams or globales made of iron or cast iron or steel, or their alloys subdivided while melted in the process of cutting saw-ing boring and graiding stone glass, buttery and sundar hard substances. 2nd. The use of grains or globules made of tron or cest from or steel, or their 2nd. The use of grains or globules made of from or east from or steel or their alloys, subdivided while melted, and of rounded or spheroidal shape so an toopertie, by a folling crush, in the process of cutting sawing borns; and grains or globules made of from or cast from or steel or their alloys and chill hardened by cooling from a in fled stated, in the process of cutting, sawing boring and grinding stone, glass pottery and similar hard substances of cutting finding of stone glass, pottery and similar hard substances by grains or globules of iron or cast from or steel, or their alloys, 5th. The use of notched blades for frame saws in sawing stone and similar hard substances with grains or globules of iron or cast from or rest from cast from cast from their alloys, 5th. The use of notched blades for frame saws in sawing stone and similar hard substances with grains or globules of iron or cast from or steel, or their alloys. grains or globules of iron or east iron, or steel, or their alloys,

No. 7677. Improvements on the Manufacture

of Gas. (Perfectionnements dans la production du gaz.) Myron H. Strong, Brooklyn, N. Y., U. S., 25th July, 1877, for 5 years.

Claim -1st. Heating steam to a high temperature and bringing the steam into contact with carbonaceous material, supplied gradually or in detail into a retort and passing the two together down through the heated retort, and a retort and passing the two together down through the heated retort, and then completing the process and fixing the resulting gases by passing such then completely the dot of incandescent carbon; 2nd. The compound retort with two vertical chambers a b separated by a partition wall c, and the whole enclosed in one casing, the retort a having a filling of fire-brick or similar material, in combination with means for supplying steam at the lower end of the chamber a and for supplying carbon gradually or in detail at the upper ends of the chamber b, and a fire-bed a the bottom of such chamber b. 3rd. The retort b having a fire-bed f at the bottom, the super-heating retort a and the carboriting chamber r, in combination with the steam supply pipe m, the connection from the retort a to be retort b, the gradual fuel supply inparatus at the top of the chambers b—the enclosing casing and the gas delivery tube connected to the flard chamber and the fire-bed. fire bed

No. 7678. Improvements in Tobacco Cutters.

(Perfectionnements aux confe-tabae)

Michael McGinn, Hamilton, Ont., 25th July, 1877, for 5 years,

Claim.—1st. The combination with the bed piate A the knife frame C and previded with vertical slots F F, fraction roller K; 2nd. In combination with a tobacco catter of the slot H in the knife G into which the roller K operates, for removing the buile horizontally, the said knife operated by a L shape I hand's attached, 3rd In combination with a tobacco cutter, of the spring L, guag' N, projection O, lead plate P.

No. 7679. Improvements on Carpet Sweepers.

(Perfectionnements aux balayeuses de tapisserie.)

Alanzo S. Hinkley Buffelo, N. V., U. S., (Assignce of Jonas Hinkley), 25th July, 1877, for 5 years.

July, 1877, for 5 years.

Claim—1st. The side pressure wheels E.E.E. and F.F. in combination with the shafts-E. R.E. E. and F.F., springs X.X. and brush R. when used in the manner specified; 2nd. The self-adjusting brush pan G, in combination with the brush R and box A, when operating together, 3rd. The ribs 22 and leather facing U.V. in combination with the loose pan G, carrying the brush R; 4th. The pan G when composed of the heads J.J. sides S.S., bottom Q.Q. and circular precess. T.T. in combination substantially as set forth; 5th. The brush R, leather washers V.V. heads J.J. having opening L. and circular pieces T.T. in combination substantially as set forth; 6th.

The box A. handle C, wheels E.E.E. and F.F., pan G and brush R, in combination substantially as specified.

No. 7680. Improvements on Turbine Wheels.

Perfectionnements and turbines bydrauliques.)

1877, for 5 years.

Claim.—1st. The wheel case A and gate 3, constructed with upwardly topering peripheral walls, the latter adjustable vertically, said gate having water tight contact with peripheral walls of shell, 2nd. In combination with the wheel case A, the rotative can ring 7 for adjusting the altitude of the gate; 3rd. The combination with the case A, and gate 3 having lugs 11, of the cam ring 7 and outer ring 14, for adjusting the gate rotatively and vertically, 4th. The head block 25 having an adjusting screw 24, in combination with the spindle 20 collar 26 and chamfered shaft 19, for compensating frictional wear of the step 23, 5th. In combination with the gate 3 the winged clustes is, having self-adjusting action pivoted between the flanges 2 of the shell A, 6th. The wheel C constructed with a peripheral conceavity 5 at its base below the entrance of the buckets 4 to form curvilinear throats. 7th The step 23 composed of two pieces, one of soft and the other of the bardest accel for dimunching friction.

No. 7681. Improvements on Oil Cans.

(Perfectionnements and bidons a huile.)

John Graves, New York, U.S., 25th July, 1877, for 5 years.

Claim -1st A case for packing oil cans for transportation, consisting of an inner section Ar attached by top cross strips to can of a detachable outer