Francis Culham, Widder Station, Ont., 20th May, 1873, for 5 years: "Machinery for operating Semaphore Signals." (Mécanisme pour faire fonctionner les signaux sémaphores.)

Claim.—The combination of the endless or double rod A, A, in the manner specified.

o. 2383. FERDINAND PELLETIER, St. Arsène, Que., 20th May, 1873, for 5 years: "A Harpoon Spear." (Une lance harpon.)

Claim.—Elle consiste lo. Dans un harpon D. à rainure C. construit de la manière et pour les fins décrites; 20. En combinaison avec le fusil à harpon A, le tambour B, pour recevoir la corde retenant le harpon; 30. Dans la manière d'enrouler la corde dans le tambour B, pour les fins décrites.

No 2384. Thomas J. Winship, Montreal, Que., 20th May, 1873, for 5 years: "Apparatus for Manufacturing Cigars." (Appareil à fabriquer les cigares )

Consists in the arrangement of the pressused for pressing the "bunches" forming the inner body of cigars, which are afterwards covered by any suitable wrapper

Ulaim —The combination of the leaves, provided with handles and pins, with guides g, and cross bar h, all constructed and arranged to operate as described.

JACOB B. VANDYNE, Louisville, Ky., U.S., 20th May, 1873, for 15 years: "Carbonic Acid Gas Fire Extinguishing Apparatus." (Appareil à gas acid carbonique pour éteindre les incendies.)

Consists in the arrangement of one or more cylinders provided with chemical ingredients which are mixed by the inversion of said cylinders, on pivots in the frame of a wheeled vehicle, or in stationary bearings and holding them in position by a latch. Also in providing the sides of the frame with hooks for ladders and in the use of a weighted stopper.

Claim.—let. The fire-extinguisher H, pivoted to the chemical sides c, c, of a wheeled vehicle, and held in position by latches G. 2nd The pieces c1, c1, of a fire engine provided with hooks F, on the outside: 3rd. A fire extinguisher provided with vitriol vessel B, having a weighted stopper C; 4th. The screw cap D1, having the two armed lever L, and wrench-head M, as described.

No. 2386. James De P. Brewer, Muncy, Penn., U.S., 20th May, 1873, for 15 years: "Chute and Fish Way." (Passe à poisson.)

Claim.—A series of isoscoles or equilateral triangles extending from the opposite side walls of the chute of a dam, and laid and secured in the bottom thereof, in the manner set forth

o. 2387. AIMÉ N. N. AUBIN, LOUIS GAUTHIER and GEORGE T. MAYRAND, Montreal, Que., 23rd May, 1873, for 5 years. "Stone Shaping and Polishing Machine." (Machine à tailler et polir la pierre.)

Claim —lst. In the grinding disc en so arranged that it can, at the same time, or independently move horizontally and vertically, while it is rotating on its own axle; 2nd. In the combination, with the grinding disk above described, of adjustable supports or bearers, by which a stone can be presented to the abrasive action of said grinding or polishing disk so that straight, curved, or plane surfaces, and their combinations can be obtained and dup'icated as and for the purpose set forth.

No. 2388. Joseph M. Parker, La Grange, Mo., U.S., 23rd May, 1873, for 5 years: "A Lamp." (Une lampe.)

Claim.—1st. The combination of the burner and wick supporting tube D, the hollow elastic wedge E, fitted to the inverted cone C, with the frustrum of a cone A, with the open top or safety valve to facilitate the exit of the explosive force of the gases; 2nd. The lamp fount T, having the conical sides A, and concave or conical or pyramidal bottom B, and the inverted and open conical top C, all as specified.

No. 2389. EDWARD H. COPLAND and HARRY McLaren, Montreal, Que., 23rd May, 1873, for 5 years: "Wire Brush for Cleaning Castings." (Brosse en métal pour nettoyer la fonte.)

Claim.—The method of attaching the wire to the block by the combination of iron plates and slips of wood so that steam or water power may be applied without undue injury to wire or brush.

No. 2390. John B. Parson, Joseph Barret, and ROBERT C. MARWICK, Petrolea, Ont., 23rd May, 1873, for 5 years: "Petroleum Bur-(Appareil à consumer le pétrole.)

Claim.-The combination of the convergent passages f, f, f, f, for discharge of steam and the air passages d, d, and tar or oil feed pipe F, as set forth.

No. 2391. James H. Miller, Fredericton, N.B., 23rd May, 1873, for 5 years: "Railway Track Cleaner." (Chasse-neige de chemin de fer.)

Consists in a metal blade attached to each side of the cow-catcher worked by the Engineer by means of a rod running back to the cab of the engine.

to the cab of the engine.

Claim.—1st. The blades A, applied to each side of the cowcatcher of a locomotive or to a snow-plough for the purpose of removing snow and ice from the rails; 2nd. The combination with
the blades A and the rod F, long arms E, short arms D, rods C,
and rock shaft G, for the purpose of raising and lowering the
blades or scrapers; 3rd. A track cleaner composed of the above
parts and attached to the cow-catcher of a locomotive as and for
the purpose set forth.

o. 2392. RALPH L. WHYTE, Hamilton, Ont., 23rd May, 1873, for 5 years: "Tar Burner." No. 2392. (Appareil à brûler le goudron.)

(Nam.—1st. The mixing of the steam by means of jets with the other elements of combustion; 2nd The steam chamber C. c. c. and the pipe with angular perforations D. D. also the mode of keeping the pipe in its place and getting into the chamber to clean out by means of cap E. in the arrangement of steam pipe A. by which the steam is admitted into steam chamber C. c. c. Also in the arrangement of lower elbow or steam pipe a, whereby the centre is brought in a line with centre of Tee on the bottom of tar pipe B. allowing the burner to be moved up or down, or turned round as on a centre as and for the purpose set forth.

No. 2393. Lewis Goodwin, Gold Hill, Nev., and Samuel A. West, San Francisco, U.S., 23rd May, 1873, for 5 years: "A Force Pump." (Une pompe foulante.)

Relates to certain improvements in that class of pumps known as

rotary" pumps.

Claim — 1st. The piston I, in combination with the rollers K, and the adjustable eccentric H; 2nd. The rollers K, when constructed in the form of a double cone, together with the bevolled eccentric H, and the bevelled interior of the piston for the purpose of retaining the latter in its central position, in the case at all times: 3rd The piston I, operated as shown and provided with the clastic face J, for the purpose of giving a profect rolling contact at all times: 4th. The side plates P, with their adjusting screws Q, incombination with the piston I sth. Combination with the adjustable packing plates P, the piston I, when channelled or chambered at L. for the purpose of furnishing a water packing: 6th. The sliding disphragm or partition M, with its friction rollers O, and N, in combination with the piston I, channelled at L. the whole operating as described; 7th A moveable disphragm and its slide between the section pipe and discharge pipe: 5th. The vibrating valve T, constructed to operate as specified.

No. 2394. JOHN A. KLEY, Chicago, Ill., U.S., 23 rd May, 1873, for 15 years; "A Chemical Fire Extinguisher." (Appareil chimique ex-(Appareil chimique extincteur d'incendie.)

Relates to that class of chemical fire extinguishers in which the acid for a single charge is stored in a small receptacle suspended within and near the top of a larger receptacle containing the alka-

(Vann.—lst. A fire extinguisher, the acid receptacle, B, made of glass and provided with a recess b, upon the outside as specified, 2nd. The ring C, when so constructed that the same can be opened for the purpose of inserting the bottle B, therein, and provided with bearings c, c, as specified.

JOHN L. POPE, Cleveland, Ohio, U. S., 23rd May, 1873, for 5 years: "A Machine for Tapping Gas Fittings." (Machine à tarauder les joints de tuyaux de gaz.)

les joints de tuyaux de gaz.)

Claim—lat. The rotating carrier C, having or provided with a system of teeth or leaves, D, and panton, R, an combination with the segmental gears, S, and T. 2nd The construction and arrangement of the frame or bed. A, in combination with the rotary carrier C, and pinion E, 3rd The wheel Q, and pinion L, in combination with the taps II, I, J, as arranged and operating in relation to and in connection with the rotary carrier. 4th The spandle or mandrel K, nut P, in combination with the feed screw M, pinion R, wheel Q, and pinion L, arranged and operating as set forth, 5th. The cam Di, pin or finger N. spring M, and slide j. in combination with the arms or levers d, g, and law A; 6th. The tapping apparatus so combined and arranged in relation to the rotary carrier C, that the taps are operated by means of segmental gears S. T, for entering and withdrawing said taps from the article to be tapped in the manner set forth; 7th. The stationary feed screw M, in combination with jam nut O, spindle R, and nut P, as described.